

RECOMMENDATION

3 Expand and improve parks and open space



The parks and natural areas of northeastern Illinois are among the region's greatest assets, offering an enhanced quality of life, protecting environmental quality, and contributing significantly to the region's identity.

A recommended network of parks connected by open space corridors was central to Daniel Burnham's and Edward Bennett's 1909 *Plan of Chicago*, meant at that time to bring refreshment to a newly urban citizenry. This objective is just as important a century later, and Burnham's network remains a work in progress. Less than half of the region's residents currently live in places with adequate access to nearby parks or open space, and much of the unique natural heritage of the region remains unprotected and unmanaged. As the region has expanded beyond the urban footprint in Burnham's time, the corridors of open space Burnham envisioned must expand as well. Our knowledge of open space's benefits has also progressed, so that we now understand its crucial role in flood protection, the promotion of public health, and potentially even adaptation to climate change.

Our network of parks and natural areas is considered part of our region's "green" infrastructure because of its similarity to the "gray" infrastructure networks that are likewise central to prosperity and livability. Like other forms of infrastructure, it can be managed, restored, and expanded.

A top GO TO 2040 priority is to expand the green infrastructure network. To do so, CMAP recommends making significant, criteria-based investments in parks and open space. Major benefits will follow from this, including enhanced quality of life and property values, improved public health through the promotion of active lifestyles, and the protection of ecosystem services like water supply, flood storage, and water purification. In brief, CMAP recommends the following actions:

Provide more parks in developed areas to increase park accessibility

The region should work to provide all residents with at least a minimum standard of park access by 2040. The total acreage required for new parks is not extremely high, but it is challenging to provide land in already developed places where it is needed most. Local governments should collaborate to provide additional parks in the areas least served by them, and municipalities in particular should look on redevelopment as an opportunity to provide additional park space even in the context of moderate residential density increases. Such parks can become important public spaces that contribute to the overall livability of a community.

Preserve the most important natural areas in the region

Across the seven counties, an additional 150,000 acres of land should be preserved over the next 30 years through a collaborative, multi-organizational, public-private approach. Most of this should be sought with the goal of conserving and improving a network of land and water — the green

infrastructure network — that follows waterway corridors, expands existing preserves, and creates new preserves in the region. Coordinated investment in land protection and a commitment to the restoration and management of preserved lands will be necessary to achieve this. Forest preserve and conservation districts, the state, private funders, and others should all prioritize land preservation within the green infrastructure network. This will mean reexamining funding criteria and grant scoring systems so that they align with the overarching goal of a connected green infrastructure network.

Provide functional connections between parks and preserves, using the green infrastructure network as a design concept

Another way of establishing connections between parks and preserves is a greenway trail, and the network of such trails identified in the Northeastern Illinois Regional Greenways and Trails Plan should continue to be expanded. The region has been very successful in developing off-street trails over the past two decades, and GO TO 2040 envisions organizations in the region continuing to use the Greenways and Trails Plan to establish potential connections between preserves and parks, as well as to support walking and biking as an alternative mode choice. The region's objective should be to double existing greenway trail mileage by 2040.

Municipalities, the seven counties, and the state should harmonize policies with the natural resource protection recommendations in GO TO 2040, reducing land consumption and thereby helping protect green infrastructure. At the local level, this means increased attention to networks of open space and important natural areas during municipal comprehensive planning, followed by zoning changes to reinforce that policy direction. Establishing livable communities — compact, mixed-use places with amenities and transit nearby — will also reduce land consumption on a regional level. Where growth is expected within the green infrastructure network, local governments should encourage the use of conservation design. At the state and regional level, efforts should be made to ensure that policies do not inadvertently contribute to the loss of important natural areas.

In summary, the region should, by 2040, be substantially closer to having a fully connected network of protected land and water along waterway corridors. Park access for all residents of the region should meet at least a minimum standard, and the network of greenway trails should be at least doubled.

3.1 Benefits

Open space was noted as a high priority in the GO TO 2040 Regional Vision, which states: “The region’s nationally-recognized system of open space — including forest preserves, conservation districts, and parks — will continue to shape regional identity and contribute to the health of our communities.

Especially along sensitive waterways, open space will be preserved and expanded, creating green infrastructure networks that enhance people’s connection with nature and serve as habitat corridors.”

During the 2009 “Invent the Future” phase of GO TO 2040 public engagement, open space came up in almost every workshop. Participants felt that preserving our natural environment was imperative to promote the health of residents and create more livable communities. Participants were also asked to prioritize what outcomes were most important. Land consumption was one of the top four indicators chosen, along with regional economy, transportation choice, and energy reduction. Reducing the loss of open space is clearly a significant concern among residents of the region.

The following subsections describe some primary benefits of parks and open space.



Quality of Life

Parks and preserves are much coveted amenities that have been shown over and over to be among the top priorities in quality-of-life surveys. According to a 2002 poll by the Illinois Association of Park Districts, more than 80 percent of residents in Chicago and collar counties said that they visited a park in the past year, averaging more than a dozen visits.¹ Open space is a primary contributor to overall environmental quality, which is desirable in itself, but it also makes the region more attractive to people and businesses considering locating in northeastern Illinois. Its importance can also be seen in its popularity: for example, the county forest preserve and conservation districts have been able to raise about \$1.2 billion in current dollars for land acquisition since 1999 through voter referenda on bond issuance.² People also vote with their feet, as research indicates that people prefer to live near parks and protected natural areas if the opportunity is available, which translates into property value increases near parks and protected lands.³

Parks and preserves have a number of documented public health benefits.⁴ While establishing additional parks only provides an opportunity to engage in recreational activities and does not assure a positive health outcome, parks are indeed associated with improved public health. One study examining total park area within a community found the percentage of total park area within neighborhoods was a significant predictor of increased physical activity levels among children, amounting to a 1.4-percent increase in physical activity levels for each one percent increase in park acreage.⁵ In another study, subjects who regularly used their local parks were about three times more likely to achieve recommended levels of daily activity.⁶ Parks also improve the equity of public health by providing exercise facilities to low-income residents who may find gym fees prohibitive.⁷ Providing nearby opportunities for outdoor recreation also guards against what is figuratively called “nature deficit disorder.”⁸

In short, parks and open space have measurable positive impacts on health and well-being.

Finally, parks benefit quality of life by supporting social connections — they can help build community. Recreational activities at parks, especially those involving children, undoubtedly bring neighbors together. Furthermore, parks provide a place for people to gather simply because they are public spaces. Thus they can serve as a stitch in the social fabric apart from any special recreational programming, but attention must be paid to their placement and design to make them desirable places to be.⁹ Parks also help build community if neighbors are involved in the management and even the maintenance of parks through local park councils or conservancies; this can also help spare park districts some expenses associated with park administration.

1 Illinois Environmental Council Education Fund, “Illinois State Land Conservation Funding,” developed in partnership with the Trust for Public Land and The Nature Conservancy, 2007.

2 Data from referenda results tracked by Illinois Association of Park Districts. See http://www.ilparks.org/?page=referendum_results.

3 Economic Research Associates, “Real Estate Impact Review of Parks and Recreation,” 2005. See http://www.ilparks.org/resource/resmgr/research_documents/research_era_real_estate.pdf.

4 Summarized in “Parks, Playgrounds, and Active Living” Research Synthesis (Robert Wood Johnson Foundation, February 2010). See http://www.activelivingresearch.org/files/Synthesis_Mowen_Feb2010.pdf.

5 J. Roemmich, L. Epstein, S. Raja, et al, “Association of Access to Parks and Recreational Facilities with the Physical Activity of Young Children.” *Preventive Medicine*, 43(6; 2006): 437-441.

6 B. Giles-Corti, M. H. Broomhall, M. Knuiman, C. Collins, K. Douglas, K. Ng, A. Lange, R. J. Donovan, “Increasing Walking: How Important Is Distance To, Attractiveness, and Size of Public Open Space?” *American Journal of Preventive Medicine* 28(2S2; 2005):169-176.

7 Erica Gies, “The Health Benefits of Parks: How Parks Help Keep Americans and Their Communities Fit and Healthy,” The Trust for Public Land, 2006.

8 Richard Louv, *Last Child in the Woods*, Algonquin Paperbacks, 2005.

9 The classic study on this aspect of parks and plazas is William H. Whyte, *The Social Life of Small Urban Places* (1980).

Environmental

One of the most important benefits of protecting land is that it also protects water. Open space helps ensure the replenishment of aquifers with uncontaminated water, which benefits communities that use groundwater as a source of drinking water as well as protecting plants and animals in groundwater-fed wetlands. Furthermore, floodplains and wetlands play a significant role in flood reduction. The Illinois State Water Survey (ISWS) found that for every one percent increase in the amount of wetland area in a watershed, peak flood flows could decrease by up to eight percent.¹⁰ Because climate change may result in increased flooding, it is especially important to preserve floodplains and wetlands in a protected corridor along streams. In another example, wetlands tend to act as “sinks” for nutrients, in most cases removing nutrients from the water flowing through them. These often-irreplaceable natural functions that support human activity are called “ecosystem services,” and land protection can help preserve them.¹¹

Wildlife benefits from land preservation as well. Protecting large “hubs” of open space connected by corridors ensures species can migrate with relative ease between large blocks of habitat. This is important because, aside from habitat destruction itself, habitat fragmentation is one of the biggest threats to biodiversity in the region. Conservation biologists also suspect that some species will try to migrate northward as climate change progresses, and a north-south network of protected open space may facilitate this movement. Furthermore, wildlife watching has become a popular form of outdoor recreation in Illinois and nationwide. The U.S. Department of Commerce reports that in 2006, the most recent year for which data are available, more than two million Illinois residents together spent more than \$1 billion to watch wildlife in Illinois.¹²

10 M. Demissie and A. Khan, “Influence of Wetlands on Streamflow in Illinois,” ISWS Contract Report 561, 1993, 26 Table 3. See <http://www.sws.uiuc.edu/pubdoc/CR/ISWSCR-561.pdf>.

11 Robert Costanza et al., “The Value of the World’s Ecosystem Services and Natural Capital,” *Nature* 387 (1997): 253-260.

12 U.S. Department of the Interior, Fish and Wildlife Service, U.S. Department of Commerce, U.S. Census Bureau, “National Survey of Fishing, Hunting, and Wildlife-Associated Recreation,” 2006.

