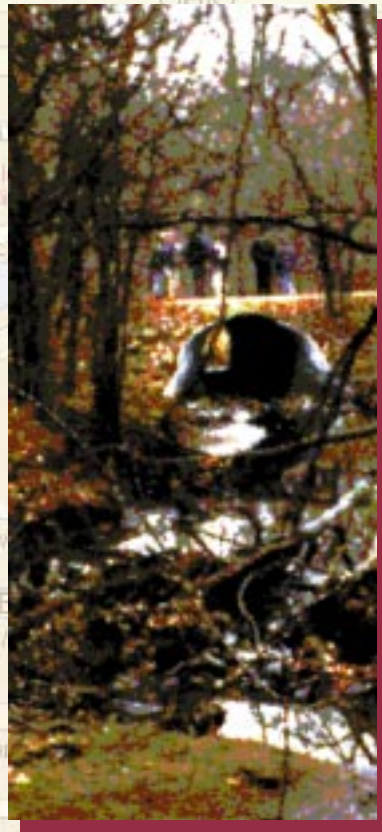
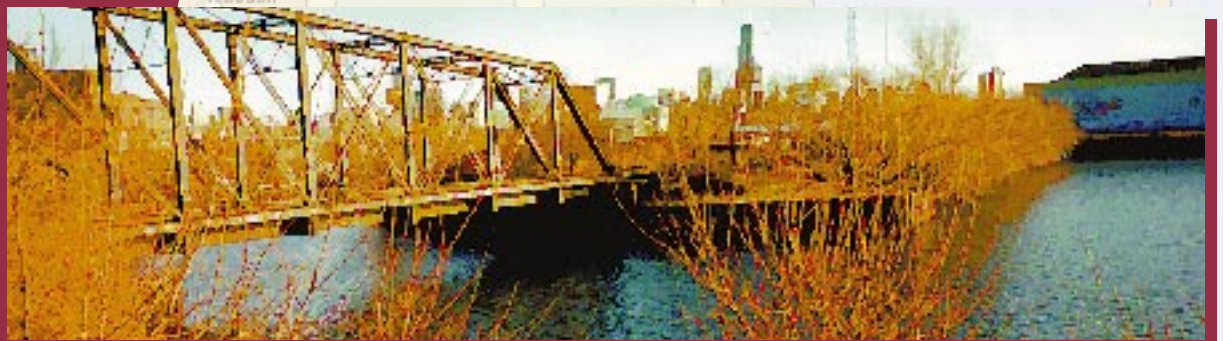


WHAT'S WORKING ON WORKING RIVERS:

A Handbook
for Improving
Urban Rivers



EXAMPLES
FROM
CHICAGO
AREA
RIVERS



WHAT'S WORKING ON WORKING RIVERS

A Handbook for Improving Urban Rivers

EXAMPLES FROM CHICAGO AREA RIVERS

Text by
Naomi Cohn

Edited by
Gail Grosenick
Wink Hastings
National Park Service

*CHICAGO***Rivers** Demonstration Project

THE *CHICAGO Rivers* DEMONSTRATION PROGRAM

The Demonstration Program is a collaboration of public and private organizations enhancing Chicago Area Rivers through community-based activities, while serving as a national model for improving urban rivers. River enhancement projects—such as those described in this handbook—require the participation of all interests working toward common goals addressing environment, community needs, and sustainable growth. Through the ChicagoRivers Demonstration Project, a series of community-based public perception surveys were completed to identify desires for future river uses and an assessment of important natural resources to select specific areas and guide restoration activities. These studies were instrumental in the initiation and design of the projects summarized in this handbook.

CHICAGO Rivers Partners

Friends of the Chicago River

Metropolitan Water Reclamation District of Greater Chicago

National Park Service, Rivers, Trails, and Conservation Assistance

U.S. Army Corps of Engineers, Chicago District

U.S. Fish and Wildlife Service, Chicago Metro Wetlands Office

USDA Forest Service, North Central Forest Experiment Station

This is a publication of the *CHICAGO Rivers* Demonstration Project, a collaborative effort directed by the Friends of the Chicago River and the National Park Service, Rivers, Trails, and Conservation Assistance Program.



Friends of the Chicago River is the only non-profit organization dedicated solely to the protection and improvement of the Chicago River. The organization has become the single most influential voice for realizing the potential of the river's many resources. Since its inception in 1979, the Friends of the Chicago River has played a significant role in policy and planning for the promotion of public access and improvements to the river.



NATIONAL PARK SERVICE, RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM

Conservation works at the local level. Citizens in thousands of grassroots groups are protecting places that are important to them: nearby rivers, open space for the community, and trails linking town and country.

The Rivers, Trails, and Conservation Assistance Program supports this grassroots movement as an important part of the National Park Service mission to protect America's natural and cultural resources. The National Park Service is increasingly being called upon to support the conservation efforts of landowners, community officials, and citizens who share the desire to protect or improve local resources.

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HAT'S IN THIS HANDBOOK

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Lots of initiative and hard work with a little know-how is all that's needed to improve the river in your community. 5

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Things To Consider Before Getting Your Own Feet Wet...

Practical advice to guide river improvement activities anywhere...on any river! 8

Community Project Descriptions

Inspirational stories of community-driven river improvement activities. While the projects were all local in nature, the **Project Lessons** section of each description contains good advice to keep in mind for any river improvement project. Each project description also includes a section on **what was done** and **who was involved** with key contacts if you want to find out more about a specific project.

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Resource References

Look in this section if you are in the Chicago area and want to get involved in river improvement activities. There are also listings, particularly under publications, videos and educational materials, that will be of interest to anyone concerned with river activities...anywhere. 34



Courtesy of Friends of the Chicago River.

The river in your life may not be called the Chicago or “*Checagou*,” but chances are it has many “faces” like the Chicago, from natural ...to urban.



Photograph by Ron Schramm PHOTO.

P

REFACE

Wherever you live, there's probably a river in your life. Eighty percent of land animals depend on rivers in some way, and humans are no exception. More and more people are connecting with rivers and streams and getting involved in improving and restoring them. This handbook tells the stories of several successful urban restoration projects on Chicago Area Rivers.

These stories about improvements to Chicago Area Rivers are presented to raise your interest and encourage people to get involved with their river. They show a few examples of what can be achieved on urban rivers. The projects described here used a variety of approaches and ranged considerably in size, focus, and complexity. But they all share an attention to respecting community needs—environmental, recreational, and economic—combined with a focus on improving the river's health. Most importantly, however, these examples demonstrate that even a small group of people armed with energy and initiative can have a positive effect.

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

– Margaret Mead



Courtesy of Canal Corridor Association.

What's been done on Chicago Area Rivers is truly an inspiration. People's ability to improve these rivers shows what can be improved anywhere, even in a highly developed and complex urban setting like Chicago. A veteran staffer with the Friends of the Chicago River recently concluded: "People look at what's being accomplished on the Chicago River and say, 'Wow, if you can do that on your trashed river, think what we could do on ours.'"

There is no "right way" to do a river project. As you read the project summaries, you will notice that people's needs and desires for an area differ among projects as do the needs of the landscape. These projects are examples of what can be achieved, they are not formulas. The knowledge gained through the experiences of the many hundreds of people who

were actively involved in these projects are contained in the general section **Things to Consider Before Getting Your Feet Wet...** and the **Project Lessons** section of each project summary. Although the projects...and the experiences...specifically relate to Chicago Area Rivers, the insights and guidance offered in this handbook are valuable for any river.

The following organizations and individuals provided substantial support for one or more of the Chicago Area Rivers projects described in this handbook:

- | | | |
|---|--|---|
| AC Delco | Illinois Department of Natural Resources | New City YMCA |
| Boy Scouts of America DuSable District | Illinois Environmental Protection Agency | North American Fund for Environmental Cooperation |
| Chicago Park District | Kennedy-King College | Ogilvy Public Relations Worldwide |
| Chicago Youth Centers | Lake County Stormwater Management Commission | Susan Pritzker |
| Chicagoland Bank Anglers | Lake County Forest Preserve District | Public Allies Chicago |
| Forest Preserve District of Cook County | National Fish and Wildlife Foundation | REI |
| Friends of the Chicago River | National Park Service | U.S. Environmental Protection Agency |
| General Motors | | U.S. Fish and Wildlife Service |
| Grace Bersted Foundation | | Urban Resources Partnership in Chicago |
| Illinois Steelheaders | | |

A

BOUT CHICAGO AREA RIVERS

“As the Chicago River declined as a commercial thoroughfare, it has been forgotten. But it was the river that spawned the city, and it was the river that really gave life to the city.”

– Russell Lewis,
Historical Society

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Photograph by Ron Schramm PHOTO.

The city of Chicago owes its existence to Chicago Area Rivers. Native Americans and early explorers alike saw that this gentle stream which flowed into Lake Michigan could provide a vital transportation link to



Chicago Area Rivers have many characteristics. The upper reaches of the Middle Fork are natural providing habitat for wildlife and open space for recreational activities. Courtesy of National Park Service.

the Mississippi River. The potential for this trade route quickly attracted thousands of settlers to the Chicago area.

Within a few short decades, as the city grew, Chicagoans changed the rivers and surrounding wetlands rapidly and dramatically. Two separate river systems—the Chicago and the Calumet—were combined into what became a single 156-mile network of waterways. Floodplains and wet areas—important natural components of healthy rivers—were filled in to make more land available for development as real estate markets boomed. The rivers also served as sewers, not only for the increasing number of residents, but for new industries, such as slaughterhouses, stockyards, tanneries, and steel mills.

The establishment and success of the city grew out of its ability to alter its rivers to suit its needs. Like many urban rivers, however, Chicago Area Rivers paid an enormous price for over 150 years of settlement, industry, commerce, and urban growth.



A bench along Wacker Driver overlooking the Main Stem of the Chicago River provides an office worker with a few precious moments of relief from the City's many pressures. Courtesy of USDA Forest Service.

A New Vision For Area Rivers

Chicago Area Rivers have made a dramatic return to life. The rivers have improved because our vision for them has changed. Concern for the health of the nation's lakes and rivers in the 1970s led to the passage of the Clean Water Act. Locally, improved sewage treatment, resulting in cleaner water, prompted increased advocacy and interest for Chicago Area Rivers.

These changes led many residents to view the rivers as important resources...as an asset rather than a liability. These working rivers are now surprisingly lively places that support an ever-increasing variety of wildlife and recreational uses. The rivers' many roles range from storm-water management and commercial shipping to environmental corridors for migratory birds and places for people to play. Residents, interest

ONE PROJECT; MANY GOALS

No matter how it is initiated, a project should accomplish one or more restoration goals established for the river. As an example, the Illinois & Michigan Canal Origins Park (page 22)—a project to restore an important historic Chicago landmark and provide public open space for underserved neighborhoods—also addressed each of the river improvement goals established for Chicago Area Rivers. An extensive bank stabilization component regraded steep riverbanks, reducing erosion (*improve water quality*) and revegetated with native plants (*enhance natural habitat*). The developed park area will provide recreation opportunities and resolve safety issues caused by vacant lands, while a non-motorized boat launch area will increase public access to the river.



