

# The Last Four Miles





# The Last Four Miles

## Completing Chicago's Lakefront Parks



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Chicago's Best Friend

*Friends of the Parks is a 34-year-old park advocacy organization, dedicated to preserving, protecting, and improving Chicago's parks and preserves for all citizens.*

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## The time is now.

A century after Daniel Burnham boldly proposed parkland for Chicago's entire lakefront—one long park for everyone's use—the moment has come to commit ourselves as a city, as a region and as a generation to finish this work.

The moment has come to create parks along the remaining four miles of the city's 30-mile Lake Michigan shoreline.

The earliest Chicagoans recognized the need for open, green space—breathing space—at the lakefront as a tonic to the crush of urban life. In 1909, the publication of the *Plan of Chicago* was a trumpet blast rousing citizens to create a healthier, more efficient, more beautiful city. Turning the entire lakefront into parks was a key proposal of the Plan.

We honor the vision of the civic leaders who supported and promoted the Plan. Even more, we honor the citizens of Chicago who voted 86 times to approve referenda to provide funding to bring the Plan to life.

Now the torch is passed to our generation. It is our charge as citizens and leaders to complete Chicago's lakefront park system, to build on Burnham's bold dream of a continuous playground for the people all along the lake.

Today, in 2009, Chicago's 26 miles of lakefront parks are an unparalleled work of beauty and source of recreation. But they remain incomplete. Approximately two miles on the south lakefront and two miles on the north lakefront are undeveloped, unconnected, or blocked from public use.

In addition to expanding lakefront recreational opportunities for all, the completion of the lakefront park system will help protect the shoreline against erosion and guard public and private property from the buffeting of lake storms. It will foster the creation of aquatic and wildlife habitat that benefits the lake's ecosystem, and add approximately 500 acres of new open-space to communities where it is in short supply.

And it will knit the city, north and south, in an unprecedented way, and link with other Chicago and regional trail systems, helping to weave together the region.

Undertaking this task won't be easy. Closing these gaps will require a renewed civic commitment to completing Chicago's lakefront parks. The cost is projected to be less than the \$475 million needed in 2004 to build the immensely popular Millennium Park.

And we must remember that our lakefront is a legacy of those who came before us. As stewards of that inheritance, it is our charge to maintain and expand it for our children and our children's children.

The moment for the last four miles—for completing the lakefront as a single, unbroken park stretching along the entire Chicago shoreline—is now.



*"The Lakefront by right belongs to the people."*

Daniel Burnham, *Plan of Chicago*, 1909



# The People's Lakefront

*"Not a foot of the lakefront should be appropriated by individuals to the exclusion of the people."*

Daniel Burnham, *Plan of Chicago*, 1909

The lakefront is Chicago's beauty, its wonder and its playground.

The shore of Lake Michigan from Evanston to Indiana is where Chicagoans come to find rest and recreation. To enjoy fine music, family picnics, spur-of-the-moment games and more competitive athletic contests. To bask in the rejuvenating warmth of a mid-summer day. To celebrate the election of a local hero to the Presidency of the United States.

It's where a quiet stroller finds calm and joy, gazing out across the blue expanse of living water, ever in motion, ever constant, yet ever new. It's where we come face-to-face with Nature, where petty cares fall away before such immense loveliness and power.

Chicago's lakefront is the envy of the world. It is the image of Chicago across the globe. No other city can boast of the beauty of 26 miles of shoreline parks—

and the breathing space they provide to the eight million people who live in this region.

Yet, those parks didn't just happen. Other cities gave over their lakefronts and riverfronts to the grit and smoke of industry, blocking residents from access to the water. In city after city, factories and industrial plants spoiled the aesthetics of the shoreline and kept the public from the water.

*Chicago's lakefront parks offer multiple recreational opportunities. Completing the lakefront offers the opportunity for new amenities such as wildlife and nature sanctuaries or quiet lagoons for kayaking.*



Peter Kindel



**south lakefront**  
 about 400 acres of new parks & beaches  
 continuous lakefront trail

By contrast, one of the strongest themes in Chicago history is the claiming and reclaiming of the natural wonders of the lakeshore for the health, well-being and enjoyment of everyone who lives here.

A century ago, in the *Plan of Chicago*, Daniel Burnham laid out his vision of a lakefront that was parkland from one end of the city to the other—an unbroken shoreline park stretching the entire length of the city.

In the following decades, much of that dream was made real. Lincoln Park and Grant Park were expanded. Burnham Park, named for the great planner, was created. There were six miles of parks along the shore in 1909. Today, there are 26.

Yet, the dream remains to be fulfilled. Four miles of city lakefront are not part of the continuous lakefront park system. Instead, they are off limits to the public—undeveloped, unconnected, or fenced off.





**north lakefront**  
*about 100 acres of new parks & beaches  
 continuous lakefront trail*

To be sure, closing those gaps will require a renewed civic commitment to complete Chicago's public lakefront parks.

Although the realization of this vision would involve engineering and environmental issues, a professional engineering study has found that the Last Four Miles concept plan would be an environmentally sound and sustainable project. Completing Burnham's vision would create approximately 500 acres of new

sustainable parkland, green spaces and beaches as well as provide opportunities for the creation of aquatic and wildlife habitat. The estimated price tag for completing the last four miles—a range between \$350 million and \$450 million—would be less than the \$475 million needed to construct the very popular Millennium Park in 2004.

Just as Burnham and his generation took up the challenge to create an unparalleled string of shoreline





Rod Sellers

On the south lakefront, large gaps in the lakefront park system are created by the former U.S. Steel property, port district land, and a confined disposal facility (CDF) at Iroquois Landing.



Chicago Cartographics

parks, this generation must to take up the challenge of completing that vision: a continuous people’s park along the entire Chicago lakefront.

It will be a place where everyone—Chicagoans, young and old, as well as the city’s visitors—will be able to roam along the shore in communion with the power and beauty of Lake Michigan. A place that will knit together the city’s neighborhoods, offer much-needed places for children to play, and provide the rest and refreshment of a quiet walk.

Not simply filling the four miles of gaps, the Last Four Miles initiative means the completion of Chicago’s public lakefront park system, a 30-mile city-long public shoreline, Chicago’s crowning glory.

### Specifics of the vision

The four miles of gaps in the lakefront garden of parks and beaches are at the far edges of the city in neighborhoods without enough open space for their residents—about two miles on the South Side in the South Chicago and East Side communities and about two miles on the North Side in the Edgewater and Rogers Park communities.

Beginning in 2006, Friends of the Parks sponsored a series of meetings over a three-year-period on the Far South Side and then on the Far North Side. At these meetings, architects and planners worked with citizens, park advisory councils, community groups and public officials to sketch their visions for completing Chicago’s lakefront parks. The resulting plans are a vibrant and ecologically sustainable mix of new beaches and new parkland with a continuous walking and biking trail.

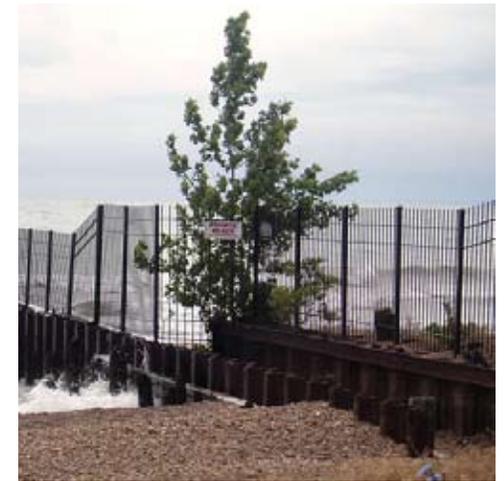
### South lakefront

**95th Street to the Calumet River:** This section of the Last Four Miles vision has two pieces. One parcel is a vacant 100-acre portion of a former steel mill site, called Iroquois Landing, owned by the Illinois International Port District but not used for

maritime activities. The vision calls for the transfer of ownership of this land to the Chicago Park District, enabling an expansion of Calumet Park. The second parcel is a 40-acre Confined Disposal Facility along the south side of the entrance to the Calumet River. Under a 1992 contract signed by the U.S. Army Corps of Engineers, the park district and the Illinois International Port District, the facility was established for the disposal of material dredged from the Calumet River. The vision is to cap this facility in 2011 when dredging is scheduled to be completed and, following an environmental assessment, redevelop the site as parkland. In the future, a pedestrian bridge over the Calumet River could connect this southern section to the new parks at the former U.S. Steel site, but 125 feet of vertical clearance for commercial vessels must be maintained.

**Calumet River to 79th Street:** For many decades, this 580-acre site was a major steel mill, U.S. Steel's South Works, but the land is now vacant and awaiting residential redevelopment. As part of its redevelopment proposal, Chicago Lakeside Development, the present owner, is required to dedicate 95 acres of parkland bordering the lake. The Last Four Miles design includes an additional 139 acres of new parks and beaches along the property's east and northeast shoreline. This would connect with Rainbow Beach Park on the north and features a new bike trail to Calumet Park on the south, using the Ewing Avenue bridge for now.

Because the former U.S. Steel property is about 12 feet above the surface of the lake, additional shoreline would need to be added to the north and east to create a gentle slope with access to the lake and new beaches. The Last Four Miles design for the old U.S. Steel property also includes two new beaches, a promontory with views of Chicago's skyline, a curving peninsula and lagoon for fishing, canoeing, and kayaking. These new parks and beaches, added to parkland previously dedicated for the new residential development, would create a total of 234 new acres



*There is no continuous public access along the north lakefront; the small parks and beaches remain isolated and unconnected.*



*Park-poor neighborhoods such as Edgewater would now have easy access to green space, while the entire city could enjoy strolling or cycling along the shoreline.*

of parkland in this lakefront section, where now there are none.

**75th Street to 71st Street:** Except for the half-acre Arthur Ashe Beach Park, the shoreline in this section is lined with apartment buildings and single-family homes. Due to the gap in the lakefront park system at this location, the Lakefront Trail between these two streets is located on U.S. Highway 41 (South Shore Drive), creating potentially hazardous conditions. The vision is to create 23 acres of new parkland east of the present shoreline, linking the South Shore Cultural Center on the north with the Rainbow Beach and Park on the south. Under an alternate design, two peninsulas, one built out from the South Shore Cultural Center and one from Rainbow Beach, would be built in this area, connected by a pedestrian bridge. This alternate vision would bring the total of new acres in this section to 40.