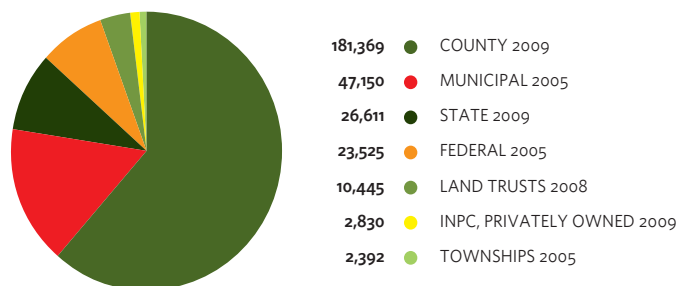
3.2 Current Conditions

The region now has approximately 300,000 acres in municipal parks, private conservation easements, private nature preserves, county preserves, township parks, and state and federal holdings (see **Figure 27**).

Open space can be categorized as conservation-oriented (“preserves” or “natural areas”) or recreation-oriented (“parks”), although the distinction is by no means cut and dried. For instance, a number of park districts, which have traditionally focused on recreation, hold natural areas and have conservation programming. The region has about 50,000 acres of recreational open space or parks and about 250,000 acres of conservation open space. There is a third type to consider: connections or corridors between two or more parks and preserves. Often known as “greenways,” these may also simply be a trail or another type of recreational or cultural amenity. CMAP recommends protection and expansion of all three aspects of the regional green infrastructure network.

In terms of acreage, the county forest preserve and conservation districts have the most open space in the region. As distinct units of government, the six forest preserve districts (Cook, DuPage, Kane, Kendall, Lake, and Will Counties) and the conservation district (McHenry County) own or manage over 180,000 acres of public preserves.¹³ Much of the land is conservation open space, but 3,500 acres of golf courses and some additional recreational and farm facilities are also included. Together, these agencies are responsible for the majority of protected conservation open space in the region. The forest preserve and conservation districts protect land through many approaches, including using grant funds for acquisition, accepting donations, and agreeing to manage privately held land under conservation easements. But their main approach is to issue bonds to purchase land, the debt service on the bonds generally being paid through county property taxes. The locations of the forest preserves and other conservation open space are shown in **Figure 28**.

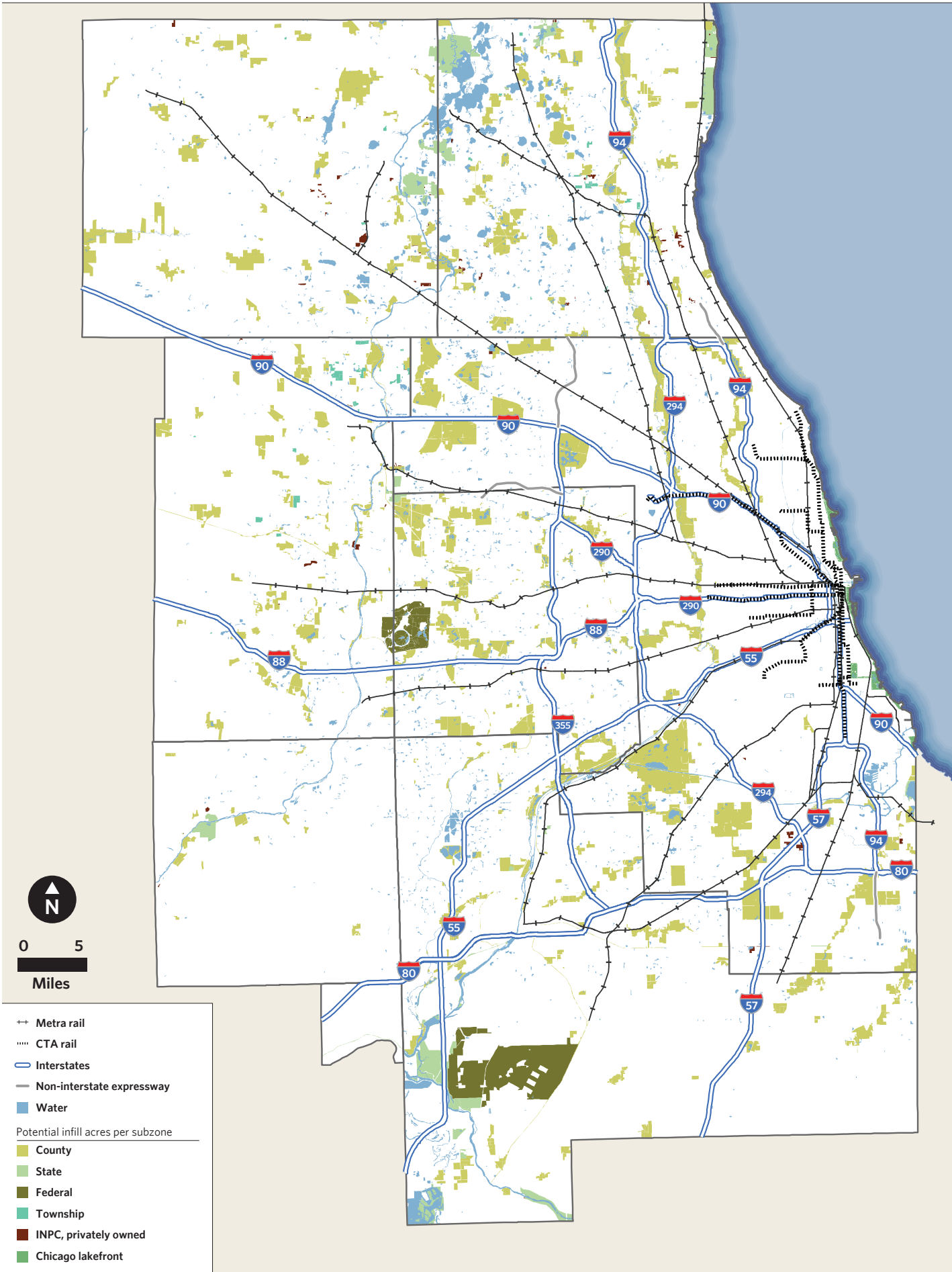
Figure 27. Total parks and open space holdings, in acres



Source: County Forest Preserve and Conservation District Geospatial Data; CMAP 2005 Land Use Inventory; Illinois Nature Preserves Commission (INPC) Geospatial Data; Grand Victoria Foundation

¹³ Summarized from 2009 geospatial data provided by forest preserve and conservation districts. See Figure 28.

Figure 28. Regional conservation open space



Color shadings represent the body that owns and operates the conservation open space. Municipal parks are not shown, except for protected land along the lakefront.
Sources: County Forest Preserve and Conservation District Geospatial Data; CMAP 2005 Land Use Inventory; Illinois Nature Preserves Commission Geospatial Data; Grand Victoria Foundation.

The Illinois Department of Natural Resources (IDNR) owns about 26,600 acres of public land in the Chicago region. This includes state parks, fish and wildlife areas, natural areas, one state museum property, and several other types of holdings. In addition, IDNR administers several funding programs that local government units can tap for parks and open space. Through the Illinois Nature Preserves Commission (INPC), the State of Illinois also provides support to landowners who wish to dedicate qualifying land as a Nature Preserve or as a Land and Water Reserve. Often nature preserves are owned by a public agency, but sometimes they are not; about 2,800 acres in northeastern Illinois are privately owned Nature Preserves or Land and Water Reserves.

Parks are generally owned and operated by park districts or by the park departments of the region's municipalities. Together they hold approximately 47,000 acres that provide a variety of recreational opportunities from tennis to basketball to cross-country skiing. The townships also own a small amount of land that is usually conservation open space, though it may have a recreational aspect.

To date, the federal role in open space protection in the Chicago region has been fairly minor in terms of acreage, but it has resulted in the largest single preserve in the region. The U.S. Forest Service owns and operates the Midewin National Tallgrass Prairie, which contains more than 18,000 acres of preserved land in Will County. Most of the land at the Fermi National Accelerator Laboratory in western DuPage County, about 5,400 acres, is also effectively protected open space.

Finally, the private sector's role has been expanding over time. Increasingly, nonprofit land conservation organizations ("land trusts") own or hold easements on land in northeastern Illinois, and the number of active land trusts has been growing rapidly.¹⁴ Though the total acreage they conserve is not tracked in a central location, these organizations are estimated to have bought, accepted donations for, or taken easements on at least 10,500 acres in northeastern Illinois¹⁵ in less than 10 years, or about 1,200 acres per year. In many instances, nonprofit land conservation organizations work with landowners who wish to take advantage of tax benefits offered to those who forgo development rights on their property. They also accept voluntary donations of conservation easements from those who wish to permanently preserve their land. In some cases these organizations may also purchase conservation land outright from willing sellers.

14 2005 National Land Trust Census.
See <http://www.landtrustalliance.org/about-us/land-trust-census/census>.

15 From data on easements and holdings of nine land trusts over ten years provided by Grand Victoria Foundation, February 19, 2010.

3.3 Indicators and Targets

The current amount of conservation open space in the region is approximately 250,000 acres. By 2040, an additional 150,000 new acres should be protected for 400,000 total acres (see **Figure 29**).

The interim target for 2015 should be 25,000 new acres, or 275,000 total acres, which is one-sixth of the 2040 target. While this may seem high given fiscal conditions, it is worth pointing out that there is still public appetite for preservation of open space despite the present recession.¹⁶ It is also likely that falling land prices will make acquisition at current rates more affordable than when the real estate sector rebounds. Options available today will be lost with the passage of time and a return to a more robust economy.

ACRES OF CONSERVATION OPEN SPACE

275,000 acres by 2015

400,000 acres by 2040

Currently, only 49 percent of people in the region have adequate access to parks, as defined by a standard of 10 acres per 1,000 people. This will not be appropriate for the densest areas of the region, however, which should use a level of service of at least 4 acres per 1,000 people (see **Figure 30**). Meeting the park accessibility targets will require approximately 5,200 acres of new parks.