The city of "broad shoulders." The South Branch of the Chicago River remains a working river today—a navigable waterway for commerce and receptor for millions of gallons of treated sewage. Photograph by Richard E. Carter, 1995.

groups, and local governments alike have demonstrated strong support for healthy rivers.

The key to successful improvements is understanding how residents view their rivers and what they would like to see in the future. Growing public interest in the rivers led to a number of forums, surveys, and other activities confirming this vision for healthy urban rivers. The Chicago-Rivers Demonstration Project has been an important part of this process. It was the Demonstration Project that—directly or indirectly—led to the river activities described in this handbook. Through this evolving process, common restoration goals for future river improvements consistently emerged from citizens and resource experts alike.

RIVER IMPROVEMENT GOALS

- *Improve water quality*
- *Increase public access*
- *Enhance natural habitats*
- *Address and resolve safety issues*
- *Provide recreation opportunities*

Several Chicago initiatives—City-Space and the Chicago River Urban Design Guidelines, to name just two—are consistent with the river improvement goals. These initiatives advocate safe public access to area rivers and the establishment of open space for recreation opportunities.

T

HINGS TO CONSIDER BEFORE GETTING YOUR FEET WET...

What are the elements most river restoration experts agree are essential for successfully completing any project? Before you pull on hip-waders and grab a shovel, consider the following key points:

Make A Difference

What you do *will* make a difference...be positive! There are few, if any, places on Chicago Area Rivers that can be restored to a pre-settlement condition, but as the project summaries clearly demonstrate, much can be done to make the rivers healthier and a greater asset for people and communities. Even a tiny project will spark renewed involvement and interest.

Get To Know Your River

Before starting, get to know your river, or your stretch of it. Effective projects are based on an in-depth knowledge of your river. Who owns the lands along the river? Who regulates use of the river itself? What permits or approvals are needed before work begins? What type of trees, shrubs and grasses occur along and in the river? What wildlife use the area? Are there fish in the river? Who uses the area and what is it used for? Are the river-

banks eroding or are they properly vegetated?

Figuring out the unique possibilities and challenges facing your project does not have to be a complicated

KNOW YOUR RIVER

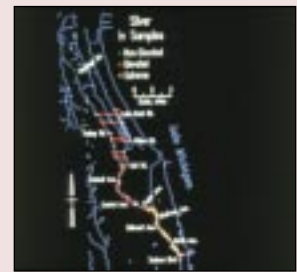
A large or complex river system may require a comprehensive assessment of specific resources. All of the projects described in this handbook were influenced...identified, designed or guided...by detailed assessments completed through the ChicagoRivers Demonstration Project (page 2). Specifics involved extensive public



A Chicago resident's perception of "the river in their neighborhood"—a crayon sketch completed in conjunction with the public perception surveys.

Courtesy of USDA Forest Service.

perception surveys (what does the river mean to people? How is it used? Are there concerns about personal safety or resource degradation? How should the river be improved in the future?), existing recreational uses, condition of existing vegetation, public access to the river, existing wetlands or areas suitable for creating wetlands and publicly owned lands. This information was then used to establish river improvement goals (page 7), to select sites and design specific improvements.



Detailed river sediment sampling revealed a variety of contaminants, some of which may effect possible future river-based activities. Here, the presence of silver indicates turn-of-the-century plating and photographic industries on the North Branch of the Chicago River. Courtesy of Metropolitan Water Reclamation District of Greater Chicago.



A component of the Beaubien Woods-Flatfoot Lake project involved extensive fish surveys. Here, Forest Preserve District of Cook County biologists use a seine net to collect fish in Flatfoot Lake. Courtesy of Forest Preserve District of Cook County.

process. It can be as simple as taking a walk along the river with people who know the resources.

Be Inclusive

The importance of actively involving the community from the start cannot be emphasized too much. Listening to community members often brings more help to the effort, identifies concerns, avoids conflicts at critical points, and develops a constituency committed to long-term stewardship—**sustainability**.



Residents of two public housing river communities, assisted by Friends of the Chicago River staff and volunteers, discovered “their” river during a recent boat tour. Courtesy of Friends of the Chicago River.

The many people who can help are limited only by your imagination and willingness to include them. Be sure you don’t lose sight of the essentials though. Know who needs to be involved to ensure success.

Neighbors, local volunteers and youth organizations can help with workdays and plantings. Don’t forget local businesses. They may be able to offer in-kind services and other help. Are there educators, teachers, students, or parents who can connect river improvement activities with an environmental education program? Can a government agency provide technical expertise? Is there a river advocacy or other non-profit group that can help organize your effort?

Create A Vision

All these projects grew out of a common vision for a better river *and* a better community...be visionary. Whether it starts with the dream of an individual, a few people or a whole group, a project needs to have inspiration behind it. Successful projects often incorporate many objectives into a single, unified vision. This engages more people, leverages more support, and greatly enhances project results.

Try Something New

There’s no “right way” to improve urban rivers. If you don’t see a technique that addresses what you want to do, invent one. Learn as much as you can from other projects—and don’t be afraid to venture into new territory, whether it’s a new way to reduce stormwater runoff or involving a “non-traditional” partner. Although a new idea may not be successful, every project provides valuable experiences for the future.

Keep It Going

For a project to have lasting benefits, it is essential to incorporate long-term maintenance and stewardship in your project plans. Stewardship is vital to the success of individual projects and the overall health of urban rivers. Who will take care of the site and oversee activities in the future? Resident volunteers or local agency staff? Perhaps a new organization is needed. Landowners are often more willing to participate in a project if another organization or group of volunteers is committed to long-term stewardship.

Volunteers

“How do we call for volunteers? We advertise. Because volunteers are more inclined to work in their neighborhood, we advertise in local newspapers free of charge. Get in touch with local civic organizations. Have them announce your project at meetings and in newsletters. Make personal contacts in local organizations and create a phone list.

“How do we keep them coming back? Treat your volunteers in the same way that you would want to be treated. Volunteers come for society and education besides your ecological reason. Project leaders should talk to every volunteer while work is in progress. Introduce them to each other. Keep sign in sheets. Use them for telephone ‘calling trees.’

“Educate your Volunteers. Train them to work the project. Always explain why things are done a certain way and get free government brochures for your volunteers.

“Volunteers work all week and their weekend time is precious. Have all your tools and supplies ready at start time. Do not expect 8 hours from them—you can get a lot done in 3 hours.

“We publish volunteers’ names in our newsletter “The North Mayfair Improver.” We want the volunteers to have pride in what they did and to know that their efforts are appreciated.”

– Anthony Watrobinski, North Mayfair Improvement Association



This building mural, completed by a local artist assisted by several interested youth, enhances a small park at the CYC Elliott Donnelley Youth Center, while celebrating the African-American culture of Chicago. Courtesy of Eileen M. Carlton.

N

ORTHCENTER NEIGHBORS RIVERBANK



*“This is a complicated place...
The river is a place
so different from
the rest of the city.
It’s mysterious.
It’s got some kind
of feeling like
some natural place
survives here.”*

– Pete Leki,
river neighbor
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Neighbors Take Back Their River

This story is about power—the power of the river as a healing force in people’s lives; the power of conflicting viewpoints that obstruct action; and the power of a few dedicated individuals to overcome obstacles and accomplish something on an urban river. The power and value of an

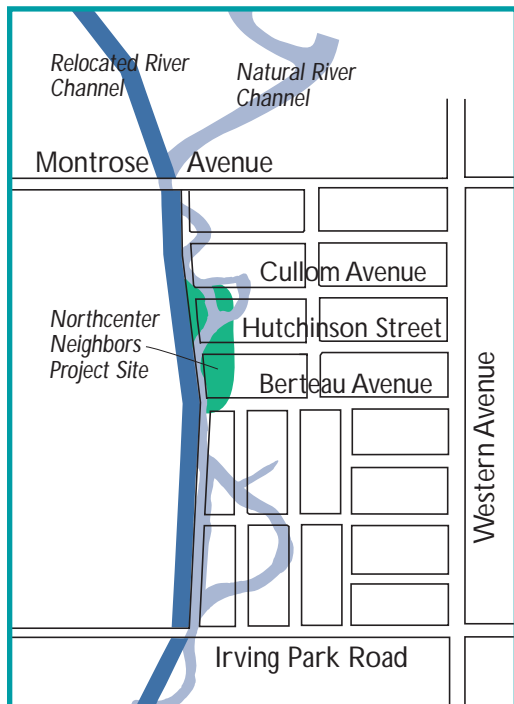
urban river is not always tangible or easily measured. It's difficult to put a price on the value of a spot in an urban neighborhood where you can connect with the natural world after a long day at work. Or a place to show a city kid a bullfrog or beaver.

The obstacles to river restoration can be equally intangible and powerful. People's conflicting perceptions about this stretch of river presented as much of a challenge to restoration as the physical condition of its banks. As things progressed, a few inspired "doers" managed to bring together neighbors and school children to provide safe neighborhood access to the river, while stabilizing eroding river banks and restoring native vegetation along this stretch of the North Branch of the Chicago River.

The Northcenter neighborhood is located on the north side of



Aerial view of the Northcenter neighborhood (upper right) illustrates the residents' close proximity to the North Branch of the Chicago River. Photograph by Richard E. Carter, 1995.



Dramatic changes to the river at the turn-of-the-century accommodated later development of the Northcenter Neighborhood. Courtesy of Metropolitan Water Reclamation District of Greater Chicago.

Chicago. Overgrown vegetation shaded the river bank, and crowded out other plants with greater soil-holding capacity. Construction debris and household rubbish were regularly dumped at the site.

Many neighborhood residents envisioned that their stretch of river could be improved and shared with more people. Other residents felt river access invited illicit activity. Some neighbors built fences to limit river access, while others built a bench to encourage public use of the river.

When a 30-foot section of river bank collapsed, creating a very steep and even more unstable river-edge, everyone agreed that such erosion benefited no one. A group of neighbors got advice from local ecologists and civic organizations and developed an informal plan to fix the bank and make the river more of a community asset.

Neighbors cut back overgrown vegetation and branches, allowing needed sunlight for soil-holding groundcover and built terraces from old branch-

es to further reduce soil erosion. They also planted vegetation native to the Chicago area, making a psychological link with local prairie restoration activities.

This bank stabilization has improved water quality. The enhanced bank habitat has helped increase the bird and duck populations. After clearing the dense vegetation and trash, the area is more open and the river can be seen quite easily. The riverbank is now treasured throughout the neighborhood while dumping and other undesirable uses are no longer tolerated.

