

**Water
Quality
Activities**

2000-2001

HIGHLIGHTS for 2000-2001

- ◆ Completed a draft of the region's first *Strategic Plan for Water Resource Management*.
- ◆ Began coordinating over \$4 million in nonpoint source pollution control projects in the Upper Des Plaines River and Fox River watersheds.
- ◆ Coordinated the Volunteer Lake Monitoring Program for 59 lakes in northeastern Illinois.
- ◆ Continued Illinois Clean Lakes Program Phase 2 Restoration and Protection Projects at Lake George in the Village of Richton Park and Indian Lake in the Brookfield Zoo.
- ◆ Continued Illinois Clean Lakes Program Phase 1 Diagnostic/Feasibility Study at the Cook County Forest Preserve District's Maple Lake.
- ◆ Provided technical assistance to the following watersheds: Upper and Lower Des Plaines River; Fox River; DuPage River; Salt Creek; Indian Creek; North Branch of the Chicago River; Butterfield Creek; Nippersink Creek; Blackberry Creek; and Sequoit Creek.
- ◆ Continued involvement with *Upper Des Plaines River Phase 2 Study* and scope of work development.
- ◆ Completed the *Watershed Restoration Action Strategy for the Upper Des Plaines River*.
- ◆ Continued development of the Kane County Advanced Identification study for wetlands and streams.
- ◆ Completed *Lake Notes* fact sheets on "Pressure-treated Wood" and "Beavers and Muskrats."
- ◆ Reviewed 22 Illinois Water Quality Management Plan amendment requests including 17 Facility Planning Area boundary changes, 2 new treatment facilities, and 5 plant expansions. Also reviewed 65 requests for reissue, issue, modifications, or termination of NPDES permits, facility plan amendments, and map corrections.
- ◆ Co-sponsored the fourteenth annual "National Conference on Enhancing the States' Lake Management Programs," April 17-20, 2001.
- ◆ Prepared a draft of the *Salt Creek Greenway Master Plan* for the Forest Preserve District of DuPage County.
- ◆ Provided outreach on techniques for protecting natural resources and biodiversity to over 1000 local government officials, staff, and residents.

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For more information on the topics discussed in this report, please contact the following individuals at NIPC (312.454.0400.)

Dennis Dreher, Director of Natural Resources/Chicago Wilderness Smith Family Fellow: water quality protection, watershed management, and stream/wetland management

Holly Hudson, Principal Environmental Planner: lake and watershed management, and volunteer lake monitoring

Sarah Nerenberg, Senior Water Resources Engineer: water quality, watershed, and wetland planning

Jason Navota, Senior Environmental Planner: watershed planning and management, land use and natural resource policy and planning

Laura Barghusen, Associate Environmental Planner: geographic information systems and land cover assessment

Tina Garrett, Administrative Specialist

Cover photo: Chicago Botanic Garden Skokie River restoration project.

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WATER RESOURCES: A REGIONAL ISSUE

The strength and vitality of our region is rooted in the abundance of clean water available to its residents and businesses. Early explorations of the region, and the discovery of its rich natural resources, often were accomplished via Lake Michigan and our inland waterways. In time, the geography of the region allowed it to become a major hub for transporting goods across the country to supply a growing population. Water was an essential input to the movement and production of many of these goods including grains, timber, and livestock. Later, the manufacturing economy took advantage of the abundance of Lake Michigan water to produce and move steel and other industrial goods.

Of course, all of this economic activity required human capital, and the population of the region grew rapidly, as did the demands on its water resources. Today, the 8 million residents who support our globally significant economy are nestled along and between these water features, which form a sort of “blue infrastructure.” Our water resources are increasingly valued for their multiple benefits to our lives. These include clean water for drinking, a multitude of recreational opportunities, healthy aquatic and riparian habitats, and desirable community amenities.

However, the importance of clean, abundant water often has been overlooked in assessing the strengths of the region. In fact, it would seem that we are to be the victims of our own success.

- ◆ Lake Michigan attracts millions of people to its shores each year and supplies millions of residents with fresh drinking water. Yet withdrawals of water from the Lake have nearly reached their federally imposed limit.
- ◆ Other sources of clean drinking water, including rivers and groundwater aquifers, currently are being tapped faster than they are recharged, a daunting thought in light of updated forecasts of an additional million residents by 2020, most of whom will be unable to depend on Lake Michigan for their water supply.
- ◆ The quality of our rivers and streams has been significantly improved by addressing wastewater discharges. Yet many of these waters are still not “fishable and swimmable” due largely to the runoff of pollutants such as sediment and nutrients from the urban and agricultural landscape.
- ◆ Wetlands that have cleansed our water and attenuated floodwater continue to be threatened by filling and modification to accommodate a growing population.

Water is a regional issue. We must consider the myriad individual needs as we move into this century. The Commission is committed to assisting the region in addressing this challenge. The *Strategic Plan for Water Resource Management*, which after two years of intensive study is being considered for adoption by the Commission, addresses three major issues: stormwater and flooding, water quality, and water supply. In addition to assessing the state of the region in these terms, the plan provides strategies for addressing these issues into the future.

