

# TRAIL CAPITAL PLAN AND GUIDING PRINCIPLES

*July 2022*



*feel free*

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## EXECUTIVE SUMMARY



Trails are one of the Forest Preserves of Cook County’s greatest assets and an important “front door” to the preserves for many people. Trails provide relief from the urban environment and a taste of a true wilderness. The Forest Preserves of Cook County’s trail system is one of the most extensive trail systems managed by a county-level open space agency in the nation. Currently, there are more than 350 miles of paved and unpaved trails in the Forest Preserves. These trail systems offer a range of different experiences and physical and emotional benefits for those who use them. The Forest Preserves Recreation Master Plan – released in 2013 – found that trails were the most popular recreational amenity in the preserves.

In 2014, the Forest Preserves’ Trail Master Plan & Policies was created to provide baseline information on the current trail system and design standards for various trail features such as signs. It also recommended new procedures and criteria for evaluating requests to add new trails, improve unrecognized trails and prioritize capital investment. It was a start but not a complete roadmap for the future.

Intended as a “Part 2” to the 2014 plan, the Trail Capital Plan and Guiding Principles provides updated information on the current condition of the trail system and cost estimates to keep the system in good condition, recommends priorities for trail upgrades, and answers the question “When are we done?”

This plan includes updated information and recommendations for upgrades to the existing Forest Preserve trail network, focusing on crossings, trailheads and signage. It also provides key recommendations for future expansion of our system, describes critical gaps in the regional trail system, continued land acquisition, and ongoing requests to add new trails.

This plan will also inform the Forest Preserves’ annual update to the 5-Year Capital Improvement Plan and support key goals in the Cook County Department of Transportation and Highway’s Bike Plan, which is expected to be released in 2022.

Key findings and recommendations for each chapter include:

- **Maintaining our current system.** Making sure that Forest Preserves' trails are always in good condition is one of our highest priorities. New "data bike" data has confirmed what staff already believed about the condition of the more than 150 miles of paved trails: Roughly 1/30<sup>th</sup> of the system will need substantial investment every year based on an average expected useful life of 30 years. This new data will inform where to invest each year. The existing condition of the 200+ miles of unpaved trails is still being assessed, and the expected useful life of these trails is much more variable than for paved trails.
- **Upgrading our current trail systems.** To provide a world-class trail experience for the new visitor and the lifelong user, the Forest Preserves should continue to make updates to the its expansive trail system. There are a range of needs for upgrades at existing trail crossings at internal Forest Preserves access driveways, public road crossings and trailheads, including additional amenities, information and wayfinding signage, and improved barriers to restrict vehicle access on trails. New information from public input and trail data will help prioritize upgrades to our system. Trail crossing improvements within public roadways are important but should ideally be managed by transportation agencies.
- **Expanding our system: When are we done?** In addition to maintenance and upgrades, the Forest Preserves should consider opportunities to fill in a few gaps in our regional trails, provide trail access to newly acquired land, and work with municipalities and outside groups on requests to connect to the Forest Preserves trail systems. Forest Preserves staff have identified a list of roughly a dozen gaps in our regional trails that are in various stages of planning and design. The Forest Preserves will work with other planning partners, such as the Cook County Department of Transportation and Highways, on prioritizing work on these gaps. There is also a need to add and connect smaller local trails in a few areas of the County where the Forest Preserves is continuing to acquire significant acres of land, such as Southeast Cook County. As we acquire land, we will ensure that new trails are appropriate and add access to the preserves for the public and see if those acquisitions work to fill gaps in regional systems. We will continue to evaluate external requests for appropriate trail connections. We will also consider recognizing a geographically distributed and sustainable system of primitive footpaths.

Forest Preserve trail planners began work on this plan at the same time Cook County transportation planners started on the County's pending Bike Plan. Because of the fortuitous timing, there were joint virtual open houses on both plans in 2021. Input was also sought from long-standing trail partner organizations. The Forest Preserves encourages everyone to get outdoors, get active and connect to nature. Continued support from partners and the public helps ensure the Forest Preserves trails continues to be a well-used and critical resource for the people of Cook County.

## HISTORY AND BACKGROUND



A nature trail, 1904

### History of Trails

The Forest Preserves of Cook County trail systems are one of its greatest, most popular assets. Trails provide public access to the Preserves, offer outdoor recreation and transportation alternatives, support economic activity, and promote environmental awareness and healthy lifestyles. Access to open spaces for recreation has been shown by many studies to improve physical and mental health and to increase quality of life. Trails bring those health benefits to all by providing individuals of diverse backgrounds access to our public lands for all types of outdoor recreation at no cost.

The Forest Preserves is a national and regional leader in providing off-street trails in an urban area. For as long as the Forest Preserves has existed, unpaved trails were available to the public. Many of our existing trails started as Native American trails, equestrian trails and old roadways or drives that were present prior to the Forest Preserves acquiring the land. As the Forest Preserves acquired property in larger sections, trails were added to connect existing trails to one another and to newly constructed parking lots.

Surfacing of trails was first done in the late 1960s to accommodate changes in trail users, moving from riding horses to riding bicycles. The Preserves installed its first bicycle path in that era on Salt Creek, between the Brookfield Zoo and the county line, converting an old horse trail into a limestone path. Next came the massive project of paving and creating the North Branch of the Chicago River Trail, starting at Devon and Caldwell, and eventually extending all the way to the Chicago Botanic Garden. For a time, the Forest Preserves was nationally

*“Fundamentally, this District is not a park, as one thinks of a city park, nor is it a group of outer parks. It is a forested sanctuary, a naturalistic reservation with recreational facilities for intensive use on the fringes, which is designed to meet all of the anticipated public demands as they arise, and as they may properly be exercised in a forested area. The trail system, multi-purpose in character, is the skeleton framework which ties the preserves together. It is the means by which the public may be led to and through undisturbed areas, whether on foot, horseback, or bicycle.”*

- **John Barstow Morrill**, Forest Preserves Landscape Architect, 1957

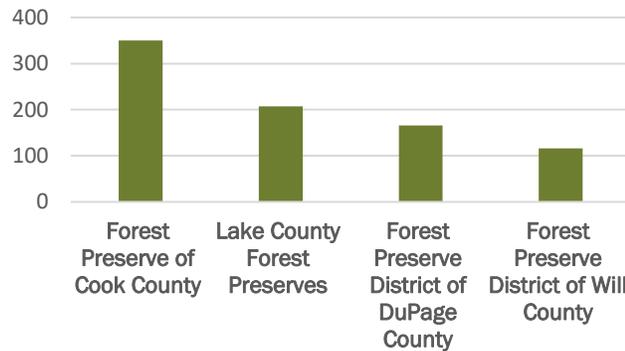
recognized for its efforts in this area, and it continues an aggressive bikeway program to this day. Thousands of acres of land formerly available only on foot and horse were now accessible to faster moving bicycle traffic.

