CHICAGO'S WATER AGENDA 2003

City of Chicago
Richard M. Daley
Mayor

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LETTER FROM THE MAYOR

Water is our most valuable natural resource and a vital part of Chicago's past and its future.

It is no coincidence that Chicago was founded at the confluence of the Chicago River and Lake Michigan. This historic location provides us with drinking water, as well as an unparalleled access to swimming, fishing and sailing, and it helps make Chicago one of the most beautiful cities in the world.

But our water resources are vulnerable to pollution, waste and other forms of misuse, and we must never take them for granted. We have a responsibility to protect, conserve and manage our water wisely to help improve the quality of life for ourselves and future generations.

With that in mind, we have developed this Water Agenda to guide our water-related decisions for many years. It provides a strategy for keeping our water safe, clean and plentiful, and for improving the infrastructure that keeps our homes supplied with water.

I hope our Water Agenda will inspire you to pay more attention to how we care for this vital resource.

Sincerely,

Richard M. Daley
Mayor

Water—Our Greatest Natural Treasure

Throughout history, great cities have always had one thing in common: water. Chicago's world-class status is owed largely to its position at the confluence of the Chicago River and Lake Michigan. These waterways signified transportation and trade to Chicago's settlers and continue to attract millions of visitors to our city every year.

Beyond the Lake Michigan shoreline, our water resources extend throughout, and beneath, the City. They are the Chicago River, Lake Calumet, the Calumet River, thousands of acres of wetlands, creeks, streams and lagoons, as well as canals and channels. Equally important are the thousands of miles of pipes, man-made tributaries, that have—for over 100 years—delivered drinking water and helped us manage stormwater.

These resources are critical to our public health, safety, economy, and quality of life. They provide recreational opportunities like boating, fishing, and swimming. Our waterways provide natural experiences in an urban setting. We are fortunate to live near some of the cleanest drinking water in the world.

With nearly 20 percent of the Earth's, and 95 percent of the nation's, fresh surface water supply, a walk along the Great Lakes shoreline suggests our waters are vast and inexhaustible.

They are not. We must not take these resources for granted.

Chicagoans before us lifted the City out of a swamp, reversed the Chicago River to protect the drinking water supply, and connected us to the Mississippi River. Now the region is building one of the nation's largest public works projects to manage stormwater. These engineering fixes are not enough. The challenges ahead will once again require us to lead by example and demonstrate new ways of thinking about water.

Nearly a century ago, Chicago introduced the first land use plan for a modern city. Now we must again be forward thinking and chart a course for our important water resources. We must take actions now that will benefit citizens who follow.

Chicago's Water Agenda 2003, outlines a strategy for caring for our water resources as a whole. Understanding that our water resources work as a complex and connected system, the agenda calls for a comprehensive approach to the City's treasured waterways to ensure that they are conserved for future generations, protected and improved, and managed so that water can continue to sustain us, connect us as neighbors, and define our community's role nationally and internationally

CONSERVING WATER

Conserving Chicago's Water Resources

From the shores of Lake Michigan, Chicago enjoys access to one of the finest water resources in the world —The Great Lakes. The Great Lakes hold 20 percent of the world's surface freshwater supply and 95 percent of surface freshwater supply for the United States. The Great Lakes waters sustain us, as well as the natural world. They also support our needs for recreation, transportation and power.

Twenty percent of the demand for water supply from the Great Lakes comes from the Chicago–Milwaukee region with a current population of about 8 million people in the six-county Chicago metro region alone. Projections indicate the population of our region may increase by more than 20 percent by 2030.

No one is predicting that we are going to drink the Great Lakes dry, but if we endorse practices to export our drinking water to more arid regions or allow it to be sold like a commodity, we will see a reduced supply and an ecosystem out of balance. Only 1 percent of the water in the Great Lakes is renewed each year. Up to 40 percent of that renewal is from groundwater flowing underground into the lakes—the same groundwater that is drying up throughout the region due to continuing development and wasteful habits.