Numerous other projects with which the Commission is involved, such as the Illinois Clean Lakes Program, the USEPA Nonpoint Source Pollution Control Program, and a number of watershed planning initiatives, will help protect and restore the region’s water resources for current and future generations.

Another major Commission initiative, Common Ground, is allowing the residents of the region to enter into a dialogue to discuss issues important to them. This dialogue and the Regional Growth Strategy papers developed by the Commission kick off the regional planning process for the development of the Comprehensive General Plan for the year 2050. This plan will not only address the region’s water resources, but will aim to maintain and enhance the quality of life for its current and future residents, the major beneficiaries of our collective efforts. I look forward to your input during this important planning process.



Ronald L. Thomas, AICP, Executive Director

STRATEGIC PLAN FOR WATER RESOURCE MANAGEMENT

The Commission conducted a strategic planning process to identify issues and strategies to address the complex and often interrelated water resource issues facing our region. This process, funded by a grant from the Illinois Department of Commerce and Community Affairs, involved a wide spectrum of public and private stakeholders within and adjacent to the six-county northeastern Illinois area. The goal was to develop a regional consensus to influence state policy on behalf of the region, to improve water resource management at the regional and local level, and to enhance public understanding of water issues.

The resulting draft *Strategic Plan for Water Resource Management* is intended to guide the region in responding to its interrelated water resources issues: water quality, stormwater and flooding, and water supply. In each of these areas, the plan recommends a series of strategies and identifies the entities to implement them. A Water Resources Advisory Committee and three task forces have worked with NIPC Commissioners and staff to identify a total of 34 issues and 133 associated strategies. Recommendations include new legislation, funding for research, changes in agency practices or funding allocations, and improved public education. A summary of the three issue categories follows.

Once the plan is adopted, NIPC will begin looking for leadership from agencies and organizations identified in the plan to assist in implementation. The first step will be to determine realistic priorities based on balancing funding, practicality, cost-effectiveness, and staff availability for implementation. It is the hope that the strategies identified in this plan will help direct future regional resources towards the common goals of improved regional water management.

swimming and do not support diverse, healthy fish communities. Nonpoint source pollution, such as agricultural runoff, urban stormwater runoff, and construction site erosion, is now the major source of water quality impairment.

Stormwater and Flooding

Flood prevention and stormwater management in northeastern Illinois can be particularly challenging due to our flat topography and broad floodplains. In the past, intensive agricultural development and urbanization did not fully consider the long-term consequences of altering the region's landscape. On an annual basis, current flood damages are estimated at nearly \$40 million. Ongoing and future development pose new challenges due to the reduction of the landscape's ability to absorb precipitation and the continuing pressure to develop flood prone areas.



Naturalized stormwater detention basins serve multiple functions.

Water Quality

Historical accounts describe a region with clean and abundant water resources. Rivers, lakes, and wetlands teemed with fish, birds, and aquatic plants. While agriculture contributed to impaired water quality due to the effects of erosion, channelization, and wetland loss, more severe impacts were caused by urbanization and associated discharges of pollutants from wastewater and stormwater sources. At one time, water quality was so degraded that many of the region's rivers and lakes supported little desirable aquatic life and would not be considered for recreational uses. Fortunately, over the last 20 years significant water quality changes have occurred. In particular, pollutant concentrations from point sources and discharges from combined sewer overflows have been reduced dramatically. However, many of our region's rivers and lakes, particularly those in urban and suburban watersheds, still are not safe for