REGIONAL ACCESS TO PARKS PER PERSON IN ACRES

72% at a level of four acres per 1,000 people; 52% at a level of 10 acres per 1,000 people by 2015

All people at a level of four acres per 1,000 people; 70% at a level of 10 acres per 1,000 people by 2040

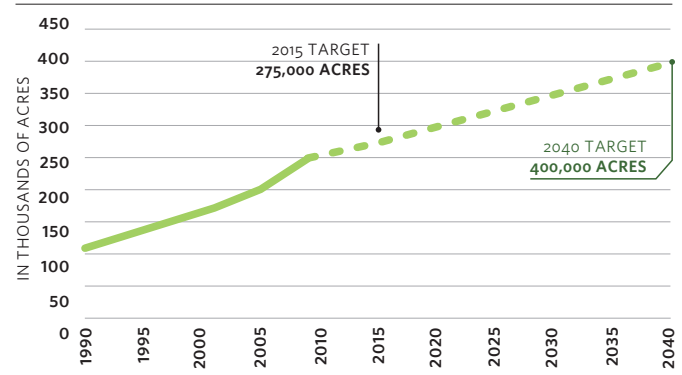
The region now has 700 miles of trail greenways. The region should approximately double the mileage of trail greenways between now and 2040, for a total of 1,348 miles of trail greenway (see **Figure 31**). An interim target for 2015 is to establish one-sixth of the total recommended new greenway mileage.

NEW GREENWAY MILEAGE

808 total miles by 2015

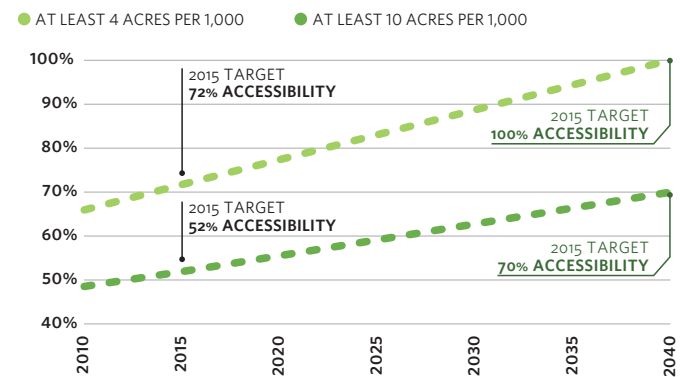
1,348 total miles by 2040

Figure 29. Conservation of open space targets, 1990-2040



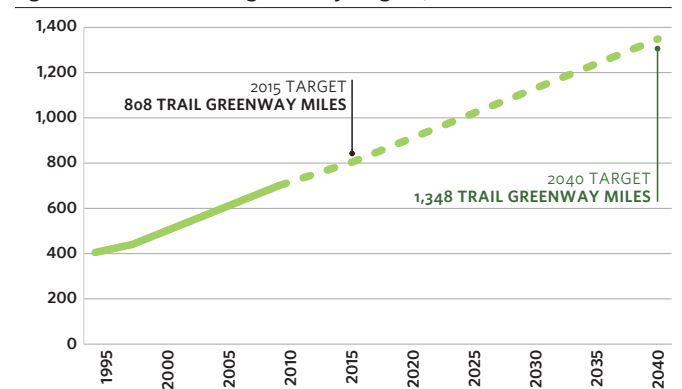
Source: Chicago Metropolitan Agency for Planning, 2010

Figure 30. Access to parks targets, percent of regional population, 2010-2040



Source: Chicago Metropolitan Agency for Planning, 2010

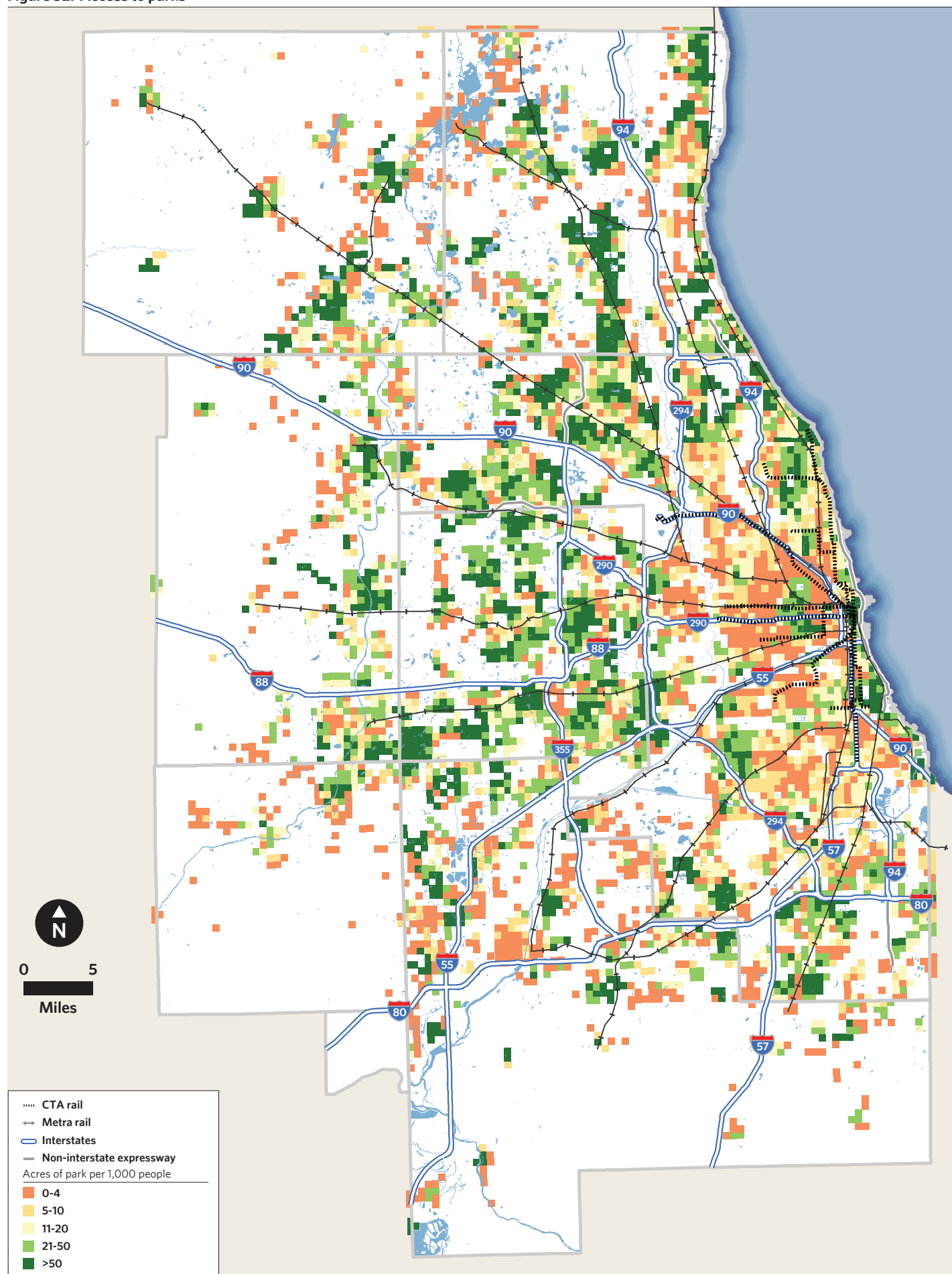
Figure 31. Miles of trail greenway targets, 1995-2040



Source: Chicago Metropolitan Agency for Planning, 2010

¹⁶ Fairbank, Maslin, Maullin & Associates and Public Opinion Strategies, "Key Findings from National Voter Survey on Conservation," September 25, 2009.

Figure 32. Access to parks



This map shows the accessible park acreage per 1,000 people. Orange areas have less than 10 acres of parks per 1,000 people and pink areas have less than four acres of parks. Areas in white were not analyzed because they have less than the Census-defined "urban" density of 1,000 people per square mile. Source: Chicago Metropolitan Agency for Planning, 2010

3.4 Recommendations

The following sections describe in detail the actions recommended by CMAP to establish parks, preserve open space, and establish connections within the green infrastructure network.

Parks Recommendations

The region needs additional parks to provide recreation and open space access to as many people in the region as possible. The total acreage required for new parks is not exceedingly high, but it is challenging to provide land in already developed places where it is needed most. Local governments should collaborate to provide additional parks in the areas least served by them, and municipalities in particular should look at redevelopment as an opportunity to provide additional park space even within the context of moderate residential density increases. Such parks can become an important public space that contributes to the overall livability of a community.

To evaluate the need for urban open space, CMAP evaluated existing parks against standards for park accessibility from the National Recreation and Park Association (NRPA).¹⁷ The park types considered are community and neighborhood parks under NRPA's definitions, rather than regional parks or regional reserves, which correspond to the forest preserves here in Illinois. Based on the NRPA standard of 10 acres per 1,000 people, it was found that only about 49 percent of people in the region have adequate access to park space (see **Figure 32**). Areas with the lowest accessibility are often older and denser, but there are many places in growing areas that do not meet the NRPA standard.

Because opportunities are scarce to provide additional parks in some places, however, it probably would not be possible to achieve 10 acres per 1,000 people across the region. In denser areas, this goal is too rigorous. The Chicago Park District and City of Chicago use instead a long-term goal of four to five acres per 1,000 people,¹⁸ which is likely an adequate value for the under-parked places within inner-ring suburban areas as well. Still, only 66 percent of people in the region have even this level of service. GO TO 2040 proposes establishing more parks so that an increasing number of people in the region have adequate park access.

In newly growing areas, park districts acquire the majority of their holdings through donations as stipulated in local land-cash ordinances, which require developers to reserve land for parks or donate the equivalent in cash. Yet the park accessibility analysis indicates that there are still shortfalls in parks even in developing areas. This seems to suggest that some growing communities may need to adopt best practices in requirements for developer donations.¹⁹ In already developed communities, by contrast, redevelopment over the next 30 years could provide many opportunities to increase open space. One means for this is the use of open space impact fees that apply during redevelopment, though these should be carefully tailored so that they do not discourage development. Park districts would then use the funding to increase open space access in the area; cash can be especially attractive because it can be used for park development capital projects and as a match for state and federal grants.

17 Derived from Roger A. Lancaster ed, "Recreation, Park, and Open Space Standards and Guidelines," National Recreation and Park Association, 1983. See <http://tinyurl.com/2cd9xar>. Park accessibility is a distance-based standard, where a 0.5-mile radius service area was assumed for neighborhood parks, and a one-mile radius service area was used for community parks.