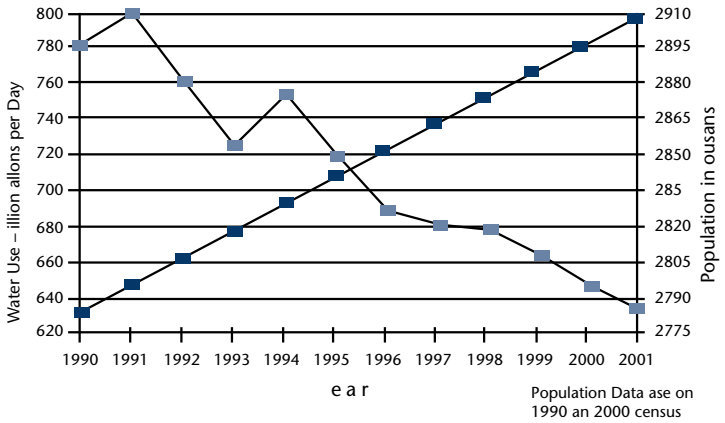
Action: The City will continue to reduce water use by aggressively investing in infrastructure upgrades to our water distribution system. The City calls on the Federal government to increase funding to local water agencies.

Through its Department of Water Management, the City of Chicago purifies nearly 1 billion gallons of water per day for use by the residents of Chicago and 124 neighboring suburbs. The distribution system contains 4,200 miles of water mains and 12 pumping stations.

Chicago's Department of Water Management is implementing a five-year, $620 million capital improvement program that includes replacing approximately 50 miles of old leaking water mains every year. Additionally, the Department is helping other units of local governments examine their distribution systems for leaks. The improvements in Chicago alone will save an estimated 120 million gallons of water each day.

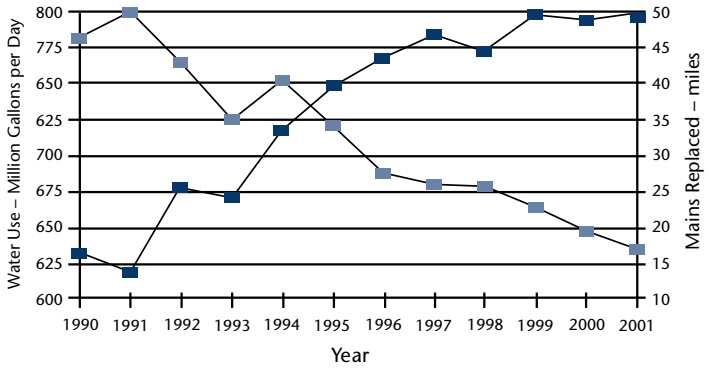
Water Use vs. Population

1990–2001 Population Increase 4.4%
1990–2001 Water Usage Decrease 18.8%



Water Use vs. Miles of Main Replaced

1990-2001 Water Main Replacement Increase 206%
1990-2001 Water Usage Decrease 18.8%



Action: The City of Chicago and its sister agencies will lead by example in conserving water.

The City will continue to review its procedures and implement water conservation measures wherever possible in City buildings and services. Many programs to reduce use in City-owned buildings are already underway. For example, the Chicago Park District is actively addressing conservation issues by:

- Ensuring that all new drinking fountains have on/off controls.
- Upgrading 43 swimming pools so that they safely re-circulate water. The Park District will also upgrade the remaining 10 pools.
- Installing splash fountains that re-circulate water.
- Disconnecting downspouts that connect to the sewer system on Park District facilities so that stormwater is used for irrigation and for recharging groundwater.

The City has already installed many water saving plumbing fixtures in City buildings. In order to lead by example, the City will also:

- Examine the Building Code for opportunities to allow for more efficient fixtures, like waterless urinals and dual flush toilets.
- Explore the potential of installing gray water systems to irrigate landscaping or for flush toilets in public buildings.
- Plant native species that are drought tolerant to reduce the need for watering.

Action: The City will continue to conduct audits and recommend upgrades for large industrial water users.

In Chicago, all industrial water users have water meters and pay for their water based on how much they use. Therefore, these users recognize the value of water. The City of Chicago helps businesses save money on water by developing innovative conservation plans.

Water conservation recently was incorporated into the Chicago Department of Environment's Industrial Energy Efficiency Program. The program provides large industrial energy users with an energy-and-process audit and interest-free loans to implement the audit's recommendations. So far these audits have identified almost 130 million gallons per year in water savings for 12 Chicago businesses.

Examples of potential reduction measures include the following:

- Recover and recycle water in industrial processes.
- Repair or install cooling towers.
- Upgrade valves on process machines.
- Savings identified to date from 12 audits = 130 million gallons of water per year.

