GOAL 2 / PEOPLE

Everyone in Cook County will feel welcome at the forest preserves—and will seek them out for learning, renewal and fun.

Just about everyone in Cook County lives near the forest preserves—more than 80 percent of the population is within five miles. Many of these residents have no idea that a natural treasure is waiting for them right in their backyards.

The forest preserves have a lot to offer us all. Nature trails are ideal places for healthy exercise and a chance to de-stress, and the preserves have hundreds of miles of them. Free educational opportunities, from sites where Native Americans once lived to wildlife encounters to harvesting prairie seed, are available at the preserves year-round. And the preserves’ picnic groves and campsites are places where we can build the social bonds that make our communities strong. Even those of us who don’t visit the forest preserves can appreciate the respite they provide from crowds and concrete, along with plants that clean our air, absorb rainwater and give beauty to our region.

The forest preserves may seem like Cook County’s best kept secret because easily accessible entry points are hard to find, and it is sometimes difficult to know what to
do when you get there. While the forest preserves are filled with picnickers on sunny summer weekends, many of these visitors have never been or don’t know what to do beyond the picnic shelter.

To better connect people to the forest preserves, we need to find ways to get more people there—good public transit access is available to only 7 percent of the county’s population. We also need to welcome visitors with better information when they arrive by improving signs and facilities, and by offering programs specifically designed to appeal to their interests—whatever their age, abilities, or economic and cultural background. The Forest Preserves staff and volunteers should reach out to communities, helping people make connections to nature wherever they are—and especially in the classroom.

The forest preserves belong to the public, every acre of them. We need to guarantee that every Cook County resident has the opportunity to enjoy and benefit from this great inheritance.

GOAL 2 PRIORITIES

2.1 Invite, excite and engage diverse visitors from all walks of life.

2.2 Make the forest preserves accessible to all.

2.3 Educate visitors and the community about the forest preserves’ natural treasures.

2.4 Provide programs in the forest preserves that emphasize health benefits.

BIG IDEA: Interpretive Design Toolkit
PRIORITY 2.1

Invite, excite and engage diverse visitors from all walks of life.

A Growing Population, Rich with Diversity

Cook County is growing. The total population expected to reach 6.24 million by 2040. And as the countywide population is growing, it is also changing. In the 21st century, the Forest Preserves of Cook County should prepare to welcome audiences from a rich range of ethnicities, ages and lifestyles.

FIGURE 2A: COOK COUNTY POPULATION, 1900-2040*
ETHNIC AND RACIAL DIVERSITY

Already the most racially and ethnically diverse county in Illinois, Cook County will become even more diverse in the coming century. (See figure 2B.) In particular, the population of Hispanic and Latino residents is expected to grow significantly; by 2040, approximately 30 percent of county residents will be Latino.

**FIGURE 2B: COOK COUNTY DEMOGRAPHICS—ETHNIC AND RACIAL GROUPS**


*Projected 2040 population for each group derived from 7-county area race composition projections applied to 2040 population projection for just Cook County.

Welcoming Audiences in the 21st Century As Cook County’s population grows, the Forest Preserves should stay abreast of developments in the way residents view and interact with nature, adjusting its programming to invite participation from many audiences. The Forest Preserves should embrace opportunities to serve culturally
diverse members of Cook County, both young and old, by tailoring services to their physical ability levels and varied interests.

**ENGAGING YOUNGER AUDIENCES WITH TECHNOLOGY**

Contrary to popular perception, young Americans still spend a good deal of time outdoors, but they connect with nature in new ways: Stand-up paddling and adventure races are dramatically increasing in popularity while hiking, birding, canoeing and fishing are not attracting large numbers of 21st century audiences.iv Moreover, the country’s young people like to take their technology outdoors with them. Rather than looking for opportunities to “unplug,” a strong majority of outdoor enthusiasts aged 18 to 44 now say that they rely on technology to enhance their experience.v Entirely new outdoor activities, like geocaching and digital camera safaris, are growing out of this mixture of the natural and the electronic.

”Rather than looking for opportunities to ‘unplug,’ a strong majority of outdoor enthusiasts aged 18 to 44 now say that they rely on technology to enhance their experience.”

The Forest Preserves should use digital media to offer nature education to actual and virtual visitors. Using phone cameras, visitors can embark on “camera safaris” and produce a virtual nature album. Field data can be gathered and stored electronically to learn data collection and environmental assessment process and skills.vi Digital applications that allow bird identification by sight and song make wildlife watching more accessible. Social media is a useful tool for conservation outreach. Online videos and live webcams successfully engage advocates who are far from the actual site, and social media can be used to unite activists who are widely separated geographically.vii

The Forest Preserves can partner with members of Chicago’s fast-growing technology and digital design community to produce content and applications for websites and mobile media. For example, the Forest Preserves could disseminate a mobile app that provides GPS information and descriptions for various points of interest along trails and throughout the preserves.viii

**MEETING THE NEEDS OF SENIORS**

While younger audiences will seek to enhance their experiences with more technology, the aging members of Cook County will face increasing mobility challenges. Improving accessibility in the forest preserves by employing ADA and
universal design principles will be critical to allowing seniors to stay physically connected to the preserves. (See also Priority 2.2.)

**WELCOMING HISTORICALLY UNDERREPRESENTED POPULATIONS THROUGH PROGRAMMING AND COMMUNITY PARTNERSHIPS**

People from minority racial and ethnic groups have been underrepresented for decades among visitors to public lands. Historically, only a fraction of Cook County’s population has enjoyed access to the forest preserves.