18 CitySpace: an Open Space Plan for Chicago, 1998, p. iii. See <http://tinyurl.com/24qg9qd>.

19 Although land-cash donation requirements have not been catalogued for northeastern Illinois, a statewide survey by the Illinois Association of Park Districts suggested that 30 percent of municipalities (working with park districts) require a donation or cash equivalent of 5.5 acres per 1,000 people, 27 percent require 10 acres per 1,000, and 5 percent required 15 acres per 1,000 people. See http://www.ilparks.org/resource/resmgr/research_documents/land_cash_donation_survey.pdf.

Since imposing a fee does not solve the problem of the availability of land, a better long-term solution is to require building public open space into site plans during redevelopment, at least in larger projects. This is an especially strong possibility in places undergoing the moderate density increases envisioned in the GO TO 2040 plan. As in conservation design, it is crucial that the resulting open space be publicly accessible. Note, too, that in some places, a park component could be a critical part of a project's success. A riverfront revitalization project with public open space would be one example. The success of Millennium Park in downtown Chicago suggests that well-conceived park developments can have powerful catalytic effects and support nearby real estate development. More broadly, there are many possibilities for gleaning economic development opportunities from parks projects, such as greenway trails that lead bicyclists near historic business districts for shopping and dining opportunities.

Even after leveraging private investment through redevelopment, however, local governments will still need to find creative, low-capital ways to provide parks directly. There are many potential ways to do this, such as using school grounds for community recreation purposes, considering capped landfills for open space use, and closing low-traffic local streets or removing parking lots to convert them to parks, among others.²⁰ Some possibilities may have potential locally, while others will be inappropriate. It should be noted that adding park uses will increase management costs to some extent, even with low-capital approaches to park development. Management costs are estimated in the following Costs and Financing subsection. It will be important to ensure that park districts and other government units providing and managing parks have access to adequate funding for their operations.

Preserves Recommendations

CMAP recommends that the region preserve an additional 150,000 acres of land over the next 30 years through a collaborative, multi-organizational, public-private approach. More than this, it is crucial that the preserves function as a connected network of green infrastructure. Therefore at least two-thirds of the total should be targeted to conserve a network of land and water that follows river corridors and connects major existing and new preserves in the region. Coordinated investment in land protection will be necessary to achieve this. Forest preserve and conservation districts, the state, and private funders should all prioritize land preservation within the green infrastructure network. Municipalities and the state should harmonize policies to promote the preservation of green infrastructure. In 2040, the region should be substantially closer to having a fully connected network of protected land and water along river corridors, a considerable portion of which has been restored to natural conditions.

Engagement with stakeholders in the conservation community indicated that the Chicago Wilderness (CW) Green Infrastructure Vision²¹ (GIV) should be the primary conservation basis of the GO TO 2040 Plan. **Figure 33** shows the boundaries of the GIV within northeastern Illinois and the broader CW area. Developed in 2002-2004 by the Northeastern Illinois Planning Commission (NIPC) and CW members, including forest preserve and conservation district professional staff, the GIV is a broad identification of the places in the region ("Resource Protection Areas") considered most significant from a conservation perspective. The GIV Resource Protection Areas identify large preserves or "hubs" linked with a set of open space corridors that generally follow rivers and streams. In other words, rivers and streams provide the basic organization for the network of open space corridors, showing the importance of protecting the land along streams and investing in the protection of the waterways themselves. In a generalized way, the Resource Protection Areas indicate where it is most important to protect undeveloped land, restore degraded ecosystems through increased management, provide buffers for protected natural areas, and provide functional connections between protected natural areas. For each of the Resource Protection Areas, the GIV includes a short synopsis of its conservation values, threats to the resources, and the amount of land that could reasonably be protected.

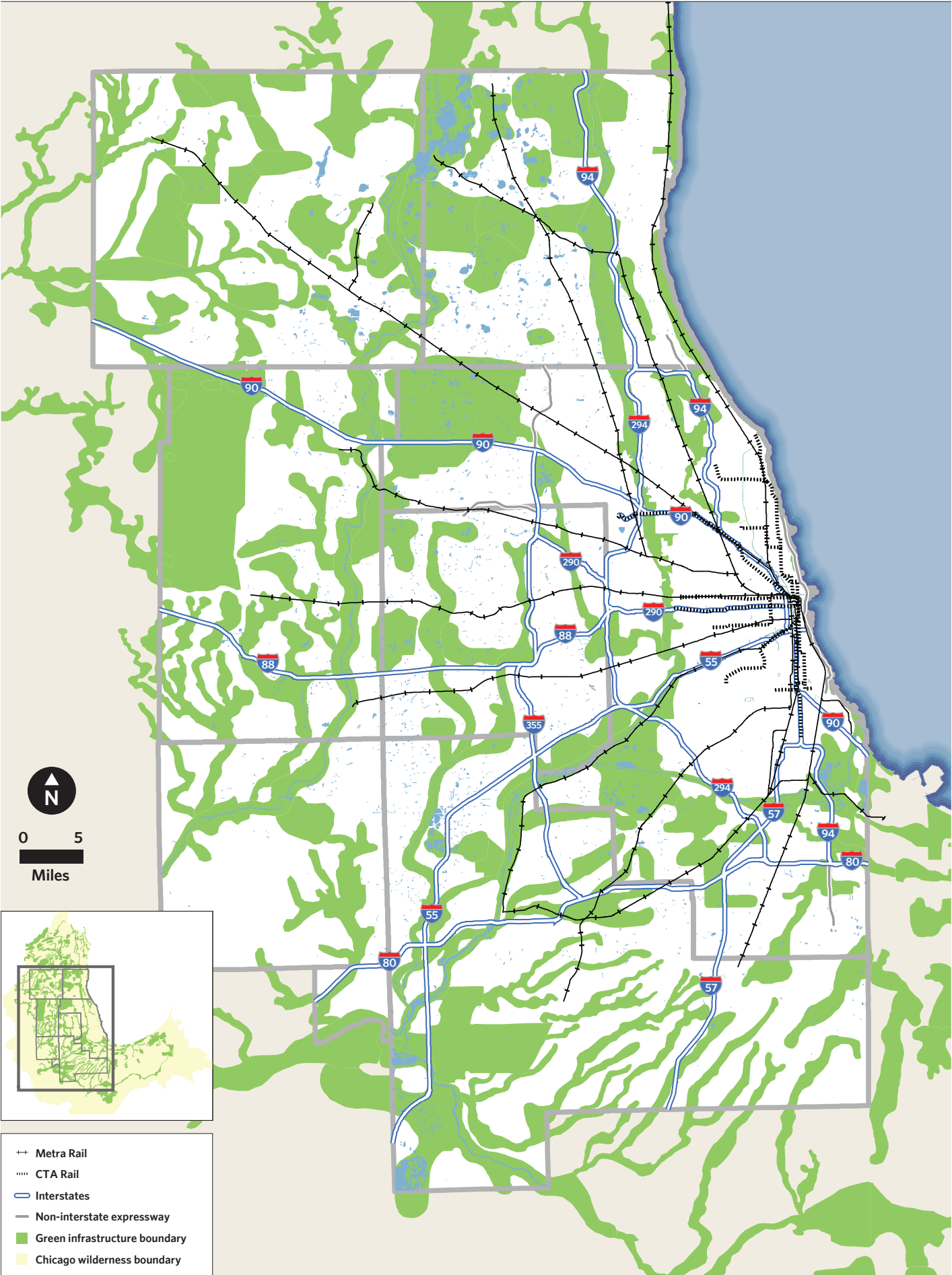
In 2008 and 2009, CW refined needs estimates for additional land protection within the GIV.²² These estimates, which come to approximately 100,000 acres in total, reflect best professional judgment of the areas that would be suitable for new preserves or

20 A recent book covers many of these opportunities in more detail — see Peter Harnik, *Urban Green: Innovative Parks for Resurgent Cities* (Island Press, 2010).

21 For more information on the Chicago Wilderness Green Infrastructure Vision, see <http://tinyurl.com/2ekr5yv>.

22 Chicago Wilderness Grant #TR0710, "Integrating the Green Infrastructure Vision into the CMAP Regional Comprehensive Plan," 2008.

Figure 33. Green Infrastructure Vision



This map shows the Resource Protection Areas in the Green Infrastructure Vision for northeastern Illinois. The inset map shows the full extent of the Chicago Wilderness GIV that extends outside the CMAP region. Sources: Chicago Wilderness and Northeastern Illinois Planning Commission

buffers to existing preserves.²³ Protecting this amount of land would bring the region substantially closer to a connected network of green infrastructure by 2040, tending to preserve the most important natural areas in the region. However, these areas within the GIV have not been ranked either for their value in preserving connectivity or for their quality and rarity. Thus, there is still a need to prioritize protection of the most important natural areas within the GIV.

While most of the land historically protected in northeastern Illinois is within the GIV, and the GO TO 2040 plan recommends continuing this trend, there will be additional opportunities to protect land outside it. In addition, the level of importance the public attaches to preserving the landscape, as indicated by CMAP's public engagement efforts as well as by the success of open space referenda, suggests that the overall target for the region should be more ambitious. Over the past 20 years, the forest preserve and conservation districts and the state have acquired or taken management responsibilities for an average of 4,400 acres per year.²⁴ Thus, the GO TO 2040 plan recommends an aggressive but achievable target of 5,000 acres per year on average, or 150,000 acres in total. This is consistent with Chicago area residents' estimated willingness to pay for natural area acquisition or improvement based on survey research and economic analysis.²⁵ Two-thirds of the target (or 100,000 acres) should be sought within the GIV Resource Protection Areas. Some of the additional acreage could be protected through state or federal acquisitions and municipal or township park districts. Recent survey research shows considerable interest by state voters in land protection, even given recession conditions.²⁶ Additional acreage could be provided through conservation easements, including easements established as part of a conservation development. Furthermore, the holdings of private land conservation organizations ("land trusts") have been expanding rapidly. It is certain that the private and nonprofit sectors must be called upon to play a growing role in land preservation in northeastern Illinois.

The emphasis of GO TO 2040 is on establishing livable communities — compact, mixed-use places with amenities and transit nearby, especially reinvesting in existing communities.

Establishing livable communities will also reduce land consumption on a regional level. Where growth is expected within the green infrastructure network, local governments should encourage the use of conservation design. Local governments permitting conservation developments should encourage the resulting open space to be legally accessible to the general public and linked through greenways and trails to other publicly held natural areas. At the state and regional level, efforts should be made to ensure that policies do not inadvertently contribute to the loss of important natural areas.