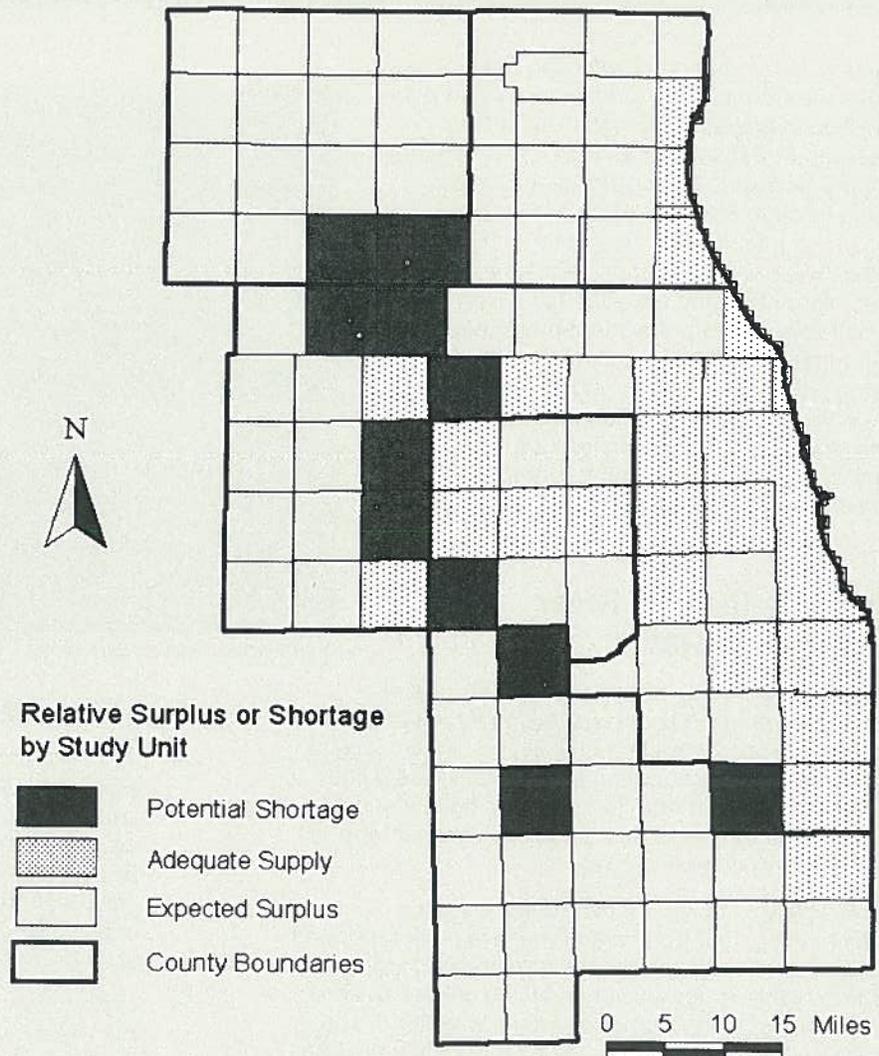
Water Supply

Although the Chicago metropolitan region lies adjacent to one of the world's largest freshwater sources, Lake Michigan, the region faces potential water supply shortages. Laws limit withdrawals from Lake Michigan, withdrawals from rivers and streams are regulated to maintain baseflow, and groundwater withdrawals are naturally constrained by the quantity of recharge they receive. Experience has shown that the quality of surface and groundwater can suffer as watersheds urbanize. As an increasing population consumes land, greater demands will be placed upon available surface and groundwater supplies. The Commission predicts that the six-county Chicago metropolitan area will grow by 1.3 million people between 1990 and 2020. Water supply resources may become inadequate to meet the region's needs. (See sidebar "Water Supply Assessment.")

Water Supply Assessment

Continued growth in the six-county northeastern Illinois region is expected to result in corresponding increases in the demand for water. In particular, significant increases in demand are expected in several western and southwestern townships. In these areas, future increases in water demand will have to be met primarily through increased withdrawals from groundwater sources or inland water sources such as the Fox and Kankakee Rivers.

The accompanying figure represents the results of a conceptual planning analysis of water demand and water availability for the year 2020.* While the analysis results indicate that for the region as a whole, water supply may be adequate to accommodate 2020 demands, there are several study units/townships with potential shortages. This reveals the need over the next 20 years to plan and develop sustainable water supply capacity with a regional awareness and vision.



* **Relative Estimate of 2020 Water Supply Surplus or Shortage by Study Unit (Township).** Estimates were derived using 1998 Census Bureau population estimates, NIPC's 2020 population forecasts (September 2000), groundwater supply availability estimates by Illinois Department of Natural Resources / State Water Survey (shallow aquifer groundwater availability based on Singh and Adams [1980], deep bedrock aquifer groundwater availability based on Suter et al. [1959]), Lake Michigan and other surface water supply availability estimates by Harza Engineering (2001), and per capita water demand estimates by Harza Engineering (2001).

Staff Notes

Sarah Nerenberg is the new Senior Water Resources Engineer for the Natural Resource Department. Sarah manages and coordinates various water quality, watershed, and wetland planning projects.

Laura Barghusen has joined the NIPC Natural Resources Department as an Associate Planner. Laura is the department's GIS and land cover assessment specialist.

Arlova Jackson recently joined the Community Development Department as an Associate Planner. Arlova processes water quality reviews and assists the Water Resources Committee.

In the Works . . .

- ◆ Sustainable Development Guidebook
- ◆ Regional Growth Strategy Policy Tool Paper to address Natural Resources
- ◆ More *Lake Notes* fact sheets

NONPOINT SOURCE POLLUTION CONTROL PROJECTS

The Illinois Environmental Protection Agency has awarded the Commission funding to support over \$2.5 million in projects within the Upper Des Plaines and Fox River watersheds. This funding, part of the Nonpoint Source Pollution Control Program through Section 319(h) of the Clean Water Act, is intended to support three types of activities: watershed-wide nonpoint source control efforts; information and education projects; and demonstrative best management practices (BMP), research, and/or monitoring projects. The following projects are being funded through this program via subcontracts to agencies, organizations, and community groups. The Commission will serve as project coordinator and technical director for these projects.



