This pamphlet was produced in part by the *CHICAGORivers* Demonstration Project, a collaboration of public and private organizations enhancing Chicago Area Rivers through community-based activities, while serving as a national model to improve degraded rivers.

### CHICAGO **Rivers** PROJECT PARTNERS

- Friends of the Chicago River
- Metropolitan Water Reclamation District
  of Greater Chicago
- National Park Service, Rivers, Trails, and Conservation Assistance
- US Army Corps of Engineers, Chicago
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- USDA Forest Service, North Central Forest Experiment Station
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# CHICAGO'S

### **CHICAGO AREA RIVERS**

Chicago's sister rivers, the Chicago and the Calumet, have been joined together to form a single, intertwined network of waterways. Together they affect downstream waters of the Illinois and Mississippi Rivers to the Gulf of Mexico. By calling them Chicago Area Rivers we recognize the vital role they played in the city's growth while remembering their past as separate waterways.



Construction of canals and channels joined two of the region's river systems in the early 1900's, reversing their flow away from Lake Michigan.

### ONE RIVER SYSTEM, MANY FACES

North Branch, Middle Fork, Bubbly Creek, Skokie River, the Chicago Sanitary and Ship Canal, the "Ditch"; Chicago Area Rivers have many names and many faces. Each section has its own character from the tour boats downtown to the quiet forested stretches of the North Branch to the industrial corridor of the Cal-Sag Channel. Many of us know only one part of the river. Yet as different as they are from one another, they are all connected.

# CHICAGO'S RIVERS: LIVING RIVERS

Vibrant, attractive, full of life. You might be surprised to hear these words associated with the Chicago Area Rivers. Many people have less than a positive image of these connected waterways, picturing an open sewer that runs backwards and is dyed green every Saint Patrick's Day.

But these are living rivers and most Chicago area residents have a daily connection to them. We sit by



their banks at lunch time or go over the bridges that cross them. They are also important ecological and recrea-

Thousands of people "connect" with Chicago Area Rivers everyday; many cross the waterway on one of the many trunnion bascule (movable) bridges. Photograph by Ron Schramm PHOTO.

tional assets, home to herons, ducks, beaver, and as many as 50 species of fish. In places, ancient oaks and spring wildflowers adorn their banks. Chicago's rivers were once associated mostly with work industry, commerce, and trade. Now people are coming back to walk, play, hike, fish, and canoe. More and more people are learning about the potential of the rivers, caring for them, admiring their rebirth, and yes, even loving them...!



Twentieth century "urban pioneers" re-discover their waterways through canoeing. Courtesy of Friends of the Chicago River.



# CHICAGO'S HISTORY: BUILDING A CITY ON THE SHOULDERS OF ITS RIVERS

The city of Chicago owes its existence to Chicago Area Rivers. Native Americans and settlers alike saw that this gentle stream flowing into



Jean Baptiste Point du Sable, a man of African and French ancestry, established the first trading post at the mouth of the Chicago River in the 1770's. Courtesy of Chicago Historical Society.

Lake Michigan could provide a vital transportation link to the Mississippi River. The potential for this trade route quickly attracted settlement to the Chicago area.

Within a few short decades, as the city grew up almost overnight, Chicagoans changed the rivers and surrounding wetlands quickly and dramatically. Floodplains and wet areas—vital parts of the rivers were filled in to make more dry land available as real



Changes to Chicago Area Rivers were often dramatic in order to accommodate residential development and sewage disposal.

estate markets boomed. Entire Chicago neighborhoods are built over former stream beds. The rivers served as sewers, not only for the increasing number of residents, but for new industries, such as slaughterhouses, stockyards, tanneries, and steel mills. Over time the rivers' natural paths were deepened and straightened in many places to direct the water's flow, accommodate



The I & M Canal quickly transformed Chicago into one of the country's most important trade centers. Courtesy of Louis University Canal Collection.

barge traffic, and facilitate shipping. In 1848, the I&M (Illinois and Michigan) Canal was completed, establishing the nation's first navigable waterway between the Great Lakes and the Mississippi River.

Because the Chicago River flowed into Lake Michigan, source of the city's drinking water, the increasing pollution of the river caused serious problems. In 1885 a severe local rainstorm pushed sewage-laden river water far out into Lake Michigan contaminating the city's drinking water. This led to a cholera outbreak that killed over 90,000 people. The Chicago Sanitary District (now the Metropolitan Water Reclamation District of Greater Chicago) was created to solve the city's sewage problems and ensure that tragedies of this kind would never happen again. The District's solution was the construction of the Chicago Sanitary and Ship Canal in 1900. The canal reversed the river's flow away from Lake Michigan



Replacing the smaller I & M Canal, the Chicago Sanitary and Ship Canal substantially increased commercial shipping capabilities. Courtesy of Metropolitan Water Reclamation District of Greater Chicago.

despite protests from communities located downstream on the Illinois and Mississippi rivers, which now received C h i c a g o ' s waste.