Nearby Waters Elementary School has developed an environmental education program tied to the project, showing children the plants and animals native to their area, studying the ecology of urban river systems, and providing opportunities to learn through community service. The children have also written poems and short stories about their experiences.

WHAT WAS DONE

- Neighbors cleared trash and broke up dumped concrete.
- Overgrown vegetation and branches were cut to allow more sunlight.
- People built terraces from old branches to hold the soil in place and planted them with native vegetation.
- Other improvements include a half-mile trail next to the river and steps down to the water which provide access for walking, nature observation, and informal canoe access.
- The stabilization of the bank reduced erosion improving the river's water quality.
- The project received an **Award for Outstanding Educational Work from American Rivers**, a national non-profit organization promoting river conservation, clean water, and healthy watersheds.
- **PROJECT TIMING** — Although much time was spent organizing and resolving differences, the first project “success” was achieved 6 months after initial funding.



Terraces built in the steep riverbank reduced soil erosion and enabled the establishment of vegetation. Courtesy of Pete Leki.

“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 (ChicagoRiver)” by Aldi Irineo, Amundsen High School student in *SIPI: A Collection of River Stories*

WHO WAS INVOLVED

****Friends of the Chicago River** served as publicist, fiscal agent, and advisor. Contact: (312) 939-0490.

****Interested Neighbors** provided visions for the riverbank and the physical labor needed to make the vision a reality. Contact: Pete Leki (773) 463- 8968.

Metropolitan Water Reclamation District of Greater Chicago provided work crews to cut trees and haul refuse. They also gave river tours to students and provided technical review of the work plan.

North Branch Prairie Project provided scientific advice for appropriate plants and methods to use.

National Park Service, through the ChicagoRivers Demonstration Project, provided technical guidance and encouragement.

Waters Elementary School developed an environmental education program making use of the site for hands-on learning.

Local officials also participated in a process to negotiate an inter-agency agreement for long-term site management.

**** Call these participants for more detailed information about this project.**

PROJECT LESSONS

With the Northcenter Neighbors River Restoration Project, how things got done was as important as what got done:

TAKE CHARGE AND GET THINGS DONE

The dedication and inspiration of a few individuals got this project started with commitments for long-term maintenance. The key to project success, however, was the ability of the neighbors to effectively resolve their differences and develop an approach supported by everybody.

RIVER RESTORATION DOESN'T ALWAYS HAVE A BIG PRICE TAG

Although funding was critical, project partners made a little go a long way, borrowing tools and seeking donations of expertise and time to get things done.

MOTIVATIONS GO BEYOND THE MEASURABLE

While bank erosion may have been the catalyst that got this project going, it was an enduring vision of the river's edge as a special haven which motivated many participants. Don't discount the desire for a physical or even spiritual connection with nature as an inspiration for people's participation.

GOOD IDEAS CREATE MOMENTUM

This was an informal and creative project; people didn't always wait until all the details were in place. They forged ahead and, when they started to get things done, their progress and team spirit attracted

more support and involvement. Neighbors experienced in prairie restoration helped with advice and plants from their gardens; others brought refreshments to work days. The sight of neighborhood children joining with plantings and other activities went a long way toward demonstrating to skeptical adults that local youth could be an asset in their community, not a liability.

DIFFERING OPINIONS NEED TO BE HEARD

People in the Northcenter community had widely divergent ideas about the river-edge and how—or whether—it should be used. This project moved forward by acknowledging, then resolving, conflicting opinions. Community meetings with a facilitator helped tremendously.

“It’s very nice and peaceful at the river. When you feel sad, angry, or maybe just lonely, you can go to the river to relax and think.”

– Lolita Aulet, Waters
Elementary School student

“You’re inviting break-ins and vandalism and whatever. There’s no reason for kids to be hanging out on this bank when there’s a park on the other side.”

– Bill Peklo, river neighbor

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An informal trail accommodates peaceful walks, views of the river and, most importantly, relief from the stress of urban living.
Courtesy of Pete Leki.

G

OMPERS PARK WETLANDS



“Through active involvement with park improvements, neighborhood residents contribute to a better, healthier environment while following the progress of their efforts each day.”

–Forrest Claypool,
Chicago
Park District

The Community that Built a Wetland

For this project, it took an entire “village” to restore a wetland. The dedication and involvement of community members and the effective collaboration of a variety of agency and organization partners restored a wetland in a city park along the North Branch of the Chicago River. The



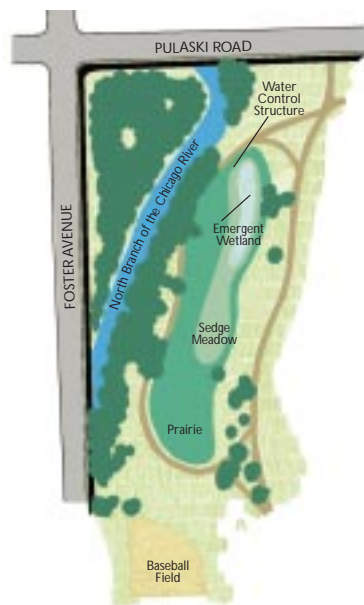
A Chicago arts educator worked with seven Amundsen High School students to complete this mural depicting the Gompers Park wetland, called "Dragonfly Slough" by the students. Courtesy of Friends of the Chicago River.

Gompers Park wetland provides a living demonstration of how wetlands work, while serving as a focal point for community involvement and environmental education.

Gompers Park is located in the City of Chicago, in a north side neighborhood. The two-acre area of the park selected for restoration was thought to have once been a small, marshy wetland within the Chicago River floodplain. What is known for certain about the site is that in the late 1930s a lagoon was built, creating a stream, which still flows to the river through the project site. In the 1960s, the marshy area was filled in and replanted as lawn. These changes limited the natural functions of the river. In addition, frequent flooding in the park limited use of the baseball field.

Local community groups such as the North Mayfair Improvement Association and the North Mayfair Garden Club had long wanted to restore the wetlands to Gompers Park, which is considered the scenic focal point of the community. In the late 1980s the North River Commission, Friends of the Chicago River, and numerous community organizations created the North Branch River Walk Plan, which, in

addition to proposing a continuous river walkway, identified several potential restoration areas, including a wetlands in Gompers Park. In 1994, the potential natural and recreational benefits of a wetland at Gompers Park were again highlighted, this time by several organizations involved in the ChicagoRivers Demonstration Project. The strong community interest, feasibility of the restoration itself, and the interest of the Chicago Park District, owner and manager of the property, all combined to bring about the Gompers Park Wetlands Project.



Plan prepared to guide restoration activities (above) and aerial view of the Gompers Park wetland one year after project completion. Photograph by Richard E. Carter, 1996.

Volunteers planted native wetland and prairie vegetation to retain stormwater runoff. The wetland plants also naturally filter out pollutants and sediments carried by the runoff, improving water quality. The wetland now provides habitat for a variety of birds, turtles, frogs and fish.

A water level control structure was built to manage the amount of water flowing onto the site. The water level can be lowered to facilitate maintenance for plantings or sediment removal. Periodically, as the Chicago River rises, a bypass pipe allows river water to flow into the wetland. The combination of a water control structure and the improved ability of the area to hold moisture will help reduce impacts from downstream flooding.



WHAT WAS DONE

- The Chicago Park District worked with many partners to develop a site plan.
- Land and Water Resources, Inc. regraded the site, shaping the land contours so the area would hold an appropriate amount of water, exposing hydric (wet) soils suitable for wetland plants.
- Volunteers planted native wetland and prairie vegetation to capture and retain water.
- A water level control structure was built which manages the amount of water retained on the site. The water control structure in combination with improved moisture retention abilities of soil and vegetation helps reduce downstream flooding impacts and remove pollutants from stormwater runoff.
- Increased water storage capacity provided by the wetland has reduced flooding of the baseball field.
- Bulrushes, blazing star, and big bluestem now thrive where a muddy lawn previously existed. The restored site provides habitat for birds, turtles, frogs and fish.
- Gompers Park wetland also holds the interest of the community. Volunteers continue to be involved in stewardship. Educational activities at the site range from biology to art and music, including a four-panel mural created by Amundsen High School students. Area public school teachers have integrated the wetland into educational curricula.
- **PROJECT TIMING**—Planning, design, volunteer training, construction and initial planting took 24-30 months.



Dedicated neighborhood volunteers worked under extremely hot and dry weather conditions planting the wetland area. Courtesy of Chicago Park District.

WHO WAS INVOLVED

Amundsen and Roosevelt High Schools have incorporated Gompers Park into their school curriculum through planting, monitoring, and use of the site as an outdoors biology lab and art project.

Chicago Academy of Sciences, Field Museum, Museum of Science and Industry, Shedd Aquarium, and North Park Village Nature Center joined together to provide classroom education and field demonstrations for children and adults.

****Chicago Park District** provided overall project coordination, organized community activities, developed restoration plans, provided a major portion of the funding, supervised volunteers, and assisted with site re-vegetation. They are part of the education partnership and will provide long-term management of the site. Contact: Michaelene Brown (312) 747-0692.

Community Volunteers helped with planting, identifying plant species, and conduct guided tours of the wetland.

****Friends of the Chicago River** facilitated community interest and involvement in the project. Friends also organized and publicized volunteer activities, site dedication and volunteer appreciation events. Contact: (312) 939-0490.

****** Call these participants for more detailed information about this project.

National Park Service, through the ChicagoRivers Demonstration Project, facilitated the selection of river corridor restoration activities in Chicago neighborhoods, including Gompers Park.

Natural Resource Conservation Service conducted soil and site analysis and assisted with plant selection and plantings. The Service also provided the engineering design, construction oversight, and permits for the water level control structure.

****North Mayfair Improvement Association** brought the site to the attention of agencies and organizations who later became key project partners. Along with the Gompers Park Advisory Council, they provided forums for community education and input. They also helped organize and publicize community volunteer efforts. Contact: North Mayfair Improvement Association: (773) 736-1051.

U.S. Army Corps of Engineers did hydrological analysis of river flows necessary for site design and obtaining permits.

****U.S. Fish and Wildlife Service** helped develop the site design and management plan and assisted with volunteer training sessions, plantings, and educational activities. Contact: (847) 381-2253.

Urban Resources Partnership in Chicago provided technical assistance.



View of the wetland a few months after the initial planting. Courtesy of Friends of the Chicago River.

PROJECT LESSONS

CLEAR ROLES AND EXPECTATIONS

This project was notable for the number of agencies involved, particularly the number contributing substantive work.

“Being up-front about everybody’s role in advance was critical,” observes Michaelene Brown, a naturalist with the Chicago Park District. Early planning, careful site selection, and getting key people and agencies involved early in the planning process was a keynote of this project.

WORK WITH THE LANDOWNER

This project is notable for the leadership of the Chicago Park District as the site landowner.

