



TRAIL MASTER PLAN & POLICY

MARCH 2014



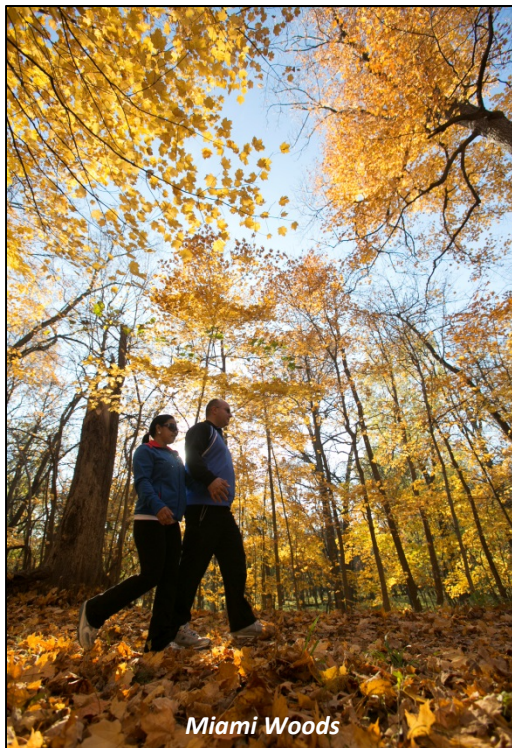
Trail Master Plan and Policy

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EXECUTIVE SUMMARY

The Forest Preserves' trail systems are one of its greatest, most popular assets. Trails provide public access to the Forest Preserves to offer recreation, transportation alternatives, and support economic activity, environmental awareness, and healthy lifestyles. The Forest Preserves completed a Recreation Master Plan in March 2013 that reviewed all aspects of recreation throughout the District. Trails were the most highly rated activity for both the number of users and overall popularity. Due to the extensive scope of the existing and potential trail systems, the Recreation Master Plan recommended that the Forest Preserves develop a separate Trail Master Plan. It also identified more specific needs for trail improvements, namely the need to clearly identify trailheads and to consider adding bike rentals.



Purpose and Goals

The overarching goal of the Trail Master Plan is to improve the user experience and identify opportunities to ensure a safe and easy-to-navigate trail system. This plan is intended to provide baseline information on the current trail system, recommend new policies for managing trails, create a process for assessing requests to improve unrecognized trails and prioritize future capital improvement projects to enhance the system. It also describes the need for further information gathering, as well as, additional staff and volunteers to adequately fund, maintain and police the system as it continues to expand.

Overview of Planning Process

The planning process was developed and managed by the Forest Preserves' Planning and Development Department with assistance from other Preserves departments. An Advisory Committee was formed to support and inform the Trail Master Plan. A survey was also conducted online and on-site at two trail locations to capture suggestions from a sampling of trail users. The first draft was developed in a compressed timeframe from May to September 2013. Additional outreach and review of the draft was completed in the fall of 2013. Because it was not possible to assess all parts of the system during the initial planning period, additional assessment and information gathering continued into 2014. The Forest Preserves will update this Plan and Policy on an annual basis together with the annual update of the 5-year Capital Improvement Plan.

Overview of System

Geographic Information System (GIS) data for all regional trails in the 6-county Chicago region currently shows 1,059 miles of existing trails, 84 miles of future trails (possible trails for future consideration), 1,496 miles of planned trails (trails in a planning stage, most likely unfunded), and 74 miles of programmed trails (trails that have been funded and are being implemented). The Cook County Forest Preserves' existing system is by far the most extensive and diverse in the Chicago region.

Expanding and connecting major regional trails have been a major focus of the Forest Preserves, as well as, offering loops of different lengths to provide a variety of routes and experiences. Although funding is more limited for trails that do not provide transportation connections, the Forest Preserves is increasingly investing in shorter trail loops with the expansion of environmental and cultural interpretation.

Paved Trails

Based on current GIS data, the Forest Preserves have 347 miles of trails – 146 miles of trails are identified as paved, while 201 miles are shown as unpaved. These are linear in some areas where Preserves lands follow rivers and drainage ways, such as along the Des Plaines River and the North Branch of the Chicago River. Trails in the Northwest Forest Preserves tend to be loops, such as in Busse or Poplar Creek Preserves. The typical cross-section of hard surface trails is ten feet wide, with a cleared area on either side that is typically mowed two feet wide.

Unpaved Trails

The current conditions of soft trails vary in surface and difficulty. Specific types are discussed in detail below. Some unpaved trails run parallel to hard surface trails in the preserves but are separated from them and some are independent. For example, along the North Branch, hard surface and soft surface trails run parallel on the same side of river.

MOWED TRAILS

Mowed trails are found in some locations, such as at nature centers and equestrian areas. These are typically about eight feet wide.



These trails offer a very different experience from the hard and soft trails provided elsewhere. They probably do not need to be connected to the hard/soft network of trails other than for access purposes. Mowed trails are relatively easy to create and inexpensive to provide where lighter, infrequent use will not cause damage to the surface.

EQUESTRIAN FRIENDLY TRAILS

Although there are no existing trails designated as equestrian only, equestrians generally prefer unpaved trails that are located near privately owned stables in the Northwest and Southwest areas of the County. Eight private horse stables offer livery service near Preserves' property.

Opportunities may exist for future expansion of equestrian use of trails but also for special event and overnight facilities. A recommendation of the Forest Preserves' 2013 Camp Master Plan is to develop a campground at Camp Kiwanis near the Little Red School House Nature Center for equestrian recreation users. Day use and horse rentals/riding lessons through vendors or partnerships could also expand the equestrian use on Forest Preserves land. Future sites in the Northwest area may be identified and appropriate for a future equestrian special event site.

MOUNTAIN BIKE FRIENDLY TRAILS

The Palos preserves in the Southwest part of Cook County currently offer a mountain bike staging area and popular natural surface trails. Natural surface trails are also found in Deer Grove in Northwest Cook County. These trails are typically dirt surface, one to three feet wide and are also popular with hikers.

Trailheads

The Forest Preserves have some designated trailheads (locations with maps and trail parking areas) including: Old Stover Trailhead, Poplar Creek Bicycle Lot, Poplar Creek Equestrian Parking, Camp Kiwanis Equestrian Staging Area, John Husar I&M Bicycle Trail Parking Lot, and the new Maple Lake East Mountain Bike Staging Area. Many other parking areas are likely to serve as trailheads but are not specifically identified or signed for this purpose. One example might be the parking lot in the Southwest corner of Caldwell Woods where the assessment team observed people loading bikes on and off their cars to use the North Branch trail. There are also no trailhead symbols on the current maps published by the Forest Preserves and this is being addressed with the publication of updated trail and site maps in 2014.

Unrecognized Trails

It is thought that there are over 200 miles of unrecognized primitive trails (trails that are not formally planned or sanctioned) that occur unmapped throughout the preserves. These ad-hoc trails are not always in the best locations or configurations, often leading to ecological impacts and land management issues. New policies are needed for assessing requests to establish or improve additional natural surface trails. In addition, new policies and resources are needed to close illegal trails that can impact our sensitive areas, confuse trail users and not sanctioned by the Forest Preserve.

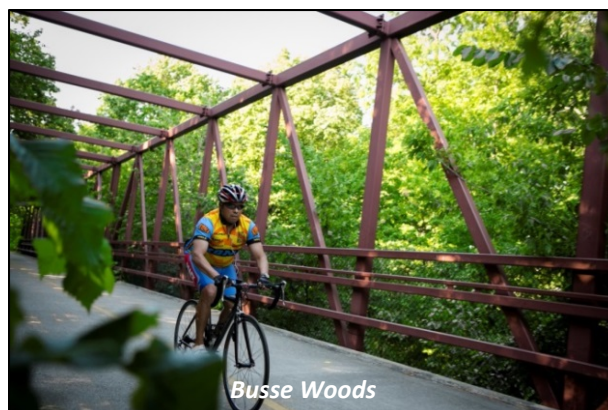
Key Recommendations

Through the Trail Master Plan process, the following key recommendations were developed:

Recommendation #1: Update current trail classification system.

Currently only two classifications of trails are used to describe trails in the Preserves: paved and unpaved. Paved trails have standard design and maintenance standards that could be enhanced in some cases for regional or commuter trails. Unpaved trails, however, vary considerably in width, surface types and level of difficulty. More refined design and maintenance standards are needed for construction and long-term maintenance of unpaved trails and to inform new users on what to expect. An updated trail classification system should consider these specific recommendations discussed in more depth in Chapter One:

- a. **Paved Trails.** Clarify maintenance standards and responsibility for paved trails. Identify regional trails by name (on signs and on maps) and determine where additional crossing infrastructure is needed.
- b. **Unpaved Trails.** Establish consistent design and maintenance standards for different types of unpaved trails:
 - a. **Stone Trails.** Generally 8-10' wide limestone, StaLok™ or other aggregate requiring regular maintenance by staff and contractors.
 - b. **Natural Surface Trails.** Dirt, stone surface or mowed trails are generally built to IMBA (International Mountain Biking Association) standards; width varies, popular with mountain bikers. Minimal maintenance by staff and volunteers.
 - c. **Primitive Trails.** Dirt, stone or grass surface, vary in width, lighter use and maintenance than natural surface trails. Limited maintenance by staff and volunteer support is important.
 - d. **Nature Center Trails.** Trails that immediately surround our Nature Centers which are exclusively for hiking. Trails typically have interpretive signage and educational elements; trail maintenance is completed regularly by staff.
- c. **Bridges & Boardwalks.** Specify design and maintenance standards for boardwalks and bridges on trails, taking into consideration need for vehicular access and risk of vandalism.



Recommendation #2: Develop a process and criteria for recognizing current unrecognized trails.

Over 200 miles of unrecognized trails are estimated to exist throughout the Forest Preserves. These trails are unmarked and do not appear on Forest Preserve maps. These trails can be confusing to visitors, create ecological damage in sensitive areas and are not maintained by staff. A process is needed for recognizing trails that are not formally in the Preserves’ trail system and determining trails that should be closed. Recommended next steps which are already partially implemented include:

- a. Develop an interdepartmental trail committee of FPDCC staff to assess requests to improve and recognize unrecognized trails. The committee members should be appointed by the General Superintendent and meet regularly.
- b. Evaluate the impact of recognizing and improving informal trails, including:
 - Ecological impact
 - Function of trail or path
 - Increase safety
 - Provide access to a restoration site or other existing trail from parking lots or transit stops
 - Activate site and entice more users (e.g. loops trails)
 - Meet need for health and fitness opportunities
 - Connect to local neighborhoods
 - Cost – especially for bridges and boardwalks in floodplain and wet areas
 - Maintenance – capacity to maintain; partners that can volunteer
 - Wayfinding – ease of use for general public; complexity of trail system
- c. Publicize the unrecognized trail process.
- d. Determine process for removing or shutting down informal trails that cause environmental or safety concerns.