Chicago Area Rivers—like many urban rivers have experienced two centuries of settlement, industry, commerce, and urban growth. The establishment and success of the city grew out of its ability to alter the rivers to suit its needs. If Chicagoans hadn't changed the rivers, the city would never have succeeded in the ways it did. The rivers, however, paid an enormous price for this economic and urban growth.

# CHICAGO AREA RIVERS RETURN TO LIFE: A NEW BEGINNING

Chicago Area Rivers have made a dramatic return to life. The rivers have changed for the better because our vision for them has changed. The 1970's ushered in a new era of environmental awareness. Concern for the health of the nation's lakes and rivers led to the passage of the Clean Water Act. This prompted local action through people advocating for Chicago Area Rivers and improving sewage treatment.

New environmental priorities and protections led to improved technologies for clean water. Wastewater treatment was upgraded to better remove pollution. Artificial waterfalls called SEPA stations (Sidestream Elevated Pool Aeration stations) were created to mix more oxygen back into the water. This improves the



Chicago's "waterfalls" (SEPA stations) provide public open space while increasing oxygen in the water. Courtesy of Metropolitan Water Reclamation District of Greater Chicago. river's water quality, which is vital for sustaining a variety of fish and aquatic life, and reducing odors.

In 1975 construction of the Deep Tunnel, or TARP (Tunnel and Reservoir Project), began. This huge underground sewer pipe reduces the amount of untreated sewage that can get into the rivers. Chicago has a combined sewer system that carries raw sewage, industrial wastewater, and storm water

r u n o f f from city streets. When a rainstorm produces an enorm o u s amount

of water



Stormwater runoff and wastewater discharge by-products of urban development—increase the risk of flooding. Photograph by Richard E. Carter, 1996.

in a short period of time, it fills the system to capacity, sending the overflow of sewage and stormwater into the rivers. Before Deep Tunnel, this happened an average of every four days. With a major portion of the project completed, the frequency of overflows

### **CHALLENGE OF URBAN RIVERS**

A river's health is largely dependent upon how clean its water is. A river's water quality is in turn a reflection of the land that drains to it or its **watershed**. Urban rivers and their watersheds face special challenges. Streets, parking lots, and buildings cover the soil severely limiting the ground's ability to absorb water from rain or melting snow. This water runs over lawns and on to streets, becoming loaded with pollutants ranging from salt and motor oil to lawn fertilizers and trash before flowing into the rivers. This water is called **stormwater runoff** and the pollution contained in the runoff is called **non-point source pollution**. Because of this connection, it is just as important to care for the land adjacent to the rivers.

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has been significantly reduced to about twelve times a year. It is hoped that when this project is completed, overflows will be reduced to once a year.

Improvements to water quality and people speaking out on the river's behalf led many residents to view the rivers as important resources that provide opportunities for their enjoyment. These working rivers are now surprisingly lively places that support a growing variety of wildlife and recreation uses. The rivers' many roles range from storm water management and commercial shipping to corridors for migratory birds and places for people to play. Balancing these many uses makes improvements to the rivers a challenging prospect.

### **People Make a Difference**

Residents, interest groups, and area governments alike have demonstrated support for a healthy river through a variety of activities. People who feel a sense of stewardship, or responsibility, for their rivers make improvements possible. Stewards care

### RIVER ENHANCEMENT BENEFITS

Changing the natural features of a river– floodplains, wetlands, and riverbanks–increases flooding and water pollution. Activities that re-establish wetlands and floodplains reduce damaging floods by absorbing excess water from rain and melting snow. Wetlands also improve water quality by removing pollution from storm water runoff before it flows into the rivers. for area rivers as volunteers in planting projects, as monitors of the water's health, or as activity coordinators.

Projects such as Gompers Park Wetlands, Northcenter Neighbors Riverbank, and Prairie Wolf Slough Wetlands are true success stories when it comes to community



Children often get parents involved in conservation activities. Courtesy of Chicago Park District.

involvement and stewardship. These projects were spurred by neighborhood interest, created with the help of volunteers and partners, and are now used by local schools as outdoor classrooms and valued as community assets. Community volunteers have been encouraged to take active roles in these projects and have willingly taken on the role of stewards, including maintaining the site's future health.

Having a healthy river and green, open space in neighborhoods provides much needed areas for people to use and enjoy, as well as valuable habitat for

wildlife. **Beaubien Woods-Flatfoot Lake Project** and **Lake Katherine Nature Center** show how a variety of recreation opportunities and conservation activities, like planting vegetation, can be done in harmony with developed areas from landfills to neighbor-



Fishing also provides children with valuable opportunities to learn more about nature. Courtesy of Bob Long, Jr.

hoods as well as provide benefits for nearby rivers. In addition to open space, projects such as the **Centennial Trail** and **North Branch Riverwalk** will provide continuous recreation trails that connect to large parks and neighborhoods.