PLAN FOR BAD WEATHER AND OTHER DELAYS

This project was dogged by the weather—rainstorms that delayed construction and workdays, intense heat that sapped the strength (but not the good will) of volunteers. There may be practical limits to the number of rain days that can be scheduled, but schedule as many as possible. Always have a contingency...extra rain days, auxiliary sources of water for periods of drought and substitutes for people who do not show up.

COMMUNICATION IS A TWO-WAY STREET

Brown emphasized the importance of getting lots of community input and making sure to explain and educate volunteers and the public about the issues involved.

“It is crucial to bring the public along through the project,” Brown says. Outreach with local residents was a great success; people responded by

supporting and championing the project and by dedicated volunteering. Some neighbors downstream of the project expressed concern that the project might cause flooding downstream, showing the need for broader outreach.

GREAT VOLUNTEERS ARE MADE—NOT BORN

The community has a history of involvement and leadership. Agency partners built on this resource with training for volunteers. The partners also worked to make sure the volunteers were acknowledged for the importance of their work. The result was volunteers who were not only committed, but had the necessary expertise for the sometimes delicate tasks involved in planting and other restoration activities.

“If you can make it a good experience, you will have volunteers for life,” notes Jim McDonald, a North Mayfair Improvement Association leader and project volunteer.

Another strength of this project was the establishment of linkages with local schools and organizations that were able to provide groups of volunteers. The lesson here is that many networks with many organizations involve more people, ensuring continued future involvement.

NO SUBSTITUTE FOR COMMITMENT

Both agency staff and volunteers showed intense dedication to this project. “Unquestionably, what made the Gompers Park project a success was the amazing teamwork of all the partners and their level of personal commitment,” notes Brown. Volunteers were also exceptionally dedicated: “People were

undaunted by delays and really hot days....No one complained or gave up.”

LEAD TIME

One of the significant features of this project was its educational focus. Ed Klunk, principal of Amundsen High School, says of his school’s involvement with Gompers Park restoration activities: “This project give[s] students a better understanding of ecological concepts. All students need to know these basic concepts to understand environmental issues and make informed decisions.”

The project has already been host to several successful educational events including music workshops and a student mural project, both organized by Friends of the Chicago River. While participation in these events was good, due to existing relationships with local schools, organizers learned that many educational institutions need a year or more lead time in order to take advantage of such opportunities.

A PROJECT IS NEVER DONE

This wetland was designed to be interpreted at a community level. The physical restoration of the area was just a first step. On-going stewardship and educational activities are a major feature of this project. Volunteers and students will continue their involvement through weeding, additional plantings, periodic burnings to benefit native plant growth, and monitoring plant diversity, soils, water quality, and hydrology. As with the Northcenter Project, Gompers has increased community participation while individuals and organizations find new ways to use the area.

B

EAUBIEN WOODS-FLATFOOT LAKE

“Each year the kids grow. They come in with downcast eyes, weak handshakes, mumbling conversations. By the end of the summer, they look you in the eye, their handshake is firm and confident, and they can give a 20-minute presentation on Beaubien Woods ecology. And, I’ve not only seen these changes, I’ve been responsible for many of them. It feels awfully good.”

– Richard Wilborn,
Fishin’ Buddies!



The restoration project that changed lives... and landscapes

Today, Beaubien Woods is a place that thousands of people use every year, a place where families can enjoy the outdoors. A few years ago, however, it was a place very few people used. Overgrown with brush, it was a place remembered as a

site where people had been murdered. A few avid fishing enthusiasts went there, but they didn't go unarmed!

Beaubien Woods, which surrounds Flatfoot Lake, lies within an area managed by the Forest Preserve District of Cook County adjacent to the Little Calumet River on Chicago's South Side. It was originally covered by a series of ancient sand dunes, part of a vast area of low ridges and wet prairie on the flat plain adjacent to Lake Michigan. Settlement and industrial development dramatically changed the landscape.

Today Beaubien Woods is host to school field trips, summer conservation work crews, fishing parties, birders, and picnics. How did Beaubien Woods make this magical transformation? By hard work and an unlikely partnership. It was a coming together of two separate projects envisioned for the same place. Fishin' Buddies!, a youth mentoring group based in the African-American community, wanted a safe, clean place for kids to fish in the city.

The Forest Preserve District was interested in restoring native habitat, while local residents identified the deteriorated condition of Beaubien Woods in response to public perception surveys conducted for the ChicagoRivers Demonstration Project. The District and the U.S. Fish and Wildlife Service worked together developing an action plan. Goals involved removing excessive vegetation, stocking Flatfoot Lake (created by the excavation of earth for road building) for fishing, and refurbishing recreational facilities.

Eventually the effort combined "lower-income blacks with middle-class professional blacks with the local government land caretaker, as well as regional and federal agencies," explains Bob Long, vice president of Fishin' Buddies! and a City of Chicago employee. "All these groups came together for the first time."

The results were dramatic both in terms of the lives of participants and improvements to the site. Kevin Lyles, a life-long Chicago native, recounts his experiences at Beaubien Woods. "My dad used to bring me here in the late 1960's. Then one day, we stopped going. We heard it was dangerous. A year-or-so ago I was driving by and saw several people. I stopped to look and couldn't believe how it had changed. I started bringing my children here to explore the same wetlands and forests my dad brought me to years ago."



Removing non-native vegetation improves wildlife habitat at Beaubien Woods, while inner-city youth of all ages learn about nature. Courtesy of Bob Long, Jr.

“Recreational activities are a definite possibility, but people need to feel comfortable and safe. Establishing a presence will draw people back.”

– William Granberry,
Forest Preserve District of
Cook County



Fishin' Buddies! "conservation kids" experience "hands-on" environmental education by assisting with natural resource inventories; here fish species, size and condition are recorded under the guidance of a Forest Preserve District fisheries biologist. Courtesy of Forest Preserve District of Cook County.



Fishin' Buddies! "conservation kids" complete picnic facilities using newly-acquired work skills while learning important "life skills" through interaction with a variety of natural resource professionals. Courtesy of Bob Long, Jr.

"Beaubien Woods went from a place that nobody used to at least 100 people a day going there from April to October."

—Bob Long, Jr.,
Fishin' Buddies!

WHAT WAS DONE

- Teamwork of the District, Fishin' Buddies!, and the U.S. Fish and Wildlife Service dramatically transformed this two-acre site into a desirable recreational area. Beaubien Woods is now a place to use and enjoy.
- Project partners picked up garbage and cleared invasive brush and trees.
- Area youth worked at the project as part of an intensive eight-week work study program. They worked hard, earned a wage and learned about the complexities of restoring an urban ecosystem.
- Native seeds and plants were identified and collected.
- Debris in and around Flatfoot Lake was cleaned up, water quality was tested, and fish were stocked.
- A service road was constructed, picnic shelters built, facilities refurbished, and an accessible fishing pier installed.
- Recreational use of Beaubien Woods has risen significantly since the enhancements were completed.
- Partners have also used the site for environmental education with high school students. Projects included water testing, removal of non-native plant species, and learning about botany.
- Future plans call for an expanded environmental education program which will train older youth to teach younger kids through on-site activities. Fishin' Buddies! now focuses as much on conservation as fishing. The Conservation Kids program continues each summer and the group is even exploring the acquisition of land in the neighborhood to create an environmental "learning park."
- **PROJECT TIMING**—Area clean-up, vegetative improvement and installation of picnic and fishing facilities was completed in 24-30 months.

WHO WAS INVOLVED

Chicago Ornithological Society, Chicago State University, USDA Forest Service, Shedd Aquarium, and The Nature Conservancy provided educational assistance to the volunteers.

**** Fishin' Buddies! Youth Fishing Club** conducted community outreach and guided youth work crews. Contact: (773) 233-3250

**** Forest Preserve District of Cook County** is the landowner and maintains the site. They provided the removal of large debris as well as technical skills, permits, and contracts for new facilities. Environmental education and projects were implemented with students. Contact: (773) 233-3766

**** Call these participants for more detailed information about this project.**

Illinois Department of Natural Resources provided fishing information and stocked fish at Flatfoot Lake.

National Park Service, as part of the ChicagoRivers Demonstration Project, provided survey results of recreational user and resident perceptions regarding current concerns and future desired conditions, as well as helping with on-going project progress.

**** U.S. Fish and Wildlife Service's Chicago Metro Wetlands Office** partnered with the District to create an action plan, worked with youth crews, and provided technical assistance and funds. Contact: (847) 381-2253

Urban Resources Partnership in Chicago provided technical assistance.



Once held in distant locations, Fishin' Buddies! now holds fishing events for inner-city youth at Beaubien Woods within the City of Chicago. Courtesy of Fishin' Buddies, Inc.

PROJECT LESSONS

REMEMBER THE NEXT GENERATION

Through the Beaubien Woods project, a paid summer jobs program called “Conservation Kids” was established, which put community teenagers in the thick of restoration work. The participating “kids” are guided by adult volunteers from Fishin’ Buddies!

“I’ve learned to identify trees, plants, and wildlife. Woodlands, wetlands, forest or parklands aren’t foreign environments to me anymore...just to know these things... it feels kind of...powerful. That’s a great feeling...to know things.”

– Ryan Franklin, 17, project participant.

Says Ben Tuggle of the U.S. Fish and Wildlife Service: “I’m excited to see a program like this that benefits the environment and takes realistic steps toward diversifying the natural resources workforce. Reaching kids at a young age is critical for success.” Some of the kids involved in the project are now pursuing natural resource careers at the college level.

“Maybe it’s because I’m getting paid, but this has been the best summer of my life. As part of my job I was required to learn more science than I’ve learned in 10 years of school. I was busy everyday....My mom and dad say they’ve seen a change in my behavior in just two months on the job.”

– Tyree Major, 17, project participant.

COMBINED STRENGTHS

Combining different, but complementary goals, greatly strengthened this project. It reached a broader range of people; while partners brought many different skills to the table. The energy, perseverance, and ability to work with people of Fishin’ Buddies!, combined with the infrastructure and resources of the District and the U.S. Fish and Wildlife Service, proved to be an effective combination.

BUILDING CAPACITY AND RELATIONSHIPS

Fishin’ Buddies! grew tremendously as an organization. When Fishin’ Buddies! first started with its idea to improve Flatfoot Lake, John Kidd, Jr., the group’s president, says, “we were unaware of grants that were available to non-profit organizations, nor were we aware of all the legal ramifications involved.” Now Fishin’ Buddies! is getting grants on its own. The group’s mission has also grown to include conservation, as well as fishing. That’s sustainability!

Perhaps most importantly, a new relationship of trust has grown between the community and local agencies. This is all the more impressive in a city where communities have not always worked together.

“One of the most remarkable events I’ve ever experienced,” said Wink Hastings of the National Park Service, “was an annual awards ceremony of Fishin’ Buddies! Everybody, and I mean everybody, received recognition...a certificate, a recent photograph taken by Bob Long or a handshake and a sincere ‘thank you!’”