The reasons for this are as various as the communities affected: a history of exclusion, a fear of the unfamiliar, or an inadequate provision, in facilities and programs, for the many ways that nature is appreciated or experienced across cultures. All of these factors have had an impact on the Forest Preserves’ relationship with Cook County residents. For instance, Cook County’s African-American residents have had mixed experiences in the preserves, feeling sometimes connected and sometimes excluded and unsafe in past decades.

As a result of these kinds of experiences, the Forest Preserves’ current visitor base is an inadequate reflection of the county’s overall demographics. A narrow band of community support is not enough to fuel the Forest Preserves’ growth through future decades.

People will feel welcomed when their history—including its difficult moments—is acknowledged. The Forest Preserves should develop history-focused interpretation and programming that addresses some of the past challenges. The forest preserves are rich with Native American history, for example, and the interpretive opportunities this offers must be handled sensitively. Native American Pow Wows hosted in the preserves and the inclusion of a Native American volunteer interpreter at Sand Ridge Nature Center are first steps.

Many Chicago metropolitan organizations and community groups have launched inspiring programs to increase equitable access to nature-based experiences, and the Forest Preserves is playing a key partnership role. These programs, and the communities, leaders and volunteers involved in them, are resources that the Forest Preserves can draw on and develop in order to reach a wider range of Cook County’s residents. (See figure 2C.)

In addition, there are extensive opportunities to partner with local churches, community centers and educational institutions throughout Cook County. Religious groups frequently use the forest preserves for picnics, and the Forest Preserves should speak with leaders of these congregations to determine how their members can be further connected to nature through the preserves.
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.1 Invite, excite and engage diverse visitors from all walks of life.

FIGURE 2C: POTENTIAL AND EXISTING COMMUNITY PARTNERS FOR THE FOREST PRESERVES

The Forest Service’s Urban Connections is an outreach program that matches citizen conservationists with education, research and development work in their area; currently partners with the Shedd Aquarium.

Fishin’ Buddies is a nature outreach program for youth, co-sponsored by the Forest Preserves.

Eden Place is an urban park that hosts leadership and nature exploration programs; it is operated in partnership with the Forest Preserves, Audubon and other groups.

Faith in Place, a multi-faith alliance that includes 900 of the region’s congregations, is a participant in the Chicago Wilderness “Leave No Child Inside” campaign and other conservation efforts.

Wild Indigo Nature Explorations is a pilot program designed to promote “healthy bodies, healthy communities, and a healthy planet through free outdoor field trips and activities,” including stewardship in the Calumet region.

Blacks in Green is an economic development organization that describes itself as “a thought leader in sustainable community development for communities of color...across 13 economic sectors.”

The Little Village Environmental Justice Organization is an organization dedicated to improving “lives in Little Village and throughout Chicago through democracy in action.”
### Priority 2.1: Action steps

<table>
<thead>
<tr>
<th>Action</th>
<th>Summary</th>
</tr>
</thead>
</table>
| **Engage new audiences with innovative recreation and nature discovery.** | The Forest Preserves should take several steps to engage new visitors:  
  - Tailor activities to the sensitivity of specific landscapes.  
  - Turn entry points like parking lots and picnic groves into engaging celebrations of nature with help from public artists.  
  - Use technology to orient, educate and help people have fun in nature: complete an online gateway, mobile trail guides, nature apps and scavenger hunts.  
  - Seek new forms of low-impact but exciting recreation, such as canopy tours and nature playgrounds filled with hands-on activities. |
| **Expand and commit to meaningful long-term community partnerships to engage underserved communities.** | The Forest Preserves should develop a consistently applied outreach strategy to engage with community groups in long-term relationships to make nature experiences available to all of Cook County’s diverse residents.  
  The agency can partner with the Chicago Botanic Garden and Brookfield Zoo introduce new users to the preserves. |
### GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...

2.1 Invite, excite and engage diverse visitors from all walks of life.

<table>
<thead>
<tr>
<th>Create programs with cultural competence and sensitivity to the changing demographics of Cook County.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Forest Preserves should take several steps to integrate cultural competence and sensitivity into programming:</td>
</tr>
<tr>
<td>• Provide programs, products and services in multiple languages.</td>
</tr>
<tr>
<td>• Include historic relationships to Native Americans and other people and cultures in interpretive materials and programs.</td>
</tr>
</tbody>
</table>

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**NOTES**


ii. Ibid.

iii. U.S. Census (2000-2010)


v. Ibid., 7.


x. Roundtable session, February 26th, 2013
PRIORITY 2.2

Make the forest preserves accessible to all.

Limited Access to the Forest Preserves

The forest preserves are almost entirely surrounded by adjacent communities, but access is still largely limited to those who live in Chicago’s suburban areas. Even among these residents, access is generally available only to those living within walking or bicycling distance of a forest preserve and those who can afford to drive to one. Public transit access, in particular, is severely limited: very few transit stops are located close to forest preserves. Currently, only 7 percent of the county’s population lives near a stop served by a transit line that will take them to a preserve.

FIGURE 2D: HOW MANY COOK COUNTY RESIDENTS CAN EASILY ACCESS THE FOREST PRESERVES—BY FOOT, BIKE, TRANSIT AND CAR?

<table>
<thead>
<tr>
<th>Access Mode</th>
<th>Description</th>
<th>Number of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk-shed</td>
<td>Residents within a half mile* of a Forest Preserve parking area or trail entrance</td>
<td>261,400 residents</td>
</tr>
<tr>
<td>Bike-shed</td>
<td>Residents within two miles* of a Forest Preserve parking area or trail entrance</td>
<td>1,824,000 residents</td>
</tr>
<tr>
<td>Transit-shed</td>
<td>Residents within a half mile* of a transit line that brings riders within a half mile of a Forest Preserve parking area</td>
<td>348,271 residents</td>
</tr>
</tbody>
</table>
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...