### North lakefront

**Ardmore Avenue to Farwell Avenue:** Although this section has a number of unconnected small street-end beaches and parks, in addition to Berger Park, the majority of the shore is occupied by towering condominium buildings. The Last Four Miles vision is to extend the shoreline east with new beaches and



parks, connecting with Loyola Park on the north and Lincoln Park on the south. Submerged breakwaters or reefs would be used to create new aquatic habitat and protect beaches from erosion. This would add 53 continuous acres of parks and beaches in this section of the lakefront where currently there are only nine acres of unconnected small parks and beaches. Under an alternate vision, two peninsulas connected by a pedestrian bridge surrounding a new lagoon are proposed east of Berger Park at Granville Avenue, extending south to Ardmore Avenue. This alternate vision would bring the total of new acres in this section to 81.

**Touhy Avenue to the Chicago-Evanston border:** This section is dominated by a succession of privately owned buildings, most of them mid-rise structures. Interspersed among these structures are a number of unconnected small beaches and parks at street ends. The vision is to connect these to form a new linear park east of the present shoreline, adding 17 new acres of parkland to the existing six acres of lakefront parks. This new parkland would connect seamlessly into the two-acre Leone Beach Park and the 21-acre Loyola Park between Farwell and Touhy Avenues. An alternate vision would result in slightly more parkland and slightly larger beaches.

# The Concept Plan

Based on community visioning sessions and charrettes, the Last Four Miles professional design team—after review with ecological and engineering experts—produced the concept plan shown on the following pages. Guiding the effort were:

## The Last Four Miles Planning Principles

- Public access along Lake Michigan from Evanston to Indiana
- More parkland and beaches
- Community-based planning effort
- Completion of a continuous lakefront path
- Greenway corridors to the lake
- Creation of habitat and improvement of Lake Michigan coastal ecosystem
- Preservation of cultural history
- Attention to previous and current open-space and greenway planning efforts

## What the Last Four Miles means to Chicago

- Adds almost 500 acres of new parks and beaches for neighborhoods that don't have enough parkland.
- Completes a single lakefront-long park to knit the city together.
- Increases property values along the newly created parks.
- Encourages new small businesses in the vicinity.
- Extends the lakefront trail for walkers, runners, and cyclists—to Evanston on the north and to the Indiana border on the south.
- Creates new construction jobs to build the parks.
- Protects the shoreline from storms and erosion.
- Establishes new aquatic and wildlife habitat.

# South Lakefront

Calumet Park is expanded with 140 additional acres, offering more places to run, play, and picnic. Quieter, more contemplative areas would be created adjacent to the lake.

A sheltered lagoon provides calm water for kayaking and canoeing. A more naturalistic shoreline edge is designed to offer great places for fishing.

The lakefront path (in red) curves along the shoreline, crosses the old U.S. Steel slip, and continues along the Calumet River to connect with Calumet area trails.



A new pedestrian bridge might be considered in the future, but would present considerable design challenges.

To increase parkland and improve lake access from the former U.S. Steel site, new beach and lagoon areas will be created between 79th and the Calumet River. The existing site, elevated several feet above the water, offers no lake access.

A promontory at the north end of the U.S. Steel site offers new recreational areas and vistas of the lakefront and downtown skyline.

Innovative landscaping creates wildlife habitat and benefits the Lake Michigan ecosystem. Some 400 acres of new parkland along the south lakefront will attract migrating birds following the shoreline.



An alternate proposal for the area between 71st and 75th places lakefill offshore to create two peninsulas, connected by a bridge for the lakefront path across the new lagoon.

A new park fills the gap between the South Shore Cultural Center and Rainbow Beach Park, allowing a continuous lakefront path from 71st to 75th.





*Walkers and bicyclists can continue on the lakefront path all the way to Evanston, without unsafe and confusing detours onto crowded neighborhood streets in Edgewater and Rogers Park.*

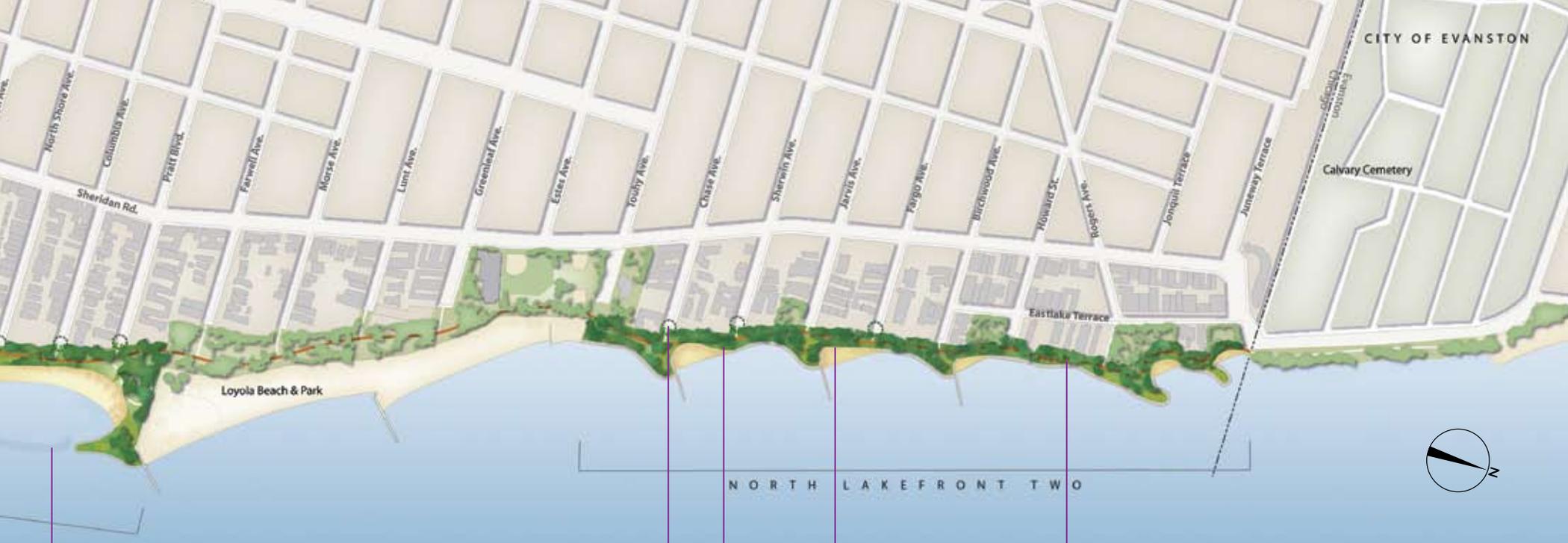
*Heavily used Berger Park in Edgewater is expanded with additional parkland and a new beach, within easy reach of families and children attending park programs.*

*Additional parkland to the east of Loyola University provides new public places for recreation or to just gaze out over the lake in quiet contemplation.*

## North Lakefront



*An alternate Edgewater proposal creates two peninsulas enclosing a new lagoon, with a bridge for the lakefront path.*



*Submerged breakwaters or reefs create new aquatic habitat while protecting the beach sand from being carried away by winter storms.*

*Isolated street-end beaches will be integrated into a continuous shoreline park.*

*New parkland and beach edges use naturalistic landscaping to create wildlife and aquatic habitat and provide educational opportunities.*

*Continuous shoreline paths offer expanded opportunities for exercise, or to just stroll along the lake.*

*An alternate Rogers Park plan results in slightly more parkland. Submerged breakwaters also permit larger beaches.*





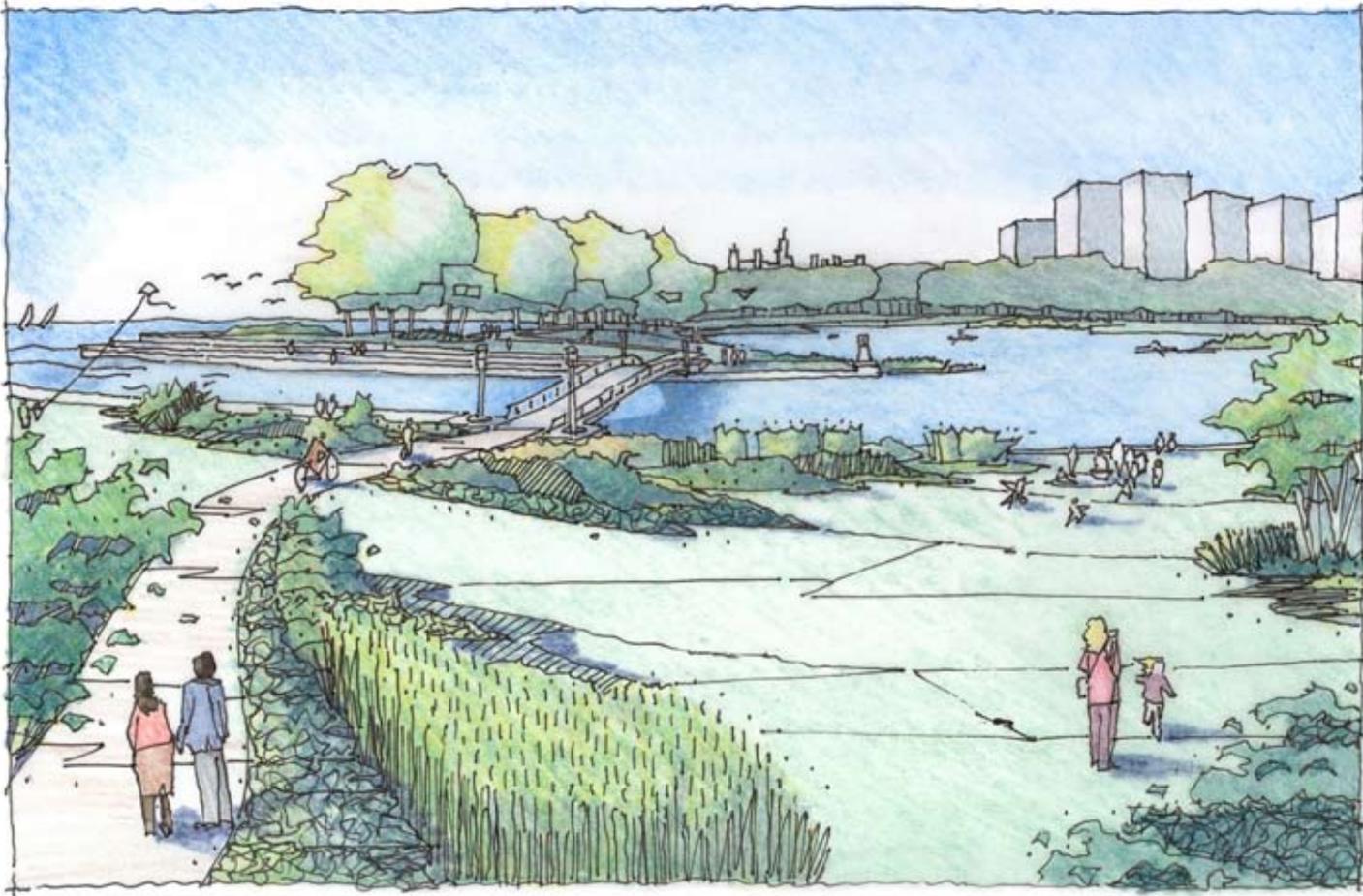
# Benefits of the Last Four Miles

For all his beautiful images and flowery words, Daniel Burnham was a hard-headed pragmatist. In urging the creation of public parks along the entire 30-mile lakefront, he knew the result would be a beautiful thing to see—and also pay many real-world dividends.

