United States Department of Commerce

Draft Environmental Impact Statement for the Illinois Coastal Management Program

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DESIGNATION: Draft Environmental Impact Statement

TITLE: Proposed Federal Approval of the Illinois Coastal Management Program

ABSTRACT: The State of Illinois has submitted its Coastal Management Program to the Office of Ocean and Coastal Resource Management for approval pursuant to section 306 of the Federal Coastal Zone Management Act of 1972 as amended (CZMA), 16 U.S.C. 1451 et seq. Approval would allow program administrative grants to be awarded to the State and would require that Federal actions be consistent with the program. This document includes a copy of the program, which is a comprehensive management program for coastal land and water use activities. It consists of numerous policies on diverse management issues which are administered under Illinois laws and is the culmination of several years of program development. The Illinois Coastal Management Program (ICMP) promotes the beneficial use of coastal resources, prevents their impairment, and manages major activities that substantially affect numerous resources. The ICMP will enhance decision-making processes used for determining the appropriateness of actions in the coastal area.

Approval and implementation of the ICMP will enhance governance of Illinois' coastal land and water uses according to coastal policies and standards contained in Illinois' statutes, authorities and rules. Federal alternatives to ICMP approval include delaying or denying approval, if certain requirements of the Coastal Zone Management Act have not been met. The State could modify parts of the program or withdraw its application for Federal approval if either of the above Federal alternatives results from circulation of this document. A final program Environmental Impact Statement (EIS) will be prepared and will include responses to comments received on this draft EIS.

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COMMENTS: Comments are due 45 days after date of publication in the federal register.

NOTE TO READERS

The National Environmental Policy Act of 1969 (NEPA) requires that an environmental impact statement be prepared as part of the review and approval process by Federal government agencies of major actions which significantly affect the quality of the human environment. The Federal action contemplated is approval of the Illinois Coastal Management Program (ICMP) under section 306 of the Federal Coastal Zone Management Act of 1972, as amended (CZMA). It is the general policy of the Federal Office of Ocean and Coastal Resource Management (OCRM) to issue combined environmental impact statements and program documents.

Part I of this Draft Environmental Impact Statement (DEIS) was prepared by OCRM and provides summary information concerning the ICMP, including how the state has addressed CZMA requirements. Part II of the DEIS is a description of ICMP and was prepared by the state. It has been reviewed by OCRM and is relied upon as a description of the proposed action for purposes of NEPA. Part III fulfills remaining NEPA requirements for a DEIS and was prepared by OCRM.

An immediate effect of federal approval of the ICMP is qualification of the State for Federal matching of funds for use in administering the program. In addition, the CZMA provides a procedure for the state to review Federal actions for consistency with its approved coastal management program.

For purposes of reviewing this proposed action, the key questions are:

- whether the ICMP is consistent with the objectives and policies of the national legislation;
- whether the award of Federal funds under section 306 of the Federal Act will help Illinois meet those objectives;
- whether Illinois management policies and authorities are adequate to implement the ICMP; and
- whether there will be a net environmental gain as a result of program approval and implementation.

OCRM has made a preliminary determination that the answers to these questions are affirmative. OCRM wants the widest possible circulation of this document to all interested agencies and parties in order to receive the fullest expression of opinion on these questions. OCRM thanks those participating in the review of the ICMP and this DEIS.

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PART I

OVERVIEW

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A. SUMMARY OF THE ILLINOIS COASTAL MANAGEMENT PROGRAM

The state of Illinois has developed the Illinois Coastal Management Program (ICMP) describing current state coastal legislation and management policies. The ICMP is based on an approach termed "networking", a framework and process for linking existing state programs, agencies, and laws into a system that will meet Federal requirements for an effective state coastal management program. An Executive Order (EO) signed by Governor Pat Quinn (Part II, Appendix C) also will be used to meet Federal Requirements. The EO outlines coastal management objectives, establishes a Technical Advisory Committee consisting of state agencies, and identifies a conflict resolution process.

Part II of this document describes the laws, regulations, and programs that are the basis of the ICMP. Chapters 9 and 11 include management policies and authorities, which describe and implement the goals of coastal management in Illinois, and various policies and authorities embodied in statute and regulations. The ICMP provides for the management of all land and water uses having a direct and significant impact on coastal waters. Program policies are articulated for the following topics: public waters, navigation and the public interest; erosion and flooding; water quality and supply; habitats, wetlands, and wildlife; historic, archaeological and cultural resources; recreation and public access; economic development; and energy facilities and air quality (discussed in Chapter 10, Part II).

A new Coastal Program Office will be created, in Chicago, reporting to the IDNR Director. Some program support will be provided from IDNR headquarters in Springfield, Illinois, including fiscal and administrative support. The IDNR Office of Realty and Environmental Planning will offer support for land acquisitions funded through ICMP grants and conducting internal reviews initiated by ICMP staff under the Comprehensive Environmental Review Process (CERP) for actions funded through the ICMP. This will be done to ensure they comply with relevant state and federal environmental statutes.

This summary briefly describes key aspects of the ICMP and benefits of participation in the National Coastal Zone Management Program.

1. GOALS

The ICMP will work to preserve, protect, restore, and where possible, enhance coastal resources in Illinois for this and succeeding generations. The ICMP will also work to improve the quality of decision-making by the state and coastal communities resulting in more effective outcomes. The ICMP will achieve this by:

- Enhancing the state's role in supporting and coordinating partnerships among local, state and federal agencies and organizations in the planning and management of these efforts. The ICMP will strengthen local stakeholder capacity to initiate and continue effective coastal management consistent with identified state standards and criteria.
- Facilitating the development of a shared vision for the protection, restoration and enhancement of Illinois' coastal resources. The ICMP will shape coastal ecosystem management policies, streamline procedures, and provide a clearinghouse for information

on regulatory programs governing the coast. The ICMP will also increase public awareness, involvement and opportunities for citizens to participate in decisions affecting Lake Michigan's coastal resources.

- Coordinating agency and stakeholder efforts that identify regional priorities and implement local projects to address those priorities. The ICMP will advocate for the wise and balanced use of the coastal environment.
- Leveraging ICMP resources and other funds to maximize the impact of local projects. The ICMP will assist in the implementation and enforcement of existing programs that manage coastal uses impacting the environment. Resources will be prioritized where gaps or weaknesses are identified.

The ICMP program development process has established a strong track record of transparency, public outreach, and stakeholder involvement. Ongoing broad communication and educational efforts will continue to strengthen the ICMP and involve all stakeholders. An advantage this developing coastal management program has had over other previous programs is the ability to communicate electronically, and post the draft ICMP on the state website for all to read, review, and provide feedback - making the ICMP stronger from the ground up.

2. PROGRAM ORGANIZATION

The DEIS, Part II, Chapter 7 describes the organizational structure of the ICMP including the responsibilities and interrelationships of state, local, and federal agencies in the management process. The Illinois Department of Natural Resources (IDNR) is operated under the supervision of a Director. The IDNR was designated as the lead state agency to receive and administer CZMP funds for implementing the ICMP. The ICMP Office Director reports directly to the IDNR Director. The Office of Resource Conservation, and the Office of Water Resources, are charged by the State of Illinois to maintain, regulate, collect data, and evaluate Illinois's surface and groundwater resources. The staff and technical resources of IDNR help support the ICMP. ICMP staff will provide the central location for ICMP administration, communication, coordination, and program implementation. In addition, the IDNR Office of Legal Counsel and Natural Resources Commission Division of Hearings will provide legal advice and assistance.

Examples of general tasks that will be performed under the ICMP include program administration, federal consistency review, ICMP review and evaluation, networking with state and local agencies, outreach and education, and grant administration. As the lead fiscal agent for the program, the ICMP Office will prepare and submit grant applications, administer funds, including pass-through grants and contracts, and monitor and summarize project performance as required by NOAA's Office of Ocean and Coastal Resource Management (OCRM). The ICMP Office will also administer the Coastal Grants Program, described in Chapter 8, DEIS, Part II. In addition, ICMP Office staff will: coordinate with all other IDNR offices, IEPA and other state agencies, local governments, interstate and regional agencies; and work with IEPA in jointly developing a Coastal Nonpoint Pollution Control Program. Other IDNR Offices, bound to ensure IDNR is internally organized and committed to supporting the ICMP, and which will play a role in program implementation, are the Offices of Water Resources (OWC), Realty and Environmental Planning (OREP), and Land Management (OLM). OWC Division of Water Resource Management, Lake Michigan Programs Section, will manage the state's interests in

Lake Michigan in issuing permits for work in and along the shore. The OREP and OLM will support land acquisition activities. OREP has authority for acquiring land, while OLM is authorized to manage land. A separate body created by IDNR, and included in the Executive Order, is the Technical Advisory Committee (TAC), described in DEIS Part II, Chapter 7. The ICMP TAC provides the forum for state agency input, consistency review, and coordination with other state or local agencies on projects or issues that could have an effect on land and water resources within the coastal zone. The TAC, as one of its primary functions, will review and provide comments on all projects proposed for funding. The TAC will also serve as the central mechanism in ensuring that all State agencies exercising their authorities within the coastal zone adhere to ICMP policies.

State laws and regulations included in the ICMP are summarized in policy statements, which are organized into eight categories. Detailed descriptions of each policy, its underlying authority and implementation process, are described in Chapter 9, Part II of the DEIS. Enforceable policies for purposes of federal consistency can be found in Chapter 11, Part II of the DEIS, and are listed in this "ICMP Summary" in section 5, "Policies".

3. BOUNDARY

The ICMP boundary is described in DEIS, Part II, Chapter 3 and Appendix A. While Illinois does not touch on the international boundary with Canada, it does adjoin state line boundaries of Wisconsin, Michigan (in Lake Michigan), and Indiana. There are no islands associated with the Illinois boundary, nor are there Indian lands not held in trust by the Federal Government. The Illinois coastal zone has a boundary of exclusion for federal sites, and the ICMP notes that the boundaries for these federal sites are subject to change over time, as more or less land is held in federal control.

The inland boundary uses a watershed approach to ensure all land area having surface water drainage to Lake Michigan is within the coastal zone. The boundary employs the regional transportation network as a means to define a map-able and easily recognized boundary. Engineering history and modification of the coast was considered, as the shoreline has been greatly modified over the last century.

Illinois uses a two-component inland boundary. Consideration of the landscape, watershed, and coastal and river engineering in the Illinois coastal zone led to this decision. The *Lakeshore Boundary* defines the landward limit of the coastal zone inland, and is generally parallel to the Lake Michigan shoreline. This boundary is based on the Lake Michigan watershed in Illinois as it has existed since the early 1900s. Thus, this boundary excludes land areas that historically were part of the Lake Michigan watershed but are now outside this watershed.

The other component of the inland boundary consists of a coastal zone corridor that extends along the near-lake segments of the river systems that historically flowed to Lake Michigan but are now engineered to flow away from the lake. These corridors are referred to as the *Inland Waterway Corridors* of the Illinois coastal zone. The boundary that defines these corridors is referred to as the *Inland Waterway Boundary*. The inland waterway corridors consist of both the

waterway, and designated land area to either side of the waterway. The Inland Waterway component of the Illinois coastal zone includes select segments of the Chicago River system (North Branch, South Branch, Main Branch and North Shore Channel) and select segments of the Little and Grand Calumet Rivers.

4. USES SUBJECT TO MANAGEMENT

The ICMP establishes a definition for "Uses Subject to Management": "Uses subject to management within the coastal boundary that have a direct and significant impact on coastal resources, have obtained all required federal and state permits, and can demonstrate compliance with all federal and state regulatory programs."

The ICMP contains a clear set of criteria to identify "Uses Subject to Management". They must be located in the coastal zone boundary; have a detrimental environmental impact on any coastal use or resource within the boundary; create adverse effects on the quality or quantity of natural, economic, social, or historical coastal resources; or disrupt access to a public coastal resource.

Uses within the coastal zone subject to management are those that have a direct and significant impact on coastal resources. These uses are separate and distinct from "uses of regional benefit" which are those uses that generally serve more than one community.

The following is a list of ICMP "Uses Subject to Management":

- Any construction in Lake Michigan or public waters of Illinois, including erosion, flood, and floodplain controls; mooring facilities for watercraft including marinas, harbors and ports; or construction of sewer and water facilities;
- Diversion of water withdrawal from Lake Michigan for any purpose including the use of water for industrial or public utility purposes;
- Activities affecting natural areas, nature preserves, terrestrial or aquatic wildlife habit, or areas of historical significance;
- Development of public parks and recreational resources;
- Management of public water supplies;
- Activities that cause degradation or decline in sustainability of groundwater supplies;
- Harvesting of fish for commerce or sport, or taking of wild game;
- Laying out, altering, or discontinuing highways;
- Emitting air pollutants from point sources;
- Redevelopment of brownfields;
- Siting electrical generating and high voltage transmission facilities or energy facilities; and
- Storing and transporting energy resources.

5. POLICIES

ICMP policies are articulated for the following resource topics: public waters, navigation, and the public interest; erosion and flooding; water quality and water supply; habitats, wetlands, and wildlife; historic, archaeological, and cultural resources; recreation and public access; economic development; and energy facilities and air quality. The ICMP authority to administer land and water use regulations is described in Chapter 9, Part II of the DEIS, which outlines the underlying statutes and regulations. Collectively, state, local, and federal agencies manage the natural and cultural resources of Illinois. Illinois statutes provide guidance and assign implementation authority for these laws to the State's units of government. Guidance also includes methods the State can use to provide for public participation in the implementation of state laws. ICMP implementation will be conducted through these existing authorities, within state and federal rules and regulations. The ICMP will facilitate program implementation primarily through a networking approach.