2.2 Make the forest preserves accessible to all.

![Drive-shed]

Residents within five driving miles of Forest Preserve parking areas

4,195,000 residents

* Mileage distances measured along roads—not by radius.

Note: This analysis was done using the most current geographic data available that represents the existing street network, parking areas, and trail intersections. The results of this proximity analysis could be improved with the addition of geographic data for the sidewalk network, trailhead locations and other official entry points into the Forest Preserves. (See maps of each “shed” area in the Appendix.)

**Increasing the Forest Preserves’ Visitor Base by Expanding Access**

For the Forest Preserves to fulfill its mission, the forest preserves must be available and accessible to all Cook County residents, regardless of differences in income or ability. The maps provided in the Appendix show the relationships between Cook County’s population density and ready access to the preserves by car, bicycle, foot and public transit.

Based on the psychographic data of Cook County residents (see Priority 2.1, figure 2B), the largest life-stage groups tend to be younger—either singles or those who have young families—and they tend to have lower median household incomes. By improving public access and transit to the preserves, there is a strong likelihood that visitor rates for these population groups would dramatically rise.

We know that these constituent groups also enjoy outdoor recreation and camping. By making transit more convenient and affordable, these groups would likely be inclined to stay locally to experience the outdoors, as opposed to taking road-trips to popular camping destinations in neighboring states. Providing more access would potentially keep more tourism dollars in the county.

Surveying constituents would also provide insight about the ways different racial and cultural groups enjoy spending their time outdoors. Based on feedback collected, the Forest Preserves could inform transit infrastructure plans and recommend accessible routes for each mode of transportation.
## PRIORITY 2.2: Action Steps

<table>
<thead>
<tr>
<th>Action</th>
<th>Summary</th>
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<tr>
<td>Partner with regional, state and local transportation agencies to ensure that at least 75 percent of Cook County residents can reach the preserves from their homes in 45 minutes or less by taking public transportation, biking or walking, or in 20 minutes or less by car.</td>
<td>By reducing transportation barriers, people from diverse communities can more easily access the preserves. This will not require new roads, but rather changing public transit routes to better connect with the preserves and including more transit stops where appropriate adjacent to the preserves. This step also includes establishing better access points, connecting more trails, sidewalks and transit as well as creating easy directions and maps for drivers at entry points.</td>
</tr>
<tr>
<td>Provide access for visitors with mobility impairments and other disabilities.</td>
<td>As coming decades change our region’s demographics, Cook County’s population will become older and increasingly diverse. In addition to addressing Americans with Disabilities Act (ADA) requirements, the Forest Preserves should provide unique and important experiences to those with mobility impairments such as paved trails, accessible facilities and interpretive and appropriate signage for all populations.</td>
</tr>
<tr>
<td>Improve signage from nearby roads and intersections.</td>
<td>The first step to inviting a closer interaction with nature is helping the population of Cook County become more aware of where the preserves are and how people and vehicles can access them. Clear signage at every entry point and intermediate signage at public transit stops or major intersections nearby will make access to the Preserves easier for destination travelers and more attractive for opportunistic visitors.</td>
</tr>
</tbody>
</table>
PRIORITY 2.3

Educate visitors and the community about the forest preserves’ natural treasures.

Link Between Early Positive Nature Experiences and a Lifelong Commitment to Preservation

Not everyone is born loving nature. Someone has to teach us how to understand living systems, how to feel at home in the woods or on the prairies and how to take responsibility for preserving the natural treasures we enjoy.

The Forest Preserves’ founders, with their long vision, could see what modern research has more recently confirmed: early, positive nature experiences are a vital factor in creating a lifelong commitment to preservation. In the words of an early Preserves’ administrator:

> The objective is not to merely name the birds, the flowers, the trees and the rock formations. The objective is to build up an understanding of the ways in which all living things exist together in natural communities; to open people’s eyes to the delight of personal exploration and discovery; to stimulate a desire to delve further and learn more. Each individual so awakened leaves... a potential conservationist, a friend and a more intelligent user of public lands.

THE EPIDEMIC OF “NATURE DEFICIT DISORDER”

Across the nation, there is a major epidemic of childhood developmental health problems linked to a lack of outdoor time in nature. Richard Louv was the first to coin the term “nature deficit disorder,” referencing the limited time children are given to experience and play outdoors in nature.

The National Wildlife Federation reports that typical American boys and girls spend minimal unstructured play time outdoors every day (on average as little as 5 minutes) as compared to the extensive amount of time indoors spent viewing electronics (on average about eight hours a day). The NWF concluded, “This shift inside profoundly impacts the wellness of our nation’s kids.” It is imperative that we reverse this trend by offering unstructured and educational opportunities for Cook County’s youth.
Offering valuable, interesting and innovative educational opportunities is the key to creating generations of Cook County residents who sincerely value the Forest Preserves and embrace the conservation mission.

**Turning the Forest Preserves into Cook County’s Outdoor Classroom**

By reaching out and educating a wide range of people, the Forest Preserves can create a broad base of popular understanding and support that will sustain the agency’s mission into the future.

Cook County is home to 964,782 school-aged children, and 408,280 of them live within one mile of a forest preserve. The preserves can become the region’s premier outdoor classroom, but to achieve this status, relationships must be strengthened with local school systems, informal education settings and families.