Similarly, the completion of his vision and the creation of public parkland along the final four miles of the shoreline will reap a wide array of benefits, from the poetic to the economic, from the protection of the shoreline to the improvement of water quality and the creation of habitat for birds and fish.

*"These views of a broad expanse are helpful alike to mind and body. They beget calm thoughts and feelings and afford escape from the petty things of life."*

Daniel Burnham, *Plan of Chicago*, 1909



Peter Kinnel

*Peninsulas could enclose a new lagoon, while a short bridge carries the lakefront path through new park areas serving the Edgewater neighborhood.*



*New south lakefront parks with natural areas could attract migratory birds—and the people who enjoy watching them.*

### Improved quality of life

The city's lakefront parks provide breathing space not just for lakefront residents but for millions of Chicagoans and visitors every year. To complete the string of parkland along the shore is to create, in effect, a single city-long park for everyone's use. No longer will some communities have lakefront parks



to enjoy while others are blocked. The benefit of the lakefront—the joy of being able to walk the grassy lawns, bike safely without worrying about traffic, wade in the gentle surf, explore such natural delights as the flight of migratory birds and simply gaze off across the broad expanse of water and watch the action of the clouds—gives life in Chicago a special quality not found anywhere else on earth.



U.S. Army Corps of Engineers

*New lakefront parks would protect lakeside buildings from lake storms, such as the ones that damaged South Shore buildings in 1987.*

### Shoreline protection

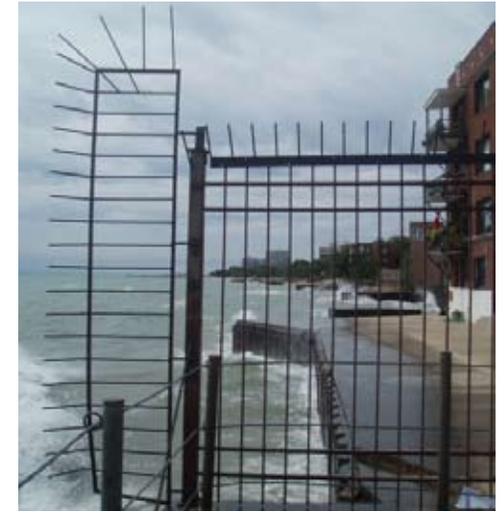
Creating new lakefront parks is a cost-effective way to protect lakefront property and adjacent neighborhoods. Lake Michigan water levels periodically rise and fall by several feet. When the lake is high, winter storms cause extensive damage to shoreline buildings, as they did in the late 1980s. Creating parkland to take the brunt of such storms and wave damage would reduce the costs that public agencies, condominium associations, and individual homeowners will have to bear.

## Improvement of the lake's ecosystem

Constructing new parks along the shoreline edge provides the opportunity to design these improvements in order to promote a sustainable ecosystem. For instance, submerged breakwaters will provide aeration for the waves that break and crash over them. This will improve water quality for human use as well as make the shoreline more attractive to animals and other living organisms.

## Aquatic and wildlife habitat creation

The contours and geology of the lake bottom adjacent to Chicago are favorable for the placement of well-designed fill that can meet environmental requirements and create aquatic and wildlife habitat. The new parks and beaches will include features that will serve as homes to fish and birds, some on a permanent basis and some during long seasonal migrations. These may include marshes, sand dunes, submerged breakwaters, sheltered water areas, shoals, and natural plantings. This wide range of environmental features will also result in a greater diversity of fauna taking up homes along the lake.



## A single park to knit the city together

One of the great delights of Chicago is its diversity. Those of us who live here come from many backgrounds and live in many neighborhoods. Yet, however different we are, we all share the lakefront and understand its delights. It brings us together. It is the most democratic land in the city.

*The Last Four Miles initiative offers the dream of a single unbroken string of lakefront parkland, stretching the entire length of the city. No longer would access along Chicago's shoreline be interrupted or blocked by barriers.*





Creation of the city's lakefront park from Chicago's northern to southern border will exponentially increase the lakefront's role in bringing us together as a people and a region.

### **Parkland for park-poor neighborhoods**

New lakefront parks are an efficient way of addressing the lack of parkland in dense city neighborhoods, particularly South Chicago, Rogers Park and Edgewater. At present, these communities do not meet the minimum standard of two acres per 1000 persons. Finding new land in a dense metropolitan area for park development is next to impossible. The Last Four Miles would create approximately 500 acres of parks that will improve the quality of life of the nearby communities.

### **Control of the future through planning**

Designing and developing new parks along the lakefront means that today's citizens and public

leaders will be in control of the future of these areas. Without planning, the city and region would only be able to react to emergency challenges that arise from a wide variety of sources, including natural events such as changes in the water level of the lake, depletion of natural sand resources, and winter storms.

### **Economic advantages**

Parks are a civic investment that have always paid impressive dividends. The neighborhoods near Chicago's lakefront parks have historically maintained strong property values. Lakefront parks also encourage small businesses, such as restaurants, along nearby streets.

As Daniel Burnham predicted a century ago, Chicago also benefits economically from visitors attracted by a city that is beautiful as well as functional. Each year Chicago attracts millions of visitors whose image of the city includes a shoreline park unequaled anywhere in the world.

*New wildlife areas, a continuous lakefront trail, new parks and beaches—all benefits of the Last Four Miles.*



# History of Chicago's Lakefront

*"The Lake front [provides to the people] one great unobstructed view, stretching away to the horizon, where water and clouds seem to meet."*

Daniel Burnham, *Plan of Chicago*, 1909

Chicago's 26 miles of magnificent public lakefront parks exist today because of the vision of the city's founders and a continuing commitment of its citizens to the value of public open space along Lake Michigan. Much of the city's history involves the efforts of Chicagoans to claim—and, in some cases, reclaim—the shoreline for the use and enjoyment of everyone.

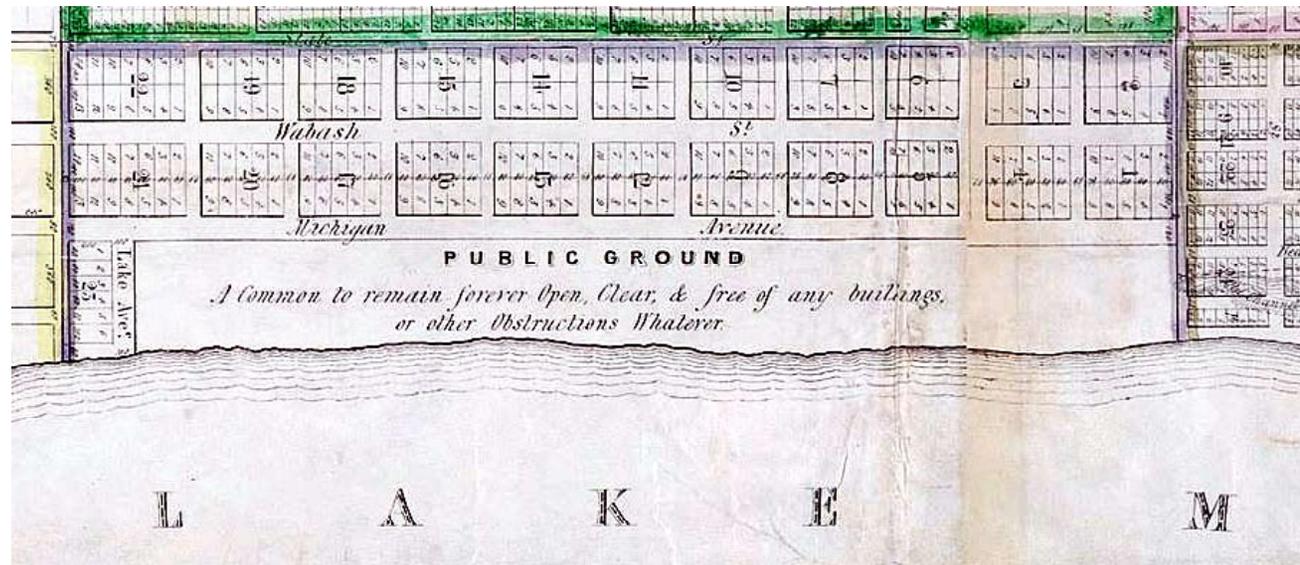
## From Chicago's beginnings

Chicago's devotion to the lakefront began in 1835 when, at a town meeting, citizens urged federal officials to set aside 20 acres of the land formerly occupied by Fort Dearborn for a park "accessible at all times to the people."

A year later, that same vision was set down on an important piece of paper by the men who were overseeing the sale of city lots to pay for construction of the Illinois & Michigan Canal. On the lakefront area of a map showing those lots, the canal commissioners wrote: "Public Ground—A Common to Remain Forever Open, Clear and Free of any Buildings, or other Obstruction Whatever." With those words—later determined to be legally binding—they began the creation of Chicago's unparalleled continuous expanse of lakefront parks.

It has been an act of creation that, through more than a century and a half, millions of Chicagoans and their leaders have had a share in. And one that this generation must contribute to as well.

In the 1850s, Chicago physician John H. Rauch worried that the city's water supply was being



contaminated by cholera and other diseases from bodies buried in the sandy, low-lying North Side cemetery. He led a crusade to move the bodies to other cemeteries and turn the site into a 50-acre park. Over the next 40 years, Lincoln Park grew, through land purchase and lakefill, to 300 acres. And, during the 20th century, it grew to 1,212 acres.