### Current System

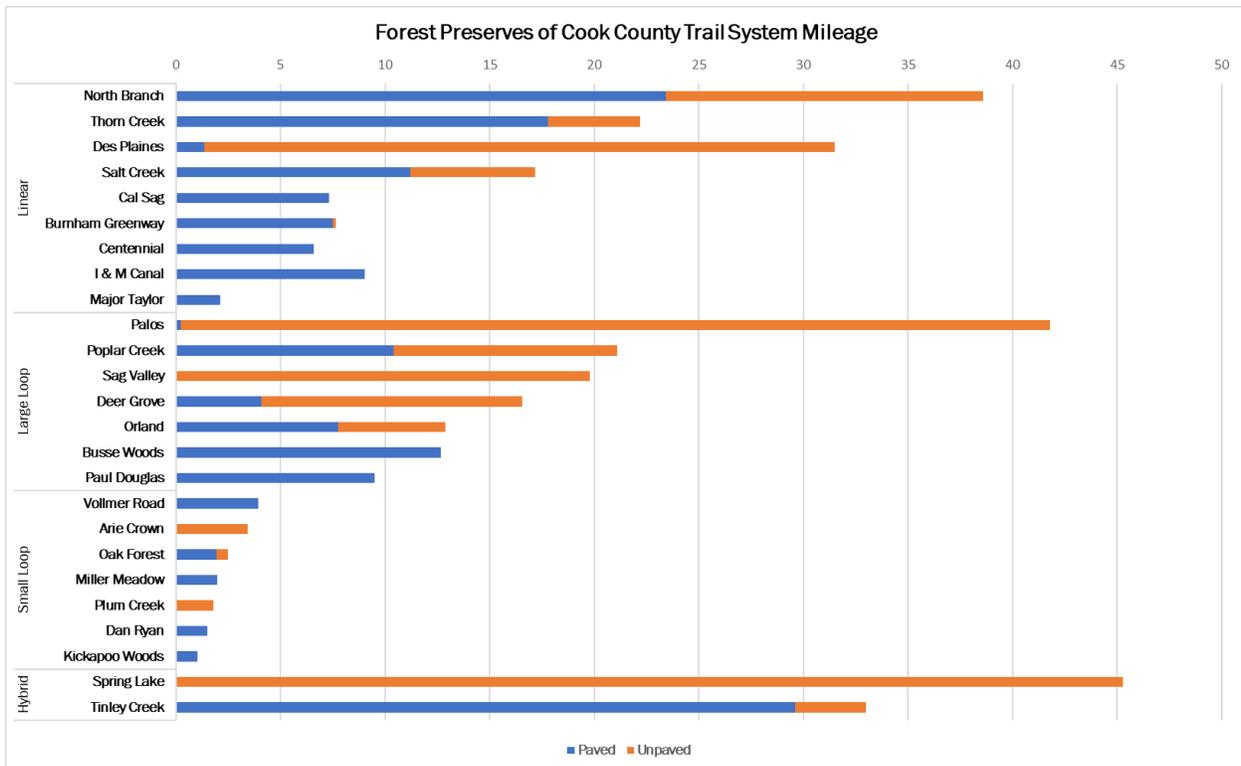
Today, the Forest Preserves owns and manages more than 350 miles of trails, including approximately 200 miles of unpaved multi-use trails and approximately 150 miles of paved trails. Most of these trails have been built by and are the responsibility of the Forest Preserves.

Although most are entirely within the Preserves, some are located on leased property. For example, the Centennial Trail is leased from the Metropolitan Water Reclamation District (MWRD). Others, like the Forest Preserves' Salt Creek and Cal Sag Trails, are part of a multi-jurisdiction trail that travel through and continue past Forest Preserves land. In some cases, trail spurs on Forest Preserves land are also the responsibility of another unit of government, such as the northeast section of the Paul Douglas loop trail between Ela and Roselle roads, which was built and is maintained by the Village of Hoffman Estates.