Action: The City will develop a plan to ensure that everyone in Chicago pays for water based on usage.

In Chicago, water meters are currently required for:

- Industrial and commercial water users.
- New or rehabilitated residential users.
- Residential buildings with more than three units.

Still, some residential water customers pay for water through a flat, semi-annual fee. In order to promote responsible water use, the City must ensure that all residents recognize the value of the water they use. The Department of Water Management will develop a plan to meter all residential water users.

Action: Action: The City will support the Great Lakes Governors and Premiers in their effort to establish a governance system for future withdrawals of Great Lakes water.

In the wake of commercial attempts to buy large quantities of Great Lakes water to ship overseas, the Great Lakes governors and the premiers of Ontario and Quebec have begun negotiating the terms of an amendment to the Great Lakes Charter, which governs the use of water from the Great Lakes. The amendment will set up a framework to control the removal of water from the Great Lakes for use outside of the Great Lakes region.

Chicago supports the completion of a bi-national agreement to protect the Great Lakes water supply from withdrawal for non-Great Lakes uses. Further, the City of Chicago calls on the Governors and Premiers to include local governments in discussions about the Great Lakes Charter Annex.

Citizen Action

For more information and household conservation tips, contact the City's Department of Water Management at www.cityofchicago.org/WaterManagement

In 1998, the Province of Ontario approved a permit for the Nova Group, a private company from Ontario, to remove over 150 million gallons of water from Lake Superior. The water was to be sold for irrigation in Asia.

The permit was eventually rescinded. However, global and domestic demand for water, coupled with the Nova case, brought a great deal of attention to the issue and led to efforts to effectively govern withdrawals of Great Lakes water.

PROTECTING WATER QUALITY

Protecting Water Quality

Beyond providing a source of safe drinking water, Chicago's waterways support a wide variety of uses. These uses include recreation, commerce, and habitat for wildlife. Millions of people visit our shoreline each year for fishing, swimming, and boating. Annually, more than 50,000 commercial, recreational, and passenger vessels travel the Chicago River. Our waterways also sustain important plant and animal species like yellow perch, sunfish, bass, trout, ducks, kingfishers, and the endangered black-crowned night heron and yellow-headed blackbird.

In the thirty years since the passage of the Clean Water Act, the United States has made tremendous progress in improving water quality for these many uses. According to some estimates, since 1970 the number of fish species in the Chicago River has increased from approximately five to more than 60. However, despite this progress, there remain significant threats to our water resources.

Most people think of water pollution as discharge from an industrial process. However, over time federal regulations have greatly reduced the amount of pollution that enters our waters from direct sources.

The remaining challenges to our waterways generally come from smaller and more numerous sources and will require new thinking.

- Effectively dealing with municipal storm and wastewater
- Keeping our beaches safe and open for swimming
- Addressing pollution that is buried on our river and lake bottoms
- Reducing the pollution that enters our waterways from the air
- Ensuring that recreational users are being good stewards
- Eliminating the introduction of harmful invasive species
- Reducing the environmental and health risks associated with international shipping.

Action: The City of Chicago will work with the Metropolitan Water Reclamation District to end the practice of discharging untreated wastewater into Lake Michigan.

During intense storms, the underground system that manages our stormwater and wastewater can become filled. This rainwater/wastewater mix is then discharged, untreated, into the river and canal system. During extreme storm events, when even the rivers become full, the rain water/wastewater mixture is released into Lake Michigan from the locks that normally separate the rivers from Lake Michigan.

The City will work with MWRD to implement measures aimed at eliminating this practice, including increased investment in green infrastructure to keep stormwater out of the system. Strategies for reducing stormwater into the system are contained in the Stormwater Management section.

Action: The City calls on the Federal Government to clarify the standards for beach testing and closures and develop and approve rapid response test equipment.

Every summer millions of people visit Chicago's beaches to swim, play volleyball or just relax. The safety of our beaches and our water is important, not just for drinking but also for these recreational uses. Beach contamination comes from many different sources. Some are natural, some involve sewage introduced into the lake from sewer overflows, from boats, or from failed, aging infrastructure.

Chicago aggressively manages both the causes of contamination and protocols for ensuring public safety.