A streambank bioengineering project to reduce nonpoint source pollution.

Upper Des Plaines River Watershed Projects

- ◆ The *Liberty Prairie Sedge Meadow Recovery and Monitoring Project* in Lake County will restore natural hydrology and reestablish natural ecological communities. Restoration of this site will help filter agricultural runoff from the surrounding landscape. Vegetative transects and shallow well monitoring will help assess project success.
- ◆ The *Maple Park Streambank Stabilization, Restoration, and Education Project* in unincorporated Lake County will stabilize the streambank and upland slopes, redirect an erosion-inducing culvert, restore bottomland floodplain and savanna woodland, and install educational signage along a nearby trail. The project will reduce erosion of the streambanks, as well as provide natural filtration of urban stormwater runoff.
- ◆ The *Indian Creek Watershed Restoration and Education Project* will restore floodplain habitat and function in the high-quality Reed-Turner Woodland Illinois Nature Preserve in Long Grove. Public meetings, educational road signs, and a website will all assist in the effort to educate residents about nonpoint source pollution.
- ◆ The *Rivershire Community Pond Bank Stabilization Project* in Lincolnshire will retrofit a detention pond to provide slope stability, erosion control, sedimentation reduction, natural infiltration of runoff, improved water quality, and wildlife habitat.
- ◆ The *Upper Des Plaines Watershed Implementation Plan (WIP) Development Project* will use a current and projected land use analysis, an inventory of natural and man-made resources within the watershed, and stakeholder input to produce a WIP for the Indian Creek subwatershed.

Fox River Watershed Projects

- ◆ The *Nippersink Creek Watershed Conservation Engineer* will provide direct technical assistance to landowners, local governments, and developers to address non-point source pollution throughout the watershed. The engineer will promote and help implement projects to address agricultural and urban impacts to water quality, as well as watershed-sensitive development.
- ◆ *Lower Tyler Creek Watershed Projects*, Elgin. Five of the twenty-six restoration projects recommended in the Tyler Creek Management Plan are being funded through this program. Three of the projects are best management practices (BMPs) to address urban runoff from areas in the City of Elgin, one is a streambank stabilization project, and another is a stream corridor restoration project.
- ◆ *Streambank Repair and Restoration on Otter Creek*, St. Charles. This project addresses streambank erosion, provides natural grade control, and removes remnant spoil piles from past dredging projects. This project includes stream channel restoration, bank stabilization, grade and flow control, establishment of a swale between the wetland and the creek, and removal of existing artificial berms.
- ◆ The *Brewster Creek Stream Restoration and Dam Removal Project* is part of a larger effort to remove a dam on Brewster Creek in Elgin. This grant will partially fund management of accumulated sediment, stabilization of the stream and banks, and enhancement and restoration of riparian wetlands.
- ◆ The *West Main Street Park Bioinfiltration Parking Island* in Batavia will be designed to filter runoff from the parking lot before being discharged to the site detention basin.

- ◆ The *Kane County Fox River North Watershed Improvement Project* will stabilize streambanks using bioengineering measures along a ten-mile reach of the Fox River and tributaries. Riparian buffer habitat also will be restored along the tributary reaches.

The Commission also intends to prepare a coordinated Section 319 application for the Salt Creek watershed this year.

RELATED NATURAL RESOURCE ACTIVITIES

Kane County Advanced Identification of Wetlands Study

The purpose of this study is to inventory the location and quality of wetlands in Kane County and to develop protection and management strategies for these sites. Advisory committees composed of numerous local organizations and experts are guiding the process. Preliminary photo screening indicated over 3500 wetlands in Kane County. Field work to visit and evaluate these wetlands to determine their quality will begin this summer. The purpose of this effort is to assist landowners, developers, and local governments to make informed decisions about development and preservation, and to provide guidance on strategies for long-term protection and management of aquatic resources. The study also can assist residents and organizations desiring to protect high quality resources or restore sites that have been degraded. The inventory and evaluations are scheduled to be completed by fall 2002, and the final report, including maps, will follow.

Regional Water Trails Plan

The *Northeastern Illinois Regional Water Trails Plan*, adopted by the Commission in September 1999, sets forth a vision for a safe, coordinated system of trails for non-motorized boating. The plan proposes 400 miles of trails on ten of our region's waterways: Lake Michigan, Chicago River, Des Plaines River, Salt Creek, DuPage River, Fox River, Calumet Area waterways, Nippersink Creek, Kishwaukee River, and the Kankakee River. The plan also identifies 180 potential and established trail access points which are roughly 3 to 5 miles apart.

Water trails provide a healthy, non-polluting, family-friendly form of outdoor recreation. Clean water, an aesthetic setting, wildlife, and easy access along these trails are essential to enjoying the paddling experience. Increasing exposure and access to our waterways will expand opportunities to educate the public and increase stewardship of our region's water resources.

Over the past year, the Commission has coordinated and facilitated a number of meetings for two of the five water trail committees established to help implement the water trail plan. To request a copy of the *Water Trails Plan* call Lori Heringa at 312/454-0400.