**PARTNERING WITH LOCAL SCHOOLS**

The Forest Preserves and its non-profit partners already provide Cook County’s public schools with important educational resources. The Forest Preserves’ education programming includes six nature centers, which deliver approximately 270 programs each year. Working with The Nature Conservancy and Chicago Wilderness, the Forest Preserves developed Mighty Acorns, an award-winning nature education program for Grades 4 to 6. The program includes well-designed classroom curricula, hands-on outdoor experiences for students and partnerships with 20 of the region’s conservation organizations. More than 8,000 students currently participate.
Other conservation organizations have also created effective school partnerships in Cook County:

- With support from Audubon Chicago Region, Openlands recently piloted its **Birds in My Neighborhood** program for students and teachers in Grades 2 to 5. Working with trained volunteers, participants learn to observe, identify and understand local birdlife, keeping a nature journal that documents their progress. The program helps students recognize that nature is all around them by identifying birds in their own schoolyard.

- For high-school students and teachers, BOLD Chicago, a member organization of the Calumet Stewardship Initiative, hosts the **Calumet is My Backyard (CIMBY)** program in partnership with Chicago Public Schools and the Field Museum’s Calumet Environmental Education Program. CIMBY engages participants in ecological monitoring, restoration work, special events and training that highlight environmental careers and issues.

There is a significant opportunity to expand these successful programs—and others like them working in partnership with schools, organizations and educational institutions.

**POST-SECONDARY EDUCATIONAL PARTNERSHIPS**

Nature education shouldn’t stop when Cook County residents leave high school—the Forest Preserves should continue to cultivate strong relationships at the post-secondary level. The Forest Preserves partners effectively with nature-oriented student groups:

- Friends of the Forest Preserves cooperates with the **Student Conservation Association** to organize work program opportunities in the Preserves.xvi

- The Forest Preserves are also participating in **Chicago Wilderness’ Next Generation of Conservation Leaders Working Group**, which was established in 2012 to develop a web of programmatic opportunities to encourage young people from diverse backgrounds, aged 14 and up, to pursue conservation as a vocation and avocation.

The Forest Preserves should investigate other opportunities for this kind of collaboration. Many local colleges, for example, have student environmental groups affiliated through the Illinois Student Environmental Coalition (ISEC), a program of the Illinois Environmental Council that gives students the opportunity to develop advocacy skills.xvii The Forest Preserves should also continue and expand its research partnerships with the region’s universities and community colleges.
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.3 Educate visitors and the community about the forest preserves’ natural treasures.

Building a Volunteer Program that Brings Outdoor Education to the Community

The Forest Preserves of Cook County belong to the public, so a robust volunteer program is essential to the agency’s relevance and growth over the next century.

VOLUNTEER NATURE EDUCATORS FOR SCHOOLS

The benefits of nature education have been well established, especially when it can be combined with outdoor experiences. But even highly motivated teachers may have difficulty gathering the resources they need to provide these benefits to their classes. If hundreds of trained volunteer nature educators could be mobilized to visit schools and serve as on-site interpreters, Cook County’s students could become some of the nation’s best-educated and most engaged conservationists.

A NETWORK OF “CITIZEN SCIENTISTS”

A broad, well-organized volunteer force could also make valuable contributions to conservation research in the Chicago region. Assisted by advances in social networking and motivated by budget pressures, universities and other research institutions are increasingly reliant on the efforts of citizen scientists for collecting data. If hundreds of volunteer staff people could be committed to bird counts, land quality assessments and other monitoring activities, the Chicago Wilderness region’s “living lab” could become an international resource for proven best practices in the restoration and maintenance of natural areas.

MANAGING VOLUNTEERS AND PROMOTING A CULTURE OF STEWARDSHIP

Volunteers are a precious resource, but they require careful management. By streamlining their volunteer management with a clear set of protocols, expectations and rewards, the Forest Preserves could make the most effective, efficient use of this resource.

A robust volunteer program will build on and foster a culture of stewardship around the preserves, connect Cook County residents with nature in tangible ways and create a company of conservation “ambassadors” to the Chicago region’s communities.
Priority 2.3: Action steps

<table>
<thead>
<tr>
<th>Action</th>
<th>Summary</th>
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<tbody>
<tr>
<td><strong>Dramatically increase on-site information, such as interpretive signs, to help people understand where they are and to provide opportunities for discovery.</strong></td>
<td>Research shows that the signage and other interpretive devices within a natural area are, to a very large extent, “the building blocks in constructing what we call a nature experience.” If they are well designed and readily available, they can help visitors know the forest preserves better, improving attitudes towards nature and producing ecologically responsible behavior. If interpretive infrastructure is poorly designed or absent—or if it starts with a list of prohibited activities—it can produce frustration and even offense. By investing in well-thought-out interpretive infrastructure, the Forest Preserves can greatly increase the impact of even casual visits to its lands. (Find more in the BIG IDEA: Interpretive Design Toolkit after Priority 2.4.)</td>
</tr>
<tr>
<td><strong>Create a network of volunteer nature educators who can teach about restoration and responsible stewardship in schools and informal educational settings. Support and leverage existing education partnerships to expand offerings.</strong></td>
<td>Teachers who are busy meeting state standards have less and less discretionary time for planning engaging outdoor nature activities. But there are many retired educators and volunteers who can bring nature alive for children and serve as role models in classrooms.</td>
</tr>
<tr>
<td>Work with partners to make sure that every town or neighborhood has at least one teacher or informal educator who can train peers to integrate nature and the preserves into their educational practice.</td>
<td>All public school teachers must complete a set number of training hours each year as part of their continuing professional development, and the Forest Preserves is an approved development institute for the State of Illinois. The Forest Preserves could coordinate with regional district offices to recruit participants for programs held on evenings, weekends and during summer months, when teachers are free to attend. Training events give the Forest Preserves an opportunity to disseminate “outdoor classroom” concepts and techniques to literally hundreds of interested educators, who could in turn bring nature experiences into the lives of thousands of students.</td>
</tr>
<tr>
<td>Integrate the Chicago Zoological Society’s and Chicago Botanic Garden’s expertise in education, programming and visitor services into the entire Forest Preserves system.</td>
<td>The Zoo and Garden programs can be adapted and implemented at forest preserve sites. Utilizing these programs and expertise will bring valued programming to the preserves.</td>
</tr>
</tbody>
</table>

**NOTES**

xi. The Forest Preserves of Cook County Illinois, 1921, p. 29 (from Sub-series 4: Box IV-30; Folder IV-292, UIC Special Collections)

xii. Roberts Mann, “Recreation on Public Lands,” paper given Before the Ninth North American Wildlife Conference (April 15, 1944), Forest Preserve District of Cook County Records, University of Illinois at Chicago Library.

GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.3 Educate visitors and the community about the forest preserves’ natural treasures.


xv. Number of school-aged (5- to 18-year-old) children currently living in a census tract that falls within one mile or less of a Forest Preserve property (research courtesy of Fregonese and Associates).


xviii. Education Roundtable, May 29th, 2013


xx. Interpretive design’s ability to improve visitor knowledge is well-documented and important. Its impact on attitudes and behavior is harder to measure and seems to vary widely with the quality and availability of the interpretive material. See Michael Hughes and Angus Morrison Saunders, “Interpretation, Activity Participation, and Environmental Attitudes of Visitors to Penguin Island, Western Australia,” Society & Natural Resources 18 no. 7 (August 2005), 611-624; Anna Carr, “Mountain Places, Cultural Spaces: The Interpretation of Culturally Significant Landscapes,” Journal of Sustainable Tourism 12 no. 5 (2004), 432-459; and Katherine N. Tubb, “An Evaluation of the Effectiveness of Interpretation within Dartmoor National Park in Reaching the Goals of Sustainable Tourism Development,” Journal of Sustainable Tourism 11 no. 6 (2003), 476-498.
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.4 Provide programs in the preserves that emphasize health benefits.

PRIORITY 2.4

Provide programs in the preserves that emphasize health benefits.

Urban Health and the Need for Nature in Cook County: Early Perspectives

In the days of the Forest Preserves’ founding, cities were dangerously unhealthy and unhygienic places to live. The average American life expectancy in 1900 was as much as ten years shorter in urban areas than in rural ones. As new residents poured into Chicago to find jobs in its growing industries, public-minded citizens were concerned about the implications for public health in Illinois. As Daniel Burnham remarked in his 1909 *Plan of Chicago*,

Already the prairie state of Illinois is nearly one-half urban, and the tendency towards city life is fast increasing. At the same time the need for breathing spaces and recreation grounds is being forced upon the attention of practical men, who are learning to appreciate the fact that a city, in order to be a good labor-market, must provide for the health and pleasure of the great body of workers.

The factors that made rural life healthier were poorly understood in the early twentieth century. Still, it was clear even at the time that purer water, cleaner air and periodic escapes from the cramped living conditions of urban Chicago could reduce the “urban penalty” levied on the health of city-dwellers.

Urban Health Issues Today

Today, the need for “breathing spaces and recreation” is still evident. While hygiene has improved and life expectancy for most groups has increased, Cook County residents, like other Americans, are facing “lifestyle diseases” of the 21st century: obesity, type 2 diabetes and heart disease, among others.

CHILDHOOD OBESITY

According to the Centers for Disease Control and Prevention, 12.5 million children and teens in the United States are medically obese. Obesity is a serious threat to health among the young, increasing their immediate risks of asthma, high blood pressure, joint problems, gallstones and liver disease.
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.4 Provide programs in the preserves that emphasize health benefits.

Type 2 diabetes, in particular, was relatively unknown among American teens prior to the 1980s and is now growing in “epidemic proportions” within this age group. Obese children are also likelier than their peers to become obese adults, facing even graver obesity-related health problems such as heart disease and cancer.

Illinois is fairing badly compared to the rest of the country in this regard: the state’s childhood obesity rate is fourth highest in the nation. Further, 40 percent of children residing in Cook County are obese.

RISING HEALTH CARE COSTS

The pressures of rising healthcare costs and other factors are fueling a national movement toward wider and more effective preventive health care. Strategies involve prescribing increased physical activity and healthy nutrition to prevent and or improve conditions caused by modern “lifestyle diseases”—such as obesity and coronary heart disease—which are considered some of the leading causes of death.

The Role of Nature in Preventive Care

People have long reported feeling better after they spend time in nature. Thanks to a growing body of research, we now know empirically that access to nature correlates strongly with healthier human populations.

RESTORATIVE BENEFITS OF NATURE AND OUTDOOR EXERCISE

Large epidemiological studies in Japan and the Netherlands and a series of morbidity studies in the United States and Australia have recently produced convincing evidence that access to nature has a positive independent effect on human health. The studies have shown, for example, that incidences of coronary heart disease and strokes decrease for populations living in close proximity to green space.

Studies of self-reported health indicators also show that spending time in nature has positive effects on both physical and psychological health. Participants in such studies report healthy body weight through increased outdoor activity, along with increased happiness, concentration and self-discipline and lower psychological stress.
REDUCING CHILDHOOD OBESITY BY INCREASING ACCESS TO NATURE

The American Academy of Pediatrics recommends providing youth with opportunities for physical exercise to help prevent childhood obesity.\textsuperscript{xxxviii}

Natural areas, including the forest preserves, have unique capacities for supporting active lifestyles, especially for children and young people. Time spent outdoors correlates strongly to higher levels of physical activity for young people of all ages\textsuperscript{xxxix} and to decreased incidences of childhood obesity.\textsuperscript{xl} In cooperation with the region’s parents, schools and health organizations, the Forest Preserves can positively impact the health of Cook County’s children and teens by providing access, programs and innovative activities—such as interactive trail guides and discovery apps—that promote physical exercise. (See more ideas in Priority 2.1.)