- The Chicago Park District, which manages the City's beaches, uses the most aggressive testing schedule of any community in the region.
- The City has inspected and repaired all sewer infrastructure within one half mile of the Lake Michigan shoreline.
- The Park District will continue to explore the effectiveness of a filter netting to prevent excessive bacteria from entering the swimming area.
- The City of Chicago and the Park District will conduct a pilot study on equipment that will reduce the time needed for bacteria test results.
- The City and the Park District are also working with the United States Geological Survey to create a computer model that can predict when bacteria levels at the beaches will be unsafe.

Action: The City of Chicago will work with the Metropolitan Water Reclamation District and the State and Federal governments to ensure the continued improvement in the quality of the Chicago River.

The Chicago River has undergone a dramatic transformation from its historic use as a means of transporting wastewater to a location for recreational activity. In addition to the rapid growth in human activities, the River now supports more than 60 species of fish—compared to approximately five in 1970.

Despite this improvement, there is still work to be done to ensure the long-term health of the river and its viability as a recreation attraction. The City can have a positive effect on River quality by addressing combined sewer overflows. In large storms, the City's sewer system can become full and result in the discharge of sewage into the River (See pages 18 and 19). In addition to the long-term plans for addressing this issue through hard infrastructure, there is a great opportunity to invest in techniques that effectively manage stormwater before it reaches the sewer system.

- The City will expand its use of Green Infrastructure techniques to reduce the amount of water that flows into the sewer system during storms. By utilizing innovative stormwater management techniques the City will help reduce the incidences of combined sewer overflows to the Chicago River.

- The City calls on the Metropolitan Water Reclamation District to partner in Green Infrastructure projects to better manage stormwater on the surface—prior to entering the sewer system. Additionally, the City calls on MWRD to examine the potential to provide disinfection of effluent discharged from its treatment plants in order to enhance the recreational potential of the Chicago River.

- The City will work with the Illinois Environmental Protection Agency and the United States Environmental Protection Agency to develop an education program to protect the health and safety of people who recreate on the river.

The Chicago River is fast becoming Chicago's "second shoreline"—attracting many recreational users for fishing, boating, canoeing and walking along its banks. In addition to increasing human uses, the River is home to a new and healthy diversity of animal and plant species.

Action: The City calls on the Federal Government to provide funding and guidance for remediation of contaminated sediment in rivers and harbors.

The mud on the bottoms of our rivers and lakes is a combination of soil and other materials that make up sediment. In some areas this sediment has become contaminated by pollution from direct and indirect sources, some of which may be far inland. Sediments often contain pesticides, lead, mercury, PCBs, and other pollutants. Once disturbed by boats or wave action, the sediment may actually pollute the water above it.

The United States Environmental Protection Agency reported that 1.2 billion cubic yards of sediment—10 percent of all sediments in U.S. waterways—is sufficiently contaminated with toxic pollutants to pose potential risks to fish, humans, and wildlife.

- Because of contaminated sediments, in addition to other risks from fuel exploration or pipelines, the City of Chicago supports measures to oppose drilling in Lake Michigan.
- The City calls on the Federal government to provide funding, as well as regulatory guidance, for remediation projects to clean up sediments in our waterways.

Action: The City will work with Federal and State partners to eliminate sources of mercury and PCBs in the environment.

Air pollution is a major source of toxic pollution in our waterways. For example, household trash incinerators and coal-fired power plants release mercury, and other chemicals, into the air. These pollutants can be carried great distances by the wind, falling to the ground during rain or snow and collecting in our waterways.

Many of these pollutants take decades to break down in the environment. In the meantime, they work their way up the food chain from bottom-dwelling organisms to fish, birds, and people at increasing levels of concentration. This process is called “bioaccumulation” and the result can be concentrations of contaminants in some fish that are as much as a million times higher than levels in the open water.

These toxic pollutants are responsible for fish advisories that have become common around the Great Lakes.

- The City has banned one key source of these pollutants, municipal waste incinerators.
- Chicago has also called for federal action to clean up coal-fired power plants.
- More federal resources are needed to assist local efforts in collecting and properly disposing of the many small sources of mercury and PCBs, such as thermostats, thermometers, and old light fixtures.

Action: The City of Chicago calls for the Federal government to assist local governments in developing emergency response plans related to international shipping on the Great Lakes.