The ICMP demonstrates that, taken together, existing authorities can and will be used to implement the full range of policies. Each party is bound to conformance with relevant enforceable policies through the use of Executive Order 10-14 (DEIS, Part II, Appendix C), signed by Illinois Governor Pat Quinn, to ensure compliance with the Program. Networked agency heads are directly responsible to the Governor. State agencies can enforce ICMP policies, and within IDNR, the Director will ensure compliance and coordination.

ICMP policies, contained within the enforceable provisions of state laws and associated regulations, were identified based on policy recommendations provided by the public through the program development process. Implementation of program policies is accomplished by state and local agencies through the ICMP network. Enforcement of state laws comes from the state regulatory, or permitting, process.

The state will also utilize CZMA Federal consistency provisions, to manage coastal uses and resources, and to facilitate cooperation and coordination with Federal agencies. Chapter 11, DEIS, Part II, describes the ICMP federal consistency process and identifies the following ICMP enforceable policies by resource category:

Public Waters, Navigation and the Public Interest	**Rivers, Lakes and Streams Act**, 615 ILCS 5; **Regulation of Public Waters**, Sections 17 IAC 3704.70 and 17 IAC 3704.90; **Shore Lands for Park Use Act**, 65 ILCS 105; **Navigable Waters Obstruction Act**, 615 ILCS 20.
Flooding	**Floodway Construction in Northeastern Illinois**, 17 IAC 3708.100.
Water Quality and Water Supply	**Environmental Protection Act, Title III: Water Pollution**, 415 ILCS 5/11; **Rivers, Lakes and Streams Act**, 615 ILCS 5; **Allocation of Water from Lake Michigan,** 17 IAC 3730.301.

Habitats, Wetlands and Wildlife	**Fish and Aquatic Life Code**, 515 ILCS 5; **Interagency Wetlands Policy Act of 1989**, 20 ILCS 830; **Illinois Natural Areas Preservation Act**, 525 ILCS 30525 ILCS 30/3.11; **Illinois Natural Areas Preservation Act**, 525 ILCS 30/525, ILCS 30/3.11; **Illinois Natural Areas Preservation Act**, 525 ILCS 30/525, ILCS 30/3.11, ILCS 30/3.02; **Illinois Endangered Species Protection Act**, 520 ILCS 10.
Historic, Archaeological and Cultural Resources	**Illinois Historic Preservation Act**, 20 ILCS 3410; **Archaeological and Paleontological Resources Protection Act,** 20 ILCS 3435.
Recreation and Public Access	There are no ICMP enforceable policies in this category for federal consistency purposes, however; the first four policies under "Public Waters, Navigation and the Public Interest" reference the public interest and public waters.
Economic Development	There are no ICMP enforceable policies in this category for federal consistency purposes.
Energy Facilities and Air Quality	**Public Utilities Act**, 220 ILCS 5; **Environmental Protection Act, Title II: Air Pollution**, 415 ILCS 5/9; **Environmental Protection Act, Title 2: Air Pollution**, 415 ILCS 5/9.11.

6. SPECIAL MANAGEMENT AREAS

The ICMP listing of, and selection process for, areas of particular concern are contained in Chapter 6, DEIS, Part II. Eight "Resource Issues" meriting special attention are identified: water quality; shoreline erosion; habitat, ecosystem and natural area restoration; ravine systems; public access and recreational resources; historic and cultural feature preservation; education and public awareness, and land acquisition/easement opportunities.

Five "Specific Geographic Areas" meriting special attention are: North Point Marina and Illinois Beach State Park; Waukegan Harbor, Waukegan Lakefront and Waukegan River Watershed; Chicago River and North Shore Channel River Corridors, and Wilmette Harbor; Lake Calumet and Calumet River Area; and Little Calumet and Grand Calumet River Corridors.

In developing the issues and areas meriting special ICMP attention, no additional regulatory requirements were proposed or identified. At this time, the ICMP will be focusing on these areas and issues primarily by providing technical assistance, improving governmental coordination, and through ICMP grant funds. The general issues and geographic areas identified as meriting special attention are consistent with federal examples of general areas of concern.

The ICMP establishes only general areas for Areas of Particular Concern (APC) and Areas for

Preservation or Restoration (APR) designation. ICMP staff will assist in coordinating efforts to bring together governmental units to address specific issues pertaining to APC and APR. The ICMP grants program provides special consideration for the needs and projects identified as APC and APR. Criteria for APC and APR are listed in DEIS, Part II, Chapter 6.

B. CHANGES THE PROGRAM WILL MAKE

Existing State authorities will be used to implement and enforce the Illinois Coastal Management Program (ICMP). The ICMP will result in changes in the way coastal resources are managed in the state by requiring the Illinois Department of Natural Resources (IDNR) to monitor all state actions which could affect coastal resources, resolve conflicts between state agency decisions and the provisions of the ICMP, and enhance implementation of core programs such as addressing hazards such as erosion, economically depressed waterfront areas, and planning for and creating public access.

Illinois' objective in developing a coastal management program is to establish a comprehensive, coordinated approach for the protection, preservation and orderly development of the state's coastal resources. The ICMP will be implemented through the ICMP Office and through the IDNR Offices of Resource Conservation, Water Resources, Realty and Environmental Planning, and Land Management. Its core regulatory programs will be conducted in coordination with other state agencies such as the Illinois Environmental Protection Agency.

The ICMP Office, reporting directly to the IDNR Director, is the lead entity for reviewing state and Federal agency actions to ensure consistency with the ICMP. Chapter 11, Part II of the DEIS describes the procedures the ICMP will use to implement state and CZMA federal consistency requirements. These procedures include an Executive Order (EO) which provides that disagreements between agencies that cannot be resolved at the agency level will be referred to the Governor for resolution. In addition, section 307 of the CZMA requires that Federal agency actions be consistent with the enforceable policies of the ICMP once the ICMP is approved by OCRM.

The CZMA provides incentives and a national direction to assist states in addressing coastal issues and problems. The following are the principal anticipated effects of Federal program approval:

- Federal CZMA section 306 grants estimated to total approximately $2M annually will be made to Illinois to assist in program implementation activities by the state and local entities; and
- State implementation of the Federal consistency provisions of the CZMA to ensure that Federal activities, federally licensed and permitted activities, and Federal assistance to state and local governments are consistent with the enforceable policies of the ICMP.

ILLINOIS COASTAL MANAGEMENT PROGRAM PRIORITIES

The ICMP will address program areas which also are in alignment with the Great Lakes Regional Collaboration Strategy. The ICMP will describe desired outcomes, prioritize strategies for achieving them, and suggest site specific projects for the following:

Invasive Species	The ICMP will support mitigation, and long term sustainable solutions to terrestrial invasive species. Strategies for controlling aquatic invasive species will focus on the Chicago and Sanitary Ship Canal, and the hydrologic/ecological separation of the Illinois River basin from the Lake Michigan basin.
Areas of Concern (AOC)	Waukegan Harbor is the only designated AOC in Illinois. Six of 14 use impairments have been identified for the Waukegan AOC. The impairments include restrictions on fish and wildlife consumption, benthos degradation, restrictions on dredging, beach closings, degradation of phytoplankton populations, and loss of fish and wildlife habitat. The ICMP will develop a priority list for projects in Waukegan Harbor, the Waukegan Lakefront, and in the Waukegan River Watershed to remove these impairments.
Sustainable Development	The Illinois coast is primarily urban, with a few exceptions. The ICMP will develop strategies to mitigate and adapt to climate change, which includes reducing individual carbon footprints and expanding the use of natural resources to act as carbon sinks.
Habitat, Ecosystems and Natural Area Restoration	The ICMP will prioritize the undeveloped portions of shoreline, and habitat with the greatest potential for restoration, in Cook and Lake Counties immediately north of Chicago to the Wisconsin state line, and south of Chicago to the Indiana state line. These areas include, North Point Marina and Illinois Beach State Park including the Dead River and Kellogg Creek Watersheds, Waukegan Beach, Spring Bluff forest preserve, and wooded ravines along the Lake Michigan bluffs. For the reasons noted above, the ICMP will also prioritize The Chicago River, North Shore Channel Corridors, and Wilmette Harbor are increasingly important habitat areas and will be prioritized. The Little Calumet and Grand Calumet River corridors, Lake Calumet, Calumet River, and the surrounding wetland areas contain important habitat. These areas include some of the most degraded industrial sites.
Persistent Bio-Accumulative Toxins	Toxin issues in Northeastern Illinois are generally legacy issues from an industrial past. They are mostly well-documented, and tend to be concentrated in the river sediments, brownfields, and as superfund sites. The ICMP will develop site specific strategies for each property, and develop priorities for long term restoration strategies as appropriate.

Non-Point Source Pollution	Non-point source pollution in Illinois is primarily related to storm-water which is managed, treated, and ultimately discharged away from the Lake Michigan Basin. Despite the investment of billions of dollars over decades, basement flooding and diversions of untreated sewage into Lake Michigan are not uncommon. The ICMP will facilitate an important discussion of expanding the use of green infrastructure to control storm-water, promote groundwater recharge, and reduce flooding.
Information and Indicators	The ICMP will identify existing and ongoing data collections and indicators. It will also identify gaps in data and develop priorities for future data collection efforts. The ICMP will assist in the collaborative development of sustainability indicators for the region.
Public Access and Recreation	Illinois' shoreline is increasingly used for recreation. The demand for public access to Lake Michigan and recreational resources has outstripped the supply, which is likely to continue to grow in the future. There will always be a need for additional and improved recreational facilities and services. The ICMP will provide technical and financial assistance to acquire new or improve public recreational sites and facilities.
Economic Development	Coastal communities are essential components of a strong Illinois economy. The ICMP will provide assistance to these communities to improve management programs, and support efforts to identify and designate areas especially well-suited for economic development. These areas may include ports, waterfronts, and harbors. The ICMP will also provide technical and financial assistance in the regional planning process for energy transmission and transportation routes.
Climate Change	Climate models project a decline in ice cover, and a greater rate of evaporation in the Great Lakes, causing a drop in the level of Lake Michigan. These changes will affect ecosystems, water quality, water supply, and navigation. Warmer water temperatures and increased run-off from higher intensity rainstorms will likely increase the risk of water-borne diseases. The ICMP will support projects focused on adaptation to the effects of climate change in North East Illinois.

The ICMP will assess emerging issues, develop policies and management approaches, undertake programs and projects in partnership with communities and local agencies, and enforce program policies to balance development and conservation.

LONG-TERM BENEFITS OF APPROVING THE ICMP

- Enhancing the state's role in supporting and coordinating partnerships among local, state and federal agencies and organizations in planning and management. The ICMP will strengthen local stakeholder capacity to initiate and continue effective coastal management consistent with identified state standards and criteria.

- Facilitating the development of a shared vision for the protection, restoration and enhancement of Illinois' coastal resources. The ICMP will shape coastal ecosystem management policies by streamlining procedures and providing a clearinghouse for information on regulatory programs governing the coast. The ICMP will also increase public awareness, involvement and opportunities for citizens to participate in decisions affecting Lake Michigan coastal resources.
- Coordinating agency and stakeholder efforts that identify regional priorities and implement local projects to address those priorities. The ICMP will advocate for the wise and balanced use of the coastal environment; use of federal, state, and local policies; and increase awareness of the uniqueness of the coastal environment.
- Leveraging ICMP resources and other funds to maximize the impact of local projects. The ICMP will assist in the implementation and enforcement of existing programs that manage coastal uses impacting the environment. Resources will be prioritized where gaps or weaknesses are identified.

A more detailed description of the effects of federal approval of the ICMP is provided in the Part III of the DEIS.

C. THE FEDERAL COASTAL ZONE MANAGEMENT ACT

In response to intense pressure on coastal resources, and because of the importance of coastal areas of the United States, Congress passed the Coastal Zone Management Act of 1972, as amended (CZMA), (16 USC 1451). The Act authorizes a Federal program to encourage coastal states and territories to develop comprehensive coastal management programs. The program is administered by the Secretary of Commerce, who in turn has delegated this responsibility to the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM). Currently, 33 states or territories have coastal programs approved by the Assistant Administrator of the National Ocean Service. The CZMA affirms the national interest in the effective protection and careful development of the coastal zone by providing assistance and encouragement to coastal states to voluntarily develop and implement management programs for their coastal areas. The CZMA authorizes financial assistance grants under section 305 for program development and section 306 for program implementation to provide coastal states and territories with the means for achieving these objectives. The Section 305 program development section was re-authorized by Congress in the 1990 amendments to the CZMA (PL 101-508, November 5, 1990). OCRM did not award Illinois section 305 grants because the State was not interested in developing a program at that time.

Sections 305, 306, and 307 of the CZMA, and implementing regulations published on March 28, 1979 (44 CFR Part 18595) as codified at 15 CFR Part 923, provide the requirements and procedures for state management program development and Federal approval. In summary, the requirements for program approval are that a state develop a management program that among other things:

1. Identifies and evaluates those coastal resources recognized in the Act that require management or protection by the state or territorial government;

2. Re-examines existing policies or develops new policies to manage these resources. These policies must be specific, comprehensive, and enforceable, and must provide an adequate degree of predictability as to how coastal resources will be managed;
3. Determines specific uses and special geographic areas that are to be subject to the management program, based on the nature of identified coastal concerns. Uses and areas subject to management should be based on resource capability and suitability analyses and socio-economic considerations;
4. Identifies the inland and seaward and/or lakeward areas subject to the management program;
5. Provides for consideration of the national interest in planning for the siting of facilities; and
6. Includes sufficient legal authorities and organizational structure to implement the program and to ensure conformance to it.

In arriving at these substantive aspects of the management program, states are obligated to follow an open process which involves providing information to and considering the interests of the general public, interest groups, local governments, and regional, state, interstate, and federal agencies.

Section 303 of the CZMA provides guidance on specific national objectives that warrant full consideration during the implementation of approved state coastal management programs.