Chicago's downtown river-edge hotels are an example of how the **Chicago River Urban Design Guidelines** balance economic growth with open space in the downtown area. These guidelines have

### RIVERS AS CULTURAL RESOURCES

any layers of history are visible along Chicago Area Rivers. Settlement eras, canal eras, and industrial eras have come and gone, often leaving buildings, canal remnants, and old iron bridges as reminders of the city's rich history. Incorporating new uses in the older context of historic structures provides rich meaning and a sense of place through time.

the goal of a continuous riverwalk downtown and seek to enhance the river's attractiveness by creating open space along new river-edge development so people can enjoy the river. River advocates are promoting this walkway concept for the whole river as a long-term goal.

The **I&M Canal Origins Park** involved local youth and a variety of partners to

Chicago's diverse cultural heritage is celebrated at the Eliott Donnelley Youth Center through a building mural depicting the migration of African-Americans to the city. Courtesy of Eileen M. Carlton.





The Secretary of the Interior and local youth at Canal Origins Park demonstrate that government and communities can work effectively together. Courtesy of Canal Corridor Association.

create open space, informal trails, and develop simple facilities that increase awareness and encourage use by area residents. As the location of the original canal lock, this park will feature information signs, public art, and education pro-

grams reminding people of area rivers' key role in Chicago's past, present, and future.

As people learn about and interact with the river, they become interested in its improvement. Being actively involved in caring for the rivers and appreciating their many values will ensure continued

improvement to them. Chicago **River Rescue** Day involves hundreds of volunteers in cleaning up trash and completing projects on the river banks. Chicago **River** Schools Network and Testing the Waters are ways to educate youth,



Glenbrook North High School students monitor the health of area rivers through a local water testing program. Courtesy of Mike Piskel.



using the rivers as a classroom, so they can be valued and understood. **U-CAN—Urban Canoe Adventures**—trains youth from diverse backgrounds in the rivers' many values so they can increase peoples' appreciation for the rivers through guided canoe trips.

# A NEW VISION FOR AREA RIVERS

We can see what is being done to help improve Chicago Area Rivers, but how do we know what to focus on in the future? An important part of river improvement has been to understand how residents view their rivers and what they see for the future. Growing public interest in the rivers led to a number of forums, surveys, reports, and other activities which showed the shared vision for healthy urban rivers.

Throughout this process, common goals for all future river improvements consistently emerged from citizens and resource experts alike.

- Improving Water Quality
- Increasing Public Access
- Enhancing Natural Habitat
- Addressing Safety Issues

 Providing Recreation Opportunities

### COMMON FUTURE

Several initiatives— CitySpace and the Chicago River Urban Design Guidelines to name just two—further the common goals for area rivers. These initiatives address similar goals such as safe access to the rivers and establishing public open space for recreation opportunities. Incorporating these goals in all river activities is important to ensure continued improvements for Chicago Area Rivers.

In a metropolitan area of over eight million people, how do we value the rivers as economic, recreational, and natural assets? Balancing the many demands for our rivers while ensuring for a "livable" Chicago requires the participation of all interests through common goals addressing community needs, environment and sustainable development.

### LIVABLE CITY

reating ✓a more livable city starts with a popular vision for the community's future, takes imaginative steps to enhance the quality of life, and protects distinctive natural and cultural assets while accommodating beneficial future development.

"I would like to see a clean river, a river where everyone could enjoy the view of ducks swimming by, of couples, people passing by, and seeing once again the river, clean and healthy, for animals, especially fish, to live in."

 From a poem entitled, "Paradise Lost (Chicago River)" by Aldi Irineo, Amundsen High School student in *SIPI: A Collection of River Stories*



# YOU CAN HELP

You can make a difference for Chicago Area Rivers as an individual or by getting involved in group projects

-or both:

Help clean up river banks in your neighborhood.



Voice your opinion on

River Rescue Day activities educate volunteers about the importance of the environment while cleaning Chicago Area Rivers. Courtesy of Friends of the Chicago River.

public decisions about river access, river management, and adjacent land uses.

- Join or start a river improvement project: a new trail, canoe launch, wildflower planting, or bank stabilization project.
- Keep watch over the rivers—become a steward by taking action to improve area rivers and protect them from harm.
- Be thoughtful about your daily activities and how they may affect the rivers.



North Center neighbors received national recognition from American Rivers for their stewardship of Chicago Area Rivers. Courtesy of Pete Leki.

More and more projects are showing how the vision for Chicago Area Rivers can be achieved in a variety of ways. But future river improvements depend on each of us. Here's who to contact to find out more and get involved:

### CONTACT:

### Friends of the Chicago River

407 South Dearborn Street Suite 1580 Chicago, IL 60605 (312) 939-0490

• For recreation and river improvement activities and educational tours.

### Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street Chicago, IL 60611 (312) 751-6633

- For questions or information on Chicago Area Rivers' water quality.
- To report suspected dumping call 1-800-332-DUMP.

### National Park Service, Rivers, Trails, and Conservation Assistance Program

310 West Wisconsin Avenue Suite 100 East Milwaukee, WI 53203 (414) 297-1053

• For ChicagoRivers Demonstration Project reports, surveys and activity summaries.