Since the opening of the St. Lawrence Seaway in 1956, the Great Lakes have been open to international shipping. Ships on the Great Lakes carry a wide range of cargo, including fuel oil, petroleum, iron ore, stone and gravel, and wheat. In addition, they carry ballast water from outside the Great Lakes, which may carry chemicals, bacteria, or living organisms (See pg. 16). This ballast water is often discharged into the waters of the Great Lakes.

In order to safeguard the Great Lakes and protect the health and safety of the millions of residents who depend on them for drinking water and recreation, the City of Chicago calls for the following actions:

- The Federal government should provide funding and assistance for emergency response planning for potential disasters related to shipping on the Great Lakes.
- The City supports legislation to ensure that ships entering the Great Lakes do not contain within their ballast water any substances or living organisms that will negatively impact the Great Lakes or endanger the drinking water supply.

Largest Sources of Atmospheric Mercury

- 33%—Coal-burning electric power plant boilers
- 19%—Municipal waste incinerators
- 18%—Commercial/industrial boilers
- 10%—Medical waste incinerators

Source: U.S. EPA 1997 *Mercury Study* Report to Congress

Amount of Pollutants in Lake Michigan Water That Come from the Air

- 58%—PCBs
- 95%—Lead
- 96%—Benzo(a)pyrene
- 88%—Dioxins and furans

Source: U.S. EPA Clean Air Act Great Waters Program First Report to Congress

Ballast water discharge is responsible for the introduction of several invasive species that have disrupted the Great Lakes ecosystem. While our shoreline and water supply have not been irreparably harmed by any major shipping incidents, we should not wait.

Action: The City of Chicago calls on the Federal Government to regulate and enforce illegal ballast water discharges and to provide funding to assist local governments in addressing aquatic nuisance species.

Many aquatic nuisance species such as zebra mussels, Asian carp and sea lampreys have made their way to our waterways with dramatic consequences for natural ecosystems. For example, one sea lamprey can consume up to 40 pounds of native trout during its parasitic period.

Invasive species come from other regions of the United States, as well as from other countries. Asian carp were introduced into fish farms in the southern United States and are currently making their way up the Mississippi River toward the Great Lakes. These fish are voracious feeders and compete with native species for food. They can grow to nearly 100 pounds and have reportedly caused injuries by jumping into recreational boats.

According to the U.S. Fish and Wildlife Service, large water users around the Great Lakes will spend approximately $5 billion over the next ten years removing zebra mussels from intake structures.

- In order to prevent their introduction locally, the City of Chicago will seek to ban the retail sale of live Asian Carp.
- The City of Chicago is active in the effort to install dispersal barriers in the Chicago Ship and Sanitary Canal. These barriers are designed to prevent the migration of aquatic nuisance species between the Mississippi River basin and the Great Lakes.
- The City calls for Federal ballast water legislation to regulate and enforce discharges.

MANAGING STORMWATER

Managing Stormwater

When it rains, some of the stormwater that falls in our neighborhoods soaks into the ground and some flows into the City's sewer system. With more and more hard surfaces, such as rooftops and roadways, there are fewer and fewer places where rain water can infiltrate the soil, nourish plants and remain part of the natural system.

Without greenspace to absorb it, the sewer system is required to handle more and more water. Stormwater sent to our sewers is no longer available to irrigate our lawns or recharge groundwater. Further, when the sewer system becomes full it discharges into our waterways.

The City of Chicago recognizes the importance of the built infrastructure in terms of managing stormwater. The City's Department of Water Management spends approximately $50 million per year to clean and upgrade 4,400 miles of sewer lines and 340,000 related structures. Additionally, the City acknowledges the importance of the Tunnel and Reservoir Plan, known as Deep Tunnel, in the long-term management of stormwater.

However, the City believes that the "built" infrastructure alone will not meet all of our needs for managing wastewater and stormwater. Managing stormwater and protecting the quality of our water resources will require a combination of upgrading our "built" infrastructure and creating a "green" infrastructure. Through this green infrastructure, the City will demonstrate forward-thinking ways to reduce the burden on our sewer system and keep stormwater in the environment.