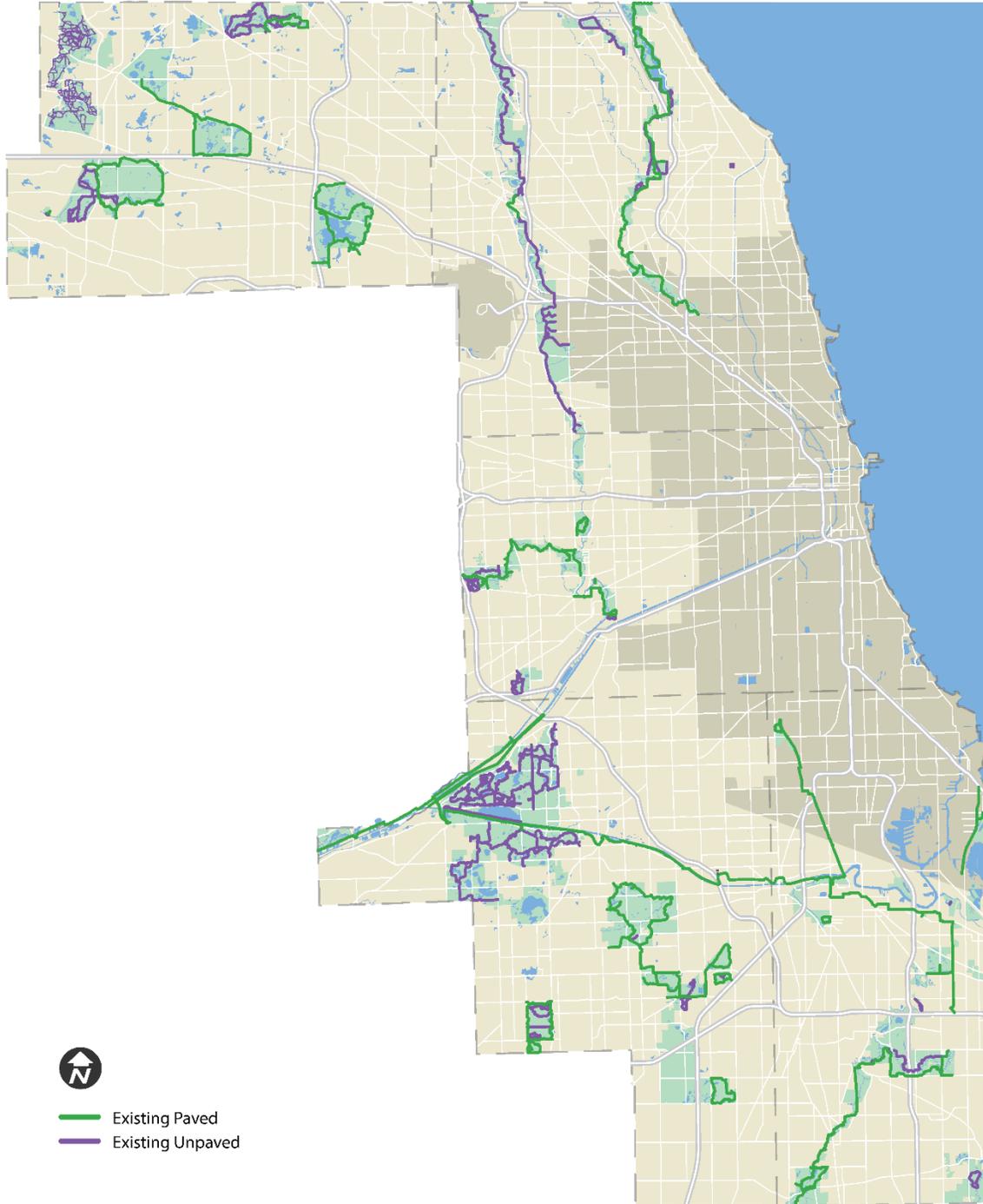
Miles of Trails of Forest Preserve Systems



Forest Preserves of Cook County Trail System Mileage

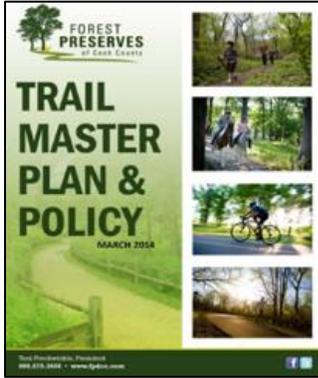


# FPCC Trails



## Other Relevant Plans and Policies

The focus of the Trail Capital Plan and Guiding Principles is on capital needs over the longer term, supplementing other plans and policies that relate to our trail system.



### FOREST PRESERVES TRAIL MASTER PLAN & POLICY (2014)

This plan includes descriptions of various trail types and criteria for evaluating requests to recognize informal trails and general policy guidance for evaluating other requests. It notes that additions to our current system should be sustainable and, ideally, have a long-term maintenance plan and possibly include a partner organization.



### COOK COUNTY BIKE PLAN (IN PROCESS)

The Cook County Department of Transportation and Highways (CCDOH) draft Bike Plan, which is expected to be finalized in 2022, will include the County's priorities for regional trails and bike routes. Forest Preserves trail planners have been working with CCDOH's longer-range strategic planners on this plan because of the importance of off-street forest preserve trail systems to the region.



### FOREST PRESERVES 5-YEAR CAPITAL IMPROVEMENT PLAN (CIP)

The CIP is an annual plan that includes the Forest Preserves' highest priority capital projects for the next five years, not only for trails but for other types of facilities including buildings, parking lots, picnic groves, aquatic centers, camps, golf courses and nature centers. This Trail Capital Plan will inform the CIP's trail improvement project priorities. Because there is limited funding for capital projects, this Plan will be useful in identifying additional grants and partnerships.

# CHAPTER 1 – MAINTAINING OUR CURRENT SYSTEM



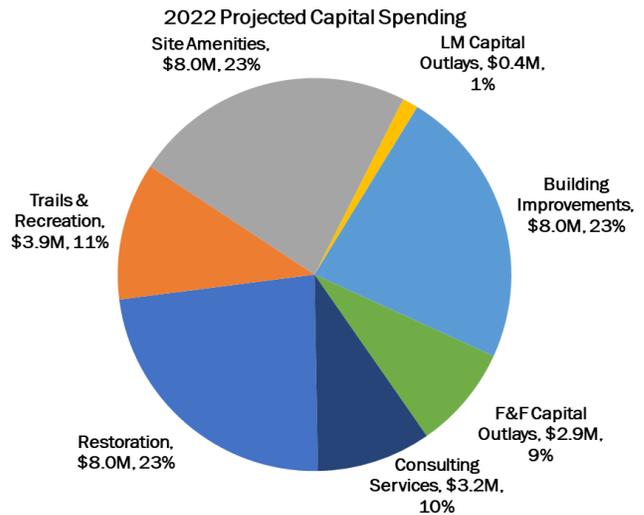
North Branch Trail in Miami Woods

## Operations and Resources

The Forest Preserves is dedicated to providing the public with the best and safest trails possible and meeting industry standards. Trails are currently evaluated as part of trail inspections by the Landscape Maintenance and Resource Management departments. The Planning and Development Department will undertake more detailed and regular inspections on a three-year cycle to help determine if trails are up to current standards. These inspections will evaluate the condition of pavement and infrastructure such as culverts, signage and striping.

The Landscape Maintenance Department completes most maintenance of paved trails undertaken by the Forest Preserves, with the Department of Resource Management responsible for primary maintenance on the unpaved systems. If repairs are recurring or require more than can be performed by in-house staff, repairs are then contracted by a vendor that is procured through an open bid process. Since in-house crews are already stretched to their limits, The Forest Preserves also partners with other public agencies, trail groups, and in some cases, volunteers to help maintain the system.