Along the south lakefront, the South Park Commission hired noted landscape designers Frederick Law Olmsted and Calvert Vaux in 1870 to design Jackson and Washington Parks. Olmsted's plan for Washington Park was largely realized in 1874, but few improvements were made to Jackson Park until its selection as the location of the 1893 World's Columbian Exposition.

*The concept of lakefront parks—that all the people can enjoy—has been a civic ideal since the founding of Chicago. The World's Columbian Exposition of 1893 (below) showed that an improved lakefront could attract visitors to the city.*



*Most of Chicago's lakefront parks were created with lakefill (green).*

*In the 19th century, much of the south lakefront (right) was industrial or railroad property, little more than a dumping ground. Expansion of Lincoln Park (below) with lakefill began in the 1880s.*

Olmsted worked with architect Daniel H. Burnham to lay out the grounds of the world's fair, which attracted more than 27 million visitors and showed the lakefront's potential as a civic treasure. Olmsted sculpted the featureless shoreline into a landscape of islands, lagoons and promontories. The resulting wonderland of nature boosted civic awareness of the importance of public access to the lake.

Chicago History Museum IChi-03211



From Souvenir of Chicago in Colors, 1910

## The city's front yard

While these important steps were being taken to transform the Lake Michigan shoreline into parkland, Grant Park, the most visible lakefront site in the city, was a mess. In the late 19th century, it was home to livery stables, squatters' shacks, trash heaps, militia quarters and railroad tracks. And it disgusted mail-order merchant A. Montgomery Ward.

In 1890, Ward began a series of legal battles to reclaim the lakefront park for open space and public use. In 1911, after four lawsuits, he was triumphant when the Illinois Supreme Court declared that the designation of the land as "forever open, clear and free of buildings" was an iron-clad prohibition against the construction of new permanent buildings in Grant Park. The decision disappointed municipal officials who had planned new civic buildings for the park, but it advanced the vision of the lakefront as a treasure belonging to everyone. "I fought for the poor people of Chicago, not for the millionaires," Ward said.

The story of Chicago's unique urban lakefront is also entwined with the engineering necessary to protect the shoreline from Lake Michigan and its powerful winter storms.

To help protect against erosion, Chicago officials in the mid-19th century allowed the Illinois Central Railroad to build tracks, trestles and a stone breakwater paralleling the south lakefront. But then, in 1869, the Illinois legislature agreed to sell the lake bottom along that shore to the Illinois Central and other railroads for construction of a large industrial park.

Chicagoans protested this "lakefront steal." Litigation followed. Finally, in 1892, the U.S. Supreme Court ruled that the lake and its submerged bottom are held in public trust by the state for the people and cannot be sold to a private party. Yet another important legal precedent had been established. This long-running

legal battle did much to heighten public interest and awareness in the development of the shoreline as public parkland.

The rescue of Chicago's lakefront from rail and commercial development was a remarkable accomplishment. Most Great Lakes and coastal cities devoted their waterfronts mainly to commercial and industrial uses. The *Plan of Chicago* and the generation of leaders and Chicagoans who gave it life succeeded in making the conservation of the lakefront and the expansion of public access a fixed principle in city affairs.

### Burnham's vision

The 1909 *Plan of Chicago*, written by Daniel Burnham and Edward Bennett, envisioned a city that would be not only efficient and attractive for all its residents, but also so beautiful that it would draw visitors and commerce. Burnham listed the improvement of the lakefront first among the six principal elements of the Plan. "Everything possible should be done to enhance its attractiveness and to develop its natural beauties," he wrote.

The plan recommended the creation of lakefront parks stretching along the shoreline from the city's northern to southern border. "The Lakefront by right belongs to the people," wrote Burnham. "Not a foot of its shores should be appropriated to the exclusion of the people."

He saw Lake Michigan as the city's greatest natural asset, and he stressed the link between beautiful lakefront parks and Chicago's economic well-being. The 1893 World's Fair had shown that visitors could be attracted to the city—otherwise a raw and frenzied industrial metropolis—by beautiful lakefront parks.

Parks provided a measure of protection against civic unrest because they offered rest and recreation to working people. Cities of the early 20th century were overcrowded, unhealthy and vice-ridden. Parks provided an outlet for the tensions of urban life,

giving workers a place to picnic with their families, play ball games, run, swim, stroll or simply bask in the sun. For business leaders, a happy workforce was a more efficient one. For reformers, workers had a right to happiness—and a right to parks.

Generations of Chicagoans have enjoyed the benefits of this bold idea. Between 1920 and 1953, with strong citizen support, some 2,000 acres of new lakefront parkland were carefully engineered and shaped, stretching south to create Burnham Park and beyond to include Rainbow Beach. On the north lakefront, Lincoln Park was extended as far as Hollywood Avenue. During the first half of the century, Chicago voters approved 86 bond issues to permit construction of the lakefront parks and other improvements proposed in the Burnham plan.

*Renderings done by Jules Guérin for the Plan of Chicago offered a compelling vision of how the city would enjoy a completely public lakefront.*



Plate 127 from the Plan of Chicago



Plate 49 from the Plan of Chicago

Lakefill construction in the 1920s created Northerly Island and Burnham Park (below), part of a continuous park and lagoon that Burnham envisioned linking downtown to Jackson Park (above).



Chicago History Museum (CHI-51870)

Burnham’s vision of an unbroken string of public parks from one end of the city’s shoreline to the other became part of the city’s unique character. In 1966, a new Comprehensive Plan of Chicago noted that “the Lake Michigan shoreline is a priceless natural and man-made asset for the entire region. It is the most important single recreational resource in the metropolitan area and has been a special concern to citizens, planners and public officials through the city’s history.” Seven years later, the Chicago City Council approved the Lake Michigan and Chicago Lakefront Protection Ordinance which, as its first policy, set as a goal for the city to “complete the publicly owned and locally controlled park system along the entire Chicago lakefront.”

Thanks to our visionary and courageous predecessors, Chicago’s open and accessible lakefront, with its many beaches, paths, harbors, sanctuaries, promontories, and playing fields, has been a haven for millions of people throughout the region—and for millions of visitors as well. The lakefront has enhanced the quality of our life with its beauty and natural presence. It has become our face to the world. We are better for it—better because of the work of all those who have come before us.

Now it is time for us to do our part.

# Planning the Last Four Miles

Chicago has approximately 30 miles of shoreline, stretching from Evanston on the north to the Indiana border on the south. Since the city's incorporation, 26 miles of lakefront have been developed as a public park system that is unrivaled around the world for its beauty and public accessibility.

Approximately four miles—two on the Far North Side and two on the Far South Side—are not yet parkland.

These four miles are the last gaps in what Daniel Burnham envisioned in the 1909 *Plan of Chicago* as an uninterrupted chain of lakefront parkland—a single shoreline park from one end of the city to the other—where Chicagoans and visitors could walk, bike, picnic, wade, daydream, explore nature and find refreshment from the crush of urban life.

The adjacent neighborhoods suffer because these gaps in Chicago's lakefront park system restrict their access to the lake. The entire city suffers from the lack of continuous public access along the lake from the city's northern to southern border.

In 2006, Friends of the Parks launched its Last Four Miles Initiative to provide residents of those communities with an opportunity to develop community-based plans for closing the gaps between Calumet Park and 71st Street on the south. A similar effort began in 2008 for the gaps between Ardmore Avenue and the Evanston border on the north.

This planning process involved more than 30 community meetings, including visioning sessions and design charrettes. More than 2,000 persons attended at least one of these meetings.

The centennial of the Burnham Plan in 2009 gives heightened urgency to completing an unbroken park stretching along the entire 30-mile Chicago lakefront—a vision endorsed in the 1973 Lake Michigan and Chicago Lakefront Protection Ordinance, which called on the city to “complete the publicly owned and locally controlled park system along the entire Chicago lakefront.”

The plans for approximately 500 acres of new parkland, green spaces, beaches and natural habitats were developed with the help of people from the South Side (South Chicago, the East Side, Hegewisch, South Deering, and South Shore) and the North Side (Edgewater and Rogers Park).



*“The plans have had the benefit of many criticisms and suggestions, made by persons especially conversant with existing conditions.”*

Daniel Burnham, *Plan of Chicago*, 1909

*Plans for the Last Four Miles were first developed at community workshops by the residents of adjacent neighborhoods.*





*The Last Four Miles plans for the south lakefront include a 140-acre expansion of Calumet Park with unused Illinois International Port District land. On the former U.S. Steel property, parkland already dedicated or committed would be expanded with additional lakefill that would offer access to the water with new beaches and a lagoon for fishing and paddling small boats. The line across the river simply represents the desire for a continuous lakefront trail; any future bridge at this location would present design challenges.*

## Principles and Goals

In addition to discussing specifics, such as where to put a new beach and where to create a new peninsula, the community meetings on the Far South Side and Far North Side also developed a set of planning principles and goals to guide the Last Four Miles Initiative:

- The public will have access to the Lake Michigan shoreline from Evanston to Indiana.
- More parkland and beaches will be created.
- A continuous lakefront path for walking and biking will be developed along the entire 30-mile length of shoreline.
- Greenway corridors will link to the lakefront parks.
- The development of sustainable new parkland will help improve the Lake Michigan coastal ecosystem, including the creation of aquatic and wildlife habitat.
- The new park construction will be sensitive to the preservation of local cultural history.
- The plans will be the result of a community-based planning effort.
- Planning for new lakefront parkland will take into account previous and current open-space and greenway planning efforts.

## South Lakefront Planning

South Chicago and the East Side are located on the southern rim of Lake Michigan about 10 miles south of the Loop. Together with the Hegewisch and South Deering neighborhoods, they form an area that locals call Chicago's Southeast Side.

The surrounding Calumet region, which extends from Chicago's South Side along Lake Michigan into Indiana, was once a vast network of wetlands, lakes, prairie and dunes. South Chicago began as a series of scattered Native American settlements along the Calumet River. After the Civil War, immigrants who came to work in industries springing up along the river established communities in the area.

In the last 150 years, this human land use, especially heavy industry and waste management practices, has radically re-shaped the region.

Formerly one of the nation's most concentrated industrial areas, the area is filled today with many defunct factories and plants. One of the largest, the 580-acre site where the U.S. Steel mill operated until 1992, is now slated to become a residential development. That presents the opportunity to reclaim the south lakefront's once inaccessible shoreline.

Chicago Lakeside Development, the present owner, has submitted to the Chicago Plan Commission a preliminary application for residential development of the site. The developer has already transferred 34 acres on the east side of the property to the Chicago Park District for new parkland, and has agreed to dedicate another 61 lakefront acres in phases, as the project is built.