EDUCATION AND OUTREACH

National Conference on Enhancing the States' Lake Management Programs

In April 2001, over 170 state agency lake program managers and leaders of statewide lake organizations gathered in downtown Chicago for the 14th annual National Conference on Enhancing the States' Lake Management Programs. Coordinated by the Chicago Botanic Garden and cosponsored by the U.S. Environmental Protection Agency, North American Lake Management Society, Conservation Technology Information Center, and NIPC, this year's conference theme—"integrating nonpoint source watershed management with lake management and protection"—drew the largest attendance ever. A pre-conference workshop on designing monitoring programs for nonpoint source pollution management projects also was well attended.

Dov Weitman, Chief of U.S. EPA's Nonpoint Source Control Branch in Washington, D.C., delivered the conference's keynote address, "Future Directions for Lake and Watershed Management." Conference attendees also learned about various states' strategies to integrate nonpoint source and lake programs, the status of nutrient criteria and total maximum daily load (TMDL) development for lakes, and examples of state and local lake and watershed management partnerships. A special workshop for statewide lake association members focused on effective media communication methods. The conference wrapped up with an intriguing presentation on the recovery of Spirit Lake over the past 20 years since the volcanic eruption of Mount St. Helens in the state of Washington. Planning for next year's conference in Chicago is already underway, scheduled for April 23-26, 2002. For more information, contact Bob Kirschner at the Chicago Botanic Garden (847/835-6837).

Local Government Outreach to Protect Natural Resources

The acclaimed *Biodiversity Recovery Plan* produced by Chicago Wilderness with the support of the Commission has received one state and two national planning awards. The document received plan of the year awards from the state and national American Planning Association and the National Association of Regional Councils. The Commission has begun implementation of this plan through its *Protecting Nature in Your Community* guidebook and technical assistance initiative. Through support from Chicago Wilderness, the Commission is continuing its efforts to educate local government officials about techniques for protecting nature and biodiversity in their communities. Natural Resources Department staff member Dennis Dreher has been leading this effort as the first Chicago Wilderness Smith Family Fellow. To date, 27 presentations have been made to over 1000 individuals representing local governments, non-profits, private organizations, and the public. For more information, or to arrange a presentation, contact Dennis Dreher, Chicago Wilderness Smith Family Fellow, at 312/454-0400.

LAKE REHABILITATION AND PROTECTION PROJECTS

Lake George

Since 1997, the Village of Richton Park has been implementing an Illinois Clean Lakes Program Phase 2 rehabilitation and protection project at Lake George. The Commission provides technical project coordination to the Village. The purposes of the Phase 2 program include improving water quality, aquatic habitat, recreational uses, and long-term ecological health of the lake.

The installation of shoreline stabilization practices and aquatic plantings begun in spring of 2000 was completed by the contractor in July, followed by ongoing monitoring and maintenance activities. As reported last year, construction along the 1,340 feet of targeted shoreline included brush and weed clearing, tree trimming, and shoreline regrading. Emergent wetland vegetation then was planted along the water's edge and native prairie vegetation was seeded on the side slopes. Several burr and red oaks were planted along the northern shore. In several areas more heavily impacted by wave action, coir fiber rolls were installed slightly off shore to serve as wave breaks for emergent plants behind them. Several starter colonies of submergent and floating-leaved aquatic plants were planted around the lake to provide much-needed aquatic habitat and bottom sediment stabilization. Because waterfowl often are abundant at Lake George, the emergent and aquatic plantings were placed within waterfowl exclusion "cages" so that the young plantings could mature before being exposed to the waterfowls' aggressive feeding.

Significant damage to the waterfowl exclusion cages and displacement of a few fiber rolls occurred over the winter, apparently due to ice movement. Nearly all of the stakes that had been securing the fiber rolls and supporting the waterfowl exclusion cages had to be reinstalled/replaced this spring, along with the cage netting. As of mid-June, overall establishment of the emergent and prairie plantings might be considered as "fair." The contractor will be conducting supplemental prairie seeding and emergent plantings as part of their ongoing maintenance activities. Notably successful to date is the re-appearance of submergent aquatic plants—absent since



Installation of waterfowl exclusion cages along Lake George shoreline.

before the Commission began studying Lake George in 1993.

Streambank stabilization measures installed during 1998-99 along the two tributaries entering Lake George continued to be monitored and maintenance measures implemented during 2000-2001. A reach in one of the tributaries that exhibits more severe site constraints including steep slopes, poor soils, shading, and downcutting, plus an upstream source of nuisance and invasive plants, is providing a continuing challenge for establishing native vegetation and stabilizing the banks. With the Commission's input, the Village is considering more extensive stabilization measures for this area.

A year of "post-project" water quality monitoring began in March. Data collected monthly through winter 2002 will be compared to pre-project (1993-94) water quality data. A final Phase 2 report then will be prepared.