The appropriation by the Forest Preserves for Construction & Development needs in for the past few years was between \$7 million and \$7.5 million annually, and more than half of this was allocated to large-scale land restoration work, leaving just \$3 million to \$3.5 million for other land and building improvements. Facing such tight budgets, for many years the Preserves has been unable to fully allocate funds for trail maintenance. Supplemental funds from occasional bond issues, transfer from reserves, and grants have been necessary to fund infrastructure projects. Very often new trail



construction has taken precedence over trail maintenance because of available grant funds. New data is now confirming the need to allocate more regular funding for trail maintenance on an annual basis to keep the system in good condition.

### Paved Trails

Even though the initial costs are high for the installation of paved trails, the future maintenance cost are relatively low on a yearly basis compared to unpaved trails. Historically, maintenance work on paved trails has been based on citizen complaints and the age of trail segments, assuming the need for major rehabilitation after roughly 30 years.

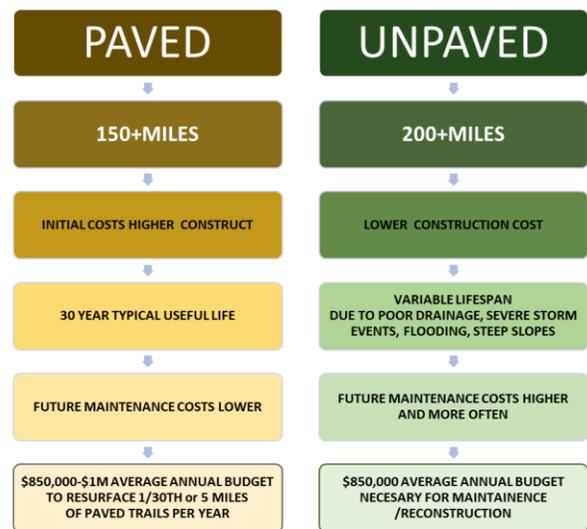
In 2021, a comprehensive conditions assessment of the paved trail system was completed using new “data bike” technology funded by the Illinois Department of Transportation’s Statewide Planning and Research Grant program. A surface-roughness-sensing “data bike” outfitted with a 360-degree camera captured baseline trail surface conditions data for all 150+ miles of paved trails.

Paved trail conditions data findings for 2021 showed that 51% of paved trail miles are currently in good condition, 30% in fair condition and 19% (30 miles) are in poor condition. With current available funding, going forward, the goal is to keep roughly 80% of the trail miles in good or fair condition. Renewal of at least 6 miles of trail per year will be needed to maintain the status quo over the next five years, and every year after that assuming that another 30 miles will need to be addressed after that. An aggressive in-house patching program will also be needed to extend the life of the miles that are currently in fair condition. The data bike will be used to update data for the entire paved trail network approximately every three years.

The annual cost to resurface roughly 1/30<sup>th</sup> of our current paved trail system (or a little under 6 miles) has been estimated in the past several years at around \$850,000. The initial data bike analysis confirmed the assumption that maintenance of 5-6 miles of paved trails must occur on an annual basis to maintain 80% of the current 157-mile paved trail system in good or fair condition.

An increase in the trail renewal budget would be needed to reduce or clear the backlog of miles that are in poor condition. With a complete assessment of paved trail conditions, engineers can more accurately estimate the number of miles

of trail that will need repaving or rehabilitation each year and develop more specific cost estimates for each year in the 5-Year Capital Improvement Plan. Field checking and addressing the 30 or so miles that are currently in poor condition is a high priority, but our goal, with appropriate funding, would be to have all trail resurfacing on a rotating 25-year cycle.



## Unpaved Trails

Compared to a paved trail, unpaved trails offer a more rustic and sometimes challenging experience for equestrians, mountain bikers, hikers, runners, cross-country skiers and nature lovers.

Unlike the paved trails, the surface materials and conditions of the unpaved trails are not consistent from trail to trail, and there is no uniform expected useful life. Most unpaved trails are constructed to



*An unpaved trail in Catherine Chevalier Woods*

be 10-feet wide, with a stone surface that needs to be replenished over time and face other major issues such as erosion or culvert failure. If conditions allow, highly problematic unpaved trails can be rerouted to where appropriate soil types, grades and vegetation are available. If these trails can be reconstructed so that water flows across them—as opposed to along them—most erosion issues would be solved. Recreating or opening ditches that over time have become filled with silt to convey water away from the trails also greatly helps to prevent erosion.

Major trouble spots on unpaved trails vary by location and tend to be due to poor drainage, severe storm events, flooding and steep grades, all of which cause erosion. Depending on the size and scope of maintenance and improvement needs, the work to address unpaved trail issues can be addressed by in-house trail crews or through contractor services.

Capital improvements or investments are based on input from the public, typically in the form of complaints about conditions, and from inspections by Forest Preserves trails managers. Because conditions and surface types vary, needs and cost estimates require inspections and engineering design that is unique to each situation. In recent years, there has been insufficient funding for engineering design and cost estimating to accurately budget for urgent needs. Capital budget needs for unpaved trail reconstruction have been based on average expenditures during the five-year period from 2013-2017, when capital bond funding was available or an average of roughly \$300,000-\$400,000 per year.

Regular annual funding of at least \$150,000 per year for engineering design is increasingly important to accurately allocate maintenance resources across the Forest Preserves' unpaved trail systems. In addition, based on new inspections, engineers anticipate a need to increase the capital construction budget to at least \$700,000 per year for the next several years to address current needs in the 200+ miles of the unpaved trail system.

Currently, new state and federal infrastructure grant funds are expected to help with rehabilitation of parts of the Des Plaines Trail and the Palos/Sag Valley trail systems in the next five years but will require over \$3 million in additional local funding. These locations will need additional maintenance funding in the future to go along with the rest of our system.

Unpaved single-track trail systems are maintained with an agreement with Chicago Area Mountain Bike Association (CAMBr). This agreement allows CAMBr to create single-track trails approved by the Forest Preserves, following International Mountain Bike Association (IMBA) Standard, so long as they keep up maintenance of the trails. Single track and grass trails typically only need spot maintenance, typically for erosion or holding water.