Recommendation #3: Improve existing trail signage and wayfinding system to enhance user experience.

There are opportunities to enhance user experiences the current signage and wayfinding in the Forest Preserves by providing “you-are-here” maps, directions to destinations and ensure existing signage is in place. The following recommendations identify opportunities for improving the existing signage and wayfinding system:

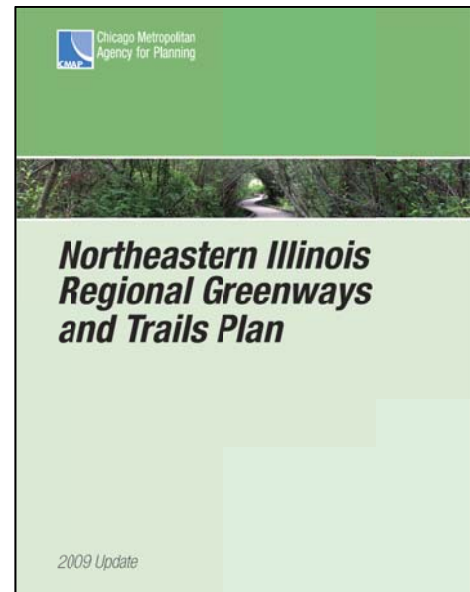
- a. Complete an inventory of the existing signage system and replace missing signs. Create digital tags (“GPS”) trail markers and intersection posts to aid in future maintenance.
- b. Add additional wayfinding signage to existing intersection posts, such as “you-are-here” and directional signs to grove parking lots and other amenities.
- c. Add trail names where these exist and distance to current mile markers and confidence posts. Use paint on asphalt in lieu of posts where necessary.

- d. Pilot trail naming in Palos where some trail segment names are already well-known and in Spring Creek where there are no existing signs. Add trail names to maps and signage.
- e. Develop enhanced trail maps and determine locations for trailheads.
- f. Work with transportation agencies to add trail crossing markers and signs across roads to improve wayfinding and safety.
- g. Develop long-term plan for wayfinding.
- h. Consider simplifying the color system when maps and signs are updated and a new color system that reflects trail difficulty and length similar to ski slopes.

Recommendation #4: Create a process for prioritizing capital investment for trails.

Future trail development requires thoughtful planning and committed partnerships. The Forest Preserves want to ensure future plans reflect the regional vision as well as local requests. Recommendations for prioritizing capital investment for trails include:

- a. Ensure maintenance funds match new trail development.
- b. Complete priority trails in the CMAP 2009 Greenways and Trails Plan, including improving the Des Plaines River Trail, Tinley Creek Trail and extension of the Centennial Trail.
- c. Create a long-term priority list of new trails.
- d. Develop goals and criteria for rating new trail and improvement requests.
- e. Work with CMAP to identify trail development priorities with local councils of government and transportation agencies (CCTHD and IDOT).
- f. Update Trail Master Plan on yearly basis.



Recommendation #5: Improve trail facilities at trailheads and overlooks.

Enhancing the trail experience by improving the facilities at appropriate trailheads and overlooks is recommended:

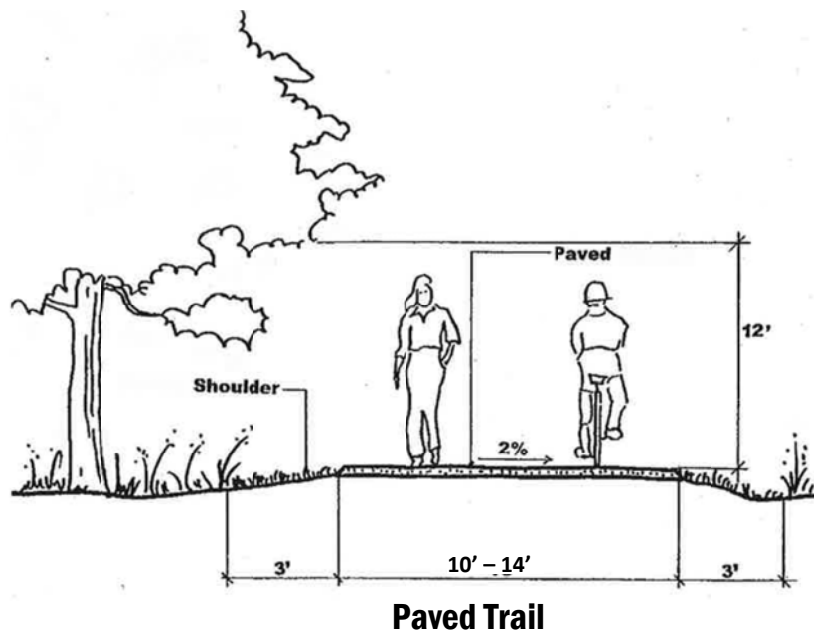
- a. Develop trailhead locations that provide users parking and other amenities, including water fountains, restrooms/ changing rooms, trail maps and information kiosks.
- b. Provide more amenities at key points (overlooks) along trails such as seating and interpretive signage.
- c. Create a volunteer program to provide additional trail maintenance resources.
- d. Ensure long-range plan addresses safety and maintenance issues.

CHAPTER ONE: Trail Classification Design & Maintenance Standards

When existing trails are improved or new trails are built, the long-term effective maintenance depends in part on some level of consistency in the design and characteristics of each type or classifications of trail. Consistency in design and maintenance also aids in communications and mapping, so new users know what to expect on the trail. This chapter of the plan provides a description of the design and maintenance for classes of trails that are managed by Forest Preserve staff or partners and identifies action steps for 2014. It should be noted that the Forest Preserve trail system is over 100 years old and there are exceptions of existing trails that do not meet these classifications.

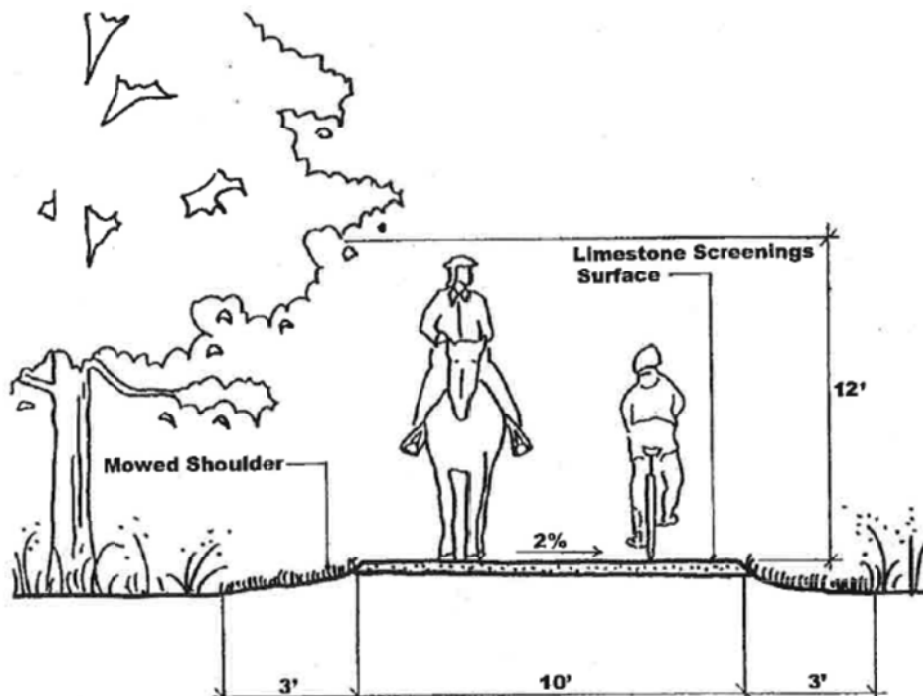
Paved trails

All new paved trails in the Forest are built using the American Association of State Highway and Transportation Officials' (AASHTO) design guidelines as the standard for paved trail widths. AASHTO recommends a minimum of 10 feet for multi-use trails; however, where heavy use is anticipated, a 12 to 14-foot width may be recommended. Paved trails are built using asphalt and have a mowed shoulder. Paved trail users include walkers, runners, bikers, rollerbladers, strollers and dog walkers. Signage for regional trails should also comply with federal sign standards, Manual on Uniform Traffic Control Devices (MUTCD.) Maintenance standards for paved trails should be clarified and conveyed to Preserves staff and a comprehensive trail maintenance plan should be developed.



Stone Trails

Stone trails are up to 10 feet wide and constructed with a variety of surfaces with limestone screenings being the most common but stone or StaLoc™ are also used. Stone trail users include walkers, runners, bikers, equestrians, dog walkers and cross-country skiers. Maintenance of stone trails is typically completed by Forest Preserves staff with limited volunteer assistance. Maintenance standards for stone trails should be clarified and conveyed to Preserves staff and volunteers and a comprehensive trail maintenance plan should be developed.



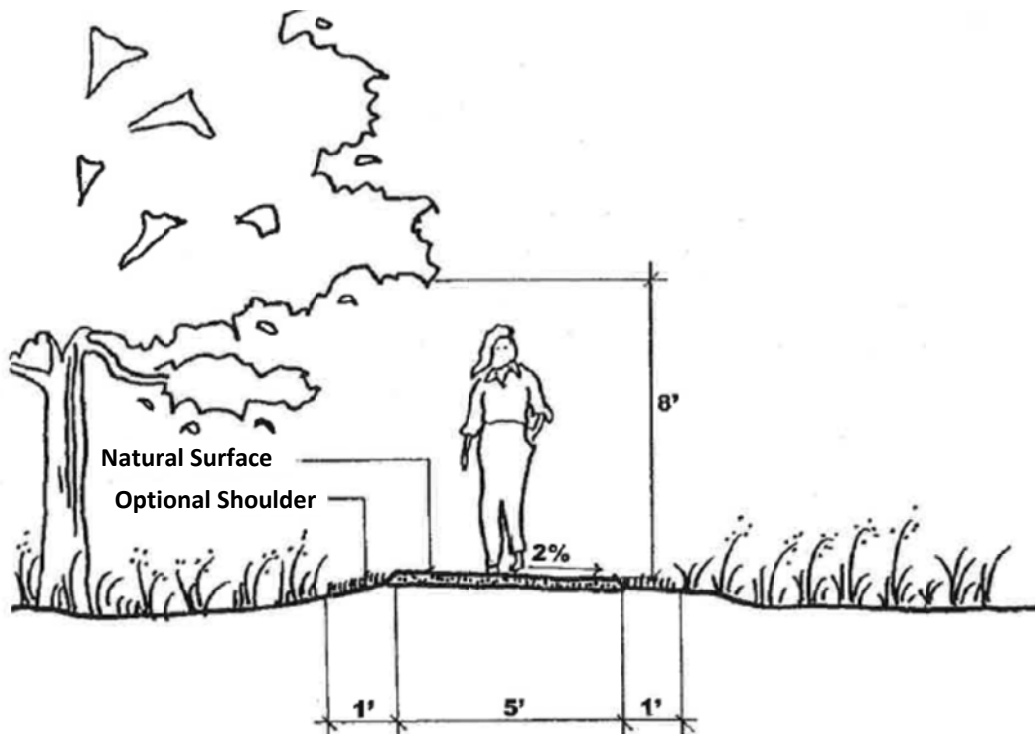
Stone Trail

Natural Surface Trails

Forest Preserve natural surface trails vary in width, difficulty and slope. High quality hiker/cyclist natural surface trails can be maintained with less expense to the Forest Preserves if dedicated partner organizations and volunteers are provided with good guidelines, connections to expertise, authority, and resources. Currently the Forest Preserves generally follows the International Mountain Biking Association (IMBA) trail guidelines. In some cases, such trails may be properly routed through good-quality natural areas by using a rolling contour trail design that keeps the trail users on the trail and allows water to exit the trail before it has a chance to