Indian Lake

Another Phase 2 rehabilitation and protection program continued at the Brookfield Zoo's Indian Lake. Commission staff has been working with Zoo staff since spring 1998 to implement several initiatives. With the help of an Illinois EPA Clean Lakes Program cost-share grant, projects included aeration to improve the lake's dissolved oxygen levels and reduce nutrient release from lake bottom sediments, precipitation of lake nutrients to further reduce algae blooms, and planting of a variety of shoreline and underwater aquatic plants to provide shoreline protection and additional aquatic habitat. Monitoring and assessment of these initiatives continued during 2000-2001, and will continue through 2001. As technical advisor to the Zoo, the Commission will be conducting a final assessment of the shoreline and aquatic plantings this summer, and will be assisting the Zoo in the preparation of the final Phase 2 report (due in December 2001).

Maple Lake

A Phase 1 Diagnostic/Feasibility Study of Maple Lake—located in the Forest Preserve District of Cook County's Palos Preserve—is nearing completion. This Illinois Clean Lakes Program study began in spring 1997, and the Commission is now in the final stages of preparing a report analyzing the lake's water quality, hydrology, fish and aquatic plant communities, watershed characteristics, and nutrient and sediment inputs. The diagnostic portion of the study in turn is guiding the development of technically and financially feasible protection, enhancement, and management alternatives. With the input of Forest Preserve District staff, the management plan will be finalized during summer 2001. Strategies being considered include nuisance and invasive aquatic plant management, underwater plant community diversification, stabilization of eroding shoreline areas, alternative fisheries management approaches, various watershed management practices, and public education initiatives.

VOLUNTEER LAKE MONITORING

Illinois' Volunteer Lake Monitoring Program (VLMP) celebrated its 20th season in 2000. Begun in 1981 with the participation of 141 volunteers at 87 lakes, this Illinois EPA-sponsored program has grown steadily to involve over 150 lakes and 300 volunteers statewide. A northeastern Illinois volunteer deserving special recognition is Bruce Wallace of Silver Lake in McHenry County. Bruce is one of only five volunteers statewide to have monitored their lake all 20 years!

Celebrating



20 Years!

NIPC serves as VLMP coordinator for the six-county northeastern Illinois region. Staff provides volunteer training, technical assistance, educational materials, data management, fact sheet development, and assistance in annual report preparation. Of the 129 lakes VLMP-monitored statewide at least four times during 2000, 49 were in northeastern Illinois involving 124 volunteers.

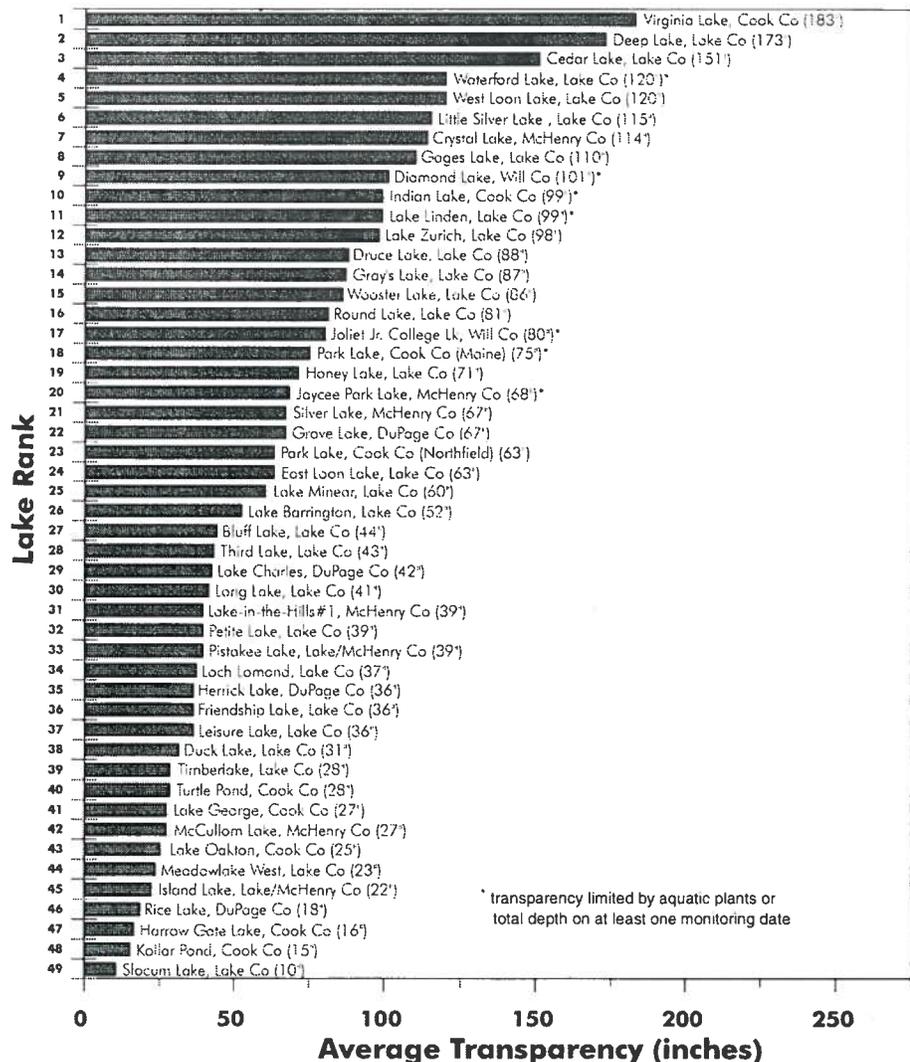
Volunteers measure water clarity (transparency) in a lake of their choosing using a Secchi disk (an 8-inch diameter plate painted black and white in opposite quadrants, attached to a calibrated rope). The disk is lowered into the water and the depth to which it is visible is recorded. Monitoring is typically done twice a month from May through October at three locations in the lake. The Secchi measurements are used to document changes in water transparency during the monitoring season as well as from year to year. In addition to Secchi disk monitoring, a subset of the volunteers (on a rotating basis) also collect water samples that are analyzed at an Illinois EPA laboratory.