GET YOUR MESSAGE OUT

Says Long “I always stress public relations. Your project may be the greatest thing in the world, but it doesn’t exist unless you get the word out and get your story told!”

BE POLITE

Bob Long urges people to remember “that everybody needs a nice thing said to them.” Even in a situation where you are not getting the cooperation you want, he says, “it helps to remember you’re working with an individual—a human being...not an agency—person, with a family at home, a boss over the shoulder. Take it easy on that human being.”

Bob Long points to this attitude as one reason for the successful working rela-

tionship that developed between Fishin’ Buddies! and the Forest Preserve District.

BABY STEPS ADD UP

Project successes grew out of a careful progression of steps, starting small and moving to bigger, more ambitious objectives. This helped partners develop new skills and allow relationships to develop gradually.



A fully accessible fishing pier has been installed by the Forest Preserve District of Cook County at Flatfoot Lake adjacent to the picnic shelter. Courtesy of Forest Preserve District of Cook County.

TIES TO THE COMMUNITY

Several agency participants commented that more could have been done to involve local schools and other sectors of the community. Community involvement is critical to ensure that project benefits endure and that the community has a legitimate role in the site’s future. In addition, greater community input at the outset of the project would have helped.

For agencies, community involvement is not always a simple matter. Bob Long acknowledges that there can be community resistance to agencies perceived as coming from outside: “People ask ‘Who is this coming down and telling us what to do?’”

Long’s advice to agencies or non-local conservation organizations is: “Be persistent, but sensitive. Feel that you can be of assistance, but remember that people know this is their neighborhood.”



ILLINOIS & MICHIGAN CANAL ORIGINS PARK



“This site represents the birthplace of Chicago, where the Illinois & Michigan Canal originated. The I&M Canal made Chicago a major economic and trade center by linking the Great Lakes to the Mississippi River. No site can interpret this story better than Origins Park.”

– Gerald Adelman,
Canal Corridor
Association

Many Visions; One River

All of the projects in this handbook are about vision, but with the Canal Origins Park, what different people and organizations initially envisioned varied dramatically.



The Origins Site was the location of the control lock between the South Branch of the Chicago River (foreground) and the Illinois & Michigan Canal. Courtesy of Louis University Canal Collection.

If you visited the site a couple years ago, you would have seen nothing more than a gravel parking lot and an abandoned gas station. A place where heavy trucks rumbled past on Ashland Avenue, the lone sign of life was Anderson's Shrimp House. On a summer day, the odor from the river could be...pretty rich. Pushing through the dense wall of green to the edge of the steep riverbanks, you can see the gas bubbles breaking the water's surface. These bubbles, produced by decaying organic matter, are not only the source of the river's local name—Bubbly Creek—but are responsible for the river's notoriety—one of mythical proportion.

The 1-acre project site at the junction of the South Branch and the South Fork of the Chicago River, is in an industrial section of Bridgeport, a south side Chicago neighborhood. As unlikely as it may seem, people had various ideas ranging from an historic site to urban open space to a wildlife haven. The site had promise.

Those who braved the thicket found the fresh signs of beaver on an old cottonwood and herons at the water's edge. Others remembered the site's significance as the northern terminus of the I&M Canal, a water route connecting the Great Lakes and the Mississippi which fueled Chicago's settlement, trade and industry.



Fellowship House youth removed years of debris and litter from the site during an annual River Rescue Day event. Courtesy of Friends of the Chicago River.

The Canal Corridor Association has worked for years to promote long-term protection of the site and public interpretation of its historic importance. Chicago Youth Center's Fellowship House chose the site—known by local youth as “the Amazon”—for environmental enhancement activities. Through such experiences, Fellowship House staff have established an environmental program for interested youth—a “first” for the Chicago Youth Centers.



Aerial view of the I&M Canal Origins Park site (lower left) illustrates the industrial nature of the river, the need for public open space, and the challenge of interpreting historic events that occurred 150 years ago. Photograph by Richard E. Carter, 1996.

Site tours, conducted by the youth, have explained the area's rich history and recovering natural environment. A local contractor working with Fellowship House has completed extensive riverbank grading in preparation for the many facilities planned for the Canal Origins Park.

The two organizations found out about each others' efforts and are now working jointly to provide public open space for underserved neighborhoods; to enhance the historic, cultural, and natural resources; and address the broad range of interests associated with the site.

Most recently, the Chicago Park District, anticipating the site's transfer from the State of Illinois, has joined the collaboration to trans-

form these visions into design drawings and supervise construction. The collaboration has been further strengthened with the addition of neighborhood school teachers, several classes of grade school children and specialists in the interpretation of history using innovative methods including public art. What had originated as a one dimensional project is now a unique and highly creative collaboration to celebrate Chicago's bold past, address recent neglect and embrace the future.

Future activities will include planting native prairie and wetland plants to reduce surface run-off and catch pollutants; building walkways and benches; installing historic interpretative materials; constructing a non-motorized boat launch with State of Illinois funds; and developing educational programs for local school students and visitors to the I&M Canal National Heritage Corridor.

WHAT WAS DONE

- The Fellowship House received a grant from the Urban Resources Partnership to involve center youth in cleaning up the site and restoring it.
- Participants have removed years of accumulated debris and invasive plants.
- The youth working on the site stabilized portions of the river bank by building terraces and planting grasses which reduced sediment and run-off. Lessening the steepness of the bank will also encourage recreational use.
- Partners have brought attention to the site through tours, educational programs and special events.
- dr/Balti Contracting Co., Inc., working with Fellowship House, has completed an extensive re-grading of the steep riverbank, successfully reducing erosion.
- The project site provided a place for local youth to learn about the environment and public open space for underserved neighborhoods.
- **PROJECT TIMING**—This is a lengthy project; site clean-up, construction of terraces and informal trails, and riverbank grading have taken 24-30 months; an additional 24-36 months are anticipated for completion of the park.



The Secretary of the Interior assists CYC Fellowship House youth with restoration activities at the Canal Origins site. Courtesy of Canal Corridor Association.

WHO WAS INVOLVED

**** Canal Corridor Association** continues to promote preservation and improvement of this landmark through educational information and public art. Contact: (312) 427-3688.

**** Chicago Park District** is acquiring the property from the State of Illinois, and will manage site development and programming. Contact: Barbara Wood (312) 747-2002

**** Chicago Youth Centers Fellowship House** is working on clearing the site, creating pathways to the river, stabilizing riverbanks, and planting of native species. Contact: (312) 326-2282.

Friends of the Chicago River provided river education, encouraged increased

river access, led clean-up and canoe days, and continues to advocate for an increased awareness of the site.

Illinois Chapter of the American Society of Landscape Architects conducted a design workshop for local residents and Fellowship House to discuss ideas for site restoration.

National Park Service facilitated the involvement of CYC Fellowship House and local residents, preparation of ecological restoration plans, and site improvement activities.

Urban Resources Partnership in Chicago coordinated participation in planning site improvements and park development. The Partnership also provided technical assistance.

**** Call these participants for more detailed information about this project.**



A local contractor, working with CYC Fellowship House, completed an extensive re-grading of the riverbank, successfully stabilizing the highly erodable soils. Courtesy of dr/Balti Contracting Co., Inc.

PROJECT LESSONS

RIVERS CARRY OUR HISTORY

As dramatically as Chicago Area Rivers have been changed, they still provide a tangible reminder of the city's many layers of history. Even where historic structures have been lost, the rivers remain as reminders of the legends and mythology of the city. The Origins site represents one of the few remaining features of the I&M Canal within the city, making it of special significance within the National Heritage Corridor.



Fellowship House staff worked closely with the Pilsen-based contractor conducting the site grading to facilitate future work to be completed by center youth and local grade school children. Courtesy of National Park Service.

THE CANAL WASN'T BUILT IN A DAY

While the site offers great potential, it is also complex in terms of issues, ownership and administration. If the site had not had all the challenges, it would probably have been developed for a business or industry. Both the Canal Corridor Association and Fellowship House exemplify the kind of persistence that is needed to succeed under such difficulties.

Even before completion, this site serves as a model. Friends of the Chicago River has been meeting with riverfront businesses interested in improving the river adjacent to their properties using the Origins site as an example.

I BELIEVE!

The potential of this site was not immediately obvious to everyone who saw it. But this project has been driven by the belief of its partners



A building mural recently completed at Fellowship House serves as a reminder that quality of life is important to all. Courtesy of Chicago Youth Centers Fellowship House.

“This community is an industrial neighborhood where kids don’t have access to nature. The I&M Canal Origins Site is an exception...home to birds, beavers, and other wildlife...an opportunity to experience nature within an urban setting. Young people need places such as this to mature and to develop an appreciation for the environment.”

– Andrew Hart, Chicago Youth Centers Fellowship House

that the site had significance, and, with a strong commitment, the challenges could be overcome.

SHARE A VISION

This project highlights the importance of sharing the vision and significance of your project with others. Partners made their case to the media, agencies, residents and local leaders. Events that drew attention to the site and the work being done were key to this effort.

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RAIRIE WOLF SLOUGH WETLANDS AND PRAIRIE



“The scale of the project was occasionally mind-boggling. Fifty thousand plants, a muddy spring season, 700 volunteers, 42 acres, five agencies. Everybody pitched in to make it happen, one person at a time, one plant at a time.”

– David Ramsay,
Friends of the
Chicago River

Healing a Watershed— One Step at a Time

Don't try this one at home in your bath tub. At least do some planning before you start. Prairie Wolf Slough was realized only because of careful, cooperative planning on the part of many partners, a concerted fundraising strategy,



*Before volunteers could complete the planting, drain tiles were blocked to retain more water on the site and the limestone trail was completed.
Courtesy of Friends of the Chicago River.*

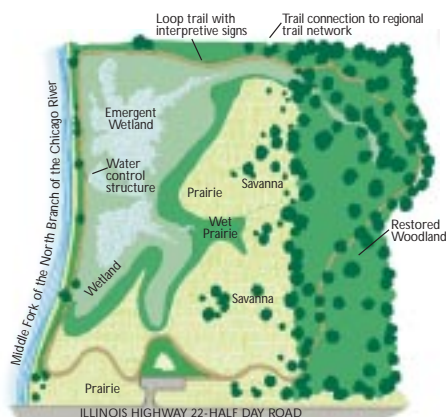
and attention to building relationships in the community. This kind of project is well suited to partners with a proven track record of working together on smaller projects and an organizational continuity to keep the whole thing going.

Prairie Wolf Slough demonstrates stormwater management, water quality, wildlife habitat, environmental education, and other community benefits of a wetland/prairie restoration along the rapidly urbanizing Middle Fork of the Chicago River. It also demonstrates what a strong, diverse partnership can accomplish. And it shows just how much 700 well-organized volunteers can do.