Developing Partnerships for Nature and Health

BUILDING A NETWORK FOR “NATURE PRESCRIPTIONS” AND PREVENTIVE CARE

Across the country, various models for implementing “park prescriptions” have generated a growing cross-collaboration between the medical community and conservation agencies that manage public open and nature areas.

The Forest Preserves, with its rich resources for healthy exercise and restorative activities, can partner to promote similar “nature prescriptions” for Cook County residents, whereby healthcare providers prescribe outdoor activity and time in nature rather than pharmaceutical drugs.

The Forest Preserves can, for example, develop flyers, website information or video clips detailing places patients can visit in the preserves to take a walk or engage in outdoor exercise. The Forest Preserves should provide online information about the nearest trails, including their length and level of difficulty, along with printed information, such as maps of local facilities.

By building a network of preventive healthcare partnerships, the Forest Preserves can capitalize on the positive impact their outdoor resources, recreational
PROGRAMMING AND FACILITIES CAN HAVE ON THE HEALTH OF COOK COUNTY RESIDENTS. (SEE MODELS AND POTENTIAL PARTNERS IN FIGURE 2E.)

FIGURE 2E: PARTNERSHIPS FOR NATURE AND HEALTH

NATIONAL MODELS

The National Environmental Education Foundation: This foundation has developed partnerships to offer healthcare providers information about open spaces where they can send their patients for outdoor activity. xli

The Healthy Parks, Healthy People—Greater Washington Area: Since 2004, the National Park Service and National Capital Region’s health-related projects have connected healthcare providers and their patients with parks and public lands to proactively address obesity and reconnect youth and families with their natural environment. xlii

POTENTIAL LOCAL PARTNERS

The Rehabilitation Institute of Chicago: The Rehabilitation Institute directs its patients to a library where they can learn about nature-based opportunities that support their rehabilitation and recovery process. The Forest Preserves could be a useful partner in this effort.

The Cook County Health Department’s Place Matters program: Funded by the Kellogg Foundation, Place Matters is helping to address inequities related to park access, recreational opportunities and healthy fresh food. The Forest Preserves could help the program advance its goals. xliii

Illinois Chapter of the American Academy of Pediatrics (ICAAP) Obesity Prevention Initiative: ICAAP’s “Promoting Health” coordinators use a database of available resources to connect families and their doctors to appropriate community programs, including exercise programs. The preserves’ many opportunities for outdoor exercise could be listed in this resource.
PROMOTING THE NATIONAL PREVENTION STRATEGY

There are also new opportunities to test out preventive health strategies and the role of nature in boosting public health and wellness. For instance, the Forest Preserves of Cook County could be used as a pilot site to test and monitor the effectiveness of preventive, nature-based health initiatives as called for by the Affordable Care Act at the federal level and CountyCare at the state and local level in Illinois. (CountyCare is a new Medicaid program for uninsured adults in Cook County operated by the State of Illinois and the Cook County Health & Hospitals System.)

In particular, the Forest Preserves of Cook County could partner to test the nation’s first National Prevention Strategy (NPS)—a project of the National Prevention Council. In accordance with the Affordable Care Act, the NPS requires the Surgeon General to collaborate with a broad spectrum of federal agencies to create a national framework for promoting healthier communities through holistic, preventive health care. The goal of the this strategy is to identify scalable best practices at the local, state and regional levels across the country and implement them to reduce the leading causes of preventable death and major illness.

Local Food Growing as an Entry Point to Nature and Health

As access to fresh, locally grown food becomes more critical to the Chicago metropolitan region, the Forest Preserves has an opportunity to lead a change in the way Cook County residents think about food, health, farming and our relationship with the land.

SUSTAINABLE AGRICULTURE—HEALTH FOR LAND AND PEOPLE

The Forest Preserves have long held agricultural areas, primarily as buffers for existing natural areas or to control brush and weeds until restoration can take place. As of 2013, approximately 1,500 acres of the Forest Preserves’ property was leased for agricultural purposes. Land used for hay production provides grassland bird habitat and generates revenue.

On this land, the Forest Preserves has an opportunity to promote sustainable agricultural practices through requirements in lease agreements with current farmers. These practices—soil erosion control, limited pesticide use and water conservation, for example—will promote the health of both nature and people while preparing the soil for eventual restoration. (See more about the connections between healthy, restored land and the health of people in Goal 1.)
COMMUNITY GARDENING

There are few methods more direct than community gardening for helping residents identify with nature and take pride in a particular natural place.

With raised beds and multiple plantings, community gardens can be installed within a very small footprint and can offer a way to “green” spaces in highly urbanized areas.

There are successful models of community gardens managed by other forest preserve systems in the Chicago region. See figure 2F for examples in Lake County.
FIGURE 2F: URBAN COMMUNITY GARDEN PARTNERSHIPS IN THE CHICAGO REGION—MODELS FOR THE FOREST PRESERVES

Downtown Waukegan Green Space and Healing Gardens

The Lake County Forest Preserve District partnered with community groups in Waukegan to create an accessible green space and healing garden in the city’s downtown area on newly acquired forest preserve property. It is a collaborative project between Parkland College, the First Baptist Church of Waukegan, Lake County Forest Preserves and the Landscape and Human Health Laboratory at the University of Illinois at Urbana-Champaign. The focus is on providing environmental education opportunities to children.