Volunteers use VLMP data to learn about lake ecology and cause-and-effect relationships, and to assist in local lake and watershed management decision-making. Lake scientists, planners, and consultants also use the data for a wide variety of purposes. The Illinois EPA uses VLMP data in its biennial assessment of the state's waters as required by the federal Clean Water Act.

The accompanying figure presents the average annual Secchi disk transparency values for the northeastern Illinois lakes monitored at least four times in the 2000 VLMP. For the third year in a row, Virginia Lake in Cook County displayed the greatest average transparency—an impressive 183 inches. Not far behind was Deep Lake in Lake County with an average water clarity of 173 inches, followed by Lake County's Cedar Lake at 151 inches. Other lakes exhibiting average transparency of greater than 100 inches were Waterford, West Loon, Little Silver, and Gages Lakes in Lake County; Crystal Lake in McHenry County; and Diamond Lake in Will County. Nearly reaching 100-inch averages were Indian Lake in Cook County and Lakes Linden and Zurich in Lake County. The lowest average annual transparency of 10 inches was observed at Slocum Lake in Lake County (due to substantial sediment and algae), though several other lakes also had low clarity.

More information on the VLMP, as well as copies of the annual reports, are available from NIPC's Natural Resources Department.

Northeastern Illinois 2000 VLMP Lake Rankings
(lakes monitored four or more times)



WASTEWATER QUALITY MANAGEMENT

The Future of Wastewater Facility Planning

Over the next year, the Commission's Water Resources Committee will continue to examine and consider changes to the Water Quality Management Plan Amendment Process and Procedures, which were updated in June of 1996. Working with county and municipal governments, sanitary districts, environmental

groups, builders and developers, and citizen and civic groups, the Commission will review the past twenty years of amendment reviews to identify strengths and weaknesses. We also intend to review the structure of our fee legislation. As with all Commission activities, we will seek a wide range of viewpoints in this process.

Wastewater Planning Amendment Recommendations

Under a contract with the Illinois EPA, the Commission reviews requested amendments to wastewater Facility Planning Areas (FPAs). A summary of this fiscal year's

review actions involving FPA boundary changes and new or expanded treatment facilities is presented below.

Water Quality Management Plan Amendments

WQ#	Applicant	Request	Recommendation
00-WQ-017	City of St. Charles	FPA Amendment - 88.78 Acres	Support
00-WQ-012	Village of Elwood	FPA Amendment - 1,800 Acres New 2.5 mgd Plant - Level 1	Support
00-WQ-024	Village of Elwood	FPA Amendment - 77.88 Acres	Support
00-WQ-028	Fox Metro WRD	FPA Amendment - 35 Acres	Support
00-WQ-029	Fox Metro WRD	FPA Amendment - 160 Acres	Support
00-WQ-031	Fox Metro WRD	FPA Amendment - 46 Acres	Support
00-WQ-033	Oaktree Townhomes	New Plant - 0.0132 mgd	Support
00-WQ-034	City of Harvard	Plant Expansion	Support
00-WQ-035	Village of Barrington	FPA Amendment - 564.79 Acres	Support
00-WQ-036	Consumers Illinois	FPA Amendment - 4.69 Acres	Support
00-WQ-052	Fox Metro WRD	FPA Amendment - Level 1; 115 Acres	Support
00-WQ-054	Fox Metro WRD	FPA Amendment - 156 Acres	Support
00-WQ-055	Fox Metro WRD	FPA Amendment - Level 1; 143 Acres	Support
00-WQ-056	Fox Metro WRD	FPA Amendment - 90 Acres	Support
00-WQ-057	Village of Plainfield	FPA Amendment - 823 Acres	Support
00-WQ-058	Village of Plainfield	FPA Amendment - 2,520 Acres	Support
00-WQ-060	Village of Cary	Plant Expansion	Non-support
01-WQ-005	Fox Metro	FPA Amendment - Level 1; 182 Acres	Pending
01-WQ-012	Village of Richmond	Plant Expansion/ FPA Amendment - 1,855 Acres	Non-support
01-WQ-016	City of Joliet	Plant Expansion	Support
01-WQ-017	City of Lockport	FPA reconsolidation/Plant Expansion	Support
01-WQ-018	Village of Gilberts	FPA Amendment - 35 Acres	Support