There have been a number of regional and statewide open space and natural area protection planning efforts in recent years. These include the Illinois Wildlife Action Plan (IDNR), the Sustainable Natural Areas Plan (IDNR and Illinois Natural History Survey), the Grand Victoria Foundation's Vital Lands Illinois (which provides land acquisition capital primarily to nonprofit conservation organizations), as well as the GIV and the Biodiversity Recovery Plan. Important subregional planning efforts are also taking place, like the Open Space Vision developed by a consortium of organizations working in Lake County. All recognize the importance of preserving land in a connected network and largely follow the pattern in the GIV. What remains now is to move beyond planning and to make sure funding programs and preservation activities are aligned with the plans so that all organizations are seeking to protect the most important natural areas and ensure functional linkages between them as part of a green infrastructure network. For example, Grand Victoria Foundation requires land acquisition projects it supports to further the goals of the Illinois Wildlife Action Plan and contribute to a connected system of natural lands, criteria well aligned with the GIV.

As with new parks, the establishment of new preserves carries with it the need to manage protected lands appropriately. In some cases land management agencies have been able to acquire or otherwise protect land but have not been able to manage it adequately at a basic level. Funding for major restoration work — such as the removal of invasive species, disabling field drainage, etc. — may be in even shorter supply. Thus it is crucial to develop stable sources of funding for restoration and ongoing management of conserved lands, and to make sure that authorizing statutes are not unduly limiting the ability of land management agencies to raise revenue. As with parks, volunteer efforts are an important piece of restoration and management, and volunteer involvement should be encouraged further.

23 Note that the GIV boundaries include 1.8 million acres within the Chicago Wilderness area, including parts of Wisconsin and Indiana as well as northeastern Illinois. Some of this is already protected, while some of it is already urbanized. It is important not to confuse the targets for land protection in northeastern Illinois with the much larger expanse of land that the GIV encompasses within the three-state Chicago Wilderness area. Besides the map shown in Figure 5, the GIV also includes a set of concepts that later became the Sustainable Development Principles for Protecting Nature in the Chicago Wilderness Region, which are generally consistent with the policy context recommendations in the GO TO 2040 Plan.

24 Calculated from 2009 shapefiles from county conservation and forest preserve districts, Chicago Metropolitan Agency for Planning 2001 Land Use Inventory (version 2 DRAFT), 2005 Land Use Inventory (version 1 DRAFT), and Northeastern Illinois Planning Commission 1990 Land Use Inventory (version 4).

25 R. F. Kosobud, "Urban Deconcentration and Biodiversity Valuation in the Chicago Region," report to the Chicago Wilderness Project Coalition, 1998.

26 Trust for Public Land and the Nature Conservancy, "Illinois Voters Strongly Support Land Protection," press release, May 26, 2009.

Finally, implementing organizations are also encouraged to look on agricultural preservation as one of the purposes of the GIV and land protection in general. While farmland preservation has its own merits in many areas — especially as smaller-scale, near-market farms are a crucial part of local food systems — farming also preserves more environmental benefits than most alternative uses and can be an interim link in the green infrastructure network. For instance, farming newly preserved open space will tend to limit the spread of noxious weeds relative to leaving it in an unmanaged fallow state. However, the primary long-term goal of the GIV should be seen as the protection and proper management of natural communities.²⁷

Connections Recommendations

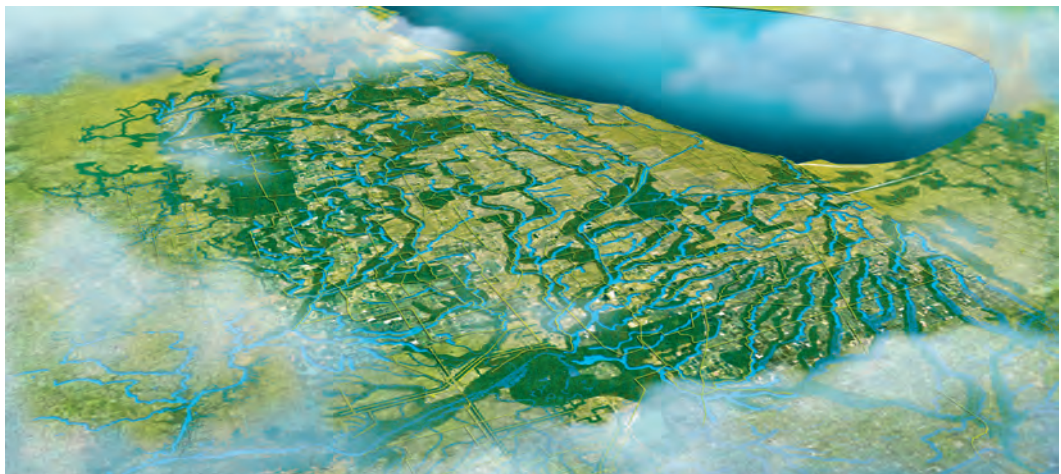
The *Northeastern Illinois Regional Greenways and Trails Plan*²⁸ has helped guide recreational trail and greenway development for almost 20 years. The *Greenways and Trails Plan* is a long-range, multi-jurisdictional plan for mostly off-street trails that complements county and other local bikeway plans. Work undertaken for the 2009 update revealed that trail mileage had doubled since 1997, when the *Greenways and Trails Plan* was last updated. Approximately 500 miles of trails were established in that time period; this is significant progress. GO TO 2040 envisions organizations in the region continuing to use the *Greenways and Trails Plan* to support walking and biking as an alternative mode choice, as well as a way of delineating potential connections between preserves and parks. Only some trails are associated with greenways, however. Of the 1,700 miles of new trail facilities proposed in the *Greenways and Trails Plan*, almost 650 have a greenways component and could serve as a means of connecting parks and preserves.

Other kinds of open space connections should not be overlooked. In particular, the Green Legacy projects developed for the Burnham Centennial identified 20 catalytic open space projects within northeastern Illinois²⁹ that are worthy of pursuit, one of the most important being the *Last Four Miles Plan*³⁰ to complete the park system along the Lake Michigan shoreline. A fully public and accessible lakefront was part of Burnham's vision for the region, and the *Last Four Miles Plan* lays out a modernized approach to complete the lakefront park system. Because it calls for lakefill in certain places to construct additional open space, the *Last Four Miles Plan* would also result in better park accessibility in some of the most underserved areas of the region.

Waterways are a crucial link connecting the network of open space in the region. Protecting streams and the stream corridor, as called for under the GIV, has many environmental benefits, but it can also be accompanied by recreational programming to create “blueways.” Considerable work has been done in the region and in neighboring regions to support the development of such water trails, which generally includes the installation of boat launches, the development of interpretive signage, and so forth. Openlands, along with several other organizations, has developed the *Northeastern Illinois Regional Water Trails Plan*³¹ as well as a *Greenways and Blueways*³² plan for northwest Indiana. Besides the need for boating infrastructure, there is also a great need along many waterways to improve shoreline and buffer conditions. In many places, erosion (among other problems) has taken a toll on water quality, while a lack of vegetated buffers between the waterway and other uses has compromised habitat and aesthetics. A robust approach to blueway development will require addressing these conditions in and around the waterway.

Figure 34. Green infrastructure network of northeastern Illinois

GO TO 2040 proposes a green infrastructure network that follows waterway corridors, expands existing preserves, and creates new preserves in the region.



27 These are the first two key recommendations of the Chicago Wilderness Biodiversity Recovery Plan, 1999.

28 Chicago Metropolitan Agency for Planning, *Northeastern Illinois Regional Greenways and Trails Plan*. See <http://www.cmap.illinois.gov/bike-ped/greenways-and-trails>.

29 The Burnham Plan Centennial, *Green Legacy Projects*, 2009. See <http://tinyurl.com/c7jfuc>.

30 Friends of the Parks, *The Last Four Miles: Completing Chicago's Lakefront Paths*. See <http://tinyurl.com/2ewjkm>.

31 Openlands, *Northeastern Illinois Regional Water Trails*. See <http://openlands.org/Greenways/Projects/northeastern-illinois-water-trails.html>.

32 *Greenways & Blueways: Northwest Indiana Regional Plan*. See <http://tinyurl.com/2f88uv8>.

3.5 Implementation Action Areas

The following tables are a guide to specific actions that need to be taken to implement GO TO 2040.

The plan focuses on five implementation areas for expanding and improving parks and open space:

Coordinate Open Space Investment to Create a Connected Regional Green Infrastructure Network

Invest in the Establishment of New Parks in Developed Areas

Harmonize Actions by State and Local Government with Natural Resource Protection

Increase Funding to Achieve the Level of Park Provision and Land Conservation

Treat Management Needs as an Important Part of Landscape Preservation

Implementation Action Area #1: Coordinate Open Space Investment to Create a Connected Regional Green Infrastructure Network

<p>Prioritize direct land protection within the green infrastructure network</p> <p>LEAD IMPLEMENTERS: Federal government, state (IDNR), county forest preserve and conservation districts, land trusts</p>	<p>The forest preserve and conservation districts should adopt and periodically update acquisition plans. These acquisition plans should set targets that are consistent with the overall objective of preserving 150,000 acres of land, two-thirds of it within the green infrastructure network. The plans should be oriented toward protecting the areas most important from a natural resources perspective. Other things being equal, a parcel within the GIV boundaries should have substantially higher priority for protection or restoration than a parcel outside it. Furthermore, direct state acquisitions should take into account whether an acquisition opportunity is within the green infrastructure network.</p>
<p>Include green infrastructure connectivity in open space grant programs</p> <p>LEAD IMPLEMENTERS: State (IDNR), philanthropic</p>	<p>A replenished Open Land Trust program should have a specific set-aside, or at least a set number of points in a score-based system, to help fill out the green infrastructure network. Natural Areas Acquisition Fund (NAAF) should continue to be used as it is to acquire the most important natural areas. Almost all of the candidate properties for the NAAF are likely within the GIV, but location within the GIV per se should not be a criterion. Open Space Lands Acquisition and Development (OSLAD) criteria should be revised to assign points for connectivity with other parks and protected open space. Private foundations that fund open space preservation should make preservation of the green infrastructure network part of their prioritization metrics.</p>
<p>Prioritize development of greenway trails with Transportation Enhancement funds</p> <p>LEAD IMPLEMENTERS: State (IDOT), counties, municipalities</p>	<p>Multimodal design (“complete streets”) should be the rule, not an exception funded as an add-on through the Transportation Enhancement (TE) program. TE can be used for 12 eligible activities including providing bicycle and pedestrian facilities. The development of multiuse, off-street greenway trails identified in the 2009 Greenways and Trails Plan should be considered an important use of the TE funds as long as they last.</p>