Lake County Forest Preserves’ Greenbelt Cultural Center in North Chicago

The concept is to engage community residents and children in the gardens and to use these spaces as **gateways to other experiences in the forest preserves**. The Cook County Forest Preserves can look to this model when creating new collaborative partnerships, establishing community gardens on its existing land, or acquiring land in urbanized areas for community gardens where there is limited access to green space and forest preserves.
Priority 2.4: Action steps

<table>
<thead>
<tr>
<th>Action</th>
<th>Summary</th>
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<tbody>
<tr>
<td>Partner with health care providers and their patients on “nature</td>
<td>Exercise is an important element of healthy living: it can significantly reduce our risk of many chronic diseases, including heart disease, diabetes, colon cancer, breast cancer, obesity, high blood pressure, osteoporosis, arthritis and clinical depression. While it reduces our risk of disease, physical activity also provides positive health benefits, building up muscle strength, improving endurance and boosting feelings of happiness and wellbeing. By partnering to promote “nature prescriptions,” the Forest Preserves can expand its visitor base and inspire Cook County residents to pursue a more active lifestyle.</td>
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<td>prescriptions” that encourage children and adults to spend time outdoors.</td>
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<tr>
<td>Use local food as an entry point to nature through demonstration</td>
<td>Food is our most direct connection with nature. A community helps residents identify with a particular place. With raised beds and multiple plantings, these gardens can be installed within a very small footprint. Demonstration sites and hands-on educational facilities promote nature-conscious gardening water conservation, composting, non-invasive flower gardens, and xeriscape gardening for climate change. Given the adjacency of the Oak Forest Heritage Preserve, the Forest Preserves should partner with the Cook County Department of Public Health and Cook County Health and Hospitals System in launching a pilot preventive health care</td>
</tr>
<tr>
<td>projects—such as the Oak Forest Center for Total Health pilot program and community gardens in campgrounds and picnic areas.</td>
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</table>
| **GOAL 2** / Everyone in Cook County will feel welcome at the forest preserves...  
| 2.4 Provide programs in the preserves that emphasize health benefits. |
|---|---|
| Center on the grounds of the old Oak Forest Hospital. The vision for the Center for Total Health incorporates health and wellness care with nature-based learning. The expansive acreage of the contiguous forest preserves would make it an optimal place for patients to get outside and experience the healing benefits of nature. The lands must first be restored to good health, however, to make them safe and inviting for patients. |
| **Create health guides for trail use to encourage outdoor exercise as a way to enjoy nature and improve fitness.** |
| According to a recent study, green spaces featuring trails and wooded areas, for example, are “more than 7 times as likely to be used for physical activity as . . . parks without these facilities.” Paved trails, in particular, are popular because they support both high-energy exercises like cycling and running, and more reflective walking activities. xlvi |
| **Develop educational programming that integrates exercise in nature “across the curricula” for children and youth.** |
| The Forest Preserves should structure a graduated set of opportunities for volunteer participation, beginning with a “junior ranger” program for young children (modeled on the Forest Service program of the same name)¹ and culminating with a site stewardship program tailored to young adults. |
| **GOAL 2** / Everyone in Cook County will feel welcome at the forest preserves...  
2.4 Provide programs in the preserves that emphasize health benefits. |

| **Use technology to motivate children, teens and adults to be active outdoors.** | Interpretive educational elements can be combined with physical activity to promote wellness of the mind and body.  
The Forest Preserves should create an interactive nature trail with workstations for walkers to calculate steps taken and calories burned with a coinciding phone app to assist for self-guided outdoor experience. |

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**NOTES**

xxi. Louis Cain and Sok Chul Hong, “Survival in 19th Century Cities: The Larger the City, the Smaller Your Chances,” *Explorations in Economic History* 46 no. 4 (October 2009), 452.


xxiii. See, for example, David Cutler and Grant Miller, “The Role of Public Health Improvements in Health Advances: The Twentieth-Century United States,” *Demography* 42 no. 1, (February 2005), 1-22; and Gerald Markowitz and David Rosner, “‘Cater to the Children’: The Role of The Lead Industry in a Public Health Tragedy, 1900-1955,” *American Journal of Public Health* 90 no. 1 (January 2000), 36-46.

xxiv. Ibid.


GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.4 Provide programs in the preserves that emphasize health benefits.


xxviii. Bell et al., op. cit.


2.4 Provide programs in the preserves that emphasize health benefits.


xxxviii. Ibid.


GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
2.4 Provide programs in the preserves that emphasize health benefits.


BIG IDEA: Interpretive Design Toolkit

The Forest Preserves should dramatically increase interpretive opportunities in the preserves, by designing and installing non-intrusive interpretive elements and using digital media to help people understand where they are and to provide new opportunities for discovery in nature.

Why It’s Important

Research shows that the signage and other interpretive devices within a natural area are, to a very large extent, “the building blocks in constructing what we call a nature experience.” If they are well designed and readily available, they can help visitors experience the forest preserves more meaningfully, improving attitudes towards nature and encouraging ecologically responsible behavior. If interpretive infrastructure is poorly designed or absent—or if it starts with a list of prohibited activities—it can produce frustration and even offense.

To address the need to creatively set up guidelines for design and interpretive elements at the forest preserves, a team of designers, architects and conservation specialists developed a “toolkit.” The toolkit consists of several basic interpretive elements that are designed specifically to integrate into the landscape, are adaptable to multiple sites and purposes, and maintain a common vocabulary and palette.