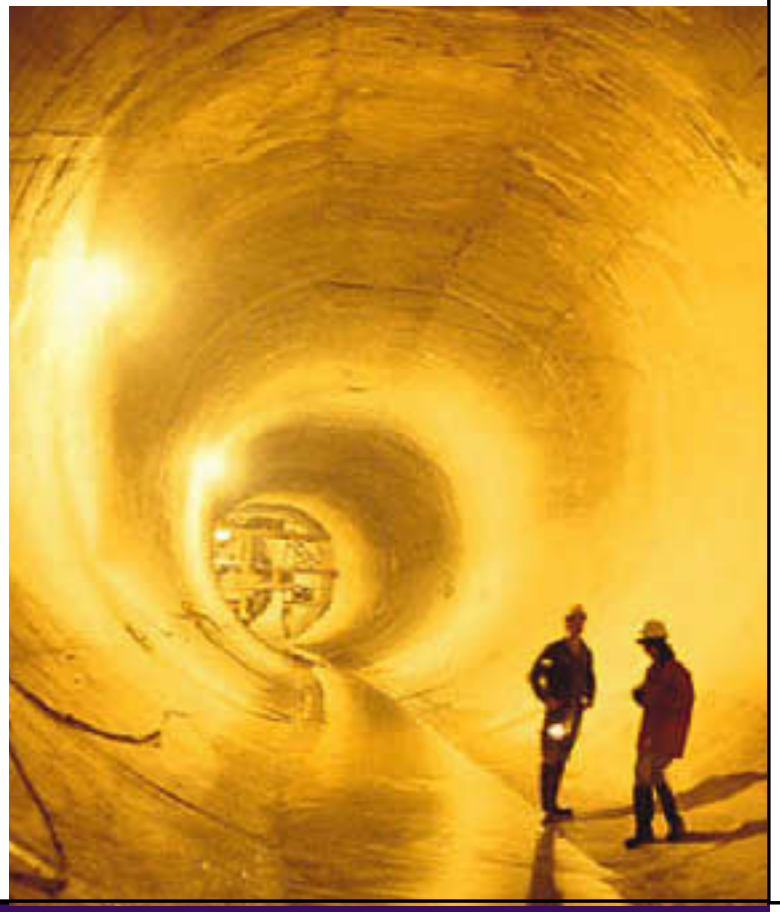
Chicago's Combined Sewer System:

To avoid flooding, Chicago built a stormwater conveyance system in 1856. Like most cities in this area, Chicago built one underground system that combines both wastewater and stormwater and moves them away from the environment toward treatment plants.

This combined system is large enough to easily handle the city and suburban wastewater that needs to be treated. In fact, the volume of wastewater is so small compared to the stormwater, it is not even considered in designing the size of our sewer system.

When there is too much stormwater, the combined sewers overflow and release untreated waste and stormwater into the Chicago River. This practice harms the health and habitat of the river. Homeowners occasionally experience this excess stormwater as flooding in their basements. By investing in green infrastructure, the City will help to reduce the amount of water flowing to the sewer system.

Combined sewer overflows are a water pollution concern for more than 700 cities with combined sewer systems



Action: The City will continue to invest in and encourage green infrastructure and design in City projects as well as private development.

Rooftop Gardens

The Chicago City Hall Rooftop Garden is an example of green design. Rooftop gardens are beneficial in dealing with stormwater in two ways. First, they absorb and store water, reducing the amount that flows to the sewer system. Second, many of the plants have filtering qualities that remove pollution from the water.

The City Hall rooftop garden features 20,000 plants, of more than 150 varieties, including shrubs, vines, and trees. Stormwater runoff is reduced by an estimated 50%.

The City's Department of Planning and Development and Department of Environment have launched a Rooftop Garden Initiative. Through this initiative the City is leading by example by installing green roofs on several new publicly owned buildings and encouraging the use of green roofs on private development as well. Some of these buildings include:

- CTA Headquarters
- Dearborn Center, a private development at State and Adams
- The Left Bank, a condominium development at Canal and Fulton
- DuSable Harbor, a Park District facility along the lakefront
- Chicago Center for Green Technology (pg. 22)

New Development

The City encourages large new developments to incorporate green infrastructure into their design. Through the planned development process, the City is working with large developers to recommend ways to manage stormwater on site.

Ford Motor Company and Solo Cup are examples of corporate leaders that have incorporated green infrastructure into site designs at their Chicago facilities, reducing significantly the amount of built infrastructure they require.

Permeable Alley

The City is creating a green infrastructure by utilizing unique open spaces to hold water that would normally drain directly into the sewer system. For instance, the City built a new kind of alley in a North Side community as part of a pilot project. The alley, constructed of a rigid grid system and gravel, allows rainwater to soak into the ground—reducing water flow into the sewer system and backyard flooding.