The development of the U.S. Steel site is projected to begin in the next ten years and will include construction of high rises, mid-rises and townhouses in an entirely new community with a dense population that will require public parks, lakefront access, beaches and play areas.



In 1998, *CitySpace*, a report from the city, Chicago Park District and the Cook County Forest Preserve District, recommended that each Chicago community area should include a basic minimum of two acres of parkland for every 1,000 residents. On that basis, South Chicago is considered park-poor since it does not meet that requirement. (The national standard is 10 acres for every 1,000 persons.)

In 2006, Friends of the Parks began the south lakefront planning effort by sponsoring a public meeting at Calumet Park. Public officials and representatives of community organizations and park advisory councils worked with architects and planners

*The connection between Rainbow Beach and the South Shore Cultural Center could be made with a simple strip of parkland (top) just east of the existing residential buildings. An alternate plan (bottom) for the area between 71st and 75th Streets would create two peninsulas, connected by a bridge for the lakefront trail.*



Topografis

*A birds-eye view of the south lakefront shows the Calumet Park expansion south of the Calumet River. At the former U.S. Steel South Works site, additional lakefill creates a more natural lake edge that can be enjoyed by residents of South Chicago as well as the new Lakeside development.*

to sketch their visions for completing the south lakefront parks.

The participants in this design charrette made clear that the plans for filling the parkland gaps on the south lakefront needed to reflect the labor and cultural history of South Chicago and the East Side, and also connect with other planning and visioning projects, especially plans for trails in the Calumet area and northwest Indiana.

On the basis of the community's ideas for completing the South Lakefront parks, the Friends of the Parks architectural design team—Joanne Bauer and Julia Burns of BauerLatoza Studio; Thom Greene of Greene & Proppe Design; Peter Kindel and Kareeshma Ali of Topografis; and John Buenz of Solomon Cordwell Buenz—developed preliminary concept sketches.

A follow-up “reporting back” meeting was held the next month at which community residents and representatives endorsed the plans for more parks and beaches with a continuous lakefront path that would connect with other trails in the Calumet region.

The Southsiders indicated a strong interest in completing the lakefront parks, not only for recreational purposes but also for protecting the area's environment and ecology, and for protecting and enhancing habitat for birds and fish. They also expressed an appreciation for the contribution that additional green space would make to the area's air quality and to the health of their residents.

To spread the word about these plans and gather more ideas, Friends of the Parks displayed the design boards and made presentations at more than two dozen locations throughout the South Side over the next two years. For instance, in October 2006 the plans were detailed at a public meeting attended by about 200 people, cosponsored with the Southeast Environmental Task Force, the Calumet Ecological Partnership Association and the Southeast Chicago Historical Society.

The preliminary plans for completing the South Side lakefront parks were presented to the Rainbow Beach Advisory Council and to South Chicago and East Side community groups. They were also shared with the

*At community planning sessions, residents and the architectural design team explored a variety of options for the south lakefront. Significant features were synthesized into the Last Four Miles recommendations.*



broader Chicago community. They were presented at the Chicago Cultural Center in 2006 and exhibited at the Chicago Architectural Foundation with a symposium and other presentations in 2007. Exhibits were also shown in Bronzeville and at the Peggy Notebaert Nature Museum.

The preliminary plans for adding more parks and beaches, with a continuous lakefront trail, drew support from the Southeast Side community. However, private landowners with property along the shoreline between 71st and 75th Streets objected to the plan.



Larry Olsent Associates



Peter Kinnel

*The vacant U.S. Steel South Works site offers the rare opportunity to create new lakefront parks for the Southeast Side as well as residents of the future Lakeside development. Additional lakefill can soften the edges of the slag-filled site and provide new natural areas, recreational facilities, and water access. Extending far into the lake, the site also presents dramatic new views of the Chicago skyline.*

*In Edgewater, new parkland would connect the north end of Lincoln Park to Loyola Park, expanding Berger Park with a new beach area and providing additional green space next to the Loyola University campus. Small street-end beach areas would be linked together, and cyclists and runners would benefit from a continuous path along the lakefront.*



## North Lakefront Planning

Originally a shore of low-lying dune ridges, wetland swales and oak forest, Chicago's north lakefront has been transformed by Chicagoans over the past two centuries. It has been raised in elevation, extended into Lake Michigan, designed, engineered and shaped. No part of Chicago's shoreline remains untouched by engineering and structural modification.

In the 1860s, Lincoln Park was established on the North Side on the site of a former cemetery. Over the next century, it was extended north, reaching Hollywood Avenue by the mid-1950s. Since then, no additional lakefront park expansion has occurred except for the acquisition of small street-end parks and beaches that remain unconnected to Lincoln Park and the lakefront trail system.

With the exception of Loyola Park and the smaller Berger Park, the north lakefront in the Edgewater and Rogers Park neighborhoods is characterized by a lack of continuous lakefront parkland. Small street-end beaches remain unconnected. There is no lakefront trail for strolling or cycling along the lake. Because of the high population density, both communities are considered park-poor, having less than two acres of parkland for every 1,000 residents.

While most of the property adjacent to the lake in this area is privately owned, the Chicago Park District has succeeded in acquiring a significant amount of the riparian rights.

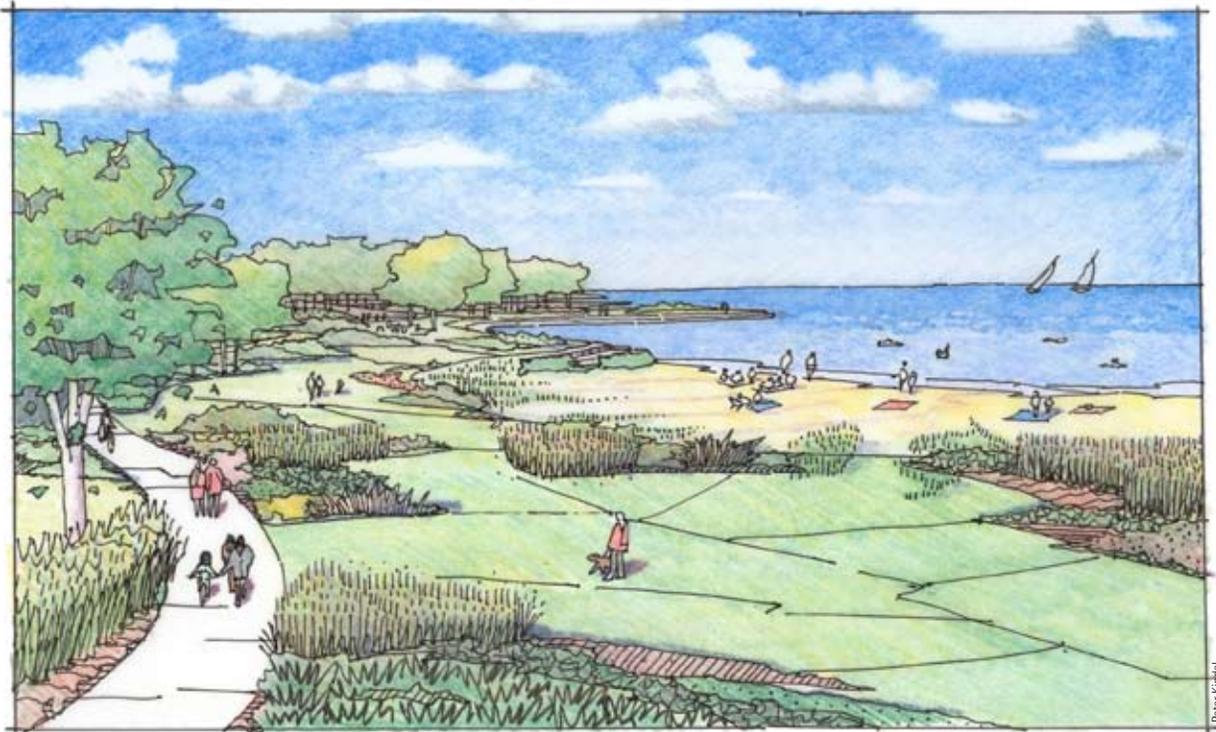
In the late 1980s, the north lakefront was battered by high water and storms that threatened the privately owned high-rises. Federal funds were used to erect small stone breakwaters in Lake Michigan for shore protection. In some cases, these breakwaters have created small beaches through accretion.

In the fall of 2007, Friends of the Parks began eliciting ideas for how to involve the Edgewater community in planning to create parkland along the shoreline now blocked to public access.



*The professional design team worked with community residents to explore their vision for completing the north lakefront parks—while reinforcing a commitment that the new parkland should not be accompanied by any extension of Lake Shore Drive, new marinas, or new housing or commercial development.*

*New ecologically sustainable parkland connecting the small parks and beaches would enhance the Rogers Park neighborhood.*





*A view of the Edgewater and Rogers Park lakefront shows how those neighborhoods—and the entire city—would benefit from an unbroken park stretching the entire length of the city.*

Beginning in 2008, visioning sessions and design charrettes were held in Edgewater and Rogers Park, at which citizens and representatives shared their ideas for the future of the north lakefront and worked with architects and planners who sketched those visions.

The preliminary sketches illustrated the plans for parkland along the entire shore from Lincoln Park north to Evanston. There was a strong consensus that development of parkland along the northern lakefront should include no extension of Lake Shore Drive, no marinas and no housing or commercial components.

While the plans drew support from the surrounding North Side community, many of the owners of private property along the shoreline objected to the concepts.

### **Edgewater**

Developed in the late 19th century as an elite suburb, Edgewater was annexed to Chicago in 1889. Mansions for the wealthy lined the shore with smaller houses to the west. Today, with a skyline of high-rise apartments that replaced the elegant homes, Edgewater is one of the city's densest neighborhoods.

Loyola University began college classes at its Rogers Park campus just north of Devon in 1912 and has expanded in recent decades south into Edgewater.

Over the past century, the institution has been a major presence in both communities.

The university has recently constructed a walking and bike trail along the edge of its privately owned property. Loyola has shown interest in creating additional parkland to the east of its lakefront property, which would benefit the citizens of Chicago as well as Loyola's students.

In January, 2008 a visioning session at Berger Park was followed 10 days later by a design charrette at the park. A "reporting back" meeting, at which the design sketches from the five design charrettes were displayed, was held in early March. In addition these design sketches were featured on the Friends of the Parks website. In June, a large meeting was also held at the Broadway Armory. Attendance at these meetings averaged over 100 persons.