### Bridges, Underpasses and Boardwalks

Historically, most Forest Preserves trails were built at the edge of developed areas with relatively few bridges and even fewer boardwalks. Over time, with urbanization, vehicle traffic on roadways has increased, along with the number of trail users, creating a need for grade-separated crossings by new bridges or underpasses. The use of boardwalks has also increased because of the frequency of flooding and a desire to minimize impacts to wetlands when they cannot be avoided. Today, the Forest Preserves owns and/or manages over 25 bridges and underpasses that go over or under roadways or railroads, plus over 100 bridges that cross creeks, rivers or ravines. These vary in length, size and age and require regular inspections to identify maintenance and repair or replacement needs.



*Boardwalk on the North Branch Trail adjacent to Lake Cook Road*

The Forest Preserves has an existing intergovernmental agreement with the Cook County Department of Transportation and Highways (CCDOTH) to perform inspections every 10 years of bridges and underpasses on trails that cross roadways and produce reports that identify locations that require further investigation and action. Other transportation agencies, including the Illinois Tollway and the Illinois Department of Transportation (IDOT), perform periodic inspections of some other bridges and underpasses, but not all.

Inspection of bridges and underpasses that do not cross roadways was last completed in 2012, and the Forest Preserves should establish a goal of inspecting these smaller bridges and underpasses on a 10-year cycle.

A major capital bond issue in 2012 funded several million dollars in bridge and underpass repair work in 2013 and 2014. More recently, CCDOTH is supporting the Forest Preserves' maintenance efforts by allocating up to \$25 million in motor fuel tax funds to the Forest Preserves to support repairs and upgrades to transportation infrastructure, including trails and bridges.

Because the conditions that require repair vary from structure to structure, it is difficult to estimate annual capital budget needs based on a formula. Like for unpaved trails, capital needs have been based on past spending. The Forest Preserves is currently setting aside \$100,000 in 2022 and propose to set aside \$260,000 yearly in capital funds for bridge, underpass and boardwalk maintenance in future years.

## Trail Barriers

Barriers are used on trails to limit access of unauthorized vehicles entering the trail systems. Forest Preserves staff will work with consulting engineers to assess current barrier systems and provide recommendations for future improvements, which will require additional funding. Trail barriers will also be assessed as part of Forest Preserves staff trail inspections. If trail barriers are deemed important to stay, it is estimated that it will cost \$200,000 annually for the next few years to upgrade them to current standards.

## Responsibility for Future Maintenance

With limited capital funding, for all trail segments it is important to make sure that the Forest Preserves has identified maintenance responsibility and will facilitate a notice to responsible parties of the need for inspection and repair. Even though most trail segments and spurs were installed by the Forest Preserves, some were installed by other agencies through intergovernmental agreements. Crossing improvements within public rights-of-way will in most cases be maintained by roadway agencies as they perform their road maintenance cycles.

## KEY RECOMMENDATIONS

- Conduct regular systematic inspection of the paved and unpaved systems, as well as trail features such as bridges, underpasses, internal access crossings and trail barriers.
- Budget at least \$1 million for annual capital funding to inspect, design and rebuild 5-6 miles of paved trail per year.
- Budget at least \$850,000 for annual capital funding to inspect, design and rebuild unpaved trails.
- Continue to seek state and federal infrastructure grant funds and budget local matching funds to rehabilitate trails.

## CHAPTER 2 - UPGRADING OUR CURRENT SYSTEM

To provide a world-class trail experience for the new visitor and the lifelong user, the Forest Preserves should continue to make updates to the Forest Preserves' expansive trail system. Maintenance is the Forest Preserves' highest priority for our trail systems, but there are also opportunities and needs for improvements along the existing trails, including updates to our street crossings, additional amenities at trailheads and signage. As the Forest Preserves has the need or opportunity through grant funding to maintain or modify existing trails, it will update trails and/or adjacent parking lots to add additional trailheads, install regulatory and directional signage, re-paint and sign internal driveway crossing, and modify barrier systems that limit unauthorized access to the forest preserves.

### Upgrades to Public Road Crossings

Due to the high cost of bridges and underpasses, more than 100 Forest Preserves trails cross roadways at grade at non-signalized mid-block trail crossings. On roadways where traffic has increased and roads widened, the best practice for safety is to route trails to cross roadways at signalized intersections, where possible. However, there are trails that will continue to cross at non-signalized, mid-block trail crossings where sight lines are good and traffic speed is low.

New trails may have mid-block, at-grade crossings, but these must be permitted by the road jurisdiction, including IDOT, CCDOTH and local municipalities, and are only allowed when that agency agrees that traffic volume on the road and trail do not warrant a grade separation and that the road geometry allows for a safe crossing. When trails cross roadways operated by other agencies, the current practice is for that agency to make appropriate crossing improvements when performing maintenance or road improvements that would affect the crossing. If a road agency proposes to widen its roadway, they work with the Preserves to create safe at-grade crossings or grade separated crossing.

Forest Preserves staff continue to coordinate with roadway managers to advocate for trail-crossing improvements when larger roadway improvement projects are being undertaken. For example, as part of a project to reduce Howard Street from four lanes to two lanes and add on-street bike lanes, the Village of Niles installed rectangular rapid flashing beacons with push button activation and added a center median/refuge island crosswalk to the Forest Preserves' North Branch Trail Howard Street crossing.

The Forest Preserves also has funded and led road crossing improvements within public roadways at a few locations, although construction and maintenance of improvements within the public right-of-way requires on-going coordination with roadway jurisdictions. Ideally, no further Forest Preserves dollars will be budgeted for the maintenance of improvements of crossings within municipal roadways. The Preserves is working with municipal partners on a plan to improve 10 miles of the Des Plaines Trail System, for example, which has identified elimination of some mid-block crossings and problematic underpasses in West Cook County. A state grant to the City of Park Ridge would fund the realignment of the trail at Touhy Avenue to cross at a signalized intersection and separate federal

grant to the Forest Preserves will fund construction of a new bridge over Lawrence Avenue in the next two years.

### Internal Parking Lot/Drive Crossings

Because cooperation from highway and roadway agencies is needed to make improvements in public rights-of-way, the Preserves is focusing its efforts on trail crossings that take place where a trail intersects with a Forest Preserves parking lot or driveway. Internal parking lot/drive crossing are currently being updated as part of parking lot maintenance or reconstruction. These updates will focus primarily on safety and will include standardized signage, striping, ADA improvements and realignments. In some cases, relocation of some trail crossing within our holdings is also being considered. Because these improvements are happening in conjunction with the parking lot construction, there is no separate budget line item.