Rain Gardens

The City is taking this idea a step further by experimenting with "rain gardens" in the parkways. Rain gardens move water into the ground through natural drainage and by using native plants that store water in their roots. Similar techniques can be employed at many street intersections. Permeable alleys and rain gardens reduce flooding, use rainwater as a resource, and even beautify neighborhood streets. Once tested, these techniques will be applied throughout the city.

Chicago Center for Green Technology

The Chicago Center for Green Technology was designed to obtain a platinum LEED rating, the highest level of recognition for green design that is awarded by the U.S. Green Building Council. It contains pervious parking areas, vegetated swales, detention ponds, a rooftop garden, and cisterns that collect up to 12,000 gallons of rainwater. The site design reduces stormwater runoff by 50%.

Requiring Green Design

Chicago will work to require developers to incorporate green design and infrastructure into their site plans. This will reduce the amount of water draining to the sewer system by requiring, where practical, developers to implement best management practices to keep stormwater on site. The Department of Environment is currently working with Northeastern Illinois Planning Commission to develop a manual of stormwater best management practices for urban areas.

Downspout Disconnect Program:

The City of Chicago was the first major metropolitan area in the country to successfully implement an inlet control system to relieve basement flooding. The system works by installing restricters to slow the flow of stormwater into the sewer system. Stormwater is detained on city streets for brief periods before flowing back into the sewer system. This measure helps relieve the burden on the sewer system and reduce the frequency of basement flooding and combined sewer overflows into our waterways.

The effectiveness of the inlet control system depends on the number of roof downspouts that are disconnected from the sewer system. While impractical in some places (where there are only hard surfaces or where drainage could impact neighboring property), the potential to reduce basement flooding and increase natural infiltration is great.

The City actively encourages homeowners to disconnect their downspouts from the sewer system and direct the water instead to their yards or gardens. Public service announcements, community meetings, instructional video tapes, brochures and discounts on materials for downspout disconnection have all been provided to homeowners. The City will continue and expand its efforts to educate citizens on the benefits of disconnecting existing downspouts and on alternative uses of stormwater.

For more information on this program contact the Department of Water Management at www.cityofchicago.org/WaterManagement.

Action: The City will continue to reduce the amount of pollution that flows from roadways into area waterways.

On some roads in the city, storm drains are connected directly to waterways. This means stormwater that falls onto the roadway runs untreated into Lake Michigan and the Chicago and Calumet rivers. The initial stages of a rainstorm known as "first flush" capture the salt, oil and gas on our roadways. While the City believes that clean stormwater should be kept in the environment, roadway runoff that contains high levels of contaminants should not drain into our waterways.

The Chicago Department of Transportation has taken the first steps toward this goal.

- The $200 million reconstruction of Wacker Drive diverts the first flush of pollutants to the sewer system for treatment instead of draining into the Chicago River.
- With the renovation of Lake Shore Drive from 23rd Street to 67th Street, 90% of roadway pollutants are directed away from Lake Michigan.

The City will continue to incorporate this idea in its projects and will work with other agencies to construct roads so that polluted water is directed into the sewer system or natural area for filtration.

POLLUTION CONTAINED IN THE RUNOFF FROM ONE STORM EVENT (130th AND TORRENCE)

Sediments/Solids	1,425 lbs.
Salt (Winter)	1,150 lbs.
Oil & Grease	8 lbs.

Action: The City will continue to protect and rehabilitate wetlands within the City limits.

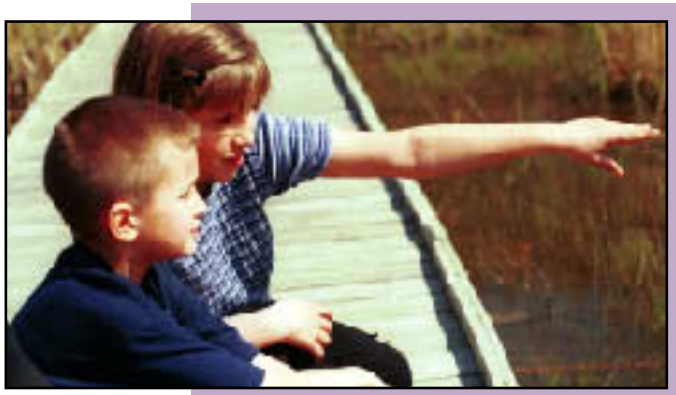
Chicago has invested both in creating greenspace and in protecting and maintaining our natural areas such as parks and wetlands. Within the City, there are thousands of acres of natural area, many of which help control stormwater and prevent flooding. Wetlands in particular help to filter water naturally and provide unique habitat for plants and animals.