### **Rogers Park**

Incorporated in 1878, the village of Rogers Park voted in 1893 for annexation to the city of Chicago. A final piece north of Howard Street was added in 1915. Annexation brought increased city services, but not inclusion in the Lincoln Park District. Rather, a local park district built the Pottawattomie and Indian Boundary Parks. Later, Loyola Park was created between Pratt and Touhy Avenues along the lakeshore.

In March, 2008, more than 130 Rogers Park residents and leaders attended a visioning session and a later design charrette at Loyola Park. The June 12 “reporting back” meeting at the park, at which five preliminary sketches were displayed, also attracted a large crowd.

### Engineering/environmental/cost studies

In the Fall of 2008, engineering firm AECOM was hired by Friends of the Parks and joined the design team to complete an engineering and environmental review of the preliminary concept plans. The engineering firm then worked closely with the Last Four Miles design team to incorporate technical evaluations into the plans, such as wave climate, littoral drift, environmental and regulatory considerations, and probable construction costs. Based on these studies, further revisions and modifications were made in the plans for completing the last four miles of lakefront parks.

The design team worked with AECOM to incorporate its recommended adjustments to the mix of lakefills and new beach design that would provide the desired beach and land configurations in the sustainable shoreline improvement plan.

### Shoreline treatment options

#### Lakefront fill

The plans include the creation of lakefill to form additional park space and extend the lakefront trail. With the goal of sustainable design, the lake edge is an essential feature.

The final selection of the lake edge treatments would occur after the plans have gone through additional public scrutiny and final design development in a later study phase. The design team favors edge treatments which would be sustainable, meet federal and state guidelines and requirements, promote the creation of wildlife and aquatic habitat, and allow access to the lake.



#### Beach creation

On ocean coasts as well in the Great Lakes, predominant winds cause waves to move sand and other loose shoreline material along the shore in a preferred direction. This transport process is known as “littoral drift.” Beach retention structures can be built to work in harmony with littoral transport to hold a beach in place and prevent any net loss of beach sand. The size, shape and orientation of the beach

*In Rogers Park, a continuous strip of parkland would tie together the unconnected existing street-end parks. Two new beach areas would provide new summer recreation areas, while the lakefront path beckons bicycle commuters, hikers, and dog walkers.*

is determined by the design characteristics of these structures.

The decision was made early in the process that the simple placement of straight groins in the water to support new beach areas would not be feasible for a number of reasons. Simple groins limit the amount of beach area that can be retained, and water depths in many areas are too deep for this approach to be effective.

The design team also decided that offshore breakwaters constructed parallel to shore would not be a suitable method to assist beach formation due to the unpleasant appearance of stone breakwaters, which would also block the view of the lake horizon.

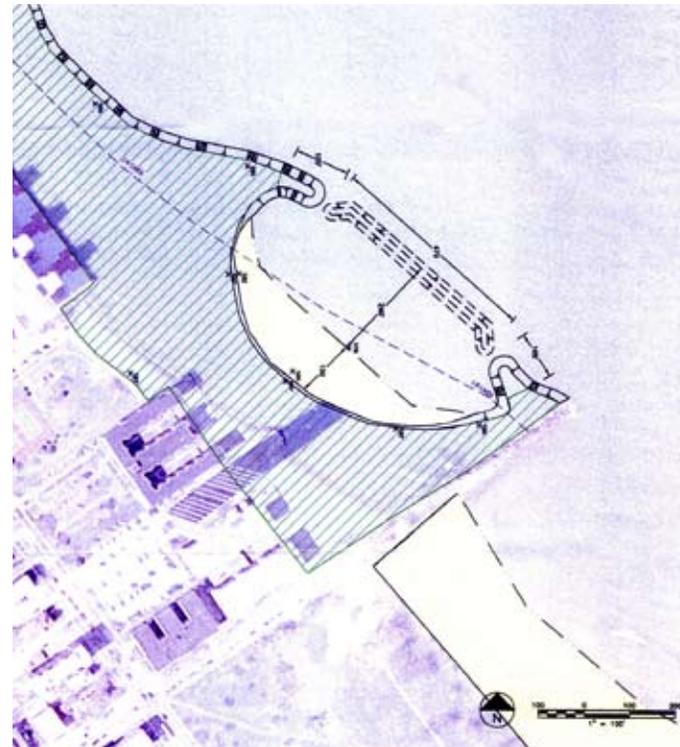
The selected method of beach formation in most cases includes the creation of small stone groins at the north and south limits of the proposed beach areas. These groins would be built into headland lakefill

areas that are wide enough in some places to support turf grass, and would include relatively short stone groin structures projecting from the adjacent park areas. The design of these curved beaches prevents breaking waves from moving the sand along the shoreline.

A submerged stone reef would then be constructed offshore between the two stone groins to prevent the beach from being carried away. The distance between the submerged reef and the water's edge of the new beach sand varies depending on the depth of water at the reef and the character of the wave climate. The width of the beach from water to land also varies depending on beach sand characteristics, wave climate, wind conditions, and the beach elevation.

The proposed beach areas located north of Touhy Avenue on the Far North Side were deemed to be the only places that could be created with simple groin structures and without an offshore submerged reef. This was due in part to the relatively shallow water and the small size of the beach design in these areas.

*Littoral drift, the natural movement of coastal sediment due to wave action, must be accounted for in designing and engineering new or expanded beaches along a shore. The Last Four Miles project includes groins, headlands and submerged breakwaters that will assure durable beaches for the wave conditions of the Chicago lakefront. For example, the engineering consultants designed a curved beach, carefully shaped groins, and a submerged breakwater to help retain the beach in a new park area near 75th Street (right).*



## Lagoon creation and offshore peninsula construction

On the south lakefront between 85th and 90th Streets, a new lagoon, formed by a new lakefill peninsula, is proposed. The lakeside and inner lagoon lake walls will either be constructed of stone revetments or concrete revetments. Lagoons are also proposed as alternate plans on the South Side between 71st and 75th Streets and on the North Side between Ardmore and Farwell Avenues.

Pedestrian bridges that cross the lagoon waterway that connected to Lake Michigan will be constructed above the level of wave action. The lagoon entrance channels are designed to minimize waves in these new lagoons, whose calm waters could attract wildlife, fishing enthusiasts, and small boats.

All three of the lagoon plans would include water

circulation conduits at the north and south limits of the lagoons to address water quality considerations. In some locations, submerged reef structures may be constructed at the mouth of the lagoon channels to help manage wave activity and water circulation.

### Other considerations

The proposed concept plans are designed to be flexible from the perspective of aesthetics. The selection of lake edge treatments can be determined when the final plans are developed. The current plans can be accomplished with any number of edge treatments from stone revetments to vertical or composite shaped concrete revetments. Underlying foundation and structural support elements would be determined when the edge treatments are selected. Most of the beach areas to be created in both the North and South Lakefront areas are in shallow water, ranging from approximately four to eight feet in depth. These beach areas will be pre-nourished with sand and will be tucked into the shoreline so that they do not interfere with the littoral drift along the shore.

Since the beach areas will be filled with imported sand, no sand will be lost from the littoral zone within the beach retention structures. The design plan calls for retention structures to be recessed within the overall land edge profile and will eliminate the potential trapping of littoral sand either up drift (north) or down drift (south) from the beach cell structures.

The two proposed beach areas between 78th and 85th Streets are in water that is as deep as 15 feet. These areas are within the wave shadow of existing breakwater and groin structures and will have no adverse influence on the littoral drift in that region.

### Habitat and Water Quality

The Last Four Miles shoreline restoration alternatives include provisions for potential habitat creation.

The creation of diverse habitat is an important factor in a healthy Lake Michigan ecosystem. While specific habitat enhancements have not been delineated in the concept plans developed for the project, the project shape and geometry have been established to accommodate a variety of habitat improvements. The selection of habitat improvements will be accomplished as part of the future design development process.

Water quality was also an important consideration in the plan development, and several design features have been included in the plan to improve water quality:

- Curvilinear shoreline plans minimize stagnant water pockets that can facilitate algae growth or die-offs and areas of potential elevated bacteria levels.

*New areas of trees and shoreline grasses will be attractive to migrating birds following the Lake Michigan shoreline.*



Chicago Park District

- Stone groins constructed as wide headlands combined with submerged reefs in beach creation areas encourage positive water circulation patterns. The rock reefs also help to add oxygen to the water.
- Water circulation conduits at strategic locations help minimize water stagnation.

The final design of new beach areas will include detailed water quality and circulation modeling to optimize the designs from these functional perspectives.

The design team has developed a concept plan for the Last Four Miles that can integrate many of these habitat feature types into the new park and beach landscapes.

*Landscape enhancements included in the Last Four Miles cost estimates would permit creation of a variety of recreational and natural landscapes along the lakefront.*



Chicago Park District

## Planned Habitat Enhancements

The three new beach areas between Ardmore and Farwell Avenues as well as the new beaches at 73rd, 78th and 82nd Streets are wide enough to accommodate small beach dune areas in the corners of the beach if desired. Under the Last Four Miles plans, these areas will be stabilized with dune plantings. In addition, the stone groins and rock revetments that provide a transition between land and water at these locations will provide additional habitat. The submerged rock reefs will encourage aeration of water that breaks and passes over these areas. This highly oxygenated water and stone structure will provide improved habitat for fish and underwater invertebrates. Finally, a rocky shoal will be constructed in place of some of the beach areas to improve habitat diversity in shallow portions of the beach cell areas.

- Portions of the new parkland on the North Side and South Side will be planted with shrubs and trees to provide wooded habitat.
- A submerged reef in the alternate plans for the Ardmore Avenue to Farwell Avenue section and for 75th Street to 71st Street section will be constructed at the lagoon inlet channel to provide underwater habitat, manage wave energy and promote good water quality.
- The plans for the section from the Calumet River to 79th Street and the one from 75th Street to 71st Street, as well as the alternate plans for the Ardmore Avenue to Farwell Avenue section will have the following features: a water circulation conduit to enhance water quality in the new lagoon area, a rocky shoal or beach in a portion of the lagoon to improve habitat diversity, and rock revetments to provide a transition between land and water and provide underwater habitat.

# The Lake and the Law

Over the past century and a half, Chicago has created parkland along 26 miles of its 30-mile Lake Michigan shoreline. All of the Chicago shoreline has been created through some sort of structural modification, including groins, revetments, breakwaters, beach nourishment and lakefilling. Those same techniques will be used again in creating parks and beaches along the four remaining miles of shoreline, areas that are currently undeveloped or otherwise blocked from public use.