*Trail crossing – Busse Forest-Central*

A comprehensive inspection of all public road crossings and internal parking lot/drive crossing was last conducted by the Forest Preserves in 2012 to identify maintenance and upgrade needs. The Forest Preserves should undertake an update to this study to determine priorities for capital funding needs and provide recommendations to transportation agencies to be considered in roadway improvement project

### Trailheads

Because there are so many access points to the Forest Preserves trail system, there is a desire to designate new and improved trailheads within existing Forest Preserves parking lots to welcome and orient new visitors. While many parking lots currently serve as informal trailheads, the Forest Preserves wants to be more intentional and create formal trailheads that offer trail access and a set of basic amenities to trail users. These locations can then be highlighted on the Preserves' trail maps and website. An ideal complete trailhead would offer amenities that include restrooms and drinking fountain, bike racks, seating, and an information kiosk. There are currently no locations in the Forest Preserves' system that have all these components, although some come close (e.g., Harms Woods-North parking lot). Most sites currently considered a trailhead have parking, a trail map, and a portable toilet. Due to limited utilities, water fountains and flush toilets should be considered only at

trailheads along major trail systems where practical. This is because many of the Forest Preserves' trails and parking lots are remote, installation of a new water service line can be very costly and may create environmental disturbances.

The Forest Preserves will add trailhead locations over the next five years, identifying existing locations where more components of an ideal trailhead could be added and analyzing the equitable distribution of complete trailheads. The goal is to make sure all major regional trails have at least one complete trailhead, and then continue to install additional trailheads over time.



*Harms Woods North Trailhead*

Trailhead facilities will be included in plans for new or rehabilitated trail segments, as well as improvements to parking lots at trailhead locations. Simple modifications will be given priority and made soon. The Forest Preserves will also take advantage of other parking lot construction projects to upgrade trailheads. Minimally, a trailhead will have parking that meets Americans with Disability Act (ADA) standards, a washroom or portable restroom that is ADA compliant, bike rack(s), trail map, bench(es) and garbage cans.

### Signage

Signs at trailhead are another addition to new trailhead amenities. Despite heavy use of many trails, first-time visitors can find it difficult to find information about Forest Preserves trails when they first arrive on site. New trailhead signs with a map and trail rules will be installed at key parking lots that can serve as a starting point for a walk or bike ride, beginning in 2022.



*Trailhead sign at Bunker Hill on the North Branch Trail*

Forest Preserves staff are currently collecting information on the difficulty of use and accessibility options at more than a dozen longer regional trail systems. This information will be referenced on signs at trailheads and on the Forest Preserves' website to help trail users make informed decisions that match their capacity when deciding to use a trail. At minimum, these signs will include basic information such as the length and difficulty of trails or segments. To the maximum extent possible, all new multi-use trail construction (except single-track mountain bike trails) will be in compliance with the 2015 Architectural Barriers Act (ABA) Standards and 2013 Forest Service Trail Accessibility Guidelines (FSTAG) 2013.

The image below is an example of graphic symbology that can be used to help the public gauge their comfort when attempting to use a trail. These symbols and the information they represent are still being worked on and developed.



Besides maps at the trailheads, there are other signs along trails that will need to be inventoried and maintained by the Forest Preserves' trail maintenance departments, including confidence markers, mile markers, wayfinding, and regulatory signs. Signage will continue to be used sparingly to minimize manmade distractions in the natural environment, while providing enough information to help the visitor navigate the trail and keep the visitors safe.

## KEY RECOMMENDATIONS

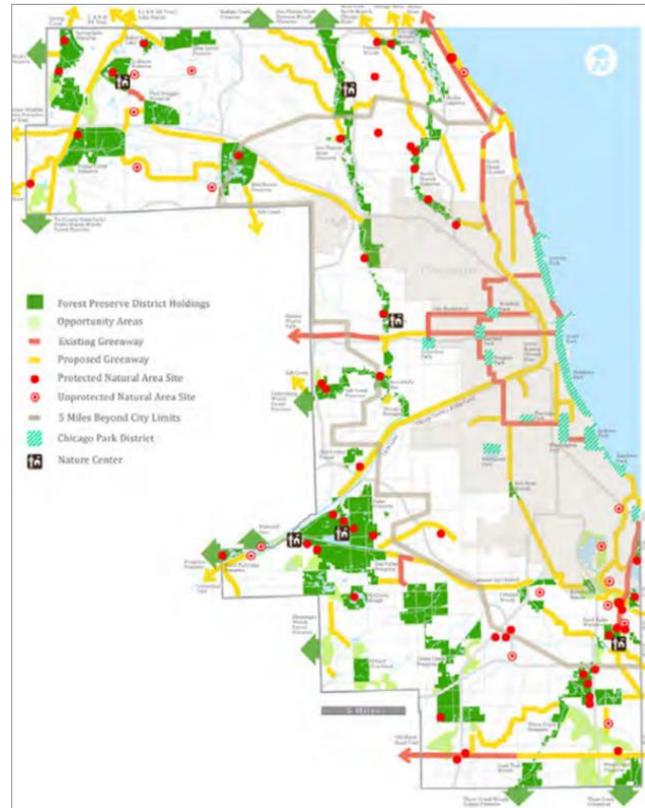
- Prioritize internal trail crossing upgrades at Forest Preserves access drives and parking lots.
- Work with roadway manager agencies to identify and complete opportunities to improve intersections of trails and public roads.
- Identify and construct at least one standardized trailhead facility, including new trailhead signs, on all major trail systems in the next five years.
- Inventory and update trail maps and signage and inform users of trail conditions and difficulty.

## CHAPTER 3 – EXPANDING OUR SYSTEM

Plans to add to the Forest Preserves' existing trail system must be considered with several critical limitations in mind. The first is the relatively limited resources currently available. For some time, the funds and personnel dedicated to capital needs for trails have not gone beyond what is minimally needed to maintain the current system—both addressing major deferred maintenance and immediate trouble spots, as well as a regular cycle of yearly resurfacing. Chapter 3 explores how the Forest Preserves could plan and prioritize future trails if more resources become available. This could include grants, partnerships, and changes to the Forest Preserves budget.