One example of a restored natural area is Gompers Park along the Chicago River. Here the Chicago Park District restored a wetland that had been filled in the 1960s. The wetland holds stormwater and helps reduce flooding during rainstorms.

In other areas the Park District is planting native plants and wildflowers because they possess longer root systems that hold and filter water. The Chicago Park District's 10-year plan to restore more than 207 acres of lagoons in 16 parks will further contribute to stormwater management and provide homes for diverse plants and animals.

Within the City of Chicago there are:

- 1,033 acres of inland lakes
- 1,078 acres of wetlands
- 3,485 acres of forest
- 13 acres of dunes
- 72 acres of prairie
- 73 acres of riparian landscapes
- 20 acres of savanna



Calumet

In June 2000, Chicago Mayor Richard M. Daley and then Illinois Governor George H. Ryan announced a new vision for the Calumet area.

Once one of the largest wetland complexes in lower North America—supporting a diversity of plant and animal life—the 20-square mile area located on Chicago's Far Southeast Side has undergone radical change wrought by 120 years of intensive industrialization, pollution and waste disposal.

The new vision is the first comprehensive effort to strike a balance between the area's economy and its environment—to provide jobs, re-invigorate neighborhoods, and nurture its remaining complex of rare natural areas.

A comprehensive strategy for the area is being created via the city's Calumet Land Use Plan and the Calumet Area Ecological Management Strategy. These Calumet-focused projects involve intensive collaboration between a large number of city, state and federal government agencies, industry and environmental group representatives, and local residents.

OUTREACH AND MOBILIZATION

Action: In spring 2003, the City of Chicago will kick off a citizen education campaign to raise awareness of the issues affecting our water resources.

Long term solutions to conserving, protecting, and managing our water resources will require that Chicagoans understand the importance of our waterways, the issues facing these resources, and what citizens can do to help.

With a goal of improving stewardship among Chicago area residents, the city will implement a citizen education campaign that will help highlight the importance of water issues.

Some issues that will be addressed include the following:

- Changing the public perception of a limitless water supply in Chicago.
- Explaining the connection between stormwater and the quality of water in our rivers and lakes.
- Increasing awareness about the growing number of public access opportunities.
- Educating recreational users about the importance of good stewardship.

To effectively spread the message the campaign will utilize mass media, area schools, and include partnerships with groups like the Lake Michigan Federation and Friends of the Chicago River.

Action: Mayor Daley will continue to build a coalition of Great Lakes mayors to ensure that municipalities are effective advocates for protecting water resources.

Communities in the Chicago region have common concerns about our water resources. Many of the region's cities are provided with water from Chicago's water system, share the system managed by the Metropolitan Water Reclamation District, and face similar challenges managing rivers, streams, groundwater and wetlands.

Cities on the Great Lakes have common concerns related specifically to the Lakes, such as controlling invasive species, deciding issues of water allocation and sharing the resource with far-away regions. While state, federal and international leaders are all involved, municipal leadership is essential. It is cities that make sure the water is safe for drinking, recreation and habitat. It is cities that must invest in maintaining aging infrastructure, and cities whose economies are dependent upon the tourism and commerce that the Great Lakes support.

The City of Chicago has asserted its role in these matters by taking a leadership position among local governments. The Metropolitan Mayors Caucus, made up of all 269 municipalities in the six-county Chicago region, is one of the organizations through which Chicago will solicit support for its Water Agenda and encourage others to develop their own plans.

Recently, Chicago began inviting mayors from around the Great Lakes to organize their efforts and concerns into a strategy for protecting and restoring the entire ecosystem. Mayors, in partnership with governors, can demonstrate the need for and the value in a major federal investment in the Great Lakes ecosystem. A Great Lakes protection and restoration strategy is a funding strategy to protect public health and safety, improve quality of life and economic vitality, and safeguard this natural resource for the needs of people and nature.