The 42-acre site is located in Lake County, Illinois, a growing suburb 35 miles north of downtown Chicago.

The Prairie Wolf Slough site lies largely in the Chicago River floodplain and is thought to have been a mixture of wetland, prairie, and savanna (open woods). Installation of drainage tiles by early settlers made the land suitable for farming but increased surface runoff to the river, aggravating flooding downstream.

It now contains 28 acres of restored wetland and wet prairie, as well as 14 acres of restored forest, including oak savanna. The restoration retains excess water, manages stormwater runoff, and reduces flooding. It also filters out pollutants carried by runoff from nearby commercial and residential developments before reaching the river. This helps to improve water quality, while addressing residents' concerns about debris and sediment in the water.



*Resource experts from several agencies prepared a plan for the site delineating areas to be planted as wetland, prairie and savannah.
Courtesy of Natural Resources Conservation Service.*



Aerial view of Prairie Wolf Slough one year after the initial planting illustrates the usefulness of a plan for guiding volunteer activities. Photograph by Richard E. Carter, 1996.

“Ecological restoration is becoming an increasingly common response to the land ailments created by 200 years of abuse. Not only does restored land provide important services like water storage, water purification, and soil stabilization, but it provides opportunities for people to encounter the rich biological diversity that is our natural heritage, reversing a cultural trend toward greater isolation from nature.”

– John D. Rogner, U.S.
Fish and Wildlife Service

WHAT WAS DONE

- The Prairie Wolf Slough site was selected—following an evaluation of many prospective sites—for a wetland as part of the Chicago-Rivers Demonstration Project to illustrate the many benefits associated with restoration activities.
- Friends of the Chicago River secured funding from the Urban Resources Partnership, Lake County Stormwater Management Commission and Lake County Forest Preserves.
- Drainage tiles were broken up, allowing the land to retain more water, reducing downstream flooding and damage. A water control structure was built to manage water levels appropriate for optimum growth.
- Volunteers cleared invasive species and planted native vegetation, attracting a diverse range of wildlife native to the area, while addressing people's desires for open space.
- A loop trail was built which connects to the existing county trails network. Wooden walkways were built in the savanna by the Lake County Forest Preserves' Youth Conservation Corps.
- Local educators and park districts developed environmental education programs using the site.
- A strong local volunteer network was established to assist with future site maintenance.
- Prairie Wolf Slough project has been recognized by several national organizations including American Rivers, Environmental Law Institute and U. S. Environmental Protection Agency.
- **PROJECT TIMING**—Site planning, volunteer training, planting and vegetative improvement took 36-40 months.

WHO WAS INVOLVED

**** Friends of the Chicago River** coordinated the overall project, raising funds, and organizing educational programs and community involvement, including volunteer recruitment and supervision. This project provided the opportunity to work with public land managers on a large site. Contact: (312) 939-0490.

**** Lake County Forest Preserves** is the landowner and will provide long-term site maintenance. The Forest Preserves assisted in the design and construction of the site, while handling federal, state, and local permits. They administered funds, worked with volunteers, and contributed to educational programming components. Contact: (847) 367-6640.

Lake County Stormwater Management Commission conducted a hydrology assessment, provided grants, and located the site utilities. They obtained necessary permits and supervised construction of the water control structure. The agency also assisted with the wetland design.

Lake County Youth Conservation Corps, part of the Lake County Forest Preserves, has participated each summer in site restoration, including building walkways, clearing brush, and planting efforts.

**** Call these participants for more detailed information about this project.**

National Park Service facilitated the initiation of Prairie Wolf Slough to demonstrate the re-creation of wetlands and river enhancements.

Natural Resources Conservation Services provided soil and site surveys, design and engineering drawings, and topographical maps. They also assisted in coordination of USDA AmeriCorps volunteers and educational programming.

U.S. Army Corps of Engineers directed funds from fines or compensation collected for filling or developing wetlands at other sites.

**** U.S. Fish and Wildlife Service** located drain tiles; provided technical assistance for wetland design and development; and supervised volunteers planting vegetation. The Service also conducted seminars to train volunteers and teachers in an environmental education program using the site. Contact: (847) 381-2253.

Urban Resources Partnership in Chicago provided a forum to unite the initiative and ideas of local organizations with the technical programs and assistance of federal, state, and local governments.



Members of the Lake County Youth Conservation Corps installing a boardwalk along portions of the trail. Courtesy of Lake County Forest Preserves.

PROJECT LESSONS

WHAT'S IN A NAME

The project was named after John Kinzey Clark, called “Nanimoa” or “Prairie Wolf,” by Native American friends who pitched their wigwams on his property near the present project site. Nanimoa’s life bridged two cultures and two important periods of American history, from the American Revolution to the Civil War. A slough is another name for a swamp or a creek that passes through a marsh, reminding visitors and volunteers of the site’s past. A well-thought out name can help tell the story of an area, while fostering a sense of place through environmental and cultural connections.

BUILDING RELATIONSHIPS

One reason this partnership worked so well is that a lot of thought and planning went into it before the first grant dollar was received or the first shovel went into the ground. All partners were involved in the development of an action plan; some partners concentrated on seeking input from the community, others inventoried site resources. There was plenty of work to go around—site design, community education and outreach, site preparation, planting, volunteer management, and site maintenance—to name just a few.

Far beyond accomplishing significant improvements, Prairie Wolf Slough built good working relationships among many partners. Several participants are now working together on a major watershed planning and improvement project.



Glenbrook North High School students monitor the health of area rivers in the vicinity of Prairie Wolf Slough while learning about the environment. Courtesy of Mike Piskel.

LEADERSHIP

Many people and organizations contributed to this project, requiring leadership and close coordination. Relationships among agencies and overseeing volunteer efforts depended on sensitive leadership with facilitation skills to effectively guide the dynamic and ever-changing structure. It was important to develop clear roles and responsibilities among project partners, while involving community leaders, volunteers, and the public in major project decisions. Said David Ramsay, Friends Project Coordinator, “In many ways the project involved breaking new ground in collaboration, volunteer leadership training, and community participation.”

MANY GOALS MEAN MORE PARTICIPATION

A principal aspect of the planning process was to address as many goals as possible. By the end of the design and planning stage, the project effectively addressed stormwater management, water quality, wildlife habitat, recreation opportunities and environmental education, while ensuring strong support from agencies and surrounding communities.

VOLUNTEERS TO THE RESCUE

Volunteers come to projects for a variety of reasons—they want to make a difference in their community, they are looking for a way to help the environment, they may be seeking a spiritual connection with nature, or they might be part of a corporate volunteer committee. Volunteers stay with projects because they are trained and well treated and given appropriate responsibilities. Polly Greathouse, a project volunteer, provides just one example: “The tradition...of starting each workday in a ‘friendship’ circle created an excellent venue for overview, instruction for the day, questions and answers. We, as volunteers, felt well directed and fruitful.”

DON'T FORGET THE MONEY

While an enormous amount of time and resources were donated for this project, actual funds were critical for materials and staffing. One partner devoted significant time to raising funds for the project. For any project to succeed, especially large ones, funding is vital. Be sure you have the dollars needed or develop a marketing strategy to successfully attract the necessary funding. Fundraising should be guided by project goals and objectives—don’t turn your project design on its head to accommodate a funding source that is not a good “fit.”

THINK ECOSYSTEM

Prairie Wolf Slough represents a significant acreage of wetlands in the upper watershed of the Chicago River. The slough provides the educational and public awareness benefits of a smaller project, while contributing significantly to habitat enhancement and watershed protection. The project not only improves localized river conditions, but the health of downstream sections, as well.



Urban development, stormwater runoff and treated sewage discharged into area rivers increase the risk of flooding. Photograph by Richard E. Carter, 1996.

BUILD LONG-TERM COMMITMENT

Projects are not over when the plants are in the ground and the wood chips are on the trail. Long-term maintenance is critical to success. In this case, the landowner, the Lake County Forest Preserves, made a commitment to maintain the site with volunteer assistance. Additional volunteer trainings have identified new site stewards and established site management plans.

U

RBAN CANOE ADVENTURES



*“To love the river
you must know
the river.”*

- Laurene von Klan,
Friends of the
Chicago River

U-CAN MISSION STATEMENT:

To develop the River as an ecological, economic and recreational resource for the City by training and employing inner-city young adults to lead River tours and to engage others in River improvement projects.

Reconnecting People with their River

Avital ingredient of any river improvement project is the desire, inspiration, and vision of people to change their river. Yet along many stretches of Chicago Area Rivers, people experience many barriers. Fences block physical access; while the rivers’ notorious history of degradation



The class of 1997! U-CAN guides celebrate their successful completion of the training program at Chicago's Grant Park. Courtesy of Friends of the Chicago River.

often acts as a psychological barrier. Public perception surveys conducted as a part of the Chicago Rivers Demonstration Project found that Chicagoans living a few blocks from the river were often unaware of improvements, notably water quality. Friends of the Chicago River, seeking ways to reconnect people

with the river, developed a program to train a diverse group of youth as river guides.

"U-CAN was designed to meet several needs," explains Chris Cercone, the Friends Membership and Volunteer Coordinator. "One was practical; more people wanted to go on our canoe trips than we were

able to accommodate. Canoeing is a great way to introduce people to the river and the issues affecting it. Paddling gets people close to the river and past the fences and other barriers that walkers and bicyclists encounter. U-CAN ...invest[s]...in the future, introducing a more diverse group of people to the river's potential and to... environmental careers."



U-CAN guides participate in several events each year. Here, the guides give a tour of the South Branch of the Chicago River starting at the Canal Origins Park. Courtesy of Friends of the Chicago River.

A group of partners designed the U-CAN program to meet these needs. Goals included increasing the capacity to show people the river, providing youth with training and summer employment, and highlighting river restoration efforts. U-CAN was piloted in 1995. Participants from that year had positive comments:

"I have learned so many things that everybody should know.... [U-CAN] has encouraged me to appreciate the closeness of the cityscape to the River...I hope to be able to instill [my] excitement onto the people I guide."

– Jason Sheparis, U-CAN Guide

"I [have] lived in low-income housing for years, so I haven't experienced a lot of things, but [U-CAN has] opened new doors."

– William Payne, U-CAN Guide

Since its beginning, the program has grown. In 1997, an extensive recruitment effort brought in a diverse group of trainees. Adult volunteers included both trainers and mentors in environmental fields. After rigorous training, the guides graduated to conduct 12 canoe events. One of the 1997 trainees, Adam Suchar, echoes the sentiments of his predecessors: "I know a million times more about the river now than I did before."