Implementation Action Area #1: Coordinate Open Space Investment to Create a Connected Regional Green Infrastructure Network (continued)

<p>Refine the Green Infrastructure Vision further</p> <p>LEAD IMPLEMENTERS: State (IDNR, INHS), CMAP, CW</p>	<p>The GIV provides a broad, qualitative identification of the lands that are most important to protect and restore. A number of scientific issues remain, however. One is whether it is more important to concentrate on expanding hubs or on linking the hubs with corridors. Another is the actual “least-cost paths” for species migration, as could be determined by quantitative analysis. In short, the revised GIV should help inform scientific preserve design. Furthermore, groundwater recharge and surface water protection should be included more robustly. Additional emphasis should be placed on already developed areas of the region, including the City of Chicago, and on the potential contributions of urban forestry. Finally, it is of the utmost importance that corridors be identified at a finer scale in the next version so that it can guide local development and infrastructure planning.</p>
---	--

Implementation Action Area #2: Invest in the Establishment of New Parks in Developed Areas

<p>Foster cooperation between park districts and school districts in dense areas to share use of open space</p> <p>LEAD IMPLEMENTERS: Municipalities, park districts, school districts</p>	<p>Develop inter-local agreement between the districts, followed by a planning study to determine land and facilities that could be used jointly to meet education and recreational needs, and then by specific improvements to meet identified needs.</p>
<p>Use innovative financing and delivery mechanisms to meet the need for more park space</p> <p>LEAD IMPLEMENTERS: Counties, municipalities, park districts</p>	<p>Redevelopment can be a major opportunity to provide more park space for a community. Codes can be altered to incentivize developers to provide open space during redevelopment by providing density bonuses, making reinvestment in existing communities more attractive. Furthermore, local governments can ask developers to provide connections to greenways or even trail segments as part of redevelopment. When appropriate, they could also fund park improvements through tax increment financing, considering that parks are known to have a positive effect on the value of nearby properties.</p>
<p>Review land-cash donation ordinances</p> <p>LEAD IMPLEMENTERS: Counties, municipalities, park districts</p>	<p>Older communities should review their subdivision codes or land-cash donation ordinances to make sure open space donation requirements or in-lieu fees apply during redevelopment, that they are at least 10 acres per 1,000 people (or at least 4 acres per 1,000 in dense areas), and that in-lieu fee values reflect current land values. Municipalities should work closely with park districts in this regard; higher donation requirements coupled with higher allowable densities will tend to encourage compact development. Communities expecting new growth should review their ordinances to ensure they provide rules on land donation to ensure land is well-located. It is also in the public interest to allow developers to donate land in the floodplain; park districts should strongly consider accepting these lands as part of the donation and manage them as passive recreational open space.</p>
<p>Encourage volunteerism and non-traditional staffing</p> <p>LEAD IMPLEMENTERS: Forest preserve and conservation districts, park districts</p>	<p>Park and forest preserve districts should actively encourage the creation of conservancies and partner with them to reduce the cost burden of maintenance and park programming while giving more “ownership” to users.</p>
<p>Make Open Space Land Acquisition and Development match requirements more equitable</p> <p>LEAD IMPLEMENTERS: State (IDNR)</p>	<p>Local governments in the most “under-parked” areas will frequently find it most challenging to provide the 50 percent match required for OSLAD. The state should decrease the match required in communities with lower fiscal capacity, as measured (for example) by equalized assessed value per capita.</p>
<p>Identify and protect sensitive recharge areas</p> <p>LEAD IMPLEMENTERS: State (ISWS, ISGS), CMAP, counties, municipalities</p>	<p>CMAP should lead a collaboration to identify SARAs, prioritize those most important for protection, and develop and disseminate model ordinances to ensure their preservation.</p>

Implementation Action Area #2: Invest in the Establishment of New Parks in Developed Areas (continued)

Encourage the integration of resource conservation in land use planning LEAD IMPLEMENTERS: State (DCEO), CMAP	Use planning grant programs to assist communities in incorporating resource conservation in local comprehensive planning.
Implement “urban greening” projects LEAD IMPLEMENTERS: Counties, municipalities, park districts	Although it does not provide recreational opportunities for the most part, providing more extensive landscaping, tree cover, etc. does make developed areas more attractive and hence more livable. It can help increase access to open space and connect people with nature. Municipalities should build such practices into local infrastructure projects they undertake, such as street and sidewalk reconstruction. They should also review the potential to include requirements for them in new development through local ordinances.
Implement urban farms and community gardens LEAD IMPLEMENTERS: Municipalities, park districts	In some cases, it will be more appropriate to utilize available urban land for farming, ³³ rather than for recreational parks. This will depend on local interests and the current availability of either type of land. Urban farming and community gardening have become increasingly important, as they satisfy a consumer preference for locally grown food, reduce food transportation costs, and provide a number of other benefits.

Implementation Action Area #3: Harmonize Actions by State and Local Government with Natural Resource Protection

Adopt progressive conservation design ordinances LEAD IMPLEMENTERS: Counties, municipalities	The most important thing a local government can do to protect open space is to plan for livability. ³⁴ This will reduce overall land consumption. Some development will continue to occur within the green infrastructure network, however. In this case, local governments should require or at least encourage conservation design, resulting in the legal protection of a significant portion of the site through a conservation easement. The protected areas should be fully accessible to the public and linked to any offsite trails. Conservation design should produce site yields equal to or greater than allowable with the underlying zoning, so that gross density does not change. Local governments should adopt a conservation design ordinance based from the <i>Conservation Design Resource Manual</i> ³⁵ to make it a by-right form of development. Some consideration should be given to having conservation design requirements apply automatically on sites containing important natural resources, as identified in a local comprehensive plan. A funding source and requirements for the management of common open space must be part of the development approval process.
Emphasize the protection of the green infrastructure network in local comprehensive plans LEAD IMPLEMENTERS: Counties, municipalities	As part of its comprehensive plan, a municipality should (in collaboration with the park district) specifically identify areas preferred to serve as parks, greenways, and natural areas. These areas should be zoned as such in accordance with the municipality's comprehensive plan.

33 See the GO TO 2040 section titled Promote Sustainable Local Food.

34 See the GO TO 2040 section titled “Achieve Greater Livability through Land Use and Housing.”

35 Northeastern Illinois Planning Commission and Chicago Wilderness, *Conservation Design Resource Manual: Language and Guidelines for Updating Local Ordinances*, 2003. See <http://www.nipc.org/environment/sustainable/content.htm#Conservation%20Design%20Resource%20Manual>.

Implementation Action Area #3: Harmonize Actions by State and Local Government with Natural Resource Protection (continued)

<p>Protect natural resources in transportation corridors and focus compensatory mitigation into the green infrastructure network</p> <p>LEAD IMPLEMENTERS: Federal (U.S. ACE), state (IDOT, Tollway), CMAP, forest preserve and conservation districts</p>	<p>One way of maximizing resources for preservation and restoration within the green infrastructure network is to stipulate that compensatory wetland mitigation required under federal or local ordinances occur within that network, but still focused within the watershed where the impact occurred. Requiring mitigation in this predefined area could help resolve the problem that entities required to do mitigation are often pressed to find a land management agency willing to take ownership and management responsibilities for the wetlands. It remains important to adhere to a sequence of avoiding and minimizing wetland impacts before utilizing compensatory mitigation. Furthermore, transportation agencies should use advanced design techniques to protect resources in project corridors, such as those spelled out in the I-LAST (Illinois — Livable and Sustainable Transportation) manual developed by IDOT.</p>
<p>Limit urban infrastructure expansion within the green infrastructure network</p> <p>LEAD IMPLEMENTERS: State (IEPA), CMAP, municipalities</p>	<p>Sewer service should not be permitted in especially sensitive areas of the green infrastructure network. These especially sensitive areas should be precisely defined and identified in a refined version of the GIV, after which they should be specifically excluded from the incremental new area added to expanding facility planning areas.</p>
<h3>Implementation Action Area #4: Increase Funding to Achieve the Level of Park Provision and Land Conservation</h3>	
<p>Secure additional dedicated state open space funding</p> <p>LEAD IMPLEMENTERS: State (IDNR), nonprofits</p>	<p>State funding for land acquisition, recreational facility development, and state park operations have declined significantly in the past few years. While a state capital bill was passed in 2009, more significant and stable funding is needed to replenish the state's Open Land Trust account. A set-aside specifically for acquisitions within the GIV and for parks programming in northeastern Illinois would be ideal.</p>
<p>Stop diverting revenue from Illinois Department of Natural Resources programs</p> <p>LEAD IMPLEMENTERS: State (General Assembly, IDNR)</p>	<p>Despite the dedicated revenue stream, OSLAD and NAAF have been significantly underfunded in recent years. In some years, IDNR has spent less than half of OSLAD and NAAF funds, with the remainder raided for other state budgetary priorities.³⁶ IDNR had \$60 million less in funding in 2006 compared to four years earlier. Diverting Illinois Real Estate Transfer Tax (RETT) funds and raiding the IDNR budget for other state priorities must cease.</p>
<p>Increase involvement by private landowners in conservation activities</p> <p>LEAD IMPLEMENTERS: State (General Assembly), federal (Congress)</p>	<p>Private land conservation activities must play an increasingly important role in northeastern Illinois, but the state should provide incentives to encourage this, such as a state income tax credit for the donation of a conservation easement.³⁷ Federal tax incentives should be strengthened and extended. These actions could help encourage people to donate easements. In some cases, landowners may wish to provide public access to certain portions of their property for recreation or volunteer restoration work. However, landowners are inadequately protected from liability at present. The state should seek to offer liability protection to landowners who wish to allow these uses.</p>
<p>Build capacity in private conservation organizations</p> <p>LEAD IMPLEMENTERS: Land Trust Alliance, CW, Openlands, and others</p>	<p>To help them fulfill their important role in regional conservation, additional technical and administrative capacity needs to be built up at land trusts. This could entail training in real estate instruments, finance, and land management, among other areas.</p>

36 Illinois Environmental Council Education Fund, Illinois State Land Conservation Funding, 2007. See http://img.ilenviro.org/attachments/2007ISLCF_report.pdf.