channelize and move soil. Some natural surface trails that are challenging may be better suited for bikers and hikers, but not be well designed for horses. Without proper education and safety improvements equestrians, bikers and hikers may conflict, so the Forest Preserves should work with partners to help educate trail users. Maintaining clear sight lines at curves, as well as posting caution signs can improve safety and reduce conflicts between different types of natural surface trail users. Maintenance standards for natural surface trails should be clarified and conveyed to Preserves staff and volunteers and a comprehensive trail maintenance plan should be developed.



Natural Surface Trail

Primitive Trails (Hiking only)

Many preserves are too small to have major trails. And in many ecologically-sensitive areas, creating a major trail would constitute unwarranted destruction of the valuable nature that the Forest Preserves seek to protect. Yet, such areas will be undervalued unless there are low-impact ways for the public to appreciate them. Footpaths have indeed developed in many such areas over time, often started by wildlife, neighbors, or hikers. In many cases such trails are poorly placed leading to erosion, the proliferation of “spider trail” complexes, and other



problems. Forest Preserves staff and volunteers have sought in many areas to improve, re-route, close such trails or otherwise correct problems that arise, but a comprehensive Forest Preserves policy for such footpaths is needed.

Note: The Illinois Nature Preserves Commission (INPC) has rarely or never approved trails through Forest Preserves lands (except for some ‘grandfathered’ existing trails). Yet, informal trails that develop in nature preserves can cause substantial problems with both erosion and trampling of sensitive habitat. Learn more about the INPC and Nature Preserve sites at <http://dnr.state.il.us/INPC/area2.htm>.

Bridges and Boardwalks

In 2012, the Forest Preserves conducted an assessment of 119 bridges on its trails. While bridge and boardwalk structures inevitably vary depending on site conditions and proposed type and level of use, guidelines for the design and maintenance of these special structures should be developed.

Accessibility and Difficulty Conditions

While most paved trails and wider unpaved stone trails meet draft accessibility guidelines for shared use paths, portions of some may be more difficult or have some steep slopes or ramps. There is a need to develop standards or descriptions of trail conditions that are more challenging and potentially inappropriate for some inexperienced or disabled trails users. Providing signage and information on challenging conditions is discussed in Chapter Three.

CHAPTER TWO: Unrecognized Trails

Unrecognized trails occur when a path is blazed or created by human or animal activity and then that path is repeatedly used. Common examples of unrecognized trails include wildlife paths, illegal single tracks built by bikers or equestrians, paths created by stewards to access restoration sites and adjacent communities or neighbors cutting through the Forest Preserves. There are thought to be over 200 miles of unrecognized trails throughout the Forest Preserves and many have caused ecological damage. In addition to the ecological damage, unrecognized trails also cause confusion to visitors since they are not signed, mapped or maintained. A process for recognizing trails will provide a mechanism for the Forest Preserves to assess these trails and determine their role in the trail system.

Concerns about ecological damage caused by illegal trails

In 2014, the Forest Preserves' Resource Management Department will complete a Natural and Cultural Resources Master Plan (NCRMP) for all of the Forest Preserve's land holdings. This plan will identify, assess and prioritize natural and cultural resources to inform future land management and development. The NCRMP will provide information on surrounding ecological quality for land where there are trails and illegal unrecognized trails going through high quality natural areas will be identified for closure.

Capacity to maintain and police unrecognized trail system

Currently the Forest Preserves does not maintain any unrecognized trails although law enforcement officers will respond to reports of illegal trail usage. The Forest Preserves should ensure resources exist to maintain and police trails before new trails are recognized. Law enforcement officers should be trained regularly on the trail system to understand locations of existing trails and unrecognized trails. The Forest Preserves should also look to volunteers to assist with monitoring, reporting and trail maintenance.

Process for when trails should be recognized and improved

A new interdepartmental Trail and Recreation Committee was formed in December 2013 and the committee created a pilot process for evaluating unrecognized trails requested by the public. The pilot process will be happen throughout 2014 to assess requests to recognize or establish trails based on the function or importance of the trail as well as its impact.

Policy on unrecognized/illegal trails and how they should be eliminated

The Forest Preserves does not have an exact amount or locations of illegal trails that exist in the Forest Preserves and has attempted numerous approaches to eliminate illegal trails, but this is difficult since resources are limited to pursue closing all illegal trails. Forest Preserve staff should determine how to assess unrecognized and illegal trails. Signage is recommended to inform users and work with volunteers to assist with closings. More resources will need to be allocated to ensure attempts at closing unrecognized trails are successful.

CHAPTER THREE: Wayfinding - Trailhead and On-trail Signage

The Forest Preserves want to provide a world class trail experience for the new visitor and the lifelong user alike. Wayfinding helps shape that experience through the three phases of trail use:

- Orienting—Where am I? Where do I want to go? What direction is it, and how far away? How long will it take? Is that the right route for me?
- En route—Am I going the right way? How far to my destination? What else is near here?
- Arrival—Is this the right place? Do I want to stop here? Are there amenities here that I need?

For a trail experience to be world class, the Preserves' wayfinding and orienting system must be first rate as well.

Although there have been trails in Forest Preserves for decades, the current system of trail signs is relatively new. In 2004, the District announced completion of an ambitious trail marking project involving new signs on more than 300 miles of paved and unpaved trails. The project was funded by bond funds and included new large map signs posted at trailheads, recycled plastic posts at intersections, road crossing markers, mile markers and on unpaved trails confidence markers are every quarter mile. One of the advantages of the current system is the simplicity and affordability of hundreds of sign panels, and thousands of posts and markers throughout the vast trail system.

Despite the advances in the past decade, there is still room for improvement. Current best practices, including many examples in the Midwest, highlight opportunities for the Preserves to improve the trail users' experience. Improved wayfinding was listed as a priority in a survey conducted as part of the Trail Master Plan process. Users indicated a desire for more frequent mile markers; maps on the trail as opposed to only in parking lots; information on trail difficulty, length, and conditions; and naming trails and trail segments in addition to color designations.

The Preserves has a significant investment in the current wayfinding system, and trail map signs were just recently updated in 2012 and 2013, and are expected to serve for another six to seven years. Wholesale replacement of existing signs and maps prior to the end of their useful life would be costly.

In the interim, however, there is an opportunity to develop and adopt best practice wayfinding standards and designs in anticipation of system-wide improvement in the coming years. The existing posts and markers were designed in part with cost-effective changes and additions in mind. Until the grove signs and maps need replacement, the Forest Preserves should focus on

interim, inexpensive, high-value wayfinding improvements that leverage the current investment. Interim wayfinding enhancement strategies should include:

- Adding orienting maps, including "you-are-here" markers, at decision points such as trail intersections;
- Indicating degree of difficulty for unpaved and primitive cycling, hiking and equestrian trails;
- Installing maps and markers at some locations;
- Improving the Preserves' electronic maps; and
- Experimenting with adding trail names, new and improved signs and maps in a few targeted pilot areas such as Spring Creek and Palos preserves. Trail names are easier to learn and remember, and would help users promote trails by word of mouth as well as communicate about trails with the Preserves. Testing this in a few pilot areas initially is recommended.

The challenges presented by the trail systems in Spring Creek and Palos Preserves provide an excellent opportunity to pilot and evaluate wayfinding and orientation techniques for complex trail systems. At the Spring Creek preserve, there is no official parking lot, trail head maps or trail signs. Additional planning work is needed to confirm trailhead locations and agree on which of the existing unpaved trails the District will recognize, improve and maintain. In the Palos Preserves, the complex system of color-coded trails includes a range of both easy and difficult trail conditions that are not discernible on the current maps. There are also dozens of possible routes, making it difficult to describe distances and conditions. Adding trail names, descriptions and improved wayfinding to select trails might be helpful in guiding different types of users to defined trail routes that offer different types of experiences.

Current System & Recommended Improvements

Mile Markers & Confidence Markers

Mile markers were historically painted on paved trails every mile and half mile each year by the Preserves' Maintenance staff. Mile marker signs are located at the "start and end" and every mile along trails. It is not always easy to determine the start and end point for intersecting trails where users have multiple route options. On loop trails "start and end" are the same. Trails distanced are identified to the closest 10th of a mile, as displayed in the figure on previous page. Stickers on the flexible mile marker posts indicate the mile, identify the Forest Preserves logo and provide trail color.



On maps, mile markers are shown on paved (solid line) trails only.

A scale is provided as a tool for estimating length of unpaved trails and mileage for unpaved trails is provided in the key. The Preserves should ensure the mile markers (both signs and painted) are in place and regular inventory is conducted.

Confidence (1/4 mile) Markers

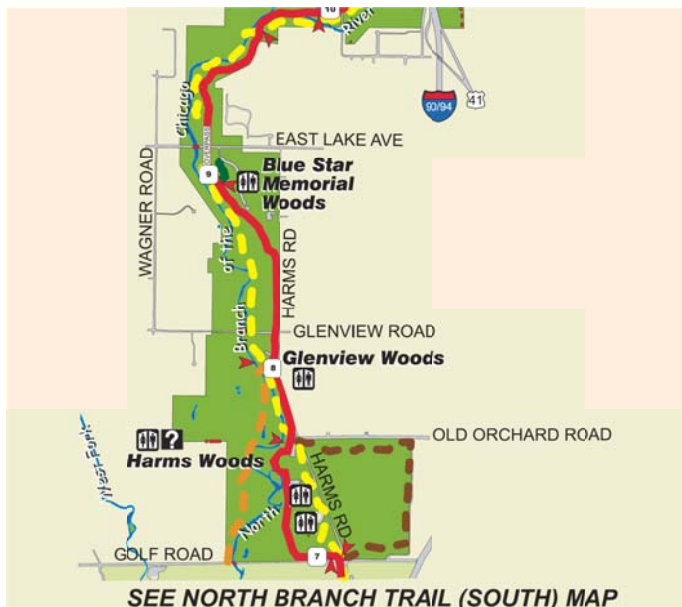
Gray flexible markers are located roughly 50 feet away from intersection post on trails to help reinforce trail color. On unpaved trails confidence markers are placed every quarter mile or midway on trails if shorter than ¼ mile. Forest Preserves information and trail color are provided on both sides. The Preserves should ensure the confidence markers are in place and conduct regular inventory.