WHAT WAS DONE

- Partners recruited urban youth to become river guides, while adult volunteers were recruited to assist with training.
- Youth and adult volunteers received training in paddling, first aid, ecology and history. Seventeen guides graduated from the program in 1997.
- Friends of the Chicago River has been able to double the number of trips and canoe activities offered in a season.
- U-CAN trips highlight river restoration and stewardship activities, including the Illinois & Michigan Canal Origins Park and Chicago Rivers Rescue Day (an annual watershed-wide volunteer river clean-up).
- Youth guides who complete the training and conduct six canoe trips receive a stipend of \$500.
- **PROJECT TIMING** — U-CAN is now a continuous program, but initial start-up took 12-18 months.



U-CAN guides learn about the river's environment by collecting water samples from the North Branch of the Chicago River. Courtesy of Friends of the Chicago River.



Adult volunteers teach local high school students and U-CAN guides how to test water samples for dissolved oxygen levels. Courtesy of Friends of the Chicago River.

WHO WAS INVOLVED

**** Friends of the Chicago River** developed the program and continues to coordinate on-going activities. Contact: (312) 939-0490.

American Red Cross, American Canoe Association, Illinois River-Watch Network, Forest Preserve District of Cook County and Shedd Aquarium assisted with training.

Boys and Girls Club of Chicago (Lathrop Unit), Princeton in Chicago Schools, CYC Fellowship House, USDA AmeriCorps, Lincoln Park High School, Schurz High School and Boy Scouts of America assisted with recruiting program participants.

Chicago Academy of Sciences, The Nature Conservancy, and the Shedd

Aquarium are just some of the organizations to offer mentors.

Lincoln Park Boat Club provided training and practice space.

National Park Service, through the **ChicagoRivers Demonstration Project**, assisted with project funding.

New City YMCA provided a location for many of the training activities

Public Allies provided program staff and leadership training.

University of Illinois at Chicago's Executive MBA Program provided a marketing survey on canoe trip demand.

Urban Resource Partnership in Chicago provided technical assistance through partner organizations.

**** Call these participants for more detailed information about this project.**

1997 U-CAN TRAINING CURRICULUM

Topic	Responsible Organization
River history, development balanced with environment	Friends of the Chicago River
Wildlife, plants	River Trails Nature Center
Water quality, river issues	Illinois Riverwatch Network
Aquatic Wildlife	Shedd Aquarium
Water Safety	NewCity YMCA
Paddling, rescue	American Canoe Association
Leadership workshops	Public Allies Chicago
Team building	University of Illinois Cooperative Extension Service
Market research	University of Illinois-Executive MBA Program
First aid, CPR	American Red Cross

PROJECT LESSONS

RESTORATION IS JUST PART OF THE PICTURE

The health of urban rivers is highly dependent on how people regard and treat it. U-CAN focuses on people and their connection to the waterway, rather than physical changes to the river or its environment.

ADDRESS REALITIES

For an urban river like the Chicago, paddling is an excellent way to introduce people to the river and its environment. Because many of the banks are blocked by fences or are private property, the only easy way to see some sections of the river is to get out on it. Participants learn about issues of public access while getting a completely new view of the city.

Water quality is another issue that urban paddlers need to consider. The Chicago River is by no means pristine, so Friends is very careful about the safety issues associated with poor water quality. Trips are only run when conditions are safe, and participants are made aware of all possible risks. Once all necessary safety precautions have been taken, the trips can focus on the great strides that have been made in improving water quality and on the many species of wildlife that have come back to the river.

LEVERAGE INVOLVEMENT

Training the U-CAN guides involves the time and effort of a great many people, but “these seventeen kids enabled us to reach a whole lot of other people,” says Cathy Hudzik, the 1997 U-CAN Coordinator. And success is measured not just by the number of people the guides reach directly. “They’re still getting exposure to the river and its issues, and sharing their experiences with friends, teachers and family.”



U-CAN river guides participated in 1997 Earth Day event on the South Branch of the Chicago River with Secretary of the Interior Bruce Babbitt. Courtesy of Friends of the Chicago River.

With the help of U-CAN guides, Friends has also been able to institute canoe days, where people can rent canoes for short trips on the river. While these events require more staffing than the usual canoe trip, they are also more affordable for the public, particularly for school and youth groups, allowing the Friends to introduce more people to the river.

AIM FOR SELF-SUFFICIENCY

Friends designed U-CAN to be self-sustaining, with revenue from trips supporting guide stipends and other costs. The cost of renting canoes is a major part of the program budget, and Friends’ long-term goal is to have its own fleet of U-CAN canoes.

USE EXISTING NETWORKS

U-CAN in its first few seasons has been extremely labor intensive for all involved. Recruitment was a big effort. Hudzik thinks the program in future years will make greater use of existing expertise with youth. “We are developing relationships with a few youth organizations and schools that will act as recruitment partners. These groups have a lot of experience working with young adults, and already have relationships with the youth that will be applying. They

will be a great help in finding interested young adults, and also in helping new trainees make it through the program.

INCREASE DIVERSITY

Hudzik notes, “If diversity is a goal, look not just at program participants, but at trainers and role models.” The U-CAN trainees themselves may help meet this need as the program develops. Some guides trained in earlier years have returned to participate in the program again, serving as role models to younger, newer guides.

“In addition to training sessions, the U-CAN recruits are mentored through the program by adult volunteers. These volunteers work with the U-CAN guides in a team on Friends’ canoe trips. They also provide exposure to career opportunities in environmental fields.”

– Cathy Hudzik,
Friends of the Chicago River

R

ESOURCE REFERENCE LISTINGS

VOLUNTEERING

A few of Chicago area organizations involved in various river improvement activities.

Environmental Education, River Clean-Ups and Restoration Activities

FRIENDS OF THE CHICAGO RIVER
407 South Dearborn Street, Suite 1580
Chicago, IL 60605
(312) 939-0490
E-mail: friends@chicagoriver.org

Environmental Volunteer Work Clearinghouse

CHICAGOLAND ENVIRONMENTAL NETWORK
c/o Brookfield Zoo
3300 Golf Road
Brookfield, IL 60513
(708) 485-0263, extension 396

Habitat Restoration

FOREST PRESERVE DISTRICT OF COOK COUNTY
536 N. Harlem
River Forest, IL 60305
(708) 366-9420

LAKE COUNTY FOREST PRESERVES
2000 N. Milwaukee Avenue
Libertyville, IL 60201
(847) 367-6640

THE NATURE CONSERVANCY - VOLUNTEER STEWARDSHIP NETWORK (includes the NORTH BRANCH PRAIRIE PROJECT)
8 South Michigan Avenue, Suite 900
Chicago, IL 60603
(312) 346-8166
(312) 878-3877 — North Branch Prairie Project

Habitat Restoration, Environmental Education

LAKE FOREST OPEN LANDS
272 Market Square, Suite 2726
Lake Forest, IL 60045
(847) 234-3880

LAKE BLUFF OPEN LANDS
P.O. BOX 449
Lake Bluff, IL 60044
(847) 735-8137

Park Improvement Activities

FRIENDS OF THE PARKS
407 S. Dearborn
Chicago, IL 60605
(312) 922-3307

Stream Monitoring & Streambank Restoration

ILLINOIS RIVER WATCH (statewide)
c/o Nature of Illinois Foundation
208 LaSalle, Suite 2055
Chicago, IL 60604-1104
(312) 201-0650

ILLINOIS ECOWATCH NETWORK (Chicago area)
Oakton Community College
1600 East Golf Road
Des Plaines, IL 60016
(847) 635-6450

OPENLANDS PROJECT
220 S. State Street, Suite 1880
Chicago, IL 60604
(312) 427-4256, extension 242

Trail Enhancements, Debris and Litter Removal

I&M CANAL STATE TRAIL
Illinois Department of Natural Resources
P.O. Box 272
Morris, IL 60450
(815) 942-0796

CALUMET ECOLOGICAL PARK ASSOCIATION
12932 S. Escanaba Avenue
Chicago, IL 60633
(312) 881-4903

TECHNICAL ASSISTANCE

The following organizations provide a range of services which may include educational materials, resource publications, and hands-on project assistance.

Rivers, Greenways and Urban Open Space

NATIONAL PARK SERVICE, RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM
310 W. Wisconsin Ave. Suite 100-East
Milwaukee, WI 53203
(414) 297-3617 or 1053

COALITION TO RESTORE
URBAN RIVERS
Izaak Walton League's Save
Our Streams Program
707 Conservation Lane
Gaithersburg, MD 20878
1-800-BUG-IWLA
Website: <http://www.iwla.org/iwla/>

In Chicago, contact:
Friends of the Chicago River
407 S. Dearborn, Suite 1580
Chicago, IL 60605
(312) 939-0490
E-Mail: friends@chicagoriver.org

Aid in Finding Federal Agency Resource Assistance in the Chicago Area

URBAN RESOURCES PARTNERSHIP
IN CHICAGO
c/o U.S. Department of Housing and
Urban Development, 24th floor
77 W. Jackson
Chicago, IL 60604
(312) 353-2473

Wildlife Habitat Wetlands and Migratory Birds

U.S. FISH AND WILDLIFE SERVICE
1000 Hart Road, Suite 180
Barrington, IL 60010
(847) 381-2253

Wetland Permits

U.S. ARMY CORP OF ENGINEERS,
CHICAGO DISTRICT
111 North Canal Street
Chicago, IL 60606-7206
Leesa Beal (312) 353-6464,
extension 4028
E-mail: leesa.beal@lrc01.usace.army.mil

Urban Forestry

USDA FOREST SERVICE
845 Chicago Avenue, Suite 225
Evanston, IL 60202-2357
Gina Childs (847) 866-9311,
extension 14
E-mail: child007@tc.umn.edu

Soil Erosion, Water Control Structures and Streambank Stabilization

NATURAL RESOURCES
CONSERVATION SERVICE
Chicago Metro Urban and Community
Assistance Office
603 E. Diehl Road, Suite 131
Naperville, IL 60563-1476
(630) 505-7808
E-mail: nvillekent@atlas.il.nrcs.usda.gov

NATURAL RESOURCES
CONSERVATION SERVICE
1143 N. Seminary Avenue
Woodstock, IL 60098
(815) 338-0049
(Lake, McHenry and North Cook
Counties)

NATURAL RESOURCES
CONSERVATION SERVICE
1201 South Gougar
New Lenox, IL 60451
(815) 462-3106
(Kendall, South Cook and Will Counties)

NATURAL RESOURCES
CONSERVATION SERVICE
545 Randall Road
St. Charles, IL 60174
(630) 584-7961
(DuPage and Kane Counties)

LAKE COUNTY SOIL AND WATER
CONSERVATION DISTRICT
100 N. Atkinson Road
Suite 102-A
Grayslake, IL 60030
(847) 223-1056

NORTH COOK COUNTY SOIL AND
WATER CONSERVATION DISTRICT
P.O. Box 407
Streamwood, IL 60107
(847) 468-0071

WILL-SOUTH COOK COUNTY SOIL
AND WATER CONSERVATION
DISTRICT
1201 South Gougar
New Lenox, IL 60451
(815) 462-3106

Water Quality and Dumping Issues

METROPOLITAN WATER
RECLAMATION DISTRICT OF
GREATER CHICAGO
100 E. Erie
Chicago, IL 60611
(312) 751-6633 (Public Information
Office)
(800) 332-DUMP (3867) (24-hour service
to report dumping)

Water Quality Monitoring Techniques

ILLINOIS RIVER WATCH
c/o Nature of Illinois Foundation
208 LaSalle Suite 2055
Chicago, IL 60604-1104
(312) 201-0650
Website:
<http://dnr.sta2te.il.us/inringif.htm>

Public Involvement

FRIENDS OF THE PARKS
407 S. Dearborn
Chicago, IL 60605
(312) 922-3307
Lease, easements, and purchasing of
river-edge property for local groups
to manage.
(Also provides liability insurance.)