Governing these efforts is a complex set of laws, court decisions, regulations, authorities, and environmental considerations:

## Jurisdiction and Ownership

### Public trust doctrine

In the U.S., navigable waterways, their bottoms, shorelands, tidewaters, breakwaters and the plant and animal life in these waters are accorded special treatment under federal and state law. Title to these natural resources within a state is held by the state in trust for the benefit of the public. The body of law pertaining to these tidal and navigable waters, the lands beneath, as well as the living resources inhabiting these waters, is called the public trust doctrine.

The public trust doctrine is based on the notion that the public holds inviolable rights in these lands and resources, and that, regardless of title ownership, the state retains certain rights in such lands and resources in trust for the public. Among the lands under a state's jurisdiction are those within its borders that

abut or lie beneath navigable waters. It is those lands and the limitation on their use that are covered by the public trust doctrine.

The public trust doctrine was recognized in 1892 by the U.S. Supreme Court in *Illinois Central R.R. Co. v. Illinois*, 146 U.S. 387 (1892). The court ruled that the scope of the public trust could extend to all waters that were navigable. That case made it clear that the submerged bottom of Lake Michigan belongs in trust to the people of the state of Illinois.

### Federal authority

As a navigable water of the United States, Lake Michigan is subject to federal control, and the U.S. Army Corps of Engineers must approve alterations to the shoreline.

### State authority

Illinois' title to the submerged lands in Lake Michigan was confirmed by Congress in the Submerged Lands Act of 1953. In addition, the Illinois Submerged Lands Act of 1937 states that Illinois has title in trust for the benefit of the people of the state to the submerged lands as well as land that was formerly submerged.

Illinois, subject only to the paramount authority of the federal government, has jurisdiction of every public body of water in the state and the responsibility to protect the interests of the state and its citizens. Under the Illinois Rivers, Lakes and Streams Act of 1911, the Department of Natural Resources is charged with devising methods for the

*"This spirit—the spirit of Chicago—is our greatest asset. It is not merely civic pride: it is rather the constant, steady determination to bring about the very best conditions of city life for all the people, with full knowledge that what we as a people decide to do in the public interest we can and surely will bring to pass."*

Daniel Burnham, *Plan of Chicago*, 1909

preservation and beautification of public bodies of water in the state and for making those bodies of water more available for public use.

### City authority

The state has given Chicago jurisdiction within the limits of the state to three miles beyond its corporate limits (except those portions that lie beyond the Indiana border). City ordinances governing the shoreline include the Lake Michigan and Chicago Lakefront Protection Ordinance of 1973, which established regulations to protect a free and open public lakefront.

### Chicago Park District

The Chicago Park District has been granted authority by the state legislature to fill extensive areas of

submerged lands along the Chicago shoreline to create new parkland. The legislature has granted submerged lands for the creation or extension of Grant Park, Jackson Park and Lincoln Park.

The engineering necessary to protect the shoreline from Lake Michigan and its powerful winter storms has involved extensive physical modifications to the shore and the submerged bottom of the lake. This history of physical modification of the lake bottom has important implications for the park system since those filled or engineered areas continue to remain the domain of the public trust.

### Riparian rights

Riparian rights in Illinois are entitlements to the banks of the meandering streams and lakes, including Lake Michigan. These entitlements extend to the water's edge. The "water's edge" has been defined by Illinois courts as the line where the water usually stands when unaffected by storms and other disturbances.

From time to time, the state legislature has granted authority to public entities, such as the Chicago Park District, to acquire riparian rights. The state has also granted the Chicago Park District authority to fill extensive areas of submerged lands along the Lake Michigan shoreline for the purposes of extending Lincoln Park, Grant Park, Burnham Park, and Jackson Park.

When the state granted the Chicago Park District authority to fill extensive areas of submerged lands along the Chicago shoreline for the purpose of extending Lincoln Park in the 1950s, the state in addition authorized the granting of a small portion of public trust property in exchange for extinguishing the riparian rights of private owners. Shoreline property owners were deeded an onshore portion of the newly created land in return for giving up their claims to the lake's edge.

Approximately two-thirds of the riparian rights

*In the early 20th century, the state gave Chicago's park commissions authority to fill submerged Lake Michigan land to create expanded public parks. This 1931 photo shows the construction of Montrose Beach and Harbor in Lincoln Park.*





on the north lakefront have been acquired by the Chicago Park District. The other third could be acquired by purchase, negotiation, or land swap. In addition, the alternate peninsula designs have been designed so that acquisition of riparian rights would not be necessary.

## Permits and Process

### Clean Water Act—Section 404

Under Section 404 of the federal Clean Water Act of 1972, Lake Michigan is designated among the “waters of the United States,” giving the U.S. Army Corps of Engineers regulatory jurisdiction over the lake. The law requires a permit from the Corps to “discharge fill material” into the lake.

Lakefill is defined as any material used to replace an aquatic area with dry land or change the bottom elevation of a body of water. The term “discharge of fill material” is defined as the construction of any structure in the water; the building of any structure requiring rock, sand, dirt or other material for its construction; the development of a site for recreational, industrial, commercial, residential or

other uses; the creation of causeways, roads, dams, dikes and artificial islands; beach nourishment; and the use of property protection devices such as riprap, groins, seawalls, breakwaters and revetments. The primary concern of this rule has to do with environmental impacts of a project on Lake Michigan habitat as well as fish and wildlife. In deciding on a Section 404 permit, the Corps consults the U.S. Fish and Wildlife Service, the Illinois Department of Natural Resources and the Illinois Historic Preservation Agency. The permit process also includes extensive public and stakeholder input, and involves a comprehensive public notice procedure.

### Clean Water Act—Section 401

Under this section of the Clean Water Act, any project involving a discharge to Lake Michigan needs to obtain a water quality certification from the Illinois Environmental Protection Agency (IEPA). A discharge could include a fill of stone, soil, sand or other materials into the lake.

For lakefill for new parks, the IEPA would require the development of a stormwater pollution prevention plan for the construction of the project. The agency also has a public notice process that it would undertake.

*Most riparian rights along the north lakefront were purchased in the early 20th century, to clear the way for future expansions of Lincoln Park. Chicago Park District records show that only a few properties in Edgewater and Rogers Park still have riparian claims, indicated above with orange strips.*

### **Rivers and Harbor Act—Section 10**

Under Section 10 of the Rivers and Harbor Act of 1899, the Army Corps of Engineers oversees the protection of navigable waters. In doing so, the Corps consults the U.S. Coast Guard and boating interests. The Coast Guard has significant input with respect to Lake Michigan navigation issues; issues affecting nearby boat harbors and river mouths; and commercial, industrial, and recreational boating issues. Creation of new parkland east of the present shoreline is not likely to raise significant issues under this law. A new bridge across the mouth of the Calumet River would need to meet the requirements of a navigable waterway.

### **Illinois Waterway Construction Permit**

Lakefront construction requires a permit from the Illinois Department of Natural Resources. This agency reviews the impact that lakefill or new structures in Lake Michigan will have on navigation, water conveyance and the littoral zone. It manages a public notice process for lakefront projects to obtain comments from a variety of public and private stakeholders.

The Illinois Department of Natural Resources requires offshore structures and fill areas to be designed in such a way that they do not interfere with natural littoral drift processes. On navigation issues, the department generally defers to the Coast Guard. The application for this permit is submitted jointly to the Natural Resources Department, working with the Illinois Environmental Protection Agency and the Army Corps of Engineers. The Natural Resources Department and IEPA issue a joint permit, and the Army Corps issues its own.

The Last Four Miles plans have been reviewed by engineering experts who have advised Friends of the Parks that the sustainable designs should pass the permit review.

### **Chicago Harbor Permit**

The purpose of the city's harbor permit process is to evaluate the structural integrity of proposed lakefront structures with respect to the proposed fill and dredging activity. A project must also undergo a utilities clearance check with the city to make sure there are no utility conflicts with the proposed project structures.

### **Chicago Plan Commission**

Under the city's Lake Michigan and Chicago Lakefront Protection Ordinance, a plan for adding parkland on the lakefront would require approval by the Chicago Plan Commission. The Last Four Miles would fulfill the basic policies and purposes of the Lake Michigan and Chicago Lakefront Protection Ordinance and approval could be expected.

### **Storm Sewer Permit**

The creation of four miles of lakefront parks is not expected to involve the construction of storm sewer systems. If later designs determine that new storm sewers are required, or if existing storm sewer outfalls need to be altered or extended, a permit would be required from the city's Water Management Department.

# Calculating the Costs

Completing Daniel Burnham’s vision of an entire Lake Michigan shoreline covered in parkland—essentially a single, 30-mile-long park from Evanston to the Indiana border—will create a work of beauty and a source of recreation unparalleled in the world.

The creation of parkland along the four miles of lakefront, now undeveloped or otherwise blocked to public access, will protect against shoreline erosion and guard private property from the buffeting of lake storms. It will help restore the lake’s ecosystem and foster development of natural habitats for birds and fish. It will knit together the city, north and south, in an unprecedented way.

And it will create nearly 500 acres of new open space, not only for the residents of the park-poor communities at the far edges of the city, but also for all eight million residents of the Chicago region and for the millions of visitors who come to the city each year.

This unbroken string of shoreline parkland will be a people’s park, open to all for rest, for contemplation, for refreshing the soul.

Concept budgets for the construction of new parkland were established as part of the engineering study for the plan. Basic costs for a sustainable shoreline park have been estimated, including all shoreline and beach structures, lakefill, sand, enhanced landscape, the lakefront trail.

And the cost? Between \$350 million and \$450 million, if alternate plans are used.

That’s a lot of money, but, to put it in perspective, this figure is slightly less than the \$475 million spent in 2004 to design and construct the 24-acre Millennium Park, which all Chicago enjoys.