37 As an example, the state currently reduces real estate taxes on qualifying land enrolled in an Illinois Nature Preserves Commission program.

Implementation Action Area #4: Increase Funding to Achieve the Level of Park Provision and Land Conservation (continued)

<p>Support direct federal investment in open space</p> <p>LEAD IMPLEMENTERS: Federal (Congress, U.S. FS)</p>	<p>Some of the biggest hubs or “macrosites” in the region are based on land protected by the federal government. Direct federal investment in open space in the region is an important form of funding that could be expanded; the federal government should take on a more significant role in open space protection in the region. This could happen through the formation of national wildlife refuges and the transfer of appropriate surplus federal property for open space uses, as happened at Midewin National Tallgrass Prairie and Fort Sheridan. Organizations in the region should support these opportunities as they arise.</p>
<p>Increase funding for federal open space grant programs</p> <p>LEAD IMPLEMENTERS: Federal (Congress)</p>	<p>The federal Urban Park and Recreation Recovery (UPARR) program has not been funded since 2002. It is the only federal program specifically for constructing and rehabilitating local parks, and has been in place for more than three decades. The state portion of the Land and Water Conservation Fund has seen very limited budgetary authorization in recent years.</p>

Implementation Action Area #5: Treat Management Needs as an Important Part of Landscape Preservation

<p>Restore open space within the green infrastructure network to natural land cover and hydrology and commit to long-term management</p> <p>LEAD IMPLEMENTERS: Forest preserve and conservation districts, land trusts, state (IDNR), utilities</p>	<p>From an environmental viewpoint, the central purposes of protecting the green infrastructure network are to protect water resources and to preserve biodiversity within the region. Ecosystem restoration, which often depends on at least partial reversal of hydrologic modifications, must be a major activity within the green infrastructure network. Local park sites are successfully being redesigned to include smaller green infrastructure practices for stormwater management; this is an important role they can play in the future in addition to providing recreation opportunities. Lands that are not protected open space per se are also candidates for management as green infrastructure. For instance, utility companies should make additional effort to put right-of-way into natural land cover.</p>
<p>Devise and commit to a system to prioritize restoration needs based on regional criteria</p> <p>LEAD IMPLEMENTERS: State (INHS, IDNR), CMAP, forest preserve and conservation districts, nonprofits</p>	<p>It is not yet clear which areas are most important for restoration from a regionwide standpoint. CW or other partners, such as the Illinois Natural History Survey (INHS), should develop or simply adapt a system to rank natural areas by the viability and importance of restoring them. Restoration projects by organizations in the region should then be based on these priorities, as should external funding for restoration projects. Standardization of collection and sharing of data on restoration success should be encouraged as part of this system.</p>
<p>Consider purchase of agricultural land as an interim link in the green infrastructure network</p> <p>LEAD IMPLEMENTERS: Forest preserve and conservation districts, counties</p>	<p>Although the long-term goal is to restore land within the green infrastructure network to natural land cover, it is important to acquire farmland as an interim link. This can be licensed to producers to continue farming, which should be done in accordance with a conservation plan approved by the forest preserve or conservation district. Provision should be made to offset lost tax revenue for other taxing bodies in rural areas.</p>
<p>Support efforts to provide adequate operating budgets for implementing agencies</p> <p>LEAD IMPLEMENTERS: State (General Assembly), CMAP, nonprofits</p>	<p>Reevaluate statutory restrictions on the ability of park districts and forest preserve and conservation districts to raise property taxes to manage lands they acquire. Consider inclusion of funds for management in open space referenda. Estimate financial needs for restoration work in the region.</p>

3.6 Costs and Financing

Most of the recommendations in the GO TO 2040 plan involve reallocating existing funds or they simply save money over current practice. The protection of natural areas and the provision of parks, however, is an area where it is important for the region to make an investment in a public good.

Federal transportation planning regulations require long-range transportation plans to be constrained to the projected availability of funds. While this is not required for other topic areas, it is sensible in the case of open space. This section therefore provides a conceptual budget with the sources and uses of projected funds.

The preservation target of 150,000 acres is within reach if a number of conditions are met. First, the forest preserve and conservation districts would need to continue to play the primary role in preserving land in northeastern Illinois. Second, private land trusts would need to play a growing role, second only to the forest preserves and conservation districts. In many cases now they work together collaboratively; these partnerships would need to expand even further. Third, conservation design will need to play a significant role, with some conditions attached. Fourth, additional investment by the federal government and by the state beyond existing grant programs will be needed.

About 5,200 acres would be required to meet the targets for park access in already developed areas. This is likewise possible if several conditions are met. First, local governments would need to employ density bonuses or other techniques to encourage the provision of publicly accessible urban open space as part of larger redevelopment projects. Second, park districts would need to continue to employ their bonding authority as they have in the past. Solutions that do not require additional funding, such as sharing open space with school districts, must be part of the approach as well.

Forest Preserve and Conservation Districts

Based on their expertise, the portfolio of properties they maintain, and their continued success with open space referenda, the county forest preserve and conservation districts would be the chief implementers of the regional targets for open space. Over the period 1999–2009, the county forest preserve and conservation districts issued bonds of \$1.2 billion in current dollars, or \$124 million per year on an annualized basis.³⁸ Note that these funding estimates are based on historical revenue covering more than one economic cycle. If the districts are able to maintain this revenue stream, it would provide approximately \$3.7 billion in 2010 dollars. Voters have reliably supported open space bonds.

Not all of this could be used for acquisition, however. Some would be used for other capital programming, such as trails and other facilities, but also major ecosystem restoration projects. If 75 percent on average were used for acquisitions, then approximately \$2.8 billion would be available for filling out the green infrastructure network and protecting other important lands. One long-term difficulty for the forest preserve and conservation districts, however, is the strain additional land protection places on operating budgets, which are generally derived from property taxes. This will be especially true given the increased restoration of land proposed in GO TO 2040. It has proven harder to get voter approval for increases in forest preserve and conservation district tax rates than for bond issues to buy open space, the latter having never failed in the past 10 years. Furthermore, limits on tax rates established by statute may affect the long-term ability to manage protected lands.³⁹

38 From Openlands, “Forest Preserve and Conservation Districts in Northeastern Illinois: Meeting the Challenges of the 21st Century,” 2006; and from referenda results tracked by Illinois Association of Park Districts. This value includes \$100 million in bonding authority given to the Forest Preserve District of Cook County by the General Assembly in 2004.

39 See 70 ILCS 805/13.1 for tax rate limits for forest preserve districts outside Cook County.

Park Districts

Park districts would be the chief implementers of the recommendation to increase the acreage of parks in developed areas. There are sources of grant financing, such as the OSLAD Program from IDNR as well as the federal UPARR program, which has not received funding appropriations in recent years. Park districts retain the ability to raise their own revenue, however. They issued bonds to buy recreation-oriented open space at a rate of \$15.2 million per year between 2000 and 2009.⁴⁰ If these rates were to continue, it would provide about \$457 million by 2040.

Conservation Design

The GO TO 2040 plan supports the use of conservation design in the region. This term has come to mean many things to many people, but in this context it means the protection of sensitive natural features on a development site (amounting to 40-50 percent of the site preserved) and placing them under an easement. While CMAP emphasizes compact development and moderate density increases in the region, some growth is still expected within the GIV boundaries. If conservation design that averaged 40 percent protection of the site were pursued in those areas, approximately 28,000 protected acres would result. Local governments permitting conservation developments should stipulate that the resulting open space is accessible to the general public and linked through greenways and trails to other publicly or privately held natural areas. Redevelopment projects in developed areas can also be encouraged to provide parks to meet park accessibility needs.

It is estimated that if density bonuses of 10 percent were given to encourage the provision of open space as part of redevelopment projects, it could provide 2,500 acres of urban open space.

State Parks and Open Space Funding

The State of Illinois could contribute to the conservation target for northeastern Illinois in several ways. Existing open space grant programs can provide some resources, but the larger opportunities are likely through direct state acquisition or through a sustained funding mechanism that would replenish the Open Land Trust account. The main existing grant programs are the NAAF, which is meant to provide funds primarily for land acquisition, and the OSLAD program, which provides funds primarily for park development. Both are paid from Illinois RETT revenue as required by state statute, although in fact these funds have been diverted extensively in recent years and used for other purposes.

The average total statewide revenue from the RETT was \$85.5 million per year over 1996-2008 in 2010 dollars. The NAAF is funded by a 15-percent set-aside from the RETT, and OSLAD is funded by a 35-percent set-aside from the RETT. Currently, RETT revenue is very low because of the slack housing market. As the housing market picks up, however, RETT revenues should as well. If average RETT collections to 2040 remain the same (even if they are low in the early years), it would translate into \$39 million per year for OSLAD and \$13 million for NAAF. Historically, 44 percent of NAAF has been spent in northeastern Illinois.⁴¹ This fund is supposed to be used exclusively for acquisition, and would provide \$169 million over thirty years to protect the most important natural areas in the region, but it must not be diverted and used for other purposes.

About 69 percent of OSLAD funding has gone to northeastern Illinois historically, and 13 percent of that has gone to the county forest preserve and conservation districts.⁴² If these trends continue, OSLAD would provide about \$80 million by 2040 for preserves in northeastern Illinois. Most OSLAD funding, however, goes to park districts and municipalities. Approximately 25 percent of OSLAD funding has been used for park land acquisition historically. Assuming that none of the RETT funds are diverted for other purposes, then, OSLAD would provide \$135 million for park land acquisition. Note that OSLAD requires a 50 percent match; IDNR should consider a sliding scale for disadvantaged urban communities seeking to remedy park access deficits.

There is also the potential for the state to acquire land directly and operate it as a state park, state conservation area or similar public preserve. Most importantly, however, the state could fund the Open Land Trust (OLT) program as it did from 1999 to 2003. The OLT provided \$63.6 million for local agencies for the acquisition of 8,735 acres statewide. A small amount of funding was provided to the state for open space acquisition in the 2009 capital bill, but most of

40 Calculated from referenda results tracked by Illinois Association of Park Districts. See http://www.ilparks.org/?page=referendum_results. The referenda questions were examined to determine whether they were primarily for acquisition of recreational land.