Section 305 of the CZMA as amended by PL 101-508 in 1990, and subsequent appropriations language, authorized annual grants to states desiring to develop a coastal management program. After its management program receives federal approval, the state is then eligible for annual grants under section 306 to implement its management program. Section 306A of the CZMA also provides that states may use a portion of their section 306 awards for low cost construction projects that result in the preservation of important natural areas, improved public access, or renewal of urban waterfronts.

Section 307 contains the Federal consistency provisions of the CZMA to ensure that Federal actions are consistent with the enforceable policies of the state's federally approved management program. Paragraphs (1) and (2) of section 307(c) require that Federal activities and development projects in or directly affecting the coastal zone be consistent to the maximum extent practicable with a federally approved state management program. Subparagraphs (A) and (B) of section 307(c) require that federally licensed and permitted activities affecting the coastal zone also are consistent with federally approved state management program. Section 307(d) requires that Federal assistance to state and local governments for projects affecting the coastal zone be consistent with federally approved state management programs. Federal regulations implementing section 307 are found at 15 C.F.R. Part 930.

Section 309, as amended by PL 101-508 in 1990, establishes a coastal enhancement grant program. This section provides that a portion of section 306 funds is available to states to develop program changes which strengthen their CZM program's ability to address particular

coastal issues. State efforts to seek such improvements are meant to focus on priorities based on a self-assessment of the nine objectives listed in section 309. These objectives include, among others, stronger wetland protection, improved management of coastal hazards and enhanced public access.

Section 312 directs the Secretary of Commerce to evaluate the performance of state coastal management programs on a continuing basis. OCRM formally reviews the implementation of each state program on a three to five year cycle.

Section 315 establishes a National Estuarine Research Reserve System to preserve a series of representative estuarine areas for long-term scientific and educational purposes.

The Coastal Zone Reauthorization Amendments of 1990 (CZARA) established a new Coastal Nonpoint Pollution Control Program, in addition to updating the CZMA. The State of Illinois will submit a complete Coastal Nonpoint Pollution Control Program within 30 months of NOAA's approval of the ICMP (DEIS, Part II, Chapter 12). After Illinois submits its coastal nonpoint program, NOAA and EPA will make a final determination regarding its compliance with section 6217 of CZARA.

PART II

ILLINOIS COASTAL MANAGEMENT PROGRAM DOCUMENT

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STATE OF ILLINOIS

COASTAL MANAGEMENT PROGRAM

Prepared By:

Illinois Department of Natural Resources

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GLOSSARY

ICMP	Illinois Coastal Management Program
AOC	Area of Concern
TAC	Technical Advisory Committee
CAG	Citizens Advisory Group
NOAA	National Oceanic and Atmospheric Administration
IDNR	Illinois Department of Natural Resources
I&M	Illinois and Michigan
SDC	Sanitary District of Chicago
MWRDGC	Metropolitan Water Reclamation District of Greater Chicago
USACE	United States Army Corps of Engineers
CZMA	Coastal Zone Management Act
NTCGL	National Training Center Great Lakes
CWA	Clean Water Act
NPS	Nonpoint source pollution
NPDES	National Pollutant Discharge Elimination System
WQMP	Water Quality Management Program
INSMP	Illinois Nonpoint Source Management Program
BMPs	Best Management Practices
GLNTC	Great Lakes Naval Training Center
PCBS	Polychlorinated biphenyls

1
Program Outline

Illinois is dedicated to protecting and managing the natural and cultural resources along our magnificent 63 mile stretch of Lake Michigan shoreline. Over the last two centuries, Illinois' coast has undergone nearly a complete metamorphosis. We have modified its hydrology, developed the infrastructure that supports a world class industrial and transportation center, and invented the skyscrapers that today grace our shoreline. With all these changes, it is remarkable that our coastal resources still contain some of the richest, rarest, and most diverse populations of plant and animal species and natural habitat areas in the state.

Lake Michigan is a tremendous resource for our state. It provides recreational and commercial resources as well as a water supply. Our coastal counties' Lake and Cook are currently home to 6 million people and they are projected to grow to nearly 6.8 million people by 2030. It is estimated that more than 20 million people visit the Lake Michigan shoreline each year. Illinois Beach State Park alone has over 2 million visitors annually. Lake Michigan provides drinking water to nearly 7 million Illinois residents (over half of the state's entire population).

Our shoreline is subject to considerable stress because it is highly urbanized. However the environmental legacy of our industrial development must be balanced against the needs and demands of a growing and vibrant urban community. The Coastal Management Program will increase the capacity of our coastal communities to strike this balance as we invest in programs that seek to restore our ecosystems and meet the increasing demands for open space, recreation, and public access.

Coastal Management Program Goals:

The Illinois Coastal Management Program (ICMP) will work to preserve, protect, restore, and where possible, enhance coastal resources in Illinois for this and succeeding generations. The program will also work to improve the quality of decision-making by the state and coastal communities resulting in more effective outcomes. The ICMP will achieve this by:

- Enhancing the state's role in supporting and coordinating partnerships among local, state and federal agencies and organizations in the planning and management of these efforts. The ICMP will strengthen local stakeholder capacity to initiate and continue effective coastal management consistent with identified state standards and criteria.

- Facilitating the development of a shared vision for the protection, restoration and enhancement of our coastal resources. The ICMP will shape coastal ecosystem management policies, streamlining procedures, and providing a clearinghouse for information on regulatory programs governing our coast. The program will also increase public awareness, involvement and opportunities for citizens to participate in decisions affecting our Lake Michigan coastal resources.

- Coordinating agency and stakeholder efforts that identify regional priorities and implement local projects to address those priorities. The ICMP will advocate for the wise and balanced use of the coastal environment and the recognition in federal, state, and local policies of the uniqueness of the coastal environment.

- Leveraging ICMP resources and other funds to maximize the impact of local projects. The ICMP will assist in the implementation and enforcement of existing programs that manage coastal uses impacting the environment. Resources will be prioritized where gaps or weaknesses are identified.

Coastal Management Program Priorities

The ICMP will address the following program areas which are also outlined in the Great Lakes Regional Collaboration Strategy. The ICMP will describe desired outcomes, prioritize strategies for achieving them, and suggest site specific projects:

- Invasive Species. The ICMP will support mitigation, and long term sustainable solutions to terrestrial invasive species. Strategies for controlling aquatic invasive species will focus on the Chicago and Sanitary Ship Canal, and the hydrologic/ecological separation of the Illinois River basin from the Lake Michigan basin.

- Habitat, Ecosystems and Natural Area Restoration. The ICMP will prioritize the undeveloped portions of shoreline in Cook and Lake Counties immediately north of Chicago to the Wisconsin state line, and south of Chicago to the Indiana state line. These areas include, North Point Marina and Illinois Beach State Park including the Dead River and Kellogg Creek Watersheds, Waukegan Beach, the Great Lakes Naval Training Center, Spring Bluff forest preserve, and wooded ravines along the Lake Michigan bluffs.

- The Chicago River, North Shore Channel Corridors, and Wilmette Harbor are increasingly important habitat areas and will be included. The Little Calumet and Grand Calumet River corridors, Lake Calumet, Calumet River, and the surrounding wetland areas are important habitat. These areas contain some of the most degraded industrial sites, and will also be included.

- Areas of Concern (AOC). Waukegan Harbor is the only designated AOC in Illinois. Six of 14 use impairments have been identified for the Waukegan AOC. The impairments include restrictions on fish and wildlife consumption, benthos degradation, restrictions on dredging, beach closings, degradation of phytoplankton populations, and loss of fish and wildlife habitat. The ICMP will develop a priority list for projects in Waukegan Harbor, Waukegan Lakefront, and Waukegan River Watershed to remove these impairments.

- Persistent Bio-Accumulative Toxins. Toxic issues in Northeastern Illinois are generally legacy issues from our industrial past. They are mostly well-documented, and tend to be concentrated in the river sediments, brownfields, and superfund sites. The ICMP will develop site specific strategies for each property, and develop priorities for long term restoration strategies as appropriate.

- Sustainable Development. The Illinois coast is primarily urban, with the few exceptions mentioned previously. The ICMP will develop strategies to mitigate and adapt to climate change, which includes reducing individual carbon footprints, and expanding the use of our natural resources to act as carbon sinks.

- Non-Point Source. Non-point source pollution in Illinois is primarily related to storm-water which is managed, treated, and ultimately discharged away from the Lake Michigan Basin. Despite the investment of billions of dollars over the decades, basement flooding, and diversions of untreated sewage into Lake Michigan are not uncommon. The ICMP will facilitate an important discussion of

expanding the use of green infrastructure to control storm-water, promote groundwater recharge, and reduce flooding.

- Information and Indicators. The ICMP will identify existing and ongoing data collections and indicators. It will also identify gaps in data, and develop priorities for future data collection efforts. The ICMP will assist in the collaborative development of sustainability indicators for the region.

Coastal Management Program Additional Priorities

- Public Access and Recreation. Illinois' shoreline is increasingly used for recreation. The demand for public access to Lake Michigan and recreational resources has outstripped the supply, and is likely to continue to grow in the future. There will always be a need for additional, and improved, recreational facilities and services. The ICMP will provide technical and financial assistance to acquire new, or improve public recreational sites and facilities.

- Economic Development. Our coastal communities are essential components of a strong Illinois economy. The ICMP will provide assistance to these communities to improve management programs, and support efforts to identify, and designate areas especially suited for economic development. These areas may include ports, waterfronts, and harbors. The ICMP will also provide technical and financial assistance in the regional planning process for energy transmission and transportation routes.

- Climate Change. Climate models project a decline in ice cover, and a greater rate of evaporation in the Great Lakes causing a drop in the level of Lake Michigan. These changes will affect ecosystems, water quality, water supply, and navigation. Warmer water temperatures and increased run-off from higher intensity rainstorms will likely increase the risk of water-borne diseases. The ICMP will support projects focused on adaptation to the effects of climate change in North East Illinois.

The ICMP will assess emerging issues, develop policies and management approaches, undertake programs and projects in partnership with communities and local agencies, and enforce program policies to balance development and conservation.

Public Outreach

The ICMP has established a strong track record of transparency, public outreach, and stakeholder involvement, beginning with an effort to identify special management areas. A meeting was held for municipal and government officials on January 25, 2005 at Gillson Park in the Village of Wilmette.

A questionnaire was distributed at the meeting requesting input on general resource areas, and specific geographic areas, meriting special attention in developing and implementing a coastal management program. The questionnaire also requested input regarding establishment of the coastal boundary, the need for increased public access, and to identify potential projects or needs eligible for ICMP grant funding. The questionnaire was also sent to a broad list of interest groups in April 2005.

In May and June of 2005, the IDNR met individually with the 15-shoreline municipalities, and the villages of Skokie and Lincolnwood to discuss ICMP preliminary plans and goals. In July 2005, a meeting was held with the South Suburban Mayors and Managers Association representing the communities along the

Little Calumet, and the Grand Calumet Rivers. These meetings sought specific input on coastal boundary lines, roads, and on areas meriting special program attention.

The first series of ICMP open houses was held during July 2005 in Waukegan, Highland Park, and at Loyola University-Chicago Lake Shore campus, respectively. Another open house was held in (south) Chicago on September 2005. A second series of four open houses were held at the same locations in November 2005. From 2006 to 2010, IDNR drafted and worked closely with NOAA to edit the program document, and additional detail can be found in Chapter 11. A final public meeting was held February 18, 2011 to receive public input on the completed program document prior to submission to the National Oceanic Atmospheric Administration for formal approval.

The public hearing was staged from 12:00 to 3:00 pm CST and included an hour long webinar component during which participants who were unable to attend in person could gain audio and visual access to the presentations. The hearing consisted of three presentations: *The Illinois Coast – Geologic History, Human Impact, and Management Challenges*; *The Illinois Coastal Management Program*; and the *Illinois Clean and Green Marina Program*. Following the presentations, attendees and webinar participants were given an opportunity to ask questions to the presenters. All questions and comments were recorded and addressed.

In establishing program goals, and priorities for the ICMP, it is important to note that as a new program, the ICMP will need flexibility to develop, mature, and change to address the needs of the federal, state and coastal communities. Full participation and engagement by the Technical Advisory Committee (TAC), and the Citizens Advisory Group (CAG) is the key to maintaining this flexibility by providing a broader perspective when evaluating a course of action.

The level of engagement in the Great Lakes among policymakers is higher than it has been in the last several years. Working cooperatively with other states and provinces, the ICMP will strengthen the planning, policies, and programs to address the wide range of Great Lakes issues, and aid in developing a sound comprehensive management program for Lake Michigan and the entire Great Lakes basin.

2
Physical Characteristics of the Illinois Coast

The Illinois coast extends along 63 miles (101 km) of the southern-most reach of the western shore of Lake Michigan (Figure 2-1). The coast is the major physical feature of the greater Chicago metropolitan statistical area, which in the 2008 census had a population of nearly 9.6 million people (U.S. Census Bureau 2008). This is the third largest metropolitan area in the nation, and the most densely populated coastal area in the Great Lakes Region. No other coastal area in the Great Lakes has been urbanized, and engineered to the same degree as the Illinois coast. In addition, the glacial processes that shaped all of the Great Lakes Region, made the landscape of coastal Illinois particularly noteworthy. Near the western limits of Chicago is a unique and natural occurring waterway passage between the Great Lakes, and the Mississippi River basins. This passage occurs nowhere else on the North American continent and was the primary driver for economic development of the region.

Political Geography

The Illinois coast lies between the coasts of Wisconsin to the north and Indiana to the south and east (Figure 2-1). The northern part of the Illinois coast is in Lake County; the southern part of the Illinois coast is in Cook County. Lake County, with a 2009 estimated population of 712,567, is one of the fastest growing counties in the state. Cook County, with a 2009 estimated population of 5,287,037, is the most populated county in the state. These two counties contain about 46 percent of the Illinois population (U.S. Census Bureau 2009).