Mile markers can double their value by also serving as confidence markers. Confidence markers are more useful if they include mileage, helping trail users to orient themselves and verifying that they are on their chosen route. Adding names, where possible, and mileage will also help emergency responders locate a trail user. The cost of adding trail names and mileages are minor.

Trail Symbolology

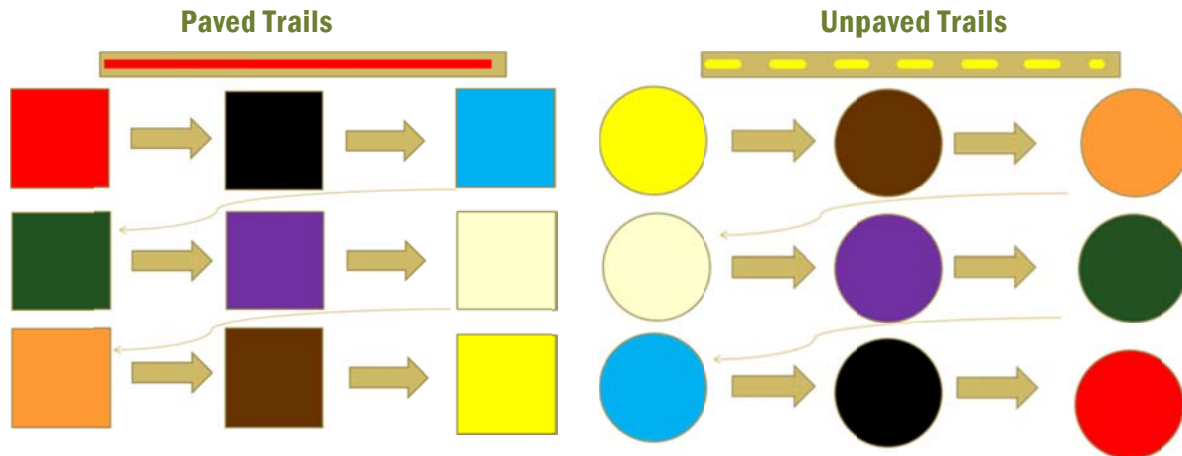
The primary tools used to distinguish different Forest Preserve trails are colors and solid or dashed lines. On maps, paved trails appear as solid lines, while unpaved trails appear as dashed lines. On the ground, the shape of trail markers also corresponds to either paved trails (square stickers) or unpaved trails (circle stickers). Current colors symbolize trail length -- red for the longest and yellow the shortest, with the reverse on unpaved trails to minimize overlap between colors. For example, on the North Branch of the Chicago River, two trails run parallel to each other with the paved trail shown as a solid red line and the unpaved trail a dashed yellow line, see sample below.

Sample of Map Showing Trail Symbolology



Typical Map Key





Paved

- Symbol : Square
- Line Type: Solid
- Color hierarchy:
 - Red (longest loop or segment)
 - Black
 - Blue
 - Green
 - Purple
 - Tan
 - Orange
 - Brown
 - Yellow (shortest)

Unpaved

- Symbol: Circle
- Line Type: Dashed
- Color hierarchy:
 - Yellow (longest loop or segment)
 - Brown
 - Orange
 - Tan
 - Purple
 - Green
 - Blue
 - Black
 - Red (shortest)

Based on surveys and interviews, trail users found the current symbology confusing, and difficult to use while on the trail, especially when the same colors intersect. Exacerbating the complexity, 20% of all males exhibit at least some color blindness. For unpaved trail users, there is currently no symbology to differentiate the various types of trail difficulty. Inexperienced bikers looking for a more natural, unpaved experience may find themselves dealing with very challenging conditions.

In six to seven years, wholesale replacement of grove signs will be practical as existing signs reach the end of their lifecycle. A wayfinding standard adopted by the Forest Preserves should require names, where possible, and numbers instead of relying solely on colors and shapes to identify trails and indicate distance. The use of colors and shapes should be limited to indicating trail type and difficulty, perhaps similar to the systems used on ski slopes or highway maps. A simple example: a trail could include icons designating hiking, cycling and horseback riding, with a diamond scheme indicating difficulty for each.

Intersection Posts and Other Existing Trail Markers

In addition to maps posted in parking lots near trails, other posts, markers and signs on the trails are important in guiding trail users.

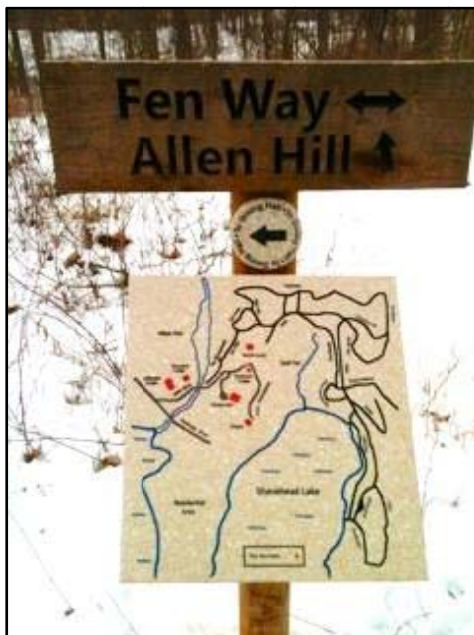
Intersection Posts (6"x 6" recycled plastic)

Intersection posts are used to indicate the direction of intersecting trails and in some cases direct users to other trail amenities. Arrows indicates the trail direction. On some intersection posts icons and arrows show the way to the closest amenity: water, restroom, map, or shelter. These same posts are used at hundreds of picnic groves as picnic grove markers. Intersection posts provide opportunity to add additional wayfinding and directional information, since each post has 5 slots or openings on each of the 4 sides and currently the District uses 2 or 3 on each side at most.



"You-are-here" Maps

There are currently very few "you-are-here" maps along trails in the Forest Preserves. These maps could be added to intersections posts and other directional signs along the trail.



Simple, low cost orienting maps en route improve trail users' experience, particularly for new users and on complex trail systems

Parking Lot Crossing Signs (gray flexible markers)

Road crossing signs provide trail colors and road names for trail users that are entering or crossing roads or Forest Preserve parking lots. Trail colors and other Forest Preserves information is also provided on the reverse side. Additional information such as road names or nearby community destinations, such as schools, restaurants, hospitals and bus and train stations could be added where appropriate.



Road Crossing Signs

In addition to standard highway signs for trail crossings, new signs on roadways to identify trail names and destinations would help in both marketing and wayfinding for larger regional trails.



Madison County (Illinois) uses paint to inexpensively identify trails and to mark cross streets.

Safety and Warning Signs

Additional crossing markers and signs are needed not only to improve wayfinding but also safety. These types of signs include stop signs, caution signs, walk your bike, slowdown and other standardized regulatory signs. Wherever possible, these signs should be consolidated with trail maps to avoid sign clutter.

Use Restriction Signs - No Bicycles or Horses (orange-red flexible markers)

Although most existing trails are open to all types of users, use restrictions are posted in some locations to discourage the use of trails that are not recognized by the Forest Preserves or prevent damage to ecologically sensitive areas. Although signs are important, enforcement of use restrictions is an on-going challenge that will require additional policing and volunteer patrols (see Chapter Seven regarding Trail Management.)



Research has repeatedly shown that restriction signs that include a "why" component increases compliance among users. In the

most ecologically sensitive areas, the Forest Preserves should supplement the trail markers with an additional messaging that explains why restrictions are in place.

Maps & Mobile Web Applications (Apps)

Maps for the entire trail system are printed in paper versions and electronically on the Forest Preserve website: www.fpdcc.com. Paper maps are distributed through the Forest Preserves nature centers, at special events and through our partner organizations. A new set of maps are currently being developed that will give users information on trails and activities for the five zones of the Forest Preserves: North, Central, Southwest and South, as well as more detailed site and trails maps for preserves that are more heavily used. New maps are expected to be published in both print and electronically in 2014. Consistency between printed, electronic and posted on-site maps needs to be reviewed and improved.

Site maps for special sites with more complex trail systems, such as Palos and Spring Creek, will experiment with new trail symbols that make it easier to find unpaved trails. These maps may also experiment with names, symbols or 3D topography. An example of a trail map for Bedford Reservation in the Cleveland Metroparks system is shown on Page 24.

The Forest Preserves are also experimenting with the development of apps for mobile devices for a few groves with special interpretive features. Maps for longer regional trails will also be updated to include additional information on nearby transit stations, restrooms and other points of interest, such as scenic overlooks, food concessions or boat rentals.

Trailheads and Staging Areas

Trailheads are the gateways to trails, providing parking, information, and amenities to trail users. In most cases they are located at parking lots that intersect or are near trails. A majority of respondents (58%) to the survey conducted for the Recreation Master Plan (March 2013) indicated that they are more likely to drive to a preserve to hike or bike rather than come directly from home on bike or foot. Larger preserves with more complex trail systems may have more than one parking lot and trailhead.

Basic trailhead amenities should include restrooms, water, information kiosks, and benches or picnic tables. Shade or shelter where people can wait for other members of their group to arrive, or other special staging areas where they can arrange their gear before or after the ride, rather than having to do all of this in the parking lot are also desirable.

Examples of trailhead standards and design guidelines include developing a tiered system of trailheads, such as level 1, 2, and 3. Each trailhead would include design standards based on trail types and intensity of visitor usage. When planning a trailhead, it is important to consider circulation, landscaping, accessibility, signage, grading, and public services, as mentioned above. In some places, bike rentals (much like the canoe rentals found elsewhere in the

Preserves) might be appropriate. This might even be combined with other concessions and offer snacks, equipment, and more.

Additionally the Forest Preserve has identified the need for specialty trailheads for different user groups including mountain bikers and equestrians. Currently the Forest Preserves is working with CAMBr on Maple Lake East which is the new mountain bike staging area for Palos. The current plan is to provide year-round amenities including a toilet facility, picnic tables and other amenities as the staging area evolves. Equestrians in Palos have requested hitching posts, mounting blocks and possible horse corral near facilities. The Forest Preserves will work with both groups in 2014 to develop these specialty trailheads.