Here’s a breakout of the basic cost estimates for the Last Four Miles:

*“Good order and convenience are not expensive; but haphazard and ill-considered projects invariably result in extravagance and wastefulness. A plan insures that whenever any public or semi-public work shall be undertaken, it will fall into its proper and predetermined place.”*

Daniel Burnham, *Plan of Chicago*, 1909

Projected costs	Cost estimate	Additional parkland	Cost estimate for alternate plans	Additional parkland
<b>North Side</b>				
Ardmore Avenue to Farwell Avenue	\$52.0 million	53 acres	\$84.4 million	82 acres
Touhy Avenue to Juneway Terrace	\$20.6 million	17 acres	\$22.7 million	29 acres
<i>additional landscaping and professional fees</i>	<i>\$7.6 million</i>		<i>\$13.0 million</i>	
<b>North Side total</b>	<b>\$80.2 million</b>	<b>70 acres</b>	<b>\$120.1 million</b>	<b>111 acres</b>
<b>South Side</b>				
Calumet River to 95th Street	\$12.6 million	140 acres	\$12.6 million	140 acres
79th Street to Calumet River	\$197.0 million*	234 acres**	\$197.0 million*	234 acres**
71st Street to 75th Street	\$16.1 million	23 acres	\$75.7 million	40 acres
<i>additional landscaping and professional fees</i>	<i>\$44.3 million</i>		<i>\$45.0 million</i>	
<b>South Side total</b>	<b>\$270.0 million</b>	<b>397 acres</b>	<b>\$330.3 million</b>	<b>414 acres</b>
<b>Total all projects</b>	<b>\$350.2 million</b>	<b>467 acres</b>	<b>\$450.4 million</b>	<b>525 acres</b>

\* Does not include the developer’s cost to develop 95 acres of parks at the former U.S. Steel site.

\*\* Includes 95 acres of undeveloped parkland already dedicated to the Chicago Park District at the former U.S. Steel site.



# Making it Happen

Chicago's lakefront is a public regional resource and a national treasure. Today, the city's public lakefront park system is nearly 90 percent complete. Only four miles remain to be constructed for the benefit of its citizens, the region and the nation.

The Centennial of the Burnham Plan of 1909 offers our city a unique opportunity to complete the vision of Chicago's early settlers, visionaries and leaders, particularly Daniel Burnham himself, to insure a continuous public lakefront—open, clear and free.

We are now in a position to focus our efforts on the completion of Chicago's lakefront park system. The time is ripe for the City of Chicago, the Chicago Park District and the State of Illinois to implement this concept plan.

## Phase I: Claim the beaches

The City of Chicago and the Chicago Park District should immediately claim all the new beaches and lakefront land that have been created in the last 20 years by the significant lowering of the Lake Michigan water level as well as by the natural southward movement of beach sand along the Illinois shore by wave action.

In some cases, the emergency shoreline protection measures constructed with federal money in the late 1980s to benefit private, as well as public property, helped create new beaches by capturing the sand moving on its southward path.

The city and the park district should claim these acres of beaches as public parks.

The value of the newly exposed Lake Michigan lake bottom is inestimable and warrants action by the city and park district to maintain the beaches for the public's ownership, use and enjoyment.

Phase I can be accomplished at minimal cost.

## Phase II: Iroquois Landing

### Phase IIA—Transfer unused Illinois International Port District lakefront land to the Chicago Park District

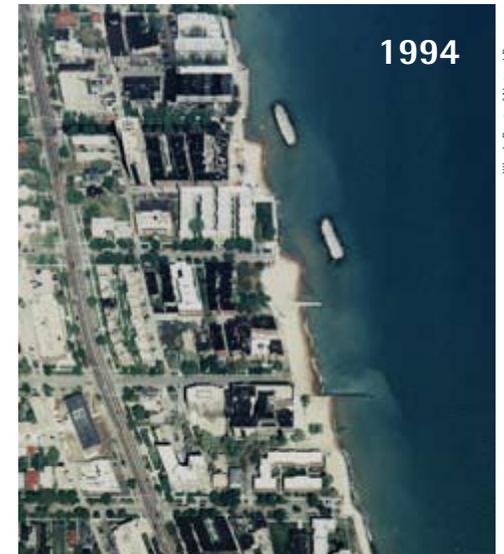
Lakefront land located between the Calumet River and Calumet Park at 95th Street was not part of the City of Chicago in the 19th century. It was part of Hyde Park Township when officials permitted the industrial use of Lake Michigan.

*New beach areas in Edgewater (below) and Rogers Park (right) have been created by low lake levels and natural processes over the last decade. Despite posted signs, they are not the property of adjacent landowners.*



*"If the plan is really good it will commend itself to the progressive spirit of the times, and sooner or later it will be carried out."*

Daniel Burnham, *Plan of Chicago*, 1909

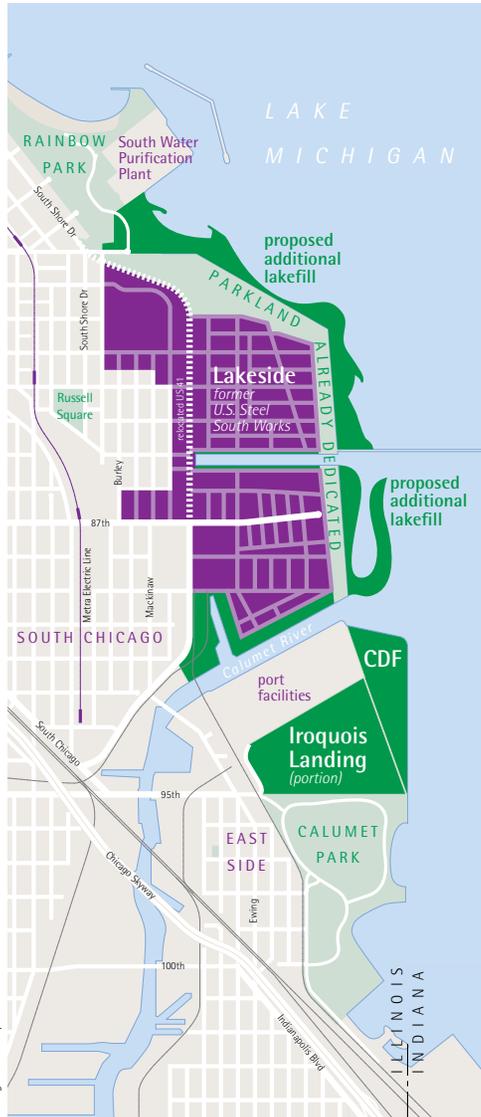


Illinois Dept. of Natural Resources



Illinois Dept. of Natural Resources

*The U.S. Steel South Works site, unneeded port district land, and the adjacent Confined Disposal Facility provide a remarkable opportunity to dramatically increase lakefront parkland on the Southeast Side.*



Between the Calumet River and 95th Street, Iroquois Steel (later part of Youngstown Steel) was allowed to expand its steel mill by dumping slag into the lake in the early part of the 1900s. In 1978, after the closing of Youngstown Steel, ownership of 190 acres was transferred to the Illinois International Port District. The district used 90 acres for port activities, but 100 acres along the lakefront remain vacant and fenced off to the public.

The city and park district should work with port officials to transfer these unused lakefront acres to the park district to expand Calumet Park. If an intergovernmental agreement cannot be reached between the port district and the park district, the city and park district should introduce legislation in the Illinois General Assembly to acquire the unused lakefront land for public recreational benefit and public use.

### Phase IIB—Cap the Confined Disposal Facility

Under a 1992 contract among the Illinois Port District, the Chicago Park District, and the U.S. Army Corps of Engineers, a confined disposal facility—a triangular-shaped walled container—was constructed east of the port district site along the lakefront for the placement of sediment dredged from the Calumet River.

In recognition of the public’s historic right to Lake Michigan, the contract called for the facility to be capped and converted to a public lakefront park within ten years or when the container was filled. Following the scheduled dredging of the Calumet River in 2011, the facility should be capped and developed as parkland.

Acquiring the land for the future expansion of Calumet Park would cost nothing. The park development costs can be phased. Funding from the city, state, park district and federal government should be used to cap the disposal facility and create parkland in conjunction with the creation of the

100 acres of unused port district land on Iroquois Landing.

### Phase III: Create new parks on the eastern edge of the former U.S. Steel site

Development on the former South Works site is projected to begin in the next decade, creating an entirely new community that will require public parks, lakefront access, beaches and play areas. The developer of the Lakeside project has submitted a preliminary application for residential development of this 580-acre site, which includes 95 acres of lakefront parkland. The eastern edge has already been transferred to the Chicago Park District, but the former industrial site is some 12 feet above the water, requiring additional new land to make it possible to create beaches and provide easy lake access.

Before development begins, the lakefront parks should be expanded with lakefill to add over 200 acres of new land on the east edge to construct parks more suitable for the demands of both the new residents and the existing community to the west.

Funds to construct the park should come from the city, state, park district and federal government. Over the past two decades, this combination of funding sources has been used to reconstruct eight miles of existing shoreline revetment.

### Phase IV: Complete the parkland link between the South Shore Cultural Center and Rainbow Beach Park

Private houses and apartment buildings line the lakeshore between 71st and 75th Streets. Without a continuous public park and a lakefront trail connection between South Shore Cultural Center Park and Rainbow Park, a major gap exists.

To complete the final South Side link, two park design options are presented in the Last Four Miles concept plan. Landfill adjacent to the private property can be constructed, including new private land that can

be fenced to restrict public access. The second and more expensive option is to construct a peninsula from South Shore Cultural Center Park and another from Rainbow Beach Park, linked by a bridge carrying the lakefront path over the lagoon opening. This Phase IV implementation should be paid for with a combination of city, state, park district and federal dollars. Federal stimulus dollars may be available for this important Chicago project.

### **Phase V: Create continuous parkland from Ardmore Avenue to the Evanston border**

Minimal lakefill would be needed to create nearly 100 acres of new sustainable parkland and beaches between Ardmore Avenue and the Evanston border.

If federal dollars are available, the north segment should be constructed simultaneously as work on phases I and II are being completed on the South Side. Much of Lincoln Park was constructed with

federal funding provided by the Public Works Administration during the Great Depression. If federal stimulus funds are not available, funding would be a combination of city, state, park district and federal dollars, following the model of the current Shoreline Reconstruction Project.

### **The magic to stir men's blood**

This year we celebrate the centennial of Daniel Burnham's *Plan of Chicago*, the inspiration for much of Chicago's remarkable lakefront. We remember Burnham's words, that "a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with evergrowing insistency."

What idea for improving our city could be more compelling than the dream of completing Chicago's public lakefront, of creating, of dedicating, of enjoying the Last Four Miles?

*Rogers Park today (below left) is a dense community with little parkland. Limited lakefront fill (below right) would provide new recreational space and continue the unbroken lakefront park all the way to the Evanston border.*



Olorent Et Associates



John Buenz



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*"Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency. Remember that your children and grandchildren are going to do things that would stagger us."*

Daniel Burnham



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