41 Based on list of Natural Areas Acquisition Fund acquisitions from 1991 to 2008 provided by the Illinois Department of Natural Resources.

42 Based on list of Open Space Land Acquisition and Development grants made from 1999 to 2009 provided by Illinois Department of Natural Resources.

that funding has not materialized. The best new means of financing the OLT program is not clear,⁴³ but a number of groups have been investigating potential revenue streams.⁴⁴ Because the amount the OLT or direct acquisition could fund is unknown, only a small amount of preservation (5,000 acres) is projected for the budget.

Private Land Trusts

Nonprofit conservation organizations have become a major force in conservation across the country, and they own or manage a number of important natural areas in the region. Continuing their present annual rate of land preservation — about 1,200 acres per year on average — would amount to 36,000 acres by 2040. A number of foundations also provide funding for land acquisition, including Illinois Clean Energy Community Foundation, Donnelly Foundation, and Grand Victoria Foundation. GO TO 2040 also recommends establishing additional incentives for private conservation, such as state income tax credits, to help stimulate preservation activity by land trusts.

Conceptual Budget

Table 2 shows the projected sources of funding⁴⁵ for the preservation of important natural areas in the region. The recommended target, again, is 150,000 acres, about two-thirds of which would be devoted to completing the regional green infrastructure network. The budget shows an “equivalent value” for lands preserved. This represents the approximate cost for fee simple acquisition of the land, even though 42 percent of the land under the GO TO 2040 recommendations would be preserved less expensively by taking out conservation easements.

Table 3 shows the projected sources of funding for parks in already developed areas of the region. The “equivalent value” again represents the approximate cost for fee simple acquisition of the land, even though almost half would be provided through redevelopment. Similarly, the cumulative operating cost represents what would be expected for recreational land owned by a park district. This cost can be reduced by the use of volunteer staffing and encouraging conservancies or neighborhood groups to perform park maintenance.

Table 2. Projected sources of funding for preservation of important natural areas

SOURCES	ACRES	EQUIVALENT VALUE	CUMULATIVE OPERATING COST
County bonds	62,144	\$2,782,657,095	\$818,743,270
OSLAD	2,523	\$80,485,373	\$33,241,214
OSLAD local match	2,523	\$80,485,373	\$33,241,214
LWCF	461	\$14,695,717	\$6,069,469
NAAF	5,304	\$169,200,019	\$69,881,195
Conservation design	28,000	\$893,200,047	\$368,900,000
Land trusts (acquisition, donations, private grants, etc.)	36,000	\$1,148,400,061	\$474,300,000
Federal (wildlife refuge, etc.)	8,000	\$255,200,013	\$105,400,000
Direct state investment or Open Land Trust	5,000	\$159,500,008	\$65,875,000
GO TO 2040 natural area preservation target	150,000	\$5,649,046,088	—
Estimate of reasonably expected funds	149,955	\$5,583,823,705	—

Note: Equivalent value is based on acquisition costs from 2006-2008 average prices paid by each forest preserve or conservation district. Operating costs were assumed to be \$850 per acre for each district based on an average taken from the most recent available district budget. Cost estimates based on information from the forest preserve and conservation districts were assumed to be fairly representative of costs for other organizations.

43 The Illinois Open Land Trust Act (525 ILCS 33) does not specify a source of financing for the Open Lands Loan Fund (which can also be used for grants). It previously was funded through state bonds in the Illinois FIRST capital program.

44 Illinois Environmental Council Education Fund, “Illinois State Land Conservation Funding,” 2007. See http://img.ilenviro.org/attachments/2007ISLCF_report.pdf.

45 Note that there are other sources of funding which are considered minor in northeastern Illinois or available only episodically, such as Illinois Department of Natural Resources’ hunting-related programs, occasional donations of corporate property as part of settlements for environmental violations, and the Partners in Conservation (Conservation 2000) program, the funding of which has been sporadic and little used for acquisition. These are not included.

Table 3. Projected sources of funding for parks in already developed areas

SOURCES	ACRES	EQUIVALENT VALUE	CUMULATIVE OPERATING COST
Park district bonds	1,720	\$457,173,739	\$799,771,962
OSLAD	507	\$134,658,219	\$235,568,798
OSLAD match	507	\$134,658,219	\$235,568,798
Parks in redevelopment	2,500	\$664,520,010	\$1,140,645,000
GO TO 2040 park provision target	5,200	\$1,366,993,331	—
Estimate of reasonably expected funds	5,233	\$1,391,010,188	—

Note: Equivalent value is estimated from the 25th percentile of land values in the quarter section where the park would be located. The use of the 25th percentile is meant to account for park districts seeking to purchase less expensive land within their jurisdictions. Operating costs were estimated to be \$30,000 per acre, based from FY 2006 revenues and expenditures in a sample of 31 metropolitan Chicago area park districts in the U.S. Census of Governments.

Tax Impacts

There is the potential for open space acquisition to reduce the fiscal capacity of taxing districts in the region. In other words, if the state or a county forest preserve or conservation district acquires property, a municipality, township, school district, etc., would forgo the ability to site a taxable use on the property. However, there are several reasons to believe that this effect will be limited. First, many studies suggest that residential land uses, in comparison to commercial, industrial, open space, and agriculture, generate less in local tax revenue than they require in local services.⁴⁶ The specific ratio of revenues to costs varies considerably depending on the details of the case, but in general residential land does not “pay its own way.” Open space held by a public agency generates no tax revenue, and private land assessed at open space rates⁴⁷ generates very little, but these lands also require fewer public services (fire, schools, snow plowing, street lighting, etc.) than residential uses. On balance, the net fiscal impact of open space preservation on municipalities, townships, school districts, and fire districts tends to be more positive than with residential development.

By acreage, most of the new development in the region will be residential. Hence residential development would be the most likely alternative use for the majority of the open space recommended for protection in GO TO 2040, suggesting that the net fiscal impact from residential development under a trend growth scenario would be negative. Industrial and commercial uses, on the other hand, have

a strongly positive net fiscal impact.⁴⁸ However, these uses tend to cluster along major roads; commercial uses especially tend to locate at the intersections of arterials. Such locations are not generally desirable for preserves, except in the atypical case where there are very important, rare, or high-quality natural communities on site. Thus, while the most common alternative use would be residential, the fiscal impact of residential use will generally be negative; on the other hand, the land uses with the most positive net fiscal impact, commercial and industrial uses, tend not to conflict with open space preservation, some counterexamples aside.

The situation is somewhat different with agricultural uses. Agriculture generates local tax revenue and its service costs are very low, so its net fiscal impact is positive, although not very high. More than just a loss of the opportunity to site a higher-value land use, other taxing districts will face loss of current revenue if agricultural land is purchased by a public agency. In those areas where it is a high priority to preserve agricultural land, one remedy is for land trusts or other organizations to purchase or accept donations of agricultural conservation easements rather than to pursue fee simple acquisition by a public agency, thus preserving the taxable use. Acquisition by a public agency may still be the best land protection approach for the circumstances, e.g., if it is unlikely that there will be ongoing demand for agricultural use of the property. In that case, the agency will likely license the land to a producer to continue farming.

46 See, for instance, M.J. Kotchen and S.L. Schulte, “A Meta-Analysis of Cost of Community Service Studies,” 2008. See http://www.farmlandinfo.org/documents/37969/Meta-analysis_COCS.pdf. This meta-analysis compared the findings of 125 cost of services studies.

47 See Property Tax Code 35 ILCS 200/10-155 and 35 ILCS 200/10-400.

48 Estimates of net revenue per acre in CMAP State and Local Taxation, 2009. See <http://www.cmap.illinois.gov/snapshot.aspx#Tax>.

A second major reason why fiscal capacity is likely to be maintained even with open space acquisition has to do with the recommended development pattern itself. GO TO 2040 recommends moderate residential density increases, the appropriate level of increase being a matter for local decision. For the same number of projected households, a denser development pattern will tend to limit land consumption. Density also has effects on the ratio between revenue and service cost. For one, the assessed value of an acre of land will tend to go up the more densely it can be developed. For the same tax rate, then, revenue should increase as well. Density also decreases the cost of providing services on a per-household or per-employee basis, at least for physical infrastructure, an effect which is well-established in the literature.⁴⁹ Working together, these two effects will tend to offset the reduction in taxable land.

Finally, a third reason why local fiscal capacity would generally be protected even with aggressive land preservation is that open space drives up the assessed value of property nearby. Extensive research has been conducted to validate this effect, which has been known for more than a century.⁵⁰ It is not merely the presence of any open space nearby (i.e., developable farm land, forest, etc.), but specifically protected open space.⁵¹ The effect is strongest for community parks, but it also applies to “greenbelts,” another name for a connected network of green infrastructure. One researcher has put the premium at 20 percent as a general value for lots abutting or fronting a passive park area; some level of increase can often be detected up to 2,500 feet away.⁵² Premiums more or less than this can be expected depending on the circumstances and especially the level of maintenance of the park, with poorly maintained parks or those with security concerns actually being detrimental to property values. This need for maintenance to protect property values is one reason why it is especially important to ensure that park districts are able to raise revenue for operating costs.

On the whole, then, the program of open space preservation and park establishment recommended in GO TO 2040 would not tend to reduce the fiscal capacity of other local taxing bodies, while offering many benefits to quality of life, public health, and the environment.

49 Reviewed in Mark Muro and Robert Puentes, “Investing in a Better Future: A Review of the Fiscal and Competitive Advantages of Smarter Growth Development Patterns,” Brookings Institution Center on Urban and Metropolitan Policy, 2004.

50 Reviewed in Economic Research Associates, “Real Estate Impact Review of Parks and Recreation,” 2005. See http://www.ilparks.org/resource/resmgr/research_documents/research_era_real_estate.pdf. Also summarized in GO TO 2040 Preservation of Parks and Open Space Strategy Paper, 2009. See http://www.goto2040.org/open_space/.

51 J. Geoghegan, “The Value of Open Spaces in Residential Land Use,” *Land Use Policy* 19 (2002):91-98.

52 Economic Research Associates, “Real Estate Impact Review of Parks and Recreation,” 2005. See http://www.ilparks.org/resource/resmgr/research_documents/research_era_real_estate.pdf.