Key Wayfinding Recommendations

- Add additional information to intersection markers, such as destination, direction and distance, an orienting map and directional arrows to grove parking lots and other amenities.
- Work with transportation agencies to add trail crossing markers and signs across roads to improve wayfinding, trail awareness/promotion, and safety.
- Experiment with new trail maps and wayfinding approaches including adding trail names for certain targeted preserves with complex trail systems, such as Palos and Spring Creek.
- Create digital tags (“GPS”) trail markers and intersection posts to aid in future maintenance.

Longer Term Recommendations (6-7 years)

- Identify, adapt and adopt a best-practices standard for wayfinding that encompasses trail marking, orienting, and maps. Implement the new standards as existing markers and signs reach the end of their service.

Example of a trail map that use trail names and trail symbols (in addition to color)



CHAPTER FOUR: Trail Management

Management of the current 347 mile trail system requires a fairly rigorous set of rules, regulations, and licensing, as well as a dedicated trail maintenance staff along with law enforcement officers playing a crucial role. This chapter catalogs the current list of rules and regulations and raises the need to consider changes to some rules and better communication with the public and trail users about trail rules and etiquette. The role of trail management staff is also described along with questions about the need for additional information, trail management staff, volunteers, and funding to adequately maintain the system.

Current Trail Rules

A long list of rules relating to the use of trails is posted on the Forest Preserves website www.fpdcc.com. The first section of rules below is on signs at parking lots near trails.

- Trail users are asked to be polite and courteous to fellow patrons.
- Off-trail riding is prohibited.
- Trail users must ride or walk on the right side of the trail.
- Trail users must give an audible warning before passing others. Announce yourself and slow down to pass.
- Patrons must obey all signs.
- Speeding is not allowed.
- Dogs must be leashed and in control on right side of trail.
- Helmets are recommended for all riders, and required for riders 14 and under.
- Bicyclists and horses must ride single-file.
- Stop only on shoulder of trail.
- Ride at a responsible, controlled speed. No racing is allowed.

Paved Trails

- Trail users must stay in their own lane.
- Bicycles must be walked down overpasses.
- Equestrian use of paved trails is prohibited.

Unpaved Trails

- Bicyclists and equestrians must stay on designated trails.
- Bicyclists must yield to hikers and equestrians.
- Hikers must yield to equestrians.
- Trail users must ask permission to pass equestrians.
- Trail usage is prohibited in muddy conditions.
- Horses must be licensed.

Nature Center Trails

- Nature Center trails are intended for walking. Bikes, pets, horses and cross-country skiing are not allowed (unless otherwise indicated)
- Nature Center trails are open only during posted Nature Center hours.

Equestrian Regulations

- All Horseback Riders on Forest Preserve District trails must obtain and have in their possession a Rider's License issued by the Forest Preserve District of Cook County.
- All horses either privately owned or rented, when ridden on Forest Preserve District bridle trails must be licensed. Said license tag is to be affixed to the left hand side of the bridle.
- Walk horses between stable and trail.
- Be courteous and considerate.
- Slow to a walk or slow trot on meeting other riders, hikers, or bicyclists.
- Do not race horses – keep horses always under control.
- Stallions not permitted on trails.
- Be humane and kind to your horse.
- Only permitted gaits are walk, trot, or slow canter.
- Stay on established trail – keep to the right.
- Failure to obey could result in revocation of license.

Preserve staff are working to consolidate regulatory signs to avoid sign clutter or an unwelcoming environment. Despite the large number of signs, there is still a need for additional signs at some locations and additional web-based information to effectively communicate the rules and regulations.

Fees

The only trail user fee currently required is for equestrian users with options for a yearly license and day pass. Licenses can be obtained in person at the Forest Preserves General Headquarters, by mail and online later in 2014. Annual Horse Licensing fees include a horse tag for individual horse owners or livery horses. Horse Tags cost \$30 for residents of Cook County and \$45 for non-residents. The annual term for horse tags runs July 1 through June 30 of the following year. In addition, each rider on Forest Preserves trails must have a Rider's license. The annual term for horse licensing runs July 1 through June 30 of the following year and the cost is \$4. The Forest Preserve recently launched a new online registration system, Active Net, for licenses, permits and registration. Equestrian registration and licenses will be available through Active Net later in 2014. Learn more at <https://apm.activecommunities.com/fpdccrecreation/Home>.

Permits

Any group over 25 requires a permit. Special event requests for trails are on the rise for the Forest Preserves. A separate permit may be required for any activities planned in a designated Nature Preserve area. Typical requests include:

- Events such as walks, 5k, and bike races
- School groups for cross country and other athletic training
- Group trainings for athletic events
- Dog-sled events
- After hours events

Special Events on Trails

- In order to utilize the Forest Preserve trail system for special events, patrons must complete a special event application indicating specifically what activity and trail they would like to reserve and any special use items that are applicable.
- A Forest Preserves map with route must be included with the application.
- Events on unpaved trails must be approved by the Trails Manager.
- Events on unpaved trails are limited to a 200 maximum attendance. For paved trails, maximum attendance is determined on a case by case basis.
- For events with attendance of greater than 400, signs must be placed advising the regular trail users of upcoming events. Signs need to be approved by the Forest Preserves staff.
- Fees for trail events are listed on the Special Events Application and based on attendance.
- The application must be turned in 21 days prior to event for review and approval.
- Proof of required insurance is necessary before permit is issued.
- Upon approval, a permit will be issued.

All events held on designated Forest Preserve trails must obey the following rules:

- The organization holding the event must post signs announcing their event at each entrance to the trail along their route. The signs must be posted by sunrise and removed by sunset on the day of the event.
- If the event is a walk-a-thon, participants must walk in a single file line on the right side of the trail.
- Trail users are asked to be polite and courteous to fellow patrons.
- Patrons must obey all District signs.

A trail special event request from the public goes to the Permits, Concessions and Volunteer Resources Department and then is evaluated by the Trails Management division of the Resource Management Department. Currently there are no guidelines or processes for

evaluating special event requests for trails. Guidelines and an evaluation process should be developed including the following:

- Use the Trail Committee to evaluate and develop guidelines for special events.
- Meet with ongoing permittees such as athletic directors on a regular basis.
- Develop event management requirements including volunteers, public safety, clean-up, and site management.
- Identify processes and staff for day-of event monitoring.

Hours of operation

Trails are open the same hours as the Forest Preserves, which is sunrise to sunset. There are periodic requests from trail users to extend the hours in certain cases, such as on trails that are used by commuters during fall and winter. A process is needed for periodic review of trail rules and policies, including extending the hours. The Forest Preserves should discuss the designation of certain paved trails as “commuter trails” that may have extended hours.

Maintenance of Trails

The maintenance of the trails is divided among several departments within the Forest Preserves. Landscape Maintenance staff mows the shoulders on the paved trails, removes graffiti and does monthly inspections on all paved trails. Resource Management staff controls all woody vegetation, mows the unpaved trails, and makes minor repairs to trails. The Planning and Development Department manages any trail repair that requires outside contractors for work such as resurfacing, drainage, culverts and bridges.

The Resource Management Department has a Trails Management division which consists of a Trails Manager and twelve crew members, one crew south and one crew north. Trails Management is responsible for:

- Maintaining surfaces of all multi-use unpaved trails and drainage, culverts and bridges.
- Mowing and vegetation removal on unpaved multi-use trails.
- Removal of all trees along all trails.
- Assisting with maintenance of all nature center trails.
- Maintaining all signage for unpaved trails and mile-marker and intersection posts on all trails.
- Maintaining split rail fence along trails.
- Regular inspections of all major unpaved trails.
- Evaluating trail requests for unpaved trail.
- Approving permits for all special event requests for trails.
- Staffing special events
- Cleaning trail surface and underpasses after flood events.

Maintenance of the 200 miles of unpaved trails is weather dependent and seasonal. Winter work focuses on vegetation removal and summer work focuses on trail maintenance. All trails are inspected monthly by Trails Management and by each maintenance division. The maintenance division is required to submit a monthly report. Trail maintenance resources should be evaluated and coordinated to ensure staffing matches the trail maintenance needs. Additional research is needed to assess the adequacy of the current trail management staff in comparison to other agencies with similar trail systems.

In addition to maintaining surfaces, signage and infrastructure maintenance is challenging for Trails Management. There are over 1,000 signs on the Forest Preserves' trails. Infrastructure of split rail fence and all nature center trail infrastructure is completed by Trail Management. Mile marker signs (every mile on paved and every ¼ mile on unpaved) are the most vulnerable and are sometimes removed by trail users, storms, mowing, burning, and other activities. Regular inspections should identify missing signs but a better system needs to be developed to ensure signs are replaced. The public reports issues and problems with trail conditions and the requests go to Trail Management, which averages 40 reports a month. The reports typically focus on downed trees, trail washout, and other trail impediments. Trail management staff should be trained and qualified with specialized skills for trail development, heavy equipment operation, and labor.

Maintenance Limitations

The current work load of the Trail Management division is close to exceeding the capacity of its existing crews. As new trails are added or informal trails are recognized, the need for additional staff should be evaluated to ensure adequate staffing. The Forest Preserves should consider piloting a trail management program that utilizes other staff resources such as the Maintenance Department outside of their peak picnic and grass mowing seasons to assist the Trail Management division.

Policing of Trails

The Forest Preserves Law Enforcement Department patrols the trail system of over 300 miles. They enforce the applicable ordinances in order to provide a safe and welcoming environment for many of the Preserves trail users. The officers are versed in Forest Preserves ordinances as well as Local and State laws and on trail etiquette. When officers are patrolling paved trails used by bicyclists and pedestrians they must maintain knowledge of the physical layout of the trail system. At times, the officers are assisting children who become separated from their parents, or hikers who become separated from their groups or vehicles. Forest Preserves law enforcement officers are often the first responders to incidents involving physical injuries or weather related issues occurring on the trail system. These officers patrol on foot, bicycles, T3s and ATVs. These alternative methods of patrol allow a faster response time which will give an officer the ability to cover areas of responsibility they would not normally be able to cover from a patrol car.

Through the Trail Master Plan process, trail safety was identified as the highest concern of users. When law enforcement officers work on improving traffic safety, they look at the “Four E’s”: Education, Engineering, Enforcement, and Emergency Services to guide the process for improvements. Trail safety concerns are divided into two categories: infrastructure (trail crossings, signage, etc.) and user related (user conflicts, education, etc.). Of the user related, trail user conflicts are a top concern, especially in busy trail locations such as the Palos area where equestrians and mountain bikers share the natural surface trails and along the North Branch trail where road bikers and walkers share the paved trail.

Request for more law enforcement on trails, additional emergency call boxes and more education of trail users were all strategies identified by the public to improve safety. Trail users also identified tickets issued for violations by Law Enforcement were onerous and requested more warnings. Staff held internal discussions to identify opportunities to improve trail safety and suggested launching a trail safety campaign every month of May including posting of educational signs, distribution of pamphlets, posting safety videos and related education activities. These ideas are discussed further in Chapter Five.