Chicago is the largest municipality along the Illinois coast in both population and shoreline length. The 22 mile (35 km) Chicago shoreline comprises about 35 percent of the Illinois coast. North from Chicago is a series of nine lakeshore municipalities that are collectively referred to as the North Shore. These are affluent residential communities that began to grow in the mid to late 1800s as commuter rail provided access to and from Chicago (Ebner 1988).

The United States Navy's Great Lakes Naval Training Center separates the North Shore communities from an additional five municipalities along the state's Far-North Coast. These northern municipalities have a varied history including industry, manufacturing, and port activity. The Far-North Coast includes 9 miles (14.5 km) of state-owned shoreline, along North Point Marina and Illinois Beach State Park. Despite the extent of state-owned shoreline, the municipal limits of Zion, Waukegan, and North Chicago include some land area along the lakeshore. Of these five municipalities, Waukegan has the greatest extent of lakeshore.

Although the Chicago city limits extend to the Indiana state line, and preclude lakeshore municipalities south of Chicago, navigable waterways provide a link to Lake Michigan for a series of South Suburban municipalities that border the far south limits of Chicago. These municipalities are Burnham, Calumet

City, Dolton, Riverdale, Calumet Park, and Blue Island. Several of the municipalities include marinas and boat-launch facilities that service Lake Michigan recreational boating.
At and near the north limits of Chicago are two additional municipalities that border a waterway providing a navigable link to Lake Michigan by way of the Chicago River system. These municipalities are Lincolnwood and Skokie.

The rapid growth of Chicago into one of the world's largest metropolitan areas may be attributed to its achievements in creating a navigable water access route from the Great Lakes to the Illinois River combined with the creation of an efficient rail transportation system. The completion of the Illinois and Michigan (I&M) Canal in 1848 provided a direct water link between the Great Lakes, and the Mississippi River, aiding new settlers in getting their surplus farm products to markets in the East. The I&M Canal, which followed the completion of New York's Erie Canal in 1825, helped shift the Midwestern trade center from St. Louis to Chicago. This provided a canal system that would link the west to the east, particularly to New York City. Lumber, meat, and grain products were the most important commodities that were first shipped across the Great Lakes and down the Erie Canal to New York City.

Chicago's trade dominance in the continental interior and to the Far West was triggered in the 1850s with the creation of a long-distance and radiating railroad system. Chicago became the trade center for farm products and farm machinery from the Midwest, for the lumber industry, the meatpacking industry and for products and resources that were produced in Chicago. Chicago became one of the great railroad cities in the world, and by the 1890s had become a national center both economically and culturally.

Technological advancements in the agriculture, meatpacking, and steel-making industries had a tremendous effect on the growth of Chicago. Though Chicago had become the livestock center of the nation with the Union Stock Yards in 1865, it established itself as a major manufacturing center with the development of the refrigerated railroad car and a nationwide distribution system. Chicago's central location for receiving northern ore allowed it to also become a major steel producing center by the late 1800s. The growth of the meatpacking, and steel mass production industries required large pools of unskilled labor, which furthered its development as an immigrant, and working class city.

Before 1880, Chicago's steel industry was located along the North Branch of the Chicago River. However, the industry's growth required the steel industry to move to the mouth of the Calumet River in South Chicago. The South Chicago plant was one of the most modern and efficient steel production plants in the country, encompassing approximately 260 acres by 1898. The large labor force necessitated the development of cheap housing in the immediate vicinity of the new plants, creating large working class districts near the stockyards and steel mills. (Historical Source: "History of Chicago from Trading Post to Metropolis," Roosevelt University Chicago History)

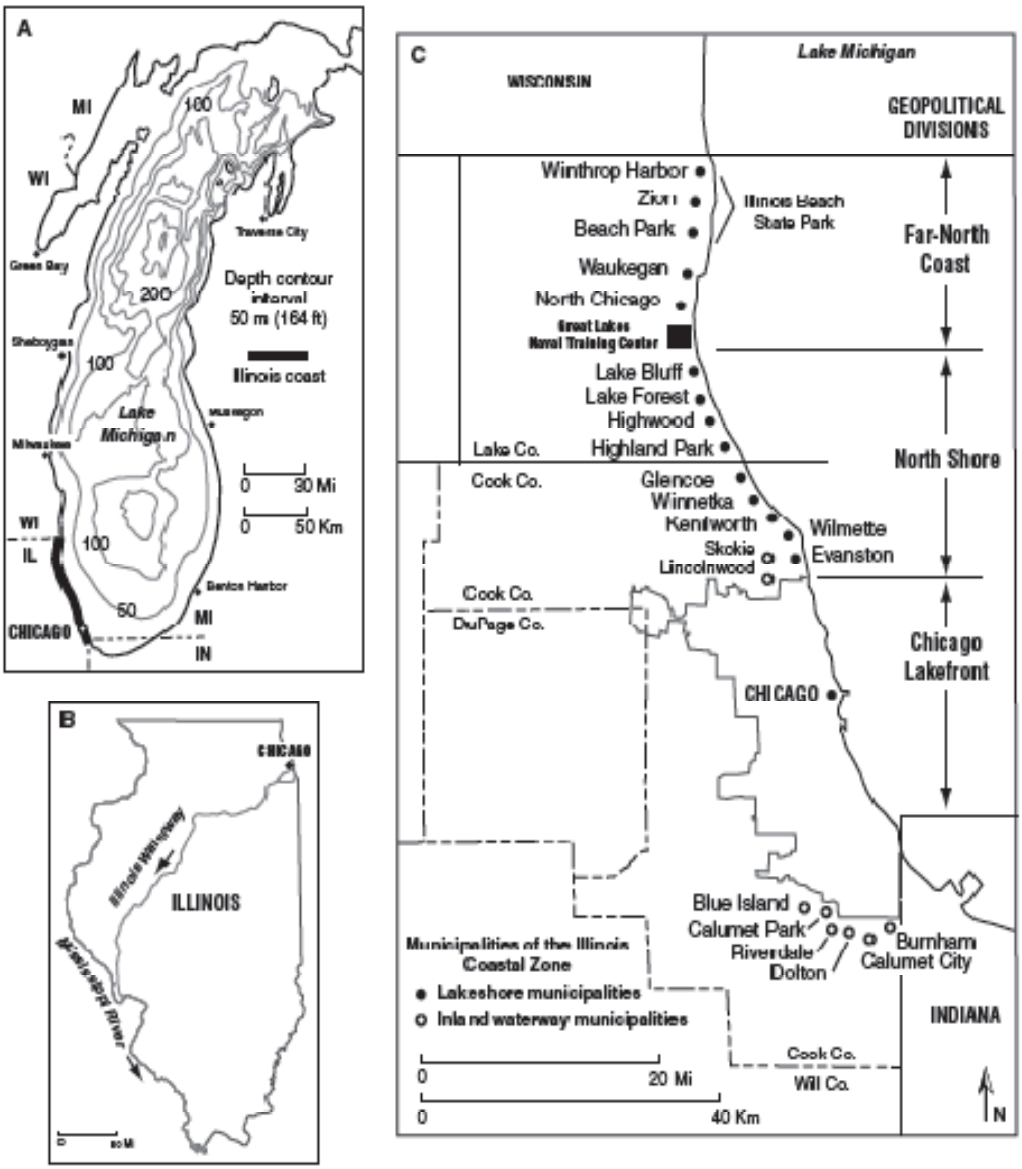

Figure 2-1. A) The Illinois coast is along the southern reach of the western shore of Lake Michigan. B) The Illinois waterway provides a navigable link between the Illinois coast and the Mississippi River. C) The fifteen municipalities that border the Illinois coast occur within three geopolitical divisions.

Coastal Geomorphology

The land bordering the Illinois coast has varied landscape characteristics that allow division into three geomorphic settings (Figure 2-2) (Chrzastowski 2005; Chrzastowski, Thompson and Trask 1994). These three settings present uniquely different coastal management challenges and opportunities.

- Zion beach-ridge plain

  From the Illinois-Wisconsin state line south to North Chicago, the land bordering the shore is a low-lying plain at most 10 to 15 feet (3 to 4.5 m) above mean lake level. Much of the southern plain in the vicinity of Waukegan Harbor has been altered for port and industrial land use. However, Illinois Beach State Park preserves the natural setting of undulating sand ridges and swales (Chrzastowski and Frankie 2000). The plain is up to one mile wide (1.6 km) at Zion.

- Bluff coast

  Along the coast between North Chicago and Winnetka, the lakeshore intercepts the Zion City and Highland Park Moraines (Figure 2-2). Long-term wave erosion along this morainal upland has resulted in bluffs that form the highest, and steepest landscape along the Illinois coast. Maximum bluff heights of about 90 feet (27 m) occur along the southern Highland Park lakeshore.

  The bluff slopes range from near vertical to about 45 degrees. Many segments of the bluff slope have been graded for erosion control. A discontinuous bluff face results from a series of steep-sided, V-shaped ravines that open to the lakeshore. These ravines originate as much as one mile inland from the shore, and typically have intermittent streams that discharge to the lake.

- Chicago lake plain

  From Winnetka south to the Illinois-Indiana state line is an extensive plain that was totally or partially submerged in the recent geologic past. This submergence occurred during a series of phases of high water-level of ancestral Lake Michigan, and its predecessor glacial Lake Chicago. The name “Chicago lake plain” refers to all of the land area that corresponds to the maximum extent of submergence when lake level was as much as 60 feet (18 m) higher than the historical mean (Willman 1971). Most of the City of Chicago occupies this plain. The plain continues into Indiana where it is known as the Calumet lake plain. The plain also has an outlying continuation across a narrow band of upland, above the Zion beach-ridge plain.

Coastal Geology

- Upland Sediments and Bedrock
  The dominant material in the Illinois coastal zone is a compact, gray, silty and clayey till. The till may contain discontinuous layers of sand and gravelly sand. This till was deposited by glacial ice during

the most recent (Wisconsin) glacial episode. The till is exposed along the coastal bluffs, as well as the material first encountered beneath most of the soils in the area. It also occurs beneath the beach and nearshore sand. The till has provided an exceptional foundation material along the coast for breakwaters and other shore structures.

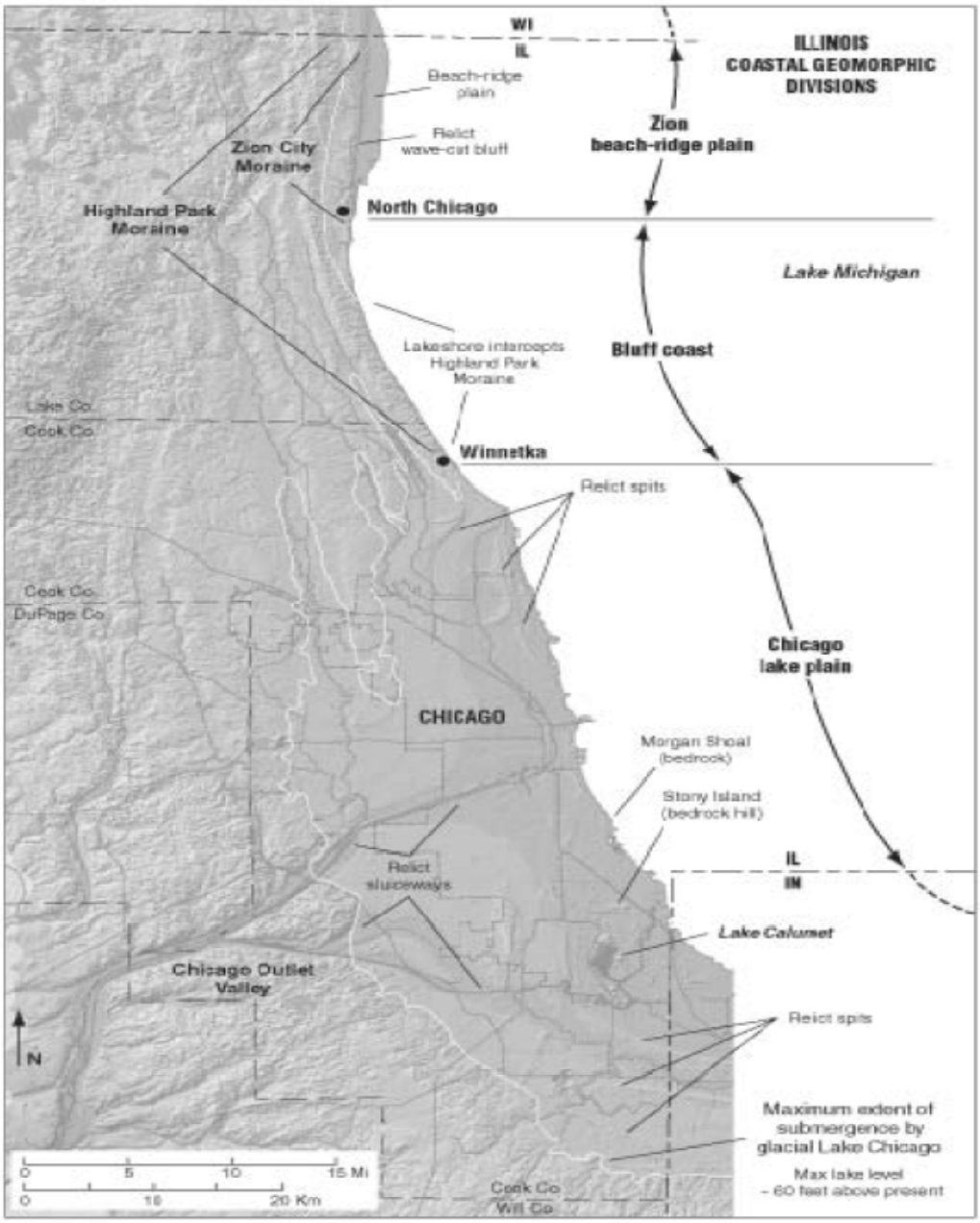

Figure 2-2. Glacial and coastal processes have resulted in three geomorphic divisions along the Illinois coast (modified from Chrzastowski 2005).