Note however, that the Forest Preserves would limit the expansion of its trail systems even if nearly unlimited funding were available. Though trails have an important health benefit for people, they have an adverse impact on the plants and animals that depend on the forest preserves as their home. The Forest Preserves works to avoid the impact of trails on ecosystems by avoiding wetlands, floodplains, floodways, steep slopes, highly critical natural areas and archeological sites, and new data tools can help in those efforts. The experience of being in nature is also diminished when a walk in the woods is interrupted by frequent trail crossings.

New Forest Preserves trail additions should focus on filling in key gaps in the regional trail network, creating or expanding trail systems when newly acquired blocks of property provide new appropriate land for trails, and working with other agencies to connect to and through Forest Preserves trail systems. In assessing future trail alignments, staff will continue to consider the need to avoid fragmentation of natural communities that hinders the ability of flora and fauna from moving easily through an ecosystem and minimize damage or impacts to natural areas such as wetlands, floodways, floodplains, and high-quality natural areas.



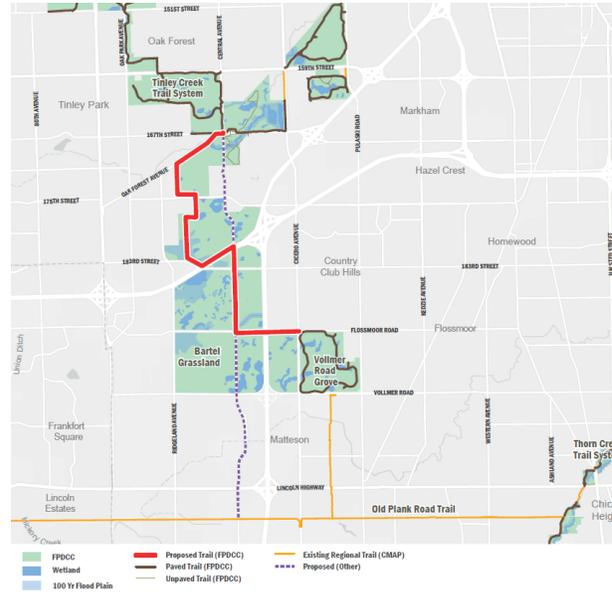
2020 Land Opportunities Map

### Gaps in the System

The same state grant that funded the comprehensive assessment of the existing paved trail System also included preliminary assessment of gaps in the Forest Preserves' regional trail systems. The preliminary trail gap analysis, which is still on-going, has identified opportunities to fill roughly a dozen remaining trail gaps, which would make the Forest Preserves' regional trail system more

effective in getting the public around the county or, in some cases, providing connections to much larger state and/or national trails. Additional coordination with other regional trail planners and engineering studies will be required to determine feasibility of these additions, the impacts to the environment and a cost/benefit analysis.

An example of one of these gaps is in the Tinley Creek Trail System. The existing 20+-mile system is near two loops that are not currently connected: A 9.4-mile loop trail near Arrowhead Lake in Tinley Park and a shorter 3.6-mile-long loop trail in the south near Vollmer Road in Flossmoor. The northern Tinley Park loop also has a 1.5-mile spur that extends down to 159th Street and continues south around the George Dunne National Golf Course. These individual trails each function independently but could be linked together to provide a more extensive trail network to better serve an underserved part of Cook County. The Forest Preserves has undertaken a very preliminary feasibility assessment of a future Tinley Creek Trail Southern Extension, and funding for Phase 1 engineering is included in the Forest Preserves 2022 Update to the 5-Year Capital Improvement Plan.



*A conceptual option for closing a gap in the Tinley Creek Trail System*

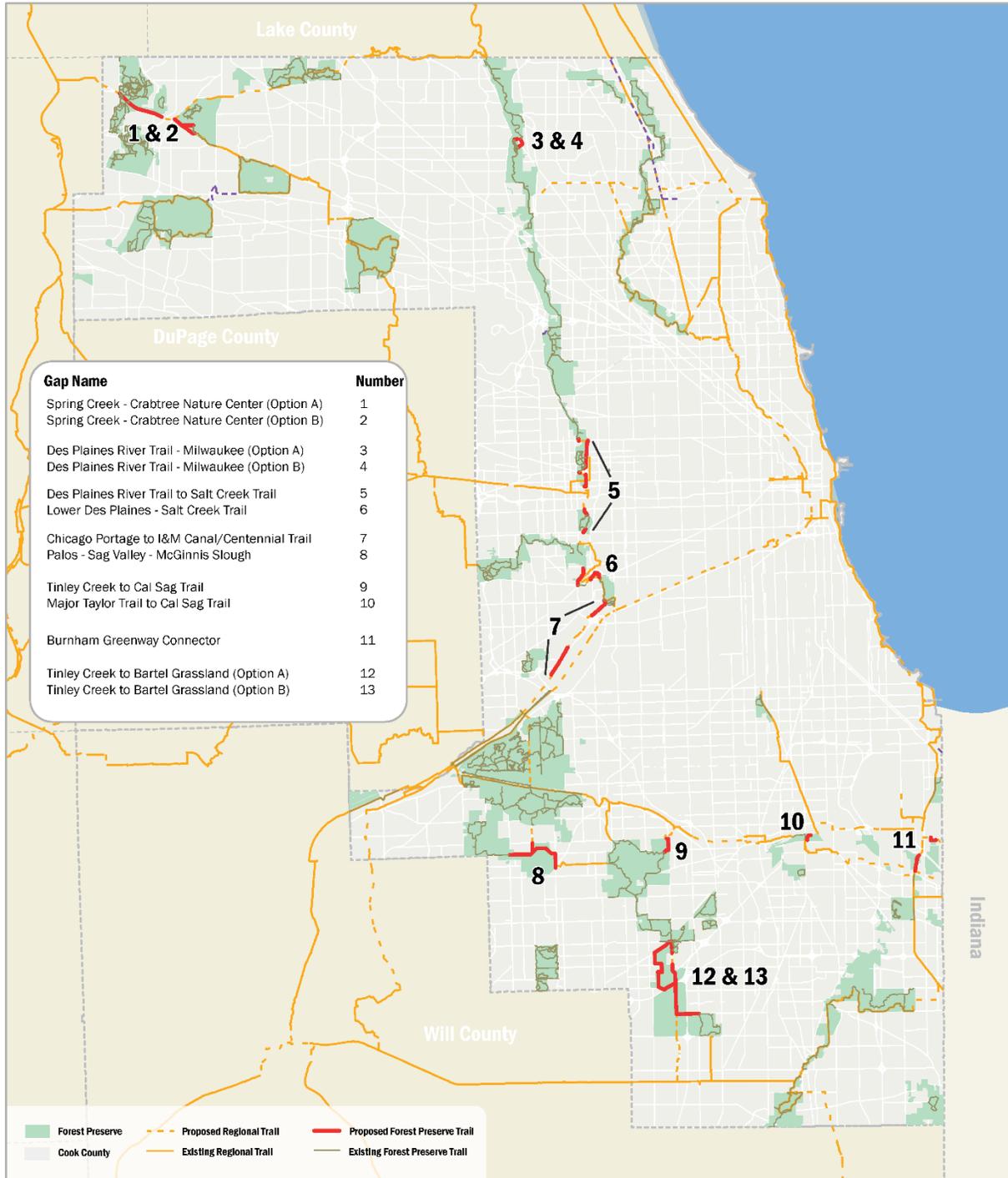
Another example that is much further along in planning and engineering design is for two gaps in the Des Plaines Trail system. The first is at the active Union Pacific Railroad tracks in the City of Des Plaines just east of Oakton Community College. The second is major rehabilitation and partial relocation of a 10-mile stretch of the Des Plaines Trail located in west Cook County between Touhy Avenue in Park Ridge to North Avenue in Melrose Park. This stretch of the Des Plaines Trail system has literal gaps as well as functional gaps formed due to flooding events that make the trail unusable as a single system. The gaps caused by flood events can be even harder for the public to navigate, because they are sporadic and unpredictable. The current project aims to overcome this concern by making sure the trail is located at an elevation that compensates for the flood elevation of the river.