Trail assessment and trail planning

There is no existing documentation of trail conditions or any formal system for prioritizing improvement needs. As GIS information on the trail system continues to be upgraded, it may be possible to engage summer interns, non-profit organizations and volunteers in documenting existing conditions and improvement needs. The primary goal in evaluating and prioritizing needs is safety.

Funding

Additional funding for new and improved regulatory signs, trail management staff, and other improvements is likely to be needed. The scope of the funding needed will need to be informed by additional research on staffing and volunteer strategies, as well as a more formal trail conditions assessment. There may be a need for additional funding for emergency trail repairs that result from storm damage as well as additional trail rebuilding funding for less urgent repairs. Capital planning is discussed further in Chapter Seven.

External communication

The Forest Preserves currently posts trail closure information on its website, but typically these are related to scheduled maintenance work. Restrictions need to be reinforced for trail users to stay off natural surface trails that have muddy conditions. Volunteer trail groups provide support in posting signs like the one shown to the right. There is also a need for regular communication with user groups about a range of issues.



CHAPTER FIVE: Safety Improvements

Trail safety is a top priority of the Forest Preserve and the staff is committed to identifying opportunities to improve safety through education, infrastructure and user engagement. The Forest Preserves received many suggestions on safety improvements through the Trail Master Plan meetings with various user groups, including the Palos Horseman's Association and Chicago Area Mountain Bikers (CAMBr.) May 2014 has been identified as our inaugural month for our "Share the Trail" Campaign and will help kick off the warm weather trail season with some safety interventions. Staff will work with our partners and user groups to create an education blitz that will include posting of signage, trail safety demonstrations and staff talks with trail users about safety and trail rules.

Forest Preserves' law enforcement officers are invigorating the **Trail Watch Program** through engaging volunteers to assist on providing safety on our trails. The Law Enforcement team worked closely with Volunteer Resources to launch a recruitment campaign for Trail Volunteers and held initial training sessions in January and February 2014. The next round of trail volunteer meetings will be timed with the May "Share the Trail" month. This volunteer program will ultimately increase the awareness of our many trail users and provides for much safer use, learn more at <http://fpdcc.com/volunteer/>.

Emergency access

Forest Preserves' law enforcement officers can use a variety of vehicles to gain access to the trails. Patrol cars, gators, T3's, bicycles and by-foot are all means for law enforcement officers to access sites.

Street Crossings

The Forest Preserves work closely with road management agencies and local governments to design, build and maintain safe street crossings for all trails. More can be done to improve trail crossings at grade such as adding more signage, increasing sightlines through clearing vegetation, road decals/painting, flashing beacons and stop lights. The Forest Preserves will complete an inventory of crossings in 2014 and plan to make improvements through the 2012-2015 Capital Improvement Plan. Also, the Northwest Municipal Conference is working with CMAP on a study of the northern section of the Des Plaines River Trail to assess road crossings and opportunities to work through multiple agencies on make improvements. This report will be completed in Spring 2014.

Graffiti

Graffiti and vandalism is reported through the Forest Preserves' Law Enforcement department or other departments and cleaned up by the Forest Preserves' Landscape Maintenance department. Another graffiti-related concern is illegal marking of trails for special events. Every event has a different starting point and miles are marked out at different intervals all over the

trails – typically they spray paint this onto the trail. So not only is this confusing but it is vandalism. Coordination with police, permits and resource management could alleviate this from happening identification of illegal marking or graffiti can be quickly identified and responded to.

Enforcement

Forest Preserves’ law enforcement officers enforce applicable ordinances, rules and trail use etiquette.

Use Restrictions

Some equestrian trail users suggested restricting use of some trails for equestrians only. Information gathered on this was done through our online MindMixer tool (described in detail in Chapter Eight) in November and December 2013. Most people that contributed comments were against single-use trails because it would significantly limit the overall trail access to each user group.

Trail Watch

Volunteers can help to educate trail users through contributing to the development of informational material that clearly and simply informs trail users (bicycle riders and others) of proper trail etiquette and obedience of the appropriate statutes and ordinances. Volunteers distribute this material on-site, occasionally partnering with the law enforcement officers who can answer questions or provide information about other areas of concern. The volunteers also distribute materials through their organizations i.e., CAMBr, Chicago Cycling, Bike Chicago, or at other off-site bicycling events.

Trail Watch volunteers can serve as “extra eyes” to help enforcement efforts. People act differently when a law enforcement officer is visible. Educated and willing volunteers who assist in a reporting capacity help the law enforcement department combat unsafe riding, vandalism, littering, and other illegal activity. Volunteers can also provide information on trail conditions or suggest improvements to the system.

Design for Safe Speeds

Parts of the trail system are physically challenging with elevation changes and curves. Other parts are flat, smooth, and straight. Engineering and design can reduce the ability for speeding. Design of trails should consider elements that might slow users while provide appropriate safety. Increased signage to warn of curves or steep grades ahead should also be included in design plans.

CHAPTER SIX: Facilities and Amenities

Trailheads

The Forest Preserves currently has no formally designated trailhead system and hopes to develop a trailhead designation system with a hierarchy to ensure trail users will have a quality experience, as discussed in Chapter Three. A primary trailhead should have a parking lot, permanent restroom, water fountain, picnic tables and area maps. Bike racks, bike rental and other concessions could also be at primary trailheads. Field trailheads should be considered near areas adjacent to large residential and commercial areas and could have water fountains, bench seating and trail maps. Minimal trailheads could be at intersections of major trails and have trail maps. Trailheads for specialized trail users such as mountain bikers and equestrians are also being planned.

Restrooms

Restrooms are typically found in most Forest Preserves parking lots that have picnic shelters or other recreation amenities. Most restrooms in the Forest Preserves are temporary port-a-potties. Over 40 locations have permanent buildings with flush toilets, lavatories and water fountains. Most permanent restrooms are seasonal and closed during the winter months. The Forest Preserves plan to build ten additional permanent restroom buildings in 2014.

The Forest Preserves should consider opening restrooms for year-round use at popular trail locations and adding signage to help users find these facilities. Creating trailheads around existing or planned permanent restrooms would better connect trail users with facilities.

Drinking fountains

Drinking fountains were the top amenity identified in our recent trail survey, see Chapter Eight. Many of the permanent restroom facilities have a drinking fountain, but not all. The Forest Preserves also has more than a 100 hand water pumps near picnic groves which dispense fresh potable water. The Forest Preserves should consider adding more drinking fountains, especially in locations close to trails or at trailheads.

Bike racks and benches

Bike racks are at Nature Centers, Aquatic Centers, and the Busse Boat House. Additional bike racks would benefit the Forest Preserves but locations and destinations need to be identified, especially at trailheads. Staff is currently identifying opportunities to install bike racks at comfort stations and other visitor locations. The 2014 Capital Improvement Plan identifies bike racks at 5 new comfort stations, Dan Ryan Woods, Rolling Knolls and Thatcher Woods.

Benches are another amenity for consideration for adding to trails. Benches provide resting spots along trails, seating at trailheads and programming space in our preserves. Bike racks and

benches will be added to a donor program has been established for individuals wanting to donate to the Forest Preserve.

Concessions

Equipment

Cross country ski equipment at the Sagawau Environmental Learning Center are the only trail equipment rentals currently offered by the Forest Preserves. Other concessions are offered by private companies outside the Forest Preserves, typically near the access site or trail. Equestrian rental, bike rental, and other equipment would be a great addition to many of the preserves with extensive trails and access to regional trails. The Permits, Concessions and Volunteer Resources Department plans to develop concessions in the Forest Preserves into a more robust offering.

Food and Drink

Snack concessions are located at a few Forest Preserves (Aquatic Centers, Busse Boat House, etc.) but there are no other current options for food and drink sales. The Preserves should consider expanding food trucks or other concession opportunities and adding signage to direct trail users to nearby downtowns and central business districts.

CHAPTER SEVEN: Development and Improvement of Trails

Planning and construction of bike and equestrian trails is one of the largest capital investment areas for the Forest Preserves. In a typical year, Preserve staff receives over a dozen requests for new or improved trails from municipalities, ecological stewards, recreational trail users and other interested citizens. Over \$20 million in capital funds are expected to be encumbered in 2014 for new trail development and trail system rebuilding. Federal funds typically cover 80% of project costs for larger trail projects. Federal funding guidelines and regional plans such as the 2009 Greenways and Trails Plan prepared by the Chicago Metropolitan Agency for Planning (CMAP) provide a framework and priorities for larger regional trail connections in the seven county region. Completing and connecting larger regional trails remains a key goal. The focus of this chapter is on defining a process for identifying, evaluating and prioritizing smaller trail improvement projects that are not completing regional trails.

Proposed capital improvements

The 5-Year Capital Improvement Plan (CIP) is the main vehicle for documenting and budgeting for improvement projects. The 2014 Update to the 5-Year Capital Improvement Plan describes 2013 and 2014 as banner years for constructing new trails. Many projects that have been in the planning and engineering phases for the past few years are now scheduled for construction letting in 2014. These include construction of 8 miles of the 28 miles of the future Cal-Sag Trail; extension of the North Branch Bicycle Trail to link to the Green Bay Trail on the north and the Chicago trail system on the south; and construction of a missing 4.8-mile link in the Thorn Creek Trail to connect with the Old Plank Road Trail. The CIP also includes a new 5.4-mile paved loop trail at Orland Grassland. The 5-Year CIP is updated annually, with the initial requests for new projects circulated by the Planning and Development Department in late summer and submission of annual updates to the Board of Commissioners in December.

Goals for Evaluating and Prioritizing Trail Improvement Projects

Key goals that have served as the justification and funding of past trail projects include:

- Address all concerns on current trail system;
- Connections to major regional trails;
- Improving safety (trail crossing improvements, spurs connecting to sidewalks, etc.);
- Improving access to destinations (such as interpretive sites, overlooks, business districts, transit stations and comfort stations);
- Activating under-used sites, especially in areas lacking outdoor walking or fitness trails;
- Implementing existing plans – either master plans for a specific preserve or regional plans developed by Councils of Government; and
- Sharing costs of either improvement or maintenance.

Forest Preserves planners will need to evaluate pending and future requests for capital projects against these key goals. Additional factors also need to be considered in deciding whether to invest in improvements to existing illegal trails. See Chapter Two, Unrecognized Trails.