WATERSHED PLANNING AND MANAGEMENT

Final WRAS for Upper Des Plaines River

The Commission, under contract with the Upper Des Plaines River Ecosystem Partnership, produced a watershed restoration action strategy (WRAS) to assist the partnership in prioritizing its efforts to restore the watershed to a healthy state. The WRAS begins with a natural resource inventory including land cover, habitat, flora and fauna, recreational resources, flooding, air quality, and lakes. It then provides a water quality assessment including causes and sources of water quality impairment on the mainstem and a number of tributaries. The strategy to address the impacts on these resources includes objectives and recommended actions in four broad categories: watershed coordination, flood mitigation, water quality, and natural resources. The WRAS is intended to provide a general assessment; more detailed plans and strategies are needed for individual subwatersheds.



A low head dam on Salt Creek in DuPage County.

Upper Des Plaines Phase 2

This spring marked the completion of a scope of work for the U.S. Army Corps of Engineers and the Upper Des Plaines Steering Committee to continue a multi-objective study of the Upper Des Plaines River watershed to address flood damage reduction, environmental restoration and protection, water quality, and recreation. Four committees and eight subcommittees were created to begin implementing tasks outlined in the scope of work.

On behalf of the Upper Des Plaines Steering Committee, the Commission pursued a number of funding sources to support water quality and other activities within the watershed. The first, a Section 319 grant request, was discussed earlier in this report (see page 6.) In the spring of 2001, the Commission helped prepare appropriation request letters to secure funding from the Federal Emergency Management Agency and the USEPA for continued planning and study. Congressional committees and subcommittees currently are reviewing these requests.

Salt Creek Greenway Master Plan

The Commission has received a contract from the Forest Preserve District of DuPage County to develop a *Master Plan for the Salt Creek Greenway* in DuPage County. This plan provides a description and inventory, previous planning efforts, and history of the watershed. The plan contains five objectives: establish an open space corridor and stream buffer; establish a continuous greenway trail; improve water quality; expand and restore natural areas; and reduce flood damage. Fifty-four actions to achieve these objectives are identified including estimated costs, implementing parties, and implementation priority. The plan is expected to be completed this fall.

Ongoing Watershed-based Technical Assistance

The Commission continues to provide technical assistance to communities and organizations to assist them in watershed-based efforts. The Natural Resources Department has provided assistance to the following watersheds and groups: Upper and Lower Des Plaines River (Ecosystem Partnerships); Fox River (Ecosystem Partnership); DuPage River (Ecosystem Partnership); Salt Creek (Forest Preserve District of DuPage County and the Salt Creek Watershed Network); Indian Creek (Indian Creek Watershed Project); North Branch of the Chicago River (Friends of the Chicago River and Lake County Stormwater Management Commission); Butterfield Creek (Butterfield Creek Steering Committee); Nippersink Creek (The Nature Conservancy); Blackberry Creek (Illinois Department of Natural Resources and The Conservation Foundation); Sequoit Creek (Lake County Stormwater Management Commission); and the South Suburban Mayors and Managers Association. Other watershed entities have received support in a less formal, ad hoc basis.

The Commission also has begun filling a niche that has been largely vacant in the region: providing watershed maps to watershed groups. Access to maps showing information such as land use and locations of streams, ponds and lakes helps facilitate watershed planning efforts.





northeastern illinois planning commission

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Northeastern Illinois is diverse in its land use and complex in its political structure. It has some of the most productive farms on earth—also one of the world's greatest cities. It contains 3,714 square miles of land and 38 square miles of water. It is home to 8.1 million people representing 65 percent of the total population of Illinois, and it is organized in more than 1,250 units of government.

In 1957, following a decade of rapid urbanization in the Chicago suburban area, the Illinois General Assembly created the Northeastern Illinois Planning Commission (NIPC) to conduct comprehensive planning for the six-county greater Chicago region.

The Commission has three statutory charges: conduct research and collect data for planning; assist local government; and prepare comprehensive plans and policies to guide development of the counties of Cook, DuPage, Kane, Lake, McHenry, and Will.

By necessity, regional planning deals with general development policies, not local land use detail. NIPC supports and coordinates county and municipal planning. The Commission has advisory powers only and relies upon voluntary compliance with its plans and policies.

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Patricia Young

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Judy Beck

Appointed by the Board of the Chicago Park District

Gerald Sullivan

Appointed by the Board of the Illinois Association of Wastewater Agencies

Wallace D. VanBuren



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