The till directly overlies the underlying regional bedrock which is Silurian-age dolomite (Willman 1971; Willman and Lineback 1970). The thickness of the till sequence above the bedrock is variable. In general, within the Illinois coastal area, the thickest till occurs in Lake County where thickness can

be 300 to 400 feet (91 to 121 m). In Cook County, the thickness is generally no more than 100 feet (30 m) (Piskin and Bergstrom 1975).

- Beach Sediments

Beach sediments along the Illinois coast consist of mixed sand and gravel. The primary source for the beach sediments was coastal bluff erosion. The low gradient of the two major rivers along the Illinois coast (Chicago and Calumet Rivers) prevented them from providing any significant sediment supply.

Many of the beaches along the Chicago lakeshore are constructed beaches built with placed sand originally mined from the lake bottom off the western Indiana coast (Chrzastowski 1991). Beach nourishment along erosion-prone beaches such as at Illinois Beach State Park has resulted in the import of sand from inland sand pits in western Lake County (Chrzastowski and Frankie 2000).

Coastal Processes

- Wind and Waves

The orientation of the Illinois coast results in the influence by waves from either the northeast or southeast quadrants. The northeast quadrant has the greater fetch (*i.e.,* distance over water for wind to blow). Waves generated by winds from the northeast quadrant are the largest waves along the Illinois coast and have the net influence on coastal-sediment transport.

Offshore winds and calm-water conditions are common along the Illinois coast. When waves do occur they have an average wave height of 1.5 to 2 feet (.3 to .6 m) and an average maximum wave height of 8 feet (2.4 m). The largest waves along the shore rarely exceed 10 to 12 feet (3 to 3.6 m) (U.S. Army Corps of Engineers 1953). Large waves are most common in late fall, winter, and early spring.

- Lake Level and Lake-Level Change

Lake Michigan has a mean water level of 578.9 feet (176.45 m) referenced to the International Great Lakes Datum (IGLD) of 1985. Because Lake Michigan is directly connected to Lake Huron and these two lakes share a common lake level, for hydrologic purposes this dual-lake system is commonly referred to as Lakes Michigan-Huron.

The water level in Lake Michigan is continually subject to change due to changes in the water budget. On an average annual basis, the Lake Michigan water level varies within a one-foot (0.3 m) range having high water in summer and low water in winter. This annual cycle is superimposed on lake-level changes occurring over multi-year and decadal time scales caused by weather and climate variations.

Through the historical record since 1919, the maximum range in mean monthly lake level in Lakes Michigan-Huron has been 6.3 feet (1.9 m). The low-water record occurred in March 1964; the high-water record occurred in October 1986 (U.S. Army Corps of Engineers 2006A).

- Short-Term and Sudden Lake-Level Change

  Prolonged northerly winds blowing along the axis of Lake Michigan have the potential of creating setup, which is a wind-generated rise in water level (U.S. Army Corps of Engineers 2006B). Along the southern part of the Illinois coast the setup could reach a maximum of 1.7 feet (0.5 m). The potential setup decreases northward along the Illinois coast. Near Milwaukee, Wisconsin the maximum potential setup is 1.2 feet (0.3 m) (U.S. Army Corps of Engineers 1978).

  A seiche is a sudden and potentially dangerous wave or series of waves. These are produced by sudden changes in air pressure and/or sudden downbursts of wind associated with fast moving storm fronts. Small seiches of one foot height or less are common along the Illinois coast (Illinois State Geological Survey 2005). These small seiches rarely cause problems. The highest recorded seiche along the Illinois coast reached 10 feet (3 m) and occurred on June 26, 1954 at Chicago's North Avenue Beach (Ewing, Press and Donn 1954). This seiche caused shore damage and the drowning of eight people.

- Beach and Nearshore Ice

  Conditions can be favorable for the development of ice along Illinois beaches and nearshore from December to March. Some years can have little or no ice. Other years can have multiple events of ice formation, breakup, and redevelopment. Wave action is the common factor causing ice break up rather than melting (Barnes and others 1994).

- Littoral Transport

  The dominant wave influence by northerly waves results in a net southward littoral transport along the Illinois coast. Waves from the southeast quadrant can influence a northward movement, but the stronger northerly waves counteract this influence and produce a net southerly transport.

  Historically, the Illinois coast has experienced considerable reduction in the volume of littoral sediment in transport. Coastal engineering along the Chicago lakeshore, particularly engineering in the vicinity of Chicago Harbor, has completely isolated the southern Chicago lakeshore from any littoral sediment supply from the north. Long-term reduction in the volume of littoral sediment transport has also occurred along the bluff coast as bluff erosion has been arrested, and sediment supply to the littoral transport has been greatly reduced.

Geologic History of the Illinois Coast

The geologic framework for the Illinois coast began more than 460 million years ago, as marine sediments were deposited that now comprise the regional bedrock of Silurian dolomite. Subsequent deposition of shales and sandstone, provided the more easily erodible strata into which rivers could erode major drainage networks. The valleys associated with some of these ancient rivers guided the pathway for a series of continental ice sheets that advanced, and withdrew, over the past two million years. These multiple glacial episodes resulted in the erosion of the Lake Michigan basin as well as shaping and reshaping the bedrock surface.

The present landscape is the result of the most recent glacial event, the Wisconsin episode. Glacial ice was receding from the Illinois coastal area about 14,000 years B.P. (before present). After the ice withdrew there was wide fluctuation of water level in the Lake Michigan basin. At its extreme high, lake level was as much as 60 feet (18 m) higher than today, and at its extreme low lake level was as much as 262 feet (80 m) lower than today. Not until about 2,500 years B.P. did lake level begin to fluctuate within the seasonal and long-term range that has persisted through historical time (Figure 2-3).

The geologic history of the coastal area that we see today primarily relates to events of the past 15,000 years. This history can be divided into two components of glacial processes and coastal processes.

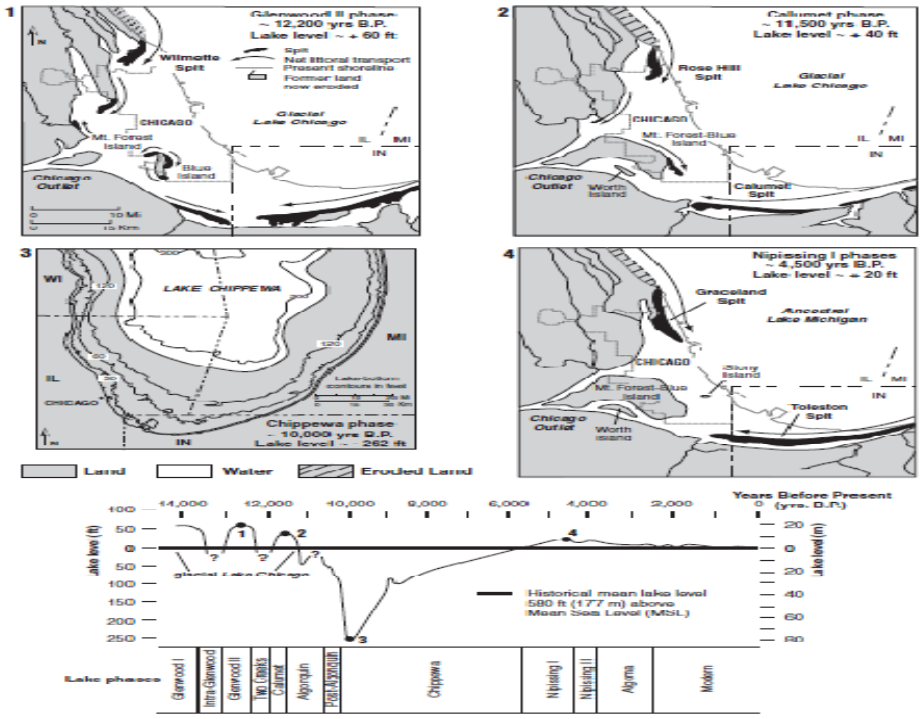

Figure 2-3. Lake-level curve for southern Lake Michigan for the past 14,000 years and paleogeography at four select lake-level elevations (modified from Chrzastowski and Thompson 1994; Colman et al. 1994).

- Landscape Shaping by Glacial Processes

  As glacial ice withdrew from northeastern Illinois, the resulting end moraines provided high ground that acted as a dam to retain a series of elevated water levels within the Lake Michigan basin. The name "Lake Chicago" refers to the lake that formed in the southern part of the Lake Michigan basin

between the glacial ice and the end moraines. During these times, lake water drained westward through the Chicago Outlet Valley, which is the prominent Y-shaped erosional valley that cuts through the morainal uplands west of Chicago (Figure 2-2).

- Landscape Reshaping by Coastal Processes

  Over the past 5,000 years there were complex coastal changes as both wave-induced deposition and erosion, shaped and reshaped the shore. All of the landscape of the Calumet area was shaped during this time, as declining lake levels and sand deposition formed spits and beach ridges forming high ground between the area's lakes and wetlands. North of Chicago, coastal erosion was dominant along the bluff coast. The historical position of the bluff coast is tens to hundreds of feet landward of where its position was several hundred to a thousand years ago.

Watersheds and Drainage

Watershed boundaries play a major role in how the Illinois coastal zone is defined for the ICMP. Thus the characteristics of the regional watersheds and surface drainage are important to define. The Illinois coastal area has surface drainage that is part of one of five watersheds (Figure 2-4): Lake Michigan, Des Plaines River, Chicago River, Little Calumet River, and Calumet River.

The Calumet River watershed is technically part of the Lake Michigan watershed, but the Calumet River and its watershed has unique characteristics that warrant special division. The other three watersheds (Des Plaines River, Chicago River, and Little Calumet River) have drainage away from the lake. The northern Illinois coast is notable because this includes a broad area that has streams that drain to Lake Michigan (Figure 2-5).

The southern limit of ravines at Winnetka corresponds to the southern limit of streams entering the northern half of the Illinois coast. One additional stream south of Winnetka is Skokie Ditch which comes from several miles inland, and reaches the lakeshore at Kenilworth. The Skokie Ditch is a relict of an early 20th century attempt at draining the Skokie Marsh which was an extensive wetland complex related to the Skokie River. Engineering between 1933 and 1942 to create the Skokie Lagoons rendered the Skokie Ditch a landscape relict (Hill 2000). Although the ditch may infrequently direct localized surface drainage to Lake Michigan, the coastal zone boundary ignores the inland watershed of the Skokie Ditch.

Other than the Skokie Ditch, from the southern limit of the ravines at Winnetka for about 27 miles (43 km) southward to the mouth of the Calumet River, there are no streams flowing to Lake Michigan. Other than a limited number of stormwater sewers, there is no appreciable upland drainage that reaches the lake. This results from reversing the flow of the Chicago River, as well as to a combined sewer system that directs all sanitary, and essentially all stormwater away from the lake.

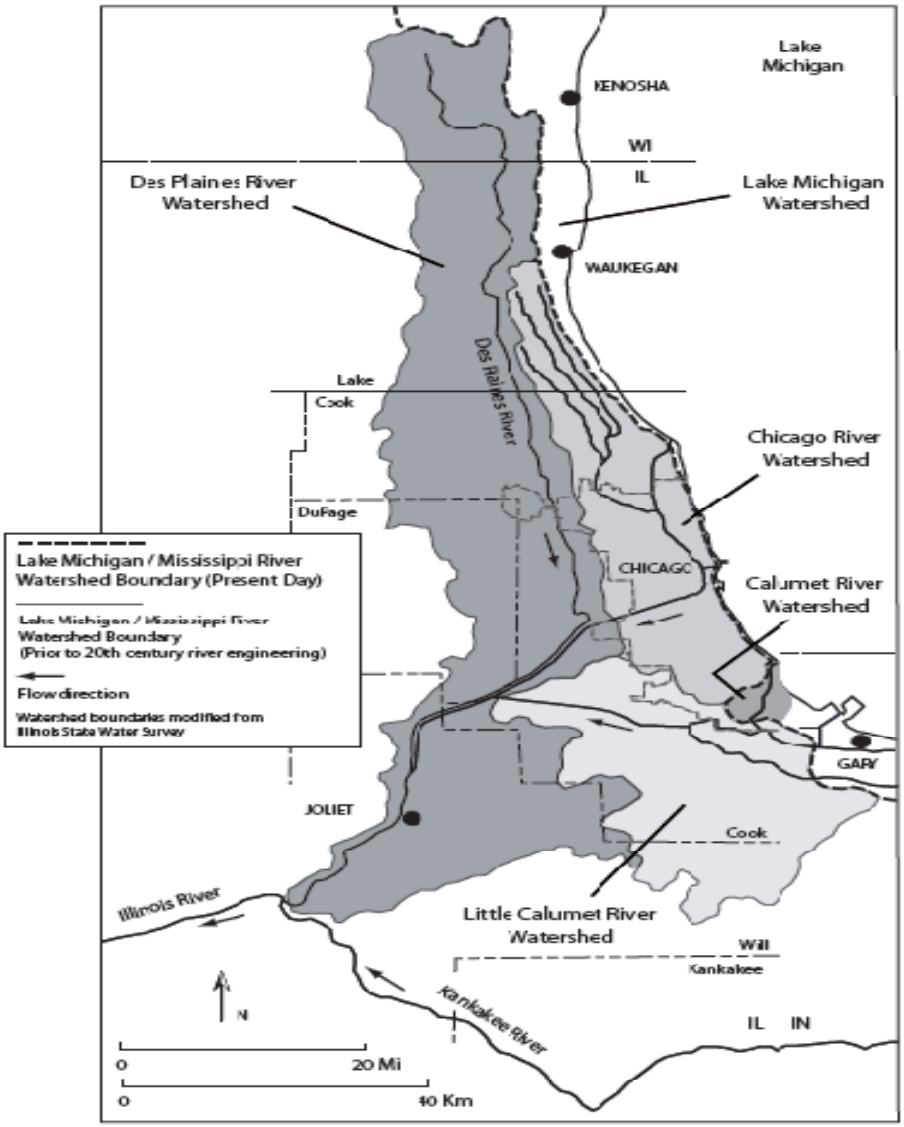

Figure 2-4. Five major watersheds are important to the historical and present-day surface drainage of the Chicago area. Prior to 20th century river engineering the Chicago River and Little Calumet River Watersheds discharged to Lake Michigan. Today they discharge to the Des Plaines River (modified from Chrzastowski 2005).