Policy for Connections to Local Trails

Many requests for new trails come from municipalities or citizens that are seeking to connect local sidewalks or paths to larger trails in the Forest Preserves. The policy in the past has focused heavily on the goal of connecting and developing larger regional trails and leaving the development of smaller trails and connections to municipalities. However, as the list of goals has expanded, the policy for developing connections is less clear. The Preserves are now actively engaging transportation agency partners in planning and constructing safety improvements (road crossings and trail spurs). They are also now planning additional smaller loop trails at key sites to activate these areas and implement site master plans. Evaluation of requests from municipalities remains a challenge. There is a desire to engage with sub-regional Councils of Government to identify priority projects and partnerships for new trail improvement projects.

Policy for smaller loop trails

Shorter loop trails have become more common and are very popular in meeting needs for walking and fitness trails in places where few other options exist. Several loop trails ranging from 1.5 miles to 3 miles are found throughout Cook County.

There are a few pending plans and requests for additional loop trails such as Eggers Woods, Miller Meadow and Whistler Woods. In each case, the goal is to help activate the sites and engage new users and volunteers. The proposed loops at Eggers Woods and Miller Meadow are part of longer term master plans for these sites. The community requested loop at Whistler Woods would be at the southern end of the Major Taylor Trail. No partners have yet been identified to help with construction or maintenance.

As with connections to existing trails, there is a need to engage with sub-regional Councils of Government and other stakeholders to identify and prioritize requests, and identify partners that could help fund or maintain the trails. Groups such as CAMBr have developed their own plans for trail improvements and development, which identify opportunities for consideration. A policy and process needs to be developed for how the Forest Preserves analyzes the requests for future loop trails.

CHAPTER EIGHT: Ongoing Engagement with Trail Users

Role of public input

The Forest Preserves typically works with large, organized groups for planning trails and ensuring quality maintenance. The current user groups that work closely with the Preserves includes CAMBr, equestrian groups, ecological stewardship program (groups are by site) and non-profit organizations such as Audubon and Friends of the Forest Preserves.

Current Engagement

The Forest Preserves did extensive outreach for the Trail Master Plan to stakeholders and user groups. An online survey was completed in June 2013 and the detail is in Appendix A. In addition to the month-long survey, the Forest Preserves licensed an online tool MindMixer <http://mindmixer.fpdcc.com> to ask the public questions about trail infrastructure and trail policy. MindMixer allows users to answers questions and post comments on the topics. In November and December 2013, the Forest Preserves asked questions about trails including “what are ideal locations for trailheads?”, “should trails be single user?” and “how can we increase trail safety?” There were over 200 participants that contributed ideas and responded to the questions we asked. The feedback was invaluable and it also offered an opportunity for a dialogue among different user groups.

The Forest Preserve has also developed a pilot Trail Request Process for 2014, as discussed in Chapter Two. More information can be requested through email at trail.requests@cookcountyil.gov. An overview of the pilot process is below:

Step 1—Trail Request Screening: Forest Preserves staff will screen each request to determine whether it meets basic criteria. Staff will review the request within approximately 10 business days of submittal.

Basic Trail Criteria:

- Trail request must be made by recognized user group, organization, or committed volunteer
- Proposed trail must be on Forest Preserves of Cook County property
- Proposed trail must not pass through a sensitive or restricted area such as a nature preserve
- Proposed trail must augment existing trail system including trail need and trail typology i.e. (e.g., requested trail should not be adjacent to an existing trail)

Step 2—Trail Request Application: If the trail request makes it through the first screening, a more detailed Trail Request Application will be sent to applicant to complete.

If the request is accepted, we will email the applicant and attach the complete application. If the request is denied, we will send an explanation via email and cite one or more of the criteria that were not met. In either case, applicants will be notified within approximately 10 business days of your request. Our response time will depend on the number of applications we are evaluating.

The Forest Preserves is currently revamping the website and the trail webpage will be enhanced to provide updated maps, information about closures, special events and other relevant information.

Trail counts

With the assistance of the Chicago Metropolitan Agency for Planning (CMAP), through its Local Technical Assistance (LTA) program a survey of Forest Preserves' trail users and on-site trail counts at two trails was undertaken and completed during the month of June 2013. The survey project involved counts of trails users; short in-person surveys administered to trail users at trailheads or other gathering spots; and a very successful online survey.

In summary, survey takers believe that the trails in the Forest Preserves of Cook County are well-maintained, safe and clean. Most of the trail users surveyed had heard about the trail(s) from word of mouth, from living nearby, or from seeing roadside directional signage. There are some organized groups, particularly running and biking groups that use the trails with frequency. While users perceive the trails to be in good condition, some additional amenities such as water fountains, trail signs (directional/wayfinding/distance signage) and restrooms were noted as the most desired amenities that could improve the trail network. The complete report with the trail counts and detailed analysis is in Appendix A.

The Chicago Metropolitan Agency for Planning (CMAP), through its Local Technical Assistance (LTA) program, also assisted the Forest Preserves in improving its understanding of the connections between its trails and the local bicycle and pedestrian systems that exist beyond its borders. The project will help the Forest Preserves make future decisions about infrastructure improvements, expansions, and connections.

Trail Stewards and Volunteers

The Forest Preserves has an extensive volunteer program which includes trails. The Volunteer Resource division recently launched a new website for volunteers that allow them to register with the Forest Preserves, find volunteer opportunities, and get updates on the program, information at <http://fpdcc.com/volunteer>. Trail volunteer opportunities include:

- Trail Watch interfaces directly with the Forest Preserve Law Enforcement Department and quarterly meetings are held for volunteers to hear updates from officers and report issues. Monthly reports are also requested for submittal. Trail Watch volunteers typically oversee a specific area they volunteered to monitor.

- Trail Stewards is a program in development in partnership with the Forest Preserves Volunteer Resource division and the Resource Management department.

Benchmarking and assessment

The Forest Preserves plans to continue conducting trail counts and surveys on a regular basis. The Preserves needs to develop an approach for when a trail should be researched. The survey process developed by CMAP for the Forest Preserves is replicable and can be completed by staff, interns and partner organizations.

The Forest Preserves can also look into the purchase of trail monitoring equipment such as electronic counters, infrared cameras and other technology that does not require in-person and on-site counting. This technology can be expensive and another alternative is to hire consultants to bring the equipment to do the data collection and subsequent analysis.

CHAPTER NINE: Next Steps

This first Trail Master Plan and Policy is a start but by no means a complete roadmap for the future. More work is needed to develop specific action steps to advance the key recommendations relating to trail management, safety and engagement with trail users.

An action plan for 2014 has been developed to begin the implementation of the Trail Master Plan and Policy and will be used by staff as a guide for moving forward. The Action Plan will serve as the agenda for the interdepartmental Trail and Recreation Committee and hopes to complete the following tasks in 2014:

- Launch and implement the public Trail Request Process;
- Plan and implement *Share the Trail* month with our partners;
- Pilot trail naming at one or two locations;
- Inventory all existing trailheads and identify future trailheads;
- Finalize, print and distribute new Forest Preserves zone, site and trails maps;
- Launch *Wayfinding, Signage and Sense of Place* Plan;
- Begin review and compilation of Trail Maintenance Standards; and
- Prioritize requests and plans for 2015 Capital Improvement Plan.

We will continue to work with our consultants and partners on regional trail planning efforts, including overlay of Regional Trails, and safety crossing improvement identification and enhancement.

APPENDIX A

Trail counts were measured for four twelve hour periods in June 2013 and included bikers, walkers, and other users. The total trail counts for the Des Plaines River Trail and the Tinley Creek Trail are reflected below.

Total daily number of trail users on the Des Plaines River and Tinley Creek Trails

	Des Plaines River Trail	Tinley Creek Trail
Weekday (7am-7pm)	178	248
Weekend (7am-7pm)	133	641
Total:	311	889

In addition to raw counts of trail users, information was gathered regarding the users' activity on the trail and their age. The count shows that along both trails, during the weekdays and on the weekend, biking is the most common activity on the trail. Walking/hiking and jogging are the next most common uses. These three activities make up at least 92% of all users for both trails regardless of the day of the week. Walking pets, horseback riding and rollerblading also occurred, but with far less frequency.

Survey Results

A combination of on-site and online surveys was completed. In total 1,495 surveys were completed (350 on-site and 1,145 online). The results of the online survey and the on-site survey were combined for data entry and analysis purposes. Therefore, the surveys gathered both in person and online not only pertain to the Des Plaines River Trail and the Tinley Creek Trail, but the Forest Preserve entire trail network.

ON-SITE SURVEYS

On-site surveys were administered on the same days as the trail counts. The surveys asked basic questions about frequency of use, usual time of use, method of accessing the trail, barriers to more frequent use, etc. These were done with trail users at a small number of locations (i.e. trailheads, or popular stop locations); and were conducted in locations where they were visible but did not block the trail or cause any safety problems.

ONLINE SURVEY

The online survey involved the identical questions to the on-site survey. The survey was provided on the Forest Preserves' website, linked from CMAP's website, and advertised through the Forest Preserves' and CMAP's regular communication channels. The online survey was available for the entire month of June.

The key findings of the survey results are summarized below.

1. How and when are the trails used?

Surveys included information about how, when and what days the trails are used. Survey data showed that 65% of trail users utilize the trail on both the weekdays and the weekends, while 12% use the trail primarily on the weekdays and 22% use the trail mostly on the weekends. Furthermore, 50% of respondents indicated that they use the trail in the mornings, while 36% and 14% use the trail network in the afternoons and evenings respectively. Many survey takers also use the trail frequently. Responses showed that 64% of survey takers use the trail more than once a week while 26% of respondents use the trail once a week or a couple of times a month.

Surveys, like the trail count, also demonstrated that biking was the most popular activity on the trail network, followed by walking/hiking and jogging. The most common “other” activity on the trail was bird watching (64 responses).