NEIGHBORSPACE
220 S. State, Suite 1880
Chicago, IL 60604
Kathy Dickhut (312) 431-9406

Environmental Education

CHICAGO ACADEMY OF SCIENCES
(Administrative office address)
2060 N. Clark
Chicago, IL 60614
(773) 549-0606

PUBLICATIONS

PLANNING AND DESIGN

A Citizen's Guide to Community Open Space Planning.

Available from: Openlands Project,
Urban Greening Program.
Phone: (312) 427-4256
(\$2.00 + shipping and handling)

A Citizen's Streambank Restoration Handbook and Restoring the Range Supplement.

Available from: SOS Program —
The Izaak Walton League of America.
Phone: (800) BUG-IWLA
(\$15.00 + shipping and handling)

Building Communities From the Inside Out...A path toward finding and mobilizing a community's assets.

By John P. Kretzmann & John L.
McKnight
Available from: ACTA Publications.
Phone: (800) 397-2282
(\$18.00 + shipping and handling)

Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban Best Management Practices.

By T. Scheuler
Available from: Metropolitan
Washington Council of Governments.
Phone: (202) 962-3256
(\$40.00 includes shipping and handling)

Economic Impacts of Protecting Rivers, Trails and Greenway Corridors. 1992.

Available from: The Conservation Fund, Greenways coordinator.
Phone: (703) 525-6300.
(\$5.50 + shipping and handling)

Floods, Floodplains, and Folks: A Casebook in Managing Rivers for Multiple Uses.

Available from: National Park Service.
Phone: (414) 297-1053
(FREE at this time).

Greenways: A Guide to Planning, Design and Development. 1993.

Available from: The Conservation Fund, Greenways coordinator.
Phone: (703) 525-6300
(\$29.95 + shipping and handling)

Greenways for America. 1990.

A planning manual for communities that has many examples of river corridor projects and a good bibliography.
Available from: The Conservation Fund, Greenways coordinator.
Phone: (703) 525-6300
(\$18.95 + shipping and handling)

National Directory of Urban Watershed Restoration Efforts. 1994.

Descriptions of fifty urban watershed restoration efforts.
Available from: Center for Watershed Protection.
Phone: (301) 589-1890
(\$8.00 includes shipping and handling)

Riparian Buffer Strategies for Urban Watersheds. 1996.

Available from: Metropolitan Washington Council of Governments.
Phone: (202) 962-3200
(\$20.00 includes shipping and handling)

Site Planning for Urban Stream Protection. 1996.

Available from: Metropolitan Washington Council of Governments.
Phone: (202) 962-3200
(\$35.00 includes shipping and handling)

Streambank Protection Guidelines for Landowners and Local Governments. 1983.

Available from: National Technical Information Service, U.S. Commerce.
Reference No. ADA19302.
Phone: (703) 487-4650
(\$27.00 + shipping and handling)

PUBLIC INVOLVEMENT

Organizing Outdoor Volunteers.

Available from: The Appalachian Mountain Club.
Phone: (800) 262-4455
(\$4.95 + shipping and handling)

The Simple Act of Planting a Tree.

This book outlines organizing a first-time community project, from idea to implementation. While the focus is tree planting, the step-by-step principles apply to river projects.
Available From local library
(No longer in print)

Community Outreach Manual.

This manual outlines organizing a first-time community project, from idea to implementation. While the focus is tree planting, the step-by-step principles apply to river projects.
Available from: Tree Trust.
Phone: (612) 920-9326
(\$30.00 + shipping and handling)

Waterworks: Your Neighbors Share Ideas on Working in Partnership for Clean Water.

A how-to guide which explains the step-by-step process of community organizing to protect water resources.
Available from: Tennessee Valley Authority.
Phone: (410) 849-2975
(FREE at this time)

MATERIALS

Chicago Greening Pages; A Resource Directory.

A listing of materials and technical assistance for neighborhood greening and community gardening projects.
Available from: CitySpace, Chicago Department of Planning and Development.
Phone: (312) 744-8003
(No cost at this time)

WATER

A Guide to the Study of Fresh-Water Biology. May 1988.

Available from: Reiter's Scientific and Professional Books.
Phone: (202) 223-3327
(\$22.50 + shipping and handling)

A Monitor's Guide to Aquatic Macroinvertebrates. 1992.

Available from: Izaak Walton League of America, Save Our Streams Program.
Phone: (800) BUG-IWLA
(\$5.00)

Citizen's Monitoring Manual. 1993.

Instructs volunteers about measuring air and water temperature, dissolved oxygen, nitrates, and water clarity.
Available from: Alliance for the Chesapeake Bay.
Phone: (410) 377-6270
(no charge)

Clean Water in Your Watershed; A Citizens Guide to Watershed Protection. (Item number H7)

Available from: TERRENE Institute's Order Department.
Phone: (703) 661-1582
(\$19.95 + shipping and handling)

People Protecting Rivers: A Collection of Lessons from Grassroots Activists. By Neil Schulman

Available from: River Network, Publications.
Phone: (503) 241-3506
(\$10.00 including shipping and handling)

Pond Life. 1988.

A children's guide to species and habitats found in the pond ecosystem.
Available from: Michael Kesend Publishing.
Phone: (212) 249-5150
(\$5.95 + shipping and handling)

Streamkeeper's Field Guide: Watershed Inventory and Stream Monitoring Methods. 1996.

Available from: The Adopt-A-Stream Foundation
Phone: (206) 316-8592
(\$29.95 + shipping and handling)

The Monitor's Handbook. For watershed surveys.

Available from: LaMotte Co.
Phone: (800) 344-3100
(\$8.75)

The Stream Protection Approach: Guidance for Developing Effective Local Nonpoint Source Control Programs in the Great Lakes Region.

By Thomas Schueler (Item number M1)
Available from: TERRENE Institute's Order Department.
Phone: (703) 661-1582
(\$16.96 + shipping and handling)

Urbanization and Water Quality: A Guide to Protecting the Urban Environment. (Item number H9)

Available from: TERRENE Institute's Order Department.
Phone: (703) 661-1582
(\$12.95 + shipping and handling)

Watershed Protection Techniques.

A quarterly journal with summaries on the latest research and experience with urban best management practices, stream restoration, environmental planning, wetland creation/restoration, and watershed research.

Available from: Center for Watershed Protection.

Phone: (301) 589-1890

(Annual subscription \$48.00)

RECREATION

Universal Access to Outdoor Recreation Design Guide.

Available from: MIGCommunications.

Phone: (510) 845-0953

(\$44.95 + shipping and handling)

LANDSCAPING

Aquascaping, A Guide to Shoreline Landscaping. 1993.

Available from: Hennepin Conservation District.

Phone: (612) 544-8572

(\$3.00 + shipping and handling)

Clearing and Grading Strategies for Urban Watersheds. 1996.

Available from: Information Center, Metropolitan Washington Council of Governments.

Phone: (202) 962-3200

(\$25.00 + shipping and handling)

VIDEOS

Environmental Films. A list of environmental films and fees.

Available from: National Audiovisual Center, National Technical Information Service.

Phone: (703) 487-4650

(Free)

Restoring America's Streams.

1966. Explains stream process and shows how to restore streambanks and habitat using vegetation and other non-traditional approaches.

Available from: Izaak Walton League of America, Save Our Streams.

Phone: (800) BUG-IWLA

(\$20.00)

SOS for America's Streams.

1990. Recognizing stream pollution problems, conducting a biological monitoring project, and adopting a stream. Available from: Izaak Walton League of America, Save Our Streams.

Phone: (800) BUG-IWLA.

(\$20.00)

Stream Doctor Video.

Explains stream processes and shows how to restore streams and stream habitat using vegetation and non-traditional approaches.

Available from: SOS Program—The Izaak Walton League of America.

Phone: (800) BUG-IWLA

(\$25.00 + shipping and handling)

The Streamkeeper.

1996. Introduces the hydrologic cycle, watershed boundaries, monitoring streams and how to take action.

Designed to pique the interest of students and community groups.

Available from: The Adopt-A-Stream Foundation.

Phone: (206) 316-8592

(\$19.95 + shipping and handling)

EDUCATIONAL MATERIALS

Hands On Save Our Streams—Save Our Streams Teachers Manual.

Curriculum for grades one through twelve.

Available from: Izaak Walton League of America, Save Our Streams.

Phone: (800) BUG-IWLA

(\$18.00)

Aquatic Project WILD.

Curriculum for kindergarten through grade 12.

Available from: Project WILD.

Phone: (301) 493-5447

(price varies)

Community Sustainability: A Mini-Curriculum for Grades 9-12.

Available from: Carrying Capacity Project, Izaak Walton League of America

Phone: (301) 548-0150

(\$2.00)

EnviroScape II Model.

Interactive, portable model of a watershed that demonstrates water pollution and its prevention.

Available from: EnviroScape Models, c/o JT and A Inc.

Phone: (202) 833-3380

(\$829 with carrying case, \$629 without case plus shipping and handling)

Save Our Streams Kit.

Kit contains information and materials on how to adopt, monitor and protect streams.

Available from: SOS Program—The Izaak Walton League of America.

Phone: (800) BUG-IWLA

(\$8.00 + shipping and handling)

Teachers Guide for Creating a Water Monitoring Program. 1994.

Available from: Center for Watershed Protection.

Phone: (301) 589-1890

(\$12.00 including shipping and handling)

GRANT INFORMATION

Donors Forum of Chicago

Operates a reference library on philanthropy and funding sources.

208 S. LaSalle, Suite 735

Chicago, IL 60604

Phone: (312) 578-0175

Urban Resources Partnership in Chicago

c/o U.S. Department of Housing and Urban Development

24th floor

77 W. Jackson

Chicago, IL 60604

Phone: (312) 353-2473

Directory of Funding Sources for Grassroots River and Watershed Conservation Groups.

Available from: River Network, Publications.

Phone: (503) 241-3506

(\$35.00 including shipping and handling)