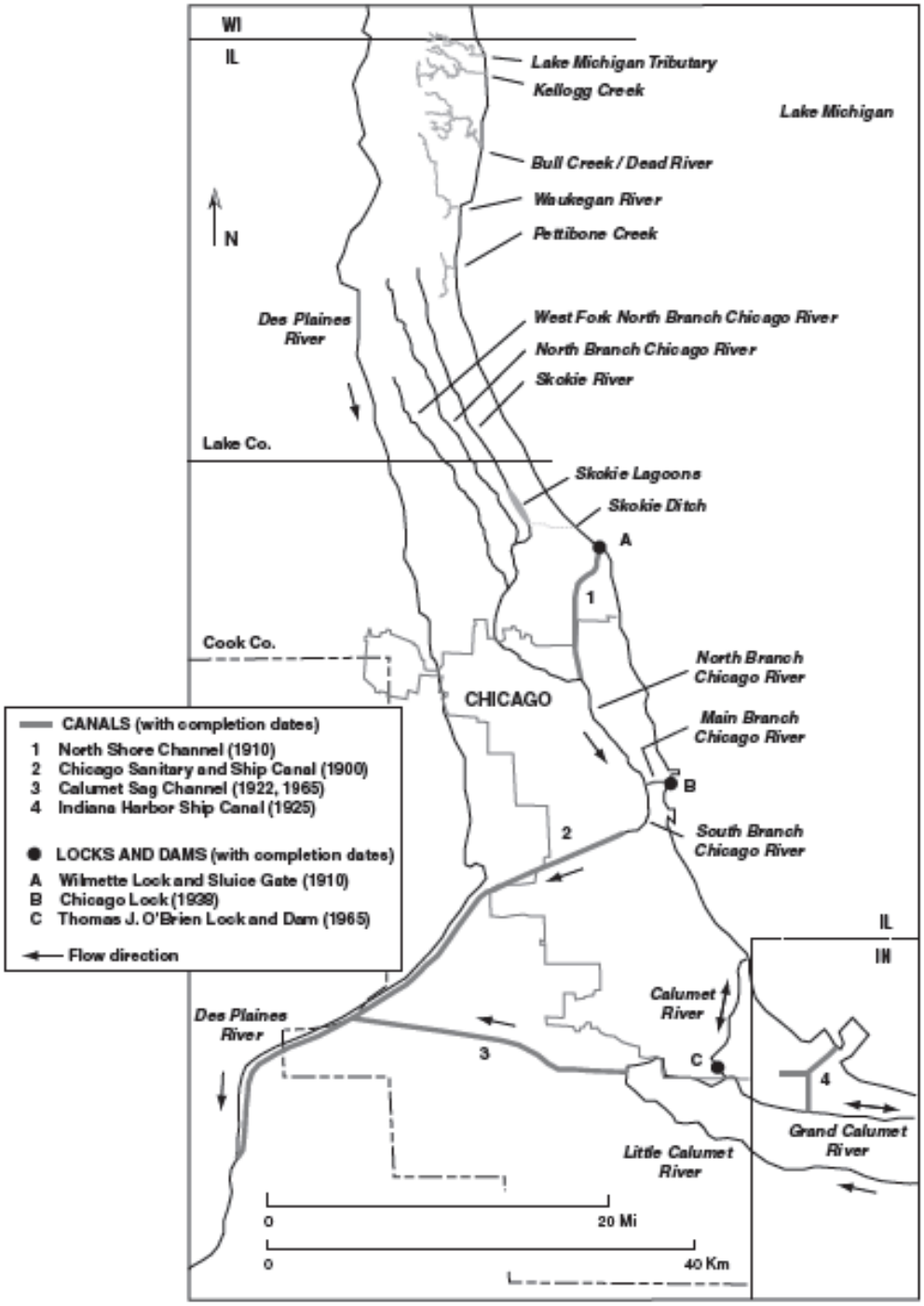

Figure 2-5. The rivers, streams, and waterways of the Chicago area and their flow directions result from a combination of glacial and coastal processes that shaped the landscape and 20th century river/canal engineering (modified from Chrzastowski 2005).

At the far southern end of the Illinois coast, the Calumet River provides drainage to Lake Michigan from Lake Calumet, Wolf Lake, and wetlands in the Lake Calumet/Wolf Lake area. The Calumet River primarily functions as a commercial waterway linking Lake Michigan with Lake Calumet, and provides the navigation link between Lake Michigan and the Little Calumet River.

In its natural setting, there were two river systems (Chicago and Calumet) draining most of the Chicago lake plain to Lake Michigan (Figure 2-4). Today the Chicago and Little Calumet Rivers flow away from Lake Michigan. The history of this river engineering is briefly discussed in the following two sections.

Engineering the Chicago River

In the mid-to-late 1800s, the Chicago River served as the main sewer for the city. Although this contaminated water discharged to Lake Michigan, the Lake was also the source of Chicago's potable water. The engineering solution to this water-quality issue was construction of the Chicago Sanitary and Ship Canal. Under the jurisdiction and management of the Sanitary District of Chicago (SDC), now known as the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), this project was completed in 1900. The 28 mile (45 km) canal links the South Branch Chicago River with the Des Plaines River. The canal provided for commercial river traffic as well as allowing gravity-driven reversed flow in the South Branch Chicago River, and the Main Branch away from Lake Michigan.

The 1900 river diversion had no influence on the dynamics of the North Branch Chicago River. Times of low flow on the North Branch limited the movement of sewage in that section of the river. In addition, there was a need to prevent sewage to the lake discharge from communities immediately north of Chicago. In 1910 the SDC completed the North Shore Channel. The channel intercepted combined sewer discharge from Evanston and Wilmette. A sluice gate separated lake and channel water while allowing lake water to be brought into the channel to increase the channel head and improve southward flow.

During times when river level was above lake level, the flow direction along the Main Branch could revert to flowing toward the lake. This problem was addressed in the 1930s by building bulkheads, and controlling works, in the vicinity of the Chicago River mouth to form a physical barrier between the river and the lake. The Chicago Lock was completed in 1938 to provide navigation to either side of this physical divide. Originally built by the SDC, the Chicago Lock is now operated by the United States Army Corps of Engineers (USACE).

Engineering the Little Calumet River

When the Lake Calumet area was settled in the early 1800s, the Little Calumet River flowed into Illinois from Indiana for about nine miles beyond the state line to where it hooked back toward the east. This eastward flowing segment of the river was joined by water draining from Lake Calumet to form the Grand Calumet River which continued east and discharged to Lake Michigan in what is now Gary, Indiana (Chrzastowski and Thompson 1994; Schoon 2003).

Where the Little Calumet River made its turn from west to east, the remnants of the glacial sluiceway led westward to the Chicago Outlet. This naturally occurring low area was used in construction of the Calumet Sag (or Cal-Sag) Channel. Built by the SDC and completed in 1922, this channel linked the Little Calumet River with the Chicago Sanitary and Ship Canal. Widening and other canal improvements occurred in 1965. This canal provides commercial navigation as well as diverting river flow of the Little Calumet River away from Lake Michigan. The physical barrier between Lake Michigan water, and water of the Little Calumet River, is the O'Brien Lock and Dam. The lock and dam, completed in 1965, is a facility of the USACE.

Lake Michigan Flow Diversion

The 20th century construction of the Chicago Sanitary and Ship Canal, and the Calumet Sag Channel, provided the opportunity for Lake Michigan water to be diverted to the Mississippi River system by way of these engineered waterways. These two waterways could function as an outlet for Lake Michigan and, if unregulated, flow volume would only be limited by the cross-sectional dimensions along these waterways. Flow management near the downstream end of the Chicago Sanitary and Ship Canal is controlled at Lockport.

The volume of Lake Michigan water that Illinois can divert through these waterways is limited by a decree of the U.S. Supreme Court (Wisconsin v. Illinois, 388 U.S. 426, 1967). Illinois is allowed to divert an average annual flow of 3200 cubic feet per second (cfs) which is 2.1 billion gallons per day. Illinois' diversion consists of three primary components: water supply, direct diversion and stormwater runoff.

Shoreline Change

- General

  Coastal engineering has altered or influenced changes along nearly all 63 miles (101 km) of the Illinois coast. The only remaining shoreline segments free of any shore-protection structures are a three mile (5 km) reach in the South Unit of Illinois Beach State Park, and adjoining shore to the south, as well as a few isolated locations along the bluff.

  The most extensive historical shoreline change along the Illinois coast has occurred along the Chicago shoreline. Other areas of major historical shoreline change along the Illinois coast are at the north and south ends of the Zion beach-ridge plain respectively, near North Point Marina and Waukegan Harbor, and the area at and near Lake Calumet.

- Chicago Lakeshore

  Shoreline change along the Chicago lakeshore began in 1833 with the entrapment of littoral sand against the north jetty at the Chicago River mouth. By 1869, nearly 70 acres of sand had accumulated had north of the north jetty.

In the late 1800s, there was continued filling to make land in the vicinity of the Chicago River mouth primarily for rail and maritime commerce. There was also growing interest in making new land for lakeshore parks. Chicago has a unique history among coastal cities in the planning and execution of extensive projects to build new shore land and shape the urban shoreline for public use (Wille 1972).

The building of a park-dominated shoreline required constructing a new shoreline further in the lake, armoring this shoreline to prevent erosion, and building harbors and beaches at select locations. More than 5.5 square miles (14 km^2) of Chicago's lakefront land resulted from the late 19th and early 20th century lakeshore construction (Figure 2-6). Nearly all of the fill material was sand or clay either mined from the lake bottom or from dune deposits along the Indiana shore (Chrzastowski 1991). A second generation of lakeshore construction began in the 1990s. This was needed to replace the original generation of timber and stone shore protection with steel sheetpile and reinforced concrete.

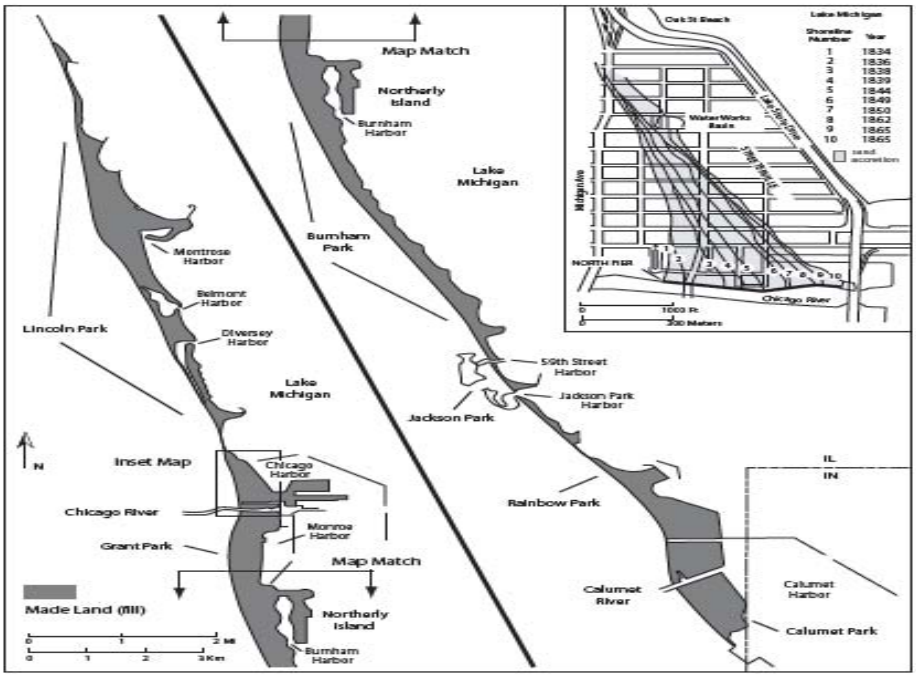

Figure 2-6. Historical shoreline change along the Chicago lakeshore has involved extensive lakefilling to make new land with a sculptured shoreline. The earliest historical shoreline change occurred in the vicinity of the Chicago River resulting from sand accretion against the historic North Pier jetty built between 1833 and 1844 (modified from Chrzastowski 1991).

- North Point Marina Vicinity

North Point Marina is a state-owned and operated, 1500-slip marina on the Lake Michigan shore just south of the Illinois-Wisconsin state line. The marina was constructed between 1987-1989. It is built along a shoreline that has the most severe erosion recorded along the Illinois coast (Figure 2-

7A). Shoreline recession has occurred at a long-term average rate of about 10 feet (3 m) per year (Chrzastowski and Frankie 2000). Prior to the State of Illinois acquiring this land in the 1970s, private residential property occupied the area (Bannon-Nilles 2003).

- Waukegan Harbor Vicinity

  Contrasting with the net erosion at the north end of the Zion beach-ridge plain near North Point Marina is the net accretion near the south end of the sand plain in the vicinity of Waukegan Harbor (Figure 2-7B). The USACE became involved in constructing a harbor at Waukegan in 1852 and completed a harbor project in the 1880s. The present harbor footprint results from expansion and reconstruction that occurred between 1902 and 1906 and additional improvements built between 1930 and 1932 (Bottin 1988). In 1984, the municipal Waukegan Marina was constructed on the south side of the original harbor complex.