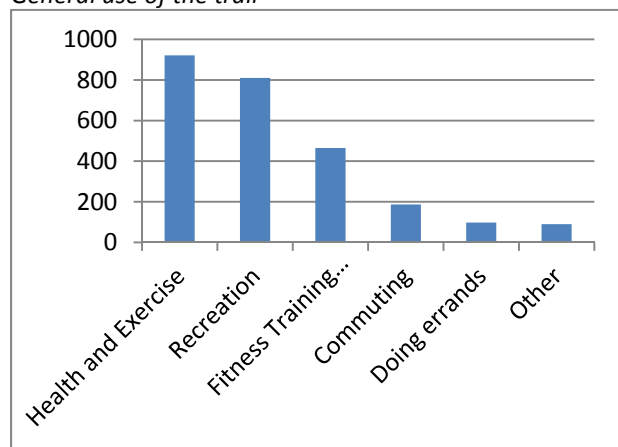
Trail activities



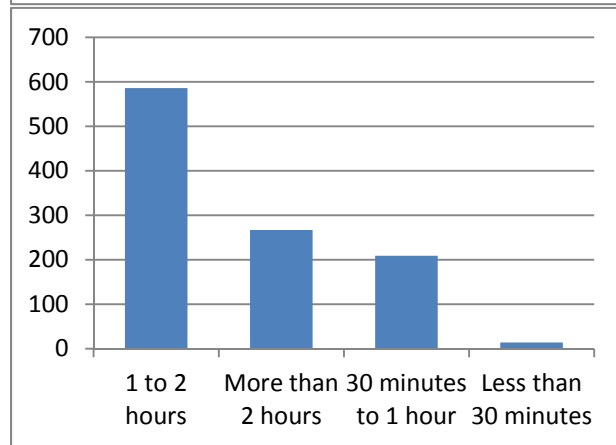
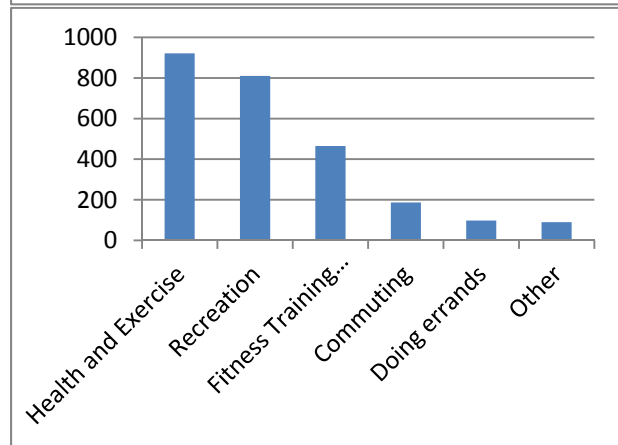
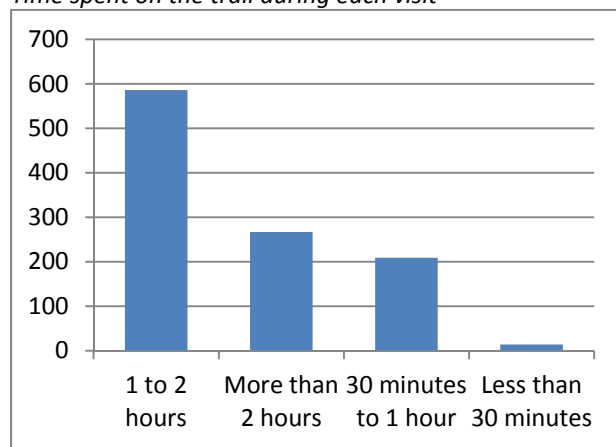
More generally speaking, respondents indicated that they primarily use the trails for health and exercise and for recreation (see Figure 9). Approximately two thirds of respondents use the trails for one of these purposes. Some respondents, however, also use the trails for fitness training (18%) and commuting (7%), among other activities. Those who use the trails to commute had roundtrip commutes ranging from 0.5 miles to 75 miles.

How much time each user spends on the trail during each visit is shown in Figure 10. Nearly four out of five trail users spend an hour or more on the trail during each visit. Very few users spend less than 30 minutes on the trail during each visit.

General use of the trail



Time spent on the trail during each visit



In summary, the trail is most frequently used in the morning, for health and recreational purposes. Trail users often bike, walk or jog on the trail during the weekdays and weekends for at least one hour at a time.

Survey data also paints a clear picture of what type of people use the trail. Demographic questions indicated that the most prevalent age-group on the trails are those age 46 to 55 (25% of users). Over two thirds of all respondents were between the ages of 36 and 65. Survey respondents were also asked whether they were with children under the age of 15 during their last visit to the trail and 82% indicated that they were not. This confirms information gathered

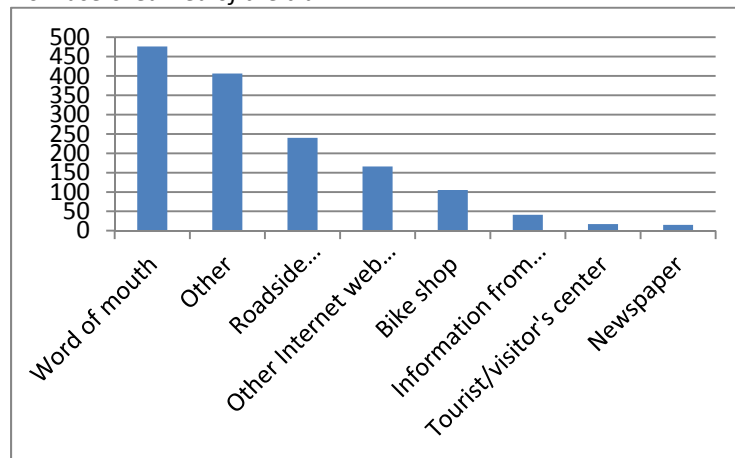
at the trail counts on the Des Plaines River and Tinley Creek Trail, which indicated low numbers of children using the trails.

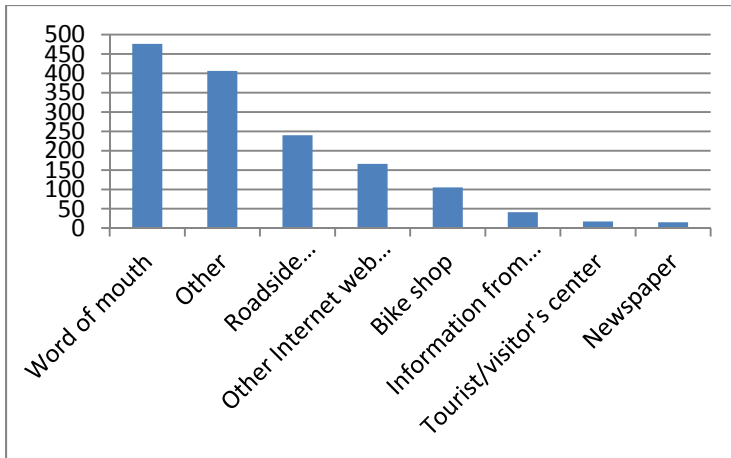
Another interesting demographic finding showed that twice as many men (67% of respondents) filled out the survey than women (33%). This may be a reflection of who decided to take the survey but also may reflect that there are more men than women using the trails.

The survey also asked respondents to provide their zip code in order to get a sense of where users reside. The top ten most common zip codes of respondents were the following: 60452 (Oak Forest), 60016 (Des Plaines), 60462 (Orland Park), 60068 (Park Ridge), 60025 (Glenview), 60010 (Barrington), 60463 (Palos Heights), 60445 (Midlothian/Crestwood), 60477 (Tinley Park), 60056 (Mount Prospect). Results included 201 different zip codes including some from Wisconsin and Indiana.

Most people use the trail outside of an organized group. Eighty seven percent of respondents indicated that their last trail visit was *not* part of an organized group. Of the 13% of trail users who did visit the trails as part of an organized group, the most common group affiliations were CAMBr (Chicago Area Mountain Bikers), Sanctuary Ski Club, CARA (Chicago Area Runners Association), Maine South High School Cross Country, and the Evanston and Elmhurst Bicycle Clubs. A similar topic included in the survey asked how the respondent learned about the trail. The graph in Figure 11 shows that word of mouth was the most way that users learned of the trail. “Other” was also a popular response, within which living nearby the trail and CAMBr were common responses.

How users learned of the trail





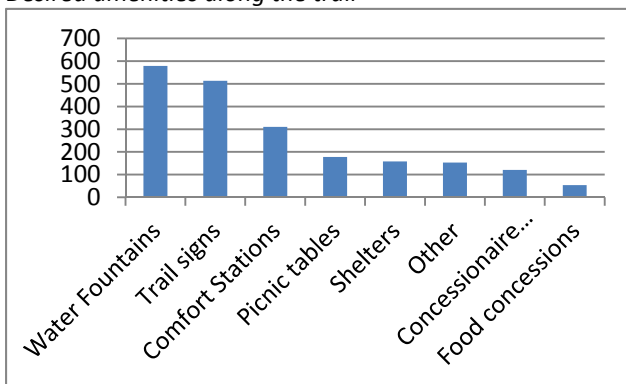
Surveys also covered user satisfaction with the trails and commentary on how to improve the trails. The survey included three questions assessing the safety, maintenance and cleanliness of the trails.

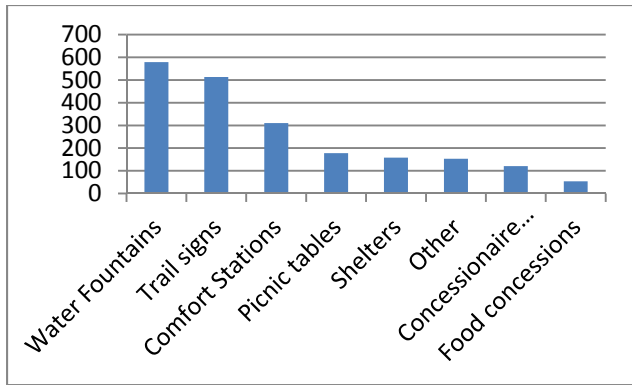
Assessment of maintenance, safety, and cleanliness of the trail

	Maintenance	Safety/Security	Cleanliness
Excellent	29%	26%	34%
Good	53%	55%	53%
Fair	15%	16%	12%
Poor	2%	3%	1%

If positive responses regarding maintenance, safety and cleanliness are combined, the data show that 82% of survey respondents believe that maintenance of the trail is good to excellent, 81% of surveys indicated that users believe the safety and security along the trail is good to excellent and 87% of respondents believe that the cleanliness of the trail is good to excellent. The surveys also requested that users indicate what amenities they would like to see along the trails. The most requested amenities were water fountains, followed by trail signs and comfort stations/restrooms.

Desired amenities along the trail





When asked what additional trail connections are needed, less than one third of the respondents included an answer and no single location received an overwhelming number of responses. Lastly, when asked whether they would be willing to purchase a permit to help maintain the trail, 56% of respondents indicated that they would and 44% said they would not.

ACKNOWLEDGMENTS

The Forest Preserves of Cook County gratefully acknowledges the contributions of staff, multiple stakeholder groups, and individuals who offered their input, concerns, and creative ideas. This input has helped shape the Trail Master Plan & Policy and will have a lasting impact on the future of trails at the Forest Preserves.

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Planning & Development

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Conservation and Experiential Programs

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Jacqui Ulrich

ABOUT THE FOREST PRESERVES OF COOK COUNTY

Established in 1914, the Forest Preserves of Cook County is the oldest forest reserve system in the nation, maintaining more than 68,000 acres of open land for the education, pleasure and recreation of the public. The District strives to protect and restore the county's diverse ecosystems, so all our unique native plants and animals can live and thrive. Each year, millions of people use these lands and facilities to enjoy or study nature, bicycle, hike, fish, cross-country ski, picnic, golf, canoe or simply relax in a large preserve that leaves urban life behind.

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General Headquarters, 536 N. Harlem Ave, River Forest, IL 60305

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