*Gap in the Des Plaines River Trail between Golf Rd and Central Rd*



# Regional Trail Gap Inventory





and improvement projects include improving safety (spurs connecting to sidewalks, etc.), improving access to interpretive sites, overlooks and transit stations, and implementing plans developed by sub-regional Councils of Government.

The Cook County Department of Transportation and Highways' pending Cook County Bike Plan and CCDOTH staff will provide guidance for vetting requests from municipalities and others by their importance in achieving regional and sub-regional bike plans. CCDOTH has also been, and will continue to be, an important strategic partner in funding early planning and feasibility studies for potential connections to Forest Preserves trails. While local connections to the Forest Preserves' main trails and smaller loop trails are popular with their users, adding and maintaining these types of trails throughout Cook County is beyond the fiscal capacity of the Forest Preserves. Furthermore, many additional trails put a strain on the capital maintenance needs of existing trails and can fragment wildlife habitats.

A few smaller loop trails less than 2 miles in length were developed at Dan Ryan Woods and Kickapoo Woods in 2010 and 2011, and at Miller Meadow in 2015. The Trail Master Plan & Policy also includes goals and guidance for evaluation of requests for smaller loop trails. The primary goals and justification for new loop trails described in the Trail Master Plan & Policy are to meet needs for walking and fitness in places where few other options exist and to help activate the sites and engage new users and volunteers. The plan also notes limited resources and the need for partners (e.g., groups such as CAMBr) to help fund, build and maintain new trails.

Requests by others for new trail connections or small loop trails are evaluated to ensure they can be done with minimal impacts to the Forest Preserves, are not redundant, and have a local sponsor to design, construct and maintain it. The Forest Preserves Interdepartmental Trail & Recreation Committee evaluates these requests and, if needed, makes a recommendation to the General Superintendent for a final decision.

### Primitive Footpaths

It is thought that there are hundreds of miles of unrecognized (trails that are not formally planned or sanctioned) that occur unmapped throughout the Preserves. These ad-hoc primitive footpaths, which typically started as deer paths or paths of convenience, are not always in the best locations or configurations, often causing ecological damage and land management issues. These narrow paths, however, can provide a very different, intimate experience in nature and the Forest Preserves occasionally receives requests to recognize some of these paths as part of the official trail system. Currently, very few official primitive footpaths are available to walkers and hikers.



*Unrecognized path in Forest Glen Woods*

Unrecognized primitive trails throughout the system should be mapped and evaluated to determine whether they are sustainable or whether they should be closed.

Recognizing a geographically distributed and sustainable system of primitive footpaths will increase the number of people that have access to a unique nature experience and help keep people away from ecologically sensitive areas. The work to inventory, evaluate, recognize, and maintain these trails will require the dedication of a significant amount of additional funds beyond the estimates in Chapter 1, but should be considered when resources are available.

### When Are We Done?

The Forest Preserves' trail system is likely to continue to expand over time for the reasons described in this chapter, but it is hard to know at this time when we will be done. A few key partners will continue to be important for the future development and rehabilitation of the Forest Preserves' expansive trail system. These include the Cook County Department of Transportation and Highways, Illinois Department of Transportation, the Illinois Department of Natural Resources, the Chicago Metropolitan Agency for Planning, sub-regional Councils of Government, and regional trail advocates such as the Active Transportation Alliance and trail experts at Openlands.

These organizations and agencies work together with the Forest Preserves and with local municipalities that have plans to connect their local trail systems to the Forest Preserves' regional trails and are important advocates in support of trail improvements and funding. The Cook County Department of Transportation and Highways is an especially important funding partner, sharing motor fuel tax funds for some trail rehabilitation and new bridge construction, but also in its own long-range plan for improvements to the Cook County bike network. This Plan serves as a companion to the draft Cook County Bike Plan which is expected to be completed in 2022.

## KEY RECOMMENDATIONS

- Continue to work with Cook County Department of Transportation and Highways and other partners to identify and prioritize remaining gaps in regional trail systems.
- Provide temporary trail access on newly acquired property to meet acquisition grant requirements and plan and budget for longer connected trails, where appropriate, that would ultimately become part of a larger regional trail system.
- Continue to evaluate external requests to make connections or expand the Forest Preserves' trail systems consistent with policy criteria in the 2014 Trail Master Plan & Policy.
- Inventory existing unrecognized primitive trails and consider recognizing a geographically distributed system of sustainable primitive footpaths when resources are available

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