- Lake Calumet Vicinity

  Lake Calumet and the surrounding Calumet area have had substantial shoreline, river line and wetland modification as the landscape of this area was shaped and reshaped for industry, commerce and port facilities (Schoon 2003). Filling on the perimeter of Lake Calumet has reduced the present (1997) lake area to about 52 percent of what existed in the late 1890s (Figure 2-8). Filling has occurred on the margins of Wolf Lake, and all of former nearby Hyde Lake has been filled. River engineering has straightened and repositioned segments of the Calumet River. Unlike much of the filling along the Chicago lakefront which used sand and clay, slag from steel mills was a major component in much of the filling in the Calumet area (Kay *et al.* 1997).

- Other Notable Shoreline Modifications

  The lakeshore municipalities north of Chicago each have municipal parks, and beaches along the shore. Many also have waterworks facilities, several of which are adjacent to parkland. Limited usable land at the base of the bluffs resulted in lake filling for parks or public utilities. These are typically localized shoreline modifications that are no more than a few acres. The following describes the three largest lake fillings north of Chicago.

- Evanston - Northwestern University*:* Lakefilling for the construction of 73 acres of new land for a Northwestern University campus occurred in the 1960s.

- Wilmette – Gillson Park*:* The 1907-1909 excavation of the North Shore Channel provided clay fill for construction of about 30 acres of land for Gillson Park.

- Forest Park – Forest Park Beach: This 22-acre park facility completed in 1987 includes a system of offshore breakwaters, beach cells, a boat basin, parking, and parkland.

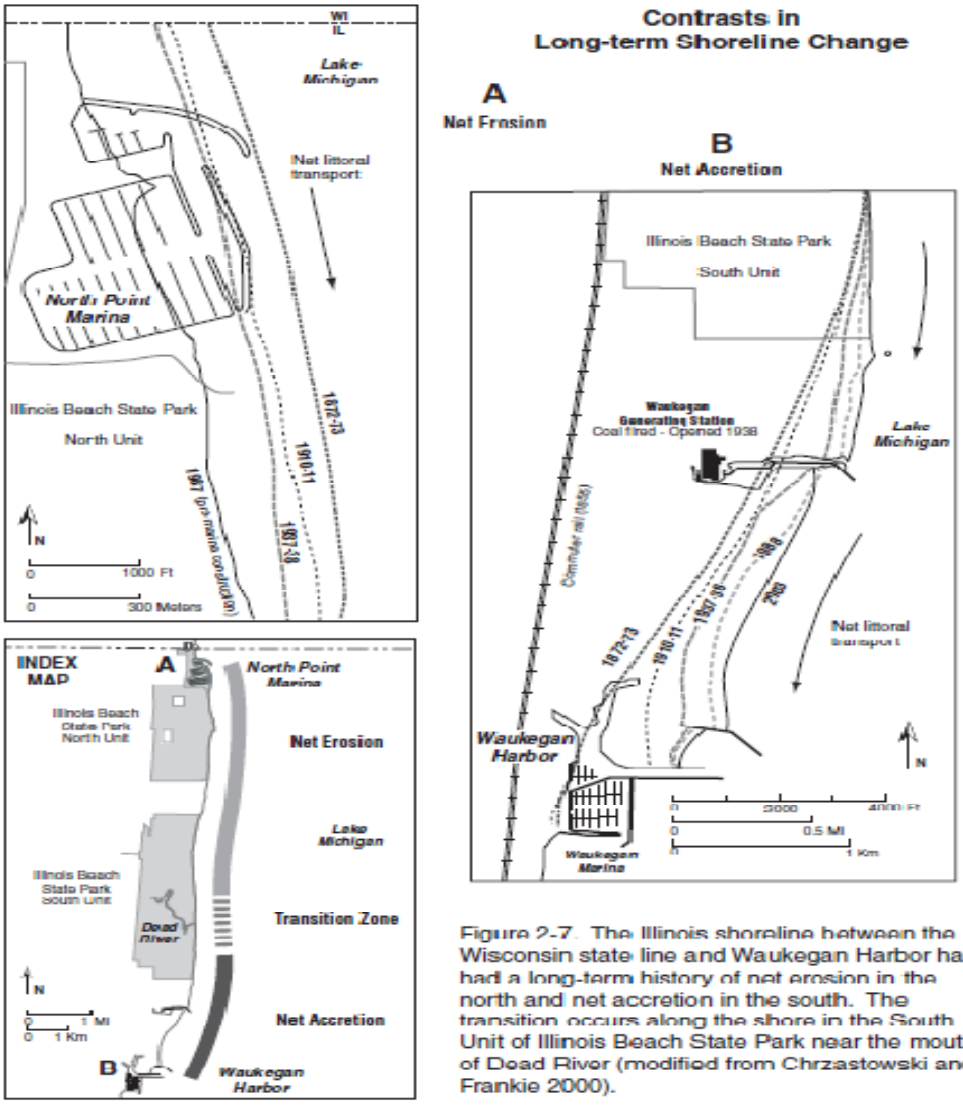

Figure 2-7. The Illinois shoreline between the Wisconsin state line and Waukegan Harbor has had a long-term history of net erosion in the north and net accretion in the south. The transition occurs along the shore in the South Unit of Illinois Beach State Park near the mouth of Dead River (modified from Chrzastowski and Frankie 2000).

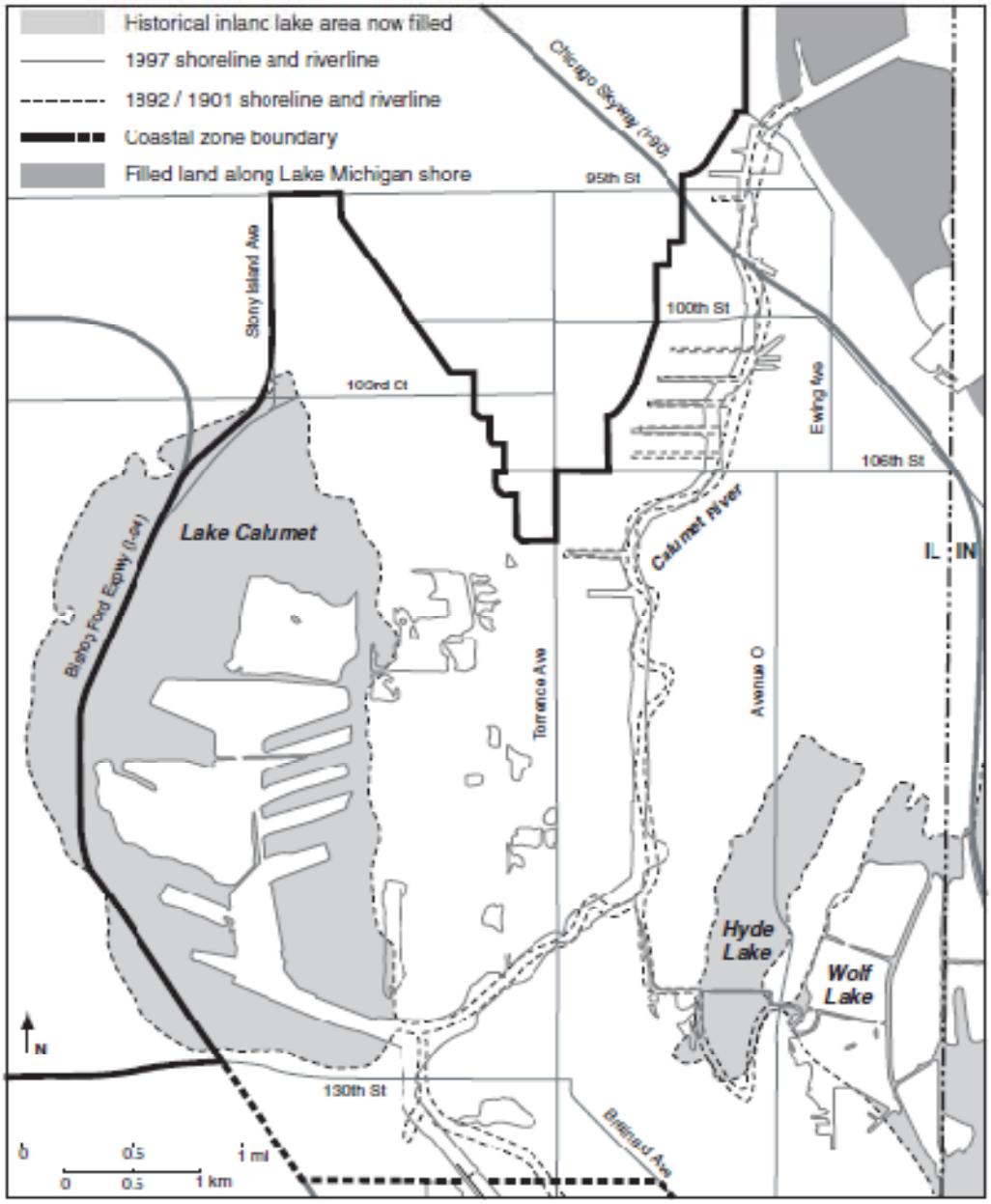

Figure 2-8. Comparison of present-day (1997) and historical shorelines, riverlines and lake area in the vicinity of Lake Calumet (map data from U.S. Geological Survey 1892; 1901; 1997).

3

Defining the Illinois Coastal Zone Boundary

The ICMP coastal zone boundary is a distinct line that defines the perimeter of the land and water area. This is the area which the management, planning, and public education programs apply, as well as the program's financial, and technical assistance. The coastal zone boundary extends across the open-water of Lake Michigan (the lakeward boundary), and an inland boundary on land that defines the most landward extent of the coastal zone.

Federal Requirements and Guidelines

The federal Coastal Zone Management Act (CZMA) provides regulations and guidance on how coastal states define both the lakeward (or seaward) boundary, and the inland boundary of its coastal zone. For the Great Lakes states, the lakeward boundary of a state's coastal zone is the international boundary with Canada, or the state line boundaries with adjacent Great Lake states (15 CFR 923.32). Illinois does not touch on the international boundary, but within the open water area of Lake Michigan, the Illinois state line adjoins the state line boundaries of Wisconsin, Michigan and Indiana.

Federal regulations for the inland boundary require that this line include those areas for which management is necessary because of direct or significant impact on coastal locations (15 CFR 923.31). Most importantly, the inland boundary must be clear, and exact enough to permit determination of whether a property or activity is located within the boundary area.

Federal guidelines recognize that urban coastal areas may have significantly altered shorelines and coastal landscapes, and within urban coastal settings the natural system relationships between land and water may be extremely difficult (or impossible) to define in terms of direct and significant impacts. In such cases, the federal guidance suggests the boundary be based on consideration of sewage discharge and urban runoff (15 CFR 923.32).

For the Illinois coast, sewage discharge, and urban runoff, are important factors in defining the inland boundary along much of the Cook County lakeshore. The federal guidelines for highly urbanized areas also note that states should consider the dependency on water access, and visual relationships, for determination of the inland boundary. Along the urbanized coast of Illinois, several inland waterways provide primary boating access to Lake Michigan, and some inland parks have a green-space connection to the lakeshore. This guidance concerning water access and visual relationships has been critical in defining the Illinois inland boundary.

Requirement for Excluded Land and Water Areas

An additional federal requirement is that the state program exclude lands that are owned, leased, held in public trust, or whose use is otherwise subject solely to the discretion of the federal government, its officers, or agents (15 CFR 923.33). The exclusion of federally owned or leased lands does not exempt activities occurring on those lands from CZMA federal consistency requirements (detailed in Chapter 11). The exclusion does not prevent the state coastal program from forming partnerships and

coordinating with federal agencies that own or lease land in a state's coastal zone, but the state program cannot award grants to the federal agencies.

The Illinois coastal zone excludes all federal sites including buildings, post offices, Coast Guard installations, federally-owned breakwaters and a variety of other localized federally-managed property.

These localized properties are generally too small to be identified on the maps in this document. However, the U.S. Navy's Naval Training Center Great Lakes (NTCGL; also called Great Lakes Naval Training Center) is identified. This approximately 1600-acre facility is located along the Lake County section of the Illinois coast and is bordered by the City of North Chicago to the north and the Village of Lake Bluff to the south. The training center includes a breakwater-defended harbor.

In addition, the U.S. Navy also has land for housing about 6.5 miles south near the City of Highwood that had been part of the former U.S. Army's Fort Sheridan, and The U.S. Army Corps of Engineers also has land in Chicago near the Chicago Lock.

Framework for the Illinois Coastal Boundary

During workshops held to define the inland coastal boundary the state identified three framework criteria. These criteria are consistent with the federal regulations and guidance previously discussed.

- A desire to use a watershed approach. This was to assure that all land area having surface water drainage to Lake Michigan was within the coastal zone.
- The advantage of using the regional transportation network. Roads, streets, highways and railroad right-of-ways provide an easily definable and recognizable boundary.
- The engineering history and modification of this coast.

The third criterion is particularly important. The Illinois coast has been urbanized and engineered to a degree far greater than the coast of any other Great Lake state. Along substantial reaches of Illinois, the shoreline has been reshaped from its natural form; some type of shore protection has been installed; the natural watershed drainage to Lake Michigan has been dramatically altered, and, with few exceptions, urban or suburban land cover dominates. The benefit of the urbanized setting is the opportunity to use the transportation grid to define the inland coastal zone boundary. A challenge was to not only consider the Lake Michigan watershed of present day, but also put this in context of the watershed in the natural setting prior to river engineering.