The toolkit takes into consideration that interpretive content will vary from site to site in the preserves. However, the intent is to integrate the following overarching messages and experiences in all design elements:

- Inspire interest in and care for nature
- Help visitors “read” a landscape
- Promote the visitors’ affective experience: helping them to feel a connection to nature (an important precursor to cognitive understanding)

By investing in well-thought-out interpretive infrastructure, the Forest Preserves can greatly increase the impact of even casual visits to its lands. New interpretive elements can cultivate a sense of appreciation and ultimately connect people from all walks of life with nature.
GUIDELINES:

The Forest Preserves will launch the toolkit as part of the centennial legacy projects at two demonstration sites in the preserves, Tinley Creek/Bartel Grasslands and Deer Grove East. The following guidelines should apply in all future cases when the interpretive toolkit is used.


c  CONSIDERATION OF SITE ELEMENTS

- Sites that are relatively undeveloped by design (restored habitats, for example) should retain this character as a valued asset—although designers should recognize that modest interventions may be required to ensure visitor safety and experience.
- New built elements should always be designed to integrate sensitively into the surrounding landscape.
- Sustainable principles should be employed in the design.
- While aesthetics are paramount, design should always take into consideration:
  - Safety
  - Affordability
  - Maintenance requirements and durability over time, including the ability to endure a harsh, outdoor environment
  - Minimizing opportunities for vandalism in the selection of both materials and locations


c  INTERPRETIVE PRINCIPLES

- Minimize intrusions on the landscape by using signage and exhibits sparingly and developing new digital media to expand the delivery and amount of information.
- Develop interpretive elements from a common, basic “toolkit” of parts that can be adaptable to other locations.
- Regard functional elements, such as benches, water fountains and parking lots, as opportunities for interpretation as well: either as infrastructure (e.g.,
GOAL 2 / Everyone in Cook County will feel welcome at the forest preserves...
BIG IDEA: Interpretive Design Toolkit

a surface to be inscribed) or content (messages about water use; permeable paving).

- Because people come to the preserves for casual, recreational purposes, make the interpretation inviting, engaging, attractive, and easy to grasp.

VISITOR SERVICES

- Visitors’ experiences (and what they remember) are greatly impacted by the presence or absence of basic amenities such as the following:
  - Easy to access, easy to understand instructions directing visitors to the site
  - Bike racks at appropriate locations
  - Seating, preferably in the shade and particularly on long trails and at key overlooks
  - On-site restroom facilities if possible

Relevant Models

- The National Park Service has various self-guided nature trails and nature exhibits at Rock Creek Park in the District of Columbia.

- The Potomac Heritage National Scenic Trail corridor has signage related to history, culture and outdoor adventure. The Trail network includes both shores of the tidal Potomac River and includes parts of the heritage walking trails.

- The Jennings Environmental Education Center, overseen by the Pennsylvania Department of Conservation and Natural Resources is one of Pennsylvania’s state parks specifically dedicated to provide environmental education and interpretation to the community through interpretive elements along its trail network and a variety of programs for children, teachers, and the public.

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NOTES

xlviii. Interpretive design’s ability to improve visitor knowledge is well-documented and important. Its impact on attitudes and behavior is harder to measure and seems to vary widely with the quality and availability of the interpretive material. See Michael Hughes and Angus Morrison Saunders, “Interpretation, Activity Participation, and Environmental Attitudes of Visitors to Penguin Island, Western Australia,” *Society & Natural Resources* 18 no. 7 (August 2005), 611-624; Anna Carr, “Mountain Places, Cultural Spaces: The Interpretation of Culturally Significant Landscapes,” *Journal of Sustainable Tourism* 12 no. 5 (2004), 432-459; and Katherine N. Tubb, “An Evaluation of the Effectiveness of Interpretation within Dartmoor National Park in Reaching the Goals of Sustainable Tourism Development,” *Journal of Sustainable Tourism* 11 no. 6 (2003), 476-498.

A Timeline of Transformation

How will we measure success? The highlights here provide a sample of all the Forest Preserves should expect to achieve, and the agency should assess progress and set new targets every five years.

<table>
<thead>
<tr>
<th>NOW (GET STARTED)</th>
<th>IN 5 YEARS</th>
<th>CELEBRATE OUTCOMES</th>
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<tbody>
<tr>
<td>Install interpretive elements already designed for Deer Grove and Tinley Creek, and develop consistent design guidelines for all new gateways and interpretive sites.</td>
<td>Multi-year interpretive plans for gateways, nature centers, picnic facilities and trailheads will be in place.</td>
<td>All visitor facilities will be self-interpreting through art, technology and on-site signage.</td>
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<tr>
<td>Partner with transit agencies to develop a long-term public-transit access plan.</td>
<td>Ten gateway areas will be improved and include weekend shuttle service for transit riders.</td>
<td>Public transit will be an effective and efficient way to access the forest preserves.</td>
</tr>
<tr>
<td>Make all nature centers and visitor facilities ADA accessible, and complete an accessibility transition plan for appropriate areas of the forest preserves.</td>
<td>Programmatic and educational partnerships will be in place through schools and community agencies in 25 underserved communities.</td>
<td>Leadership, volunteers, staff and users will reflect the diverse population of Cook County.</td>
</tr>
<tr>
<td>Expand partnerships with the leadership of diverse community organizations to promote access to and use of the preserves.</td>
<td>The Oak Forest Center for Total Health will have a robust outdoor education program that connects patients to benefits of outdoor exercise and uses local food as a gateway to nature appreciation.</td>
<td>The Forest Preserves Health Impact Assessment will show a substantial correlation between outdoor recreation at the preserves and improvements in major health indicators, such as rates of heart disease, diabetes and other diseases.</td>
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<tr>
<td></td>
<td>The Forest Preserves will partner with the Cook County Department of Public health to initiate a Health Impact Assessment to create baseline wellness statistics.</td>
<td>Forest preserve sites will be integrated into school educational programming at all levels.</td>
</tr>
</tbody>
</table>