Illinois Coastal Zone Boundary Public Input

The process for defining the Illinois coastal zone boundary involved three stages of discussion with government representatives and the public. Early in the process IDNR determined that using a watershed approach would be the most practical and effective. The details as to how the watershed would be defined would be decided through public meeting and discussion. IDNR also recognized that the Chicago and Little Calumet River systems were historically part of the Lake Michigan watershed, but had been removed from the watershed by river engineering in the 20th century. One of the subjects for

public input was the issue of how these inland waterways would or would not be addressed by the coastal zone boundary.

The first phase of boundary discussions involved meetings in late winter and spring 2005 between IDNR and representatives of each coastal municipality. Municipal representatives included elected officials, as well as municipal engineers, and managers. These meetings resulted in a consensus for using a watershed approach, and for using streets as much as possible to identify the boundary.

In locations where an undulating topography resulted in a convoluted trace for the watershed boundary, representatives of those municipalities agreed that simplifying a boundary along the nearest arterial street would be most practical. This provided a common use of Green Bay Road as the coastal zone boundary through most of Lake County and into northern Cook County. For the municipalities of Winnetka, Kenilworth, Wilmette, Evanston and Chicago, there was agreement that the watershed criteria would require a boundary in close proximity to the lakeshore, but that boundary needed to assure inclusion of all lakeshore public land.

This first phase of boundary discussions with the lakeshore municipal representatives included discussion of the Chicago and Little Calumet River systems and how these related to the goals, benefits, and future applications of the ICMP. Agreement that there were clear benefits for including these inland waterways in some way led to additional meetings with representatives from the municipalities of Skokie and Lincolnwood which include the North Shore Channel, and the South Suburban Mayors' Conference which represents municipalities along the Little and Grand Calumet Rivers. Additional meetings were held with representative of the City of Chicago as well as the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) which has management responsibilities along these waterways.

Following these meetings, the IDNR prepared a set of large-scale (1:24,000) map displays that covered the entire Illinois coast and showed the line for the proposed boundary. These maps were prepared for the second phase of the boundary-decision process, and a series of four, geographically divided, and advertised public workshops were held during July 2005 (Waukegan, Highland Park, Chicago-Loyola University, and the Calumet area). The map displays showed the proposed boundary and the names of all streets or other geographic references that defined this line. Companion displays showed the lakeward boundary in Lake Michigan, and how the proposed Illinois boundary compared to existing boundaries in the neighboring states of Wisconsin and Indiana. The map displays included a preliminary proposed street-defined corridor that provided for coastal zone inclusion along the inland waterways.

At each of these July 2005 public workshops, the IDNR provided a presentation describing the rationale for the proposed boundaries and inclusion of the inland waterway corridors. To address local interests, a detailed description was provided of how the boundary was defined in the geographic area of the meeting site. The workshops provided a forum for public discussion and also provided a catalyst for written comments to the IDNR concerning the boundary. Several follow-up meetings or communication occurred with representatives of several municipalities to refine local boundaries.

Input regarding the preliminary proposed boundaries was the means for preparing boundary maps for a second round of workshops held in November 2005 at the same four geographic locations used in July. For the November 2005 workshops, the boundary maps were incorporated as a series of 15 page-size maps that allowed both paper distribution and posting as portable document files (pdf) on the IDNR web site. These maps showed the proposed boundary and the names of all boundary streets or other cultural features. The maps included both the lakeshore inland boundary and the boundary defining the inland waterways. The November workshops provided additional opportunities for discussion and boundary refinement.

The inclusion of the inland waterways was the most intense topic discussed by workshop participants. Comments and support in favor of including these corridors as part of the Illinois coastal zone exceeded the number opposed. Opposition focused on the issue that the primary basis for defining the inland boundary was the Lake Michigan watershed. The point was made that these inland waterways, although historically part of that watershed, were no longer capable of discharge to Lake Michigan because of the early 20th century river engineering. Counter-points were made that because the locks provide connection between these rivers and Lake Michigan, and because of the history of opening the lock gates during time of heavy precipitation and runoff, these waterways have at times discharged to the lake and have contributed to major water quality issues along parts of the lakeshore. Recreational boat launching emerged as the primary reason for inclusion of the inland waterways.

Letters favorable to inclusion of the inland waterway corridors were received from the MWRDGC, which has management responsibilities along these waterways, as well as the South Suburban Mayors' Conference which wrote on behalf of the municipalities along the proposed corridor proposed for the Little Calumet and Grand Calumet Rivers. A letter opposed to inclusion of the inland waterways from an environmental group addressed the watershed issue and concern as to how inclusion of the inland waterways would diminish the total available funding for lakeshore projects.

The November 2005 workshops and subsequent communications resulted in the discussion of several compromise options for inclusion of the waterways. One proposal was to have a project evaluation process giving lesser weight to inland waterway projects compared to projects along the Lake Michigan coast. Another proposal was to restrict any projects along the inland waterways in the first four years of the Illinois coastal program when funding ratios are most favorable for the federal cost share. However, the final majority decision was that if these inland waterways are part of the program, any proposed projects along these corridors should be equally considered with any along the coast or within the Lake Michigan watershed. Acceptance or rejection of a proposed inland waterways project should be determined purely by an evaluation of its merits.

A Two-Component Inland Boundary

Consideration of landscape, watershed, and both coastal and river engineering results in the Illinois coastal zone having a two-component designation for an inland boundary. The *Lakeshore Boundary* defines the landward limit of the coastal zone inland, and is generally parallel to the Lake Michigan shoreline. This boundary is based on the Lake Michigan watershed as it has existed since the early 1900s. Thus this boundary excludes land areas that historically were part of the Lake Michigan

watershed but are now outside of this watershed. These areas were removed from the Lake Michigan watershed due to the historical changes in flow directions along the Chicago, Little and Grand Calumet River systems, as well as urbanization, paving, and directing of storm-water sewers away from Lake Michigan.

The other component of the inland boundary consists of a coastal zone corridor that extends along the near-lake segments of the river systems that historically flowed to Lake Michigan but are now engineered to flow away from the lake. These corridors are referred to as the *Inland Waterway Corridors* of the Illinois coastal zone. The boundary that defines these corridors is referred to as the *Inland Waterway Boundary*. The inland waterway corridors consist of both the waterway, and designated land area to either side of the waterway.

The inland waterway boundary meets the requirements of the federal regulations and guidelines for the inclusion within the coastal zone of rivers (waterways) on which uses may have direct impacts on the coastal waters. Water access and visual relationships link these waterways with the Lake Michigan coast. These waterways also have a transitional role between the Great Lakes watershed and the Mississippi River watershed. The Inland Waterway component of the Illinois coastal zone includes select segments of the Chicago River system (North Branch, South Branch, Main Branch and North Shore Channel) and select segments of the Little Calumet and Grand Calumet Rivers.

Lakeward Extent of the Illinois Coastal Zone

The lakeward extent of the Coastal Zone reaches to the Illinois state line, across the open water area of Lake Michigan. Within Lake Michigan, the Illinois state line adjoins the state boundaries of Wisconsin to the north, Michigan to the east, and Indiana to the south (Figure 3-1). The limits of this open-water area are defined by the geographic coordinates for the three points at the corners of this polygonal offshore area:

- Northeast corner Lat 87° 1’ 20” Long 42° 29’ 35”

  (Junction of Illinois, Wisconsin and Michigan)

- Southeast corner Lat 87° 12’ 38” Long 41° 45’ 36”

  (Junction of Illinois, Michigan and Indiana)

- Southwest corner Lat 87° 31’ 35” Long 41° 45’ 36”

  (Junction of Illinois and Indiana)

The Illinois area of Lake Michigan covers 1,564 square miles. The maximum offshore distance, measured along an east-west line, is about 40 miles at the north end of this lake area along the Illinois and Wisconsin state line. At the south end, along an east-west line corresponding to the Illinois and Indiana state line, the offshore distance is about 17.5 miles.

The narrowest part of this offshore area occurs along the far south Chicago shoreline in the vicinity of Calumet Harbor (Figure 3-2). Here the proximity of the shoreline to the Illinois and Indiana state line results in an offshore coastal zone, at most, about one mile wide to the east of Rainbow Park. Along the shoreline south of the mouth of the Calumet River, along filled land for former port/industrial use and for Calumet Park, the shoreline intercepts the state line. Where this intercept occurs, the shoreline is the boundary for the Illinois coastal zone, and there is no Illinois coastal zone extending into Lake Michigan.

Procedures in Defining the Inland Coastal Zone Boundary

Streets, roads and highways are the primary features used in identifying the inland boundary along both the lakeshore component and the inland waterways component. Although roads are the primary boundary designation, in some settings the location or orientation of roads relative to the most desirable and effective boundary dictated the use of alternates. These alternates are railroad right-of-ways, projections of road alignments beyond the termination of the road, a municipal boundary and, in a few cases, the platted boundaries between parkland and adjacent private property. The following details how the boundary is defined in its various forms:

- Use of Streets and Roads:

  Along all designated streets, roads and highways, the boundary is the center of the street, road or highway. In some cases, this may correspond to a painted center line.

- In other cases where there are center planters, turn lanes or some other type of structure or feature that separates the two directions of traffic flow, the boundary is defined so that it is positioned equidistant from the two margins of the roadway.

- Use of Railroad Right-of-Ways:

  Where a railroad right-of-way is used for the coastal zone boundary, the boundary corresponds to the property line along the outer edge of the railroad right-of-way. Thus the actual right-of-way is not part of the coastal zone.

- Use of Road Projections:

  Where the boundary is defined by a projection between two streets or roads, the projection is a straight line between the center of each of the streets or roads where the projection begins and ends.

- Use of Bridges:

  Boundaries along the Inland Waterways include boundaries along bridges that cross these waterways. The boundary is the bridge center and is vertically projected downward to the waterway as well as to any land area beneath the bridge.

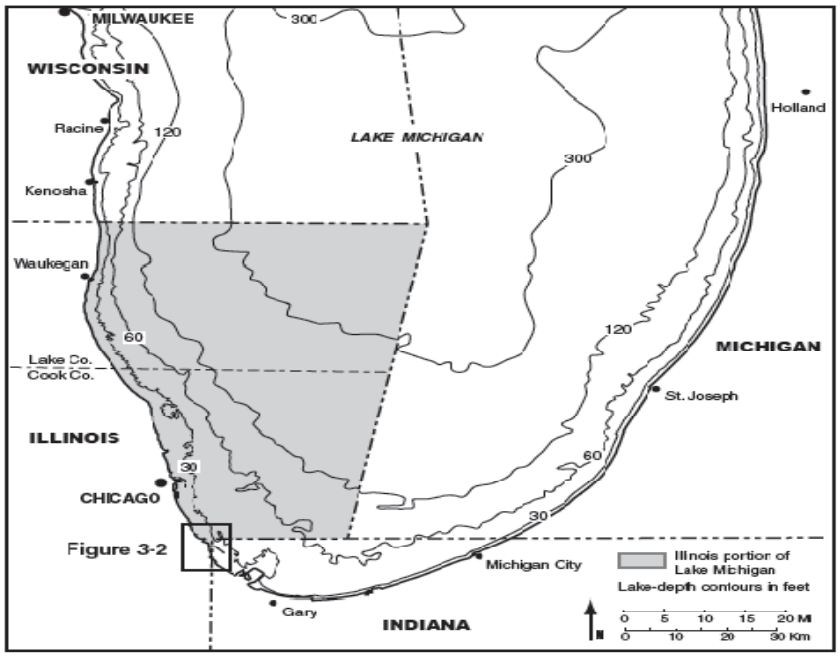

Figure 3-1. The Illinois coastal zone includes the Illinois portion of the water area and lake bottom of Lake Michigan. This offshore area is 1560 square miles.

Figure 3-2. The lakeward extent of the Illinois coastal zone has its minimum width along the north-south segment of the Illinois-Indiana state line.

- Interface Between Lakeshore and Inland Waterway Boundaries:

  Where the lakeshore coastal zone interfaces with the corridors of the inland waterways, the boundary along the interface serves to distinguish these two components of the coastal zone, but the coastal zone is continuous across the interface. On the maps the interface is depicted by a dashed line rather than a solid line.

Coastal Zone Boundary Map Organization

Appendix B contains a set of 15 maps that show the detailed landward boundary of the Illinois coastal zone with all roads or other boundary features clearly identified. Maps 1 through 10 cover the lakeshore boundary, and maps 11 though 15 cover the corridors of the inland waterways. The maps are arranged in an overall north to south progression.

Figures 3-3, 3-4, 3-5, and 3-6 serve as index maps showing the extent of coverage for each of the 15 maps contained in Appendix B. These four figures provide coverage on a county basis (Figures 3-3, 3-4, and 3-5) or coverage based on the extent of the inland waterways (Figure 3-6). Discussion of the coastal zone boundary progresses geographically from north to south and includes the corresponding map number. To view the map details discussed in the text requires referencing the maps in Appendix B. The second part of Appendix B contains a street-by-street description of the boundary.

Coastal Zone Boundary Description

- Lake County (Figure 3-3; Maps 1 through 5)

  From the Illinois-Wisconsin state line southward for about 29 miles to southern Lake Forest, the coastal zone boundary follows Green Bay Road (Maps 1 through 4). Along this entire reach Green Bay Road is built at or near the crest of the Highland Park Moraine, thus approximating the watershed boundary between the Des Plaines watershed to the west and the Lake Michigan watershed to the east.

  In southern Lake Forest, Green Bay Road intercepts Westleigh Road which serves as a half mile east-west jog along the coastal zone boundary (Map 4). South of the Westleigh Road jog the arterial route has some local name variations such as Sheridan Road, where passing the former site of Fort Sheridan, and Waukegan Avenue, through the Highwood business district. South of Highwood, Green Bay Road is the coastal zone boundary for another three and a half miles southward, through the Highland Park business district, and southward to the Lake-Cook County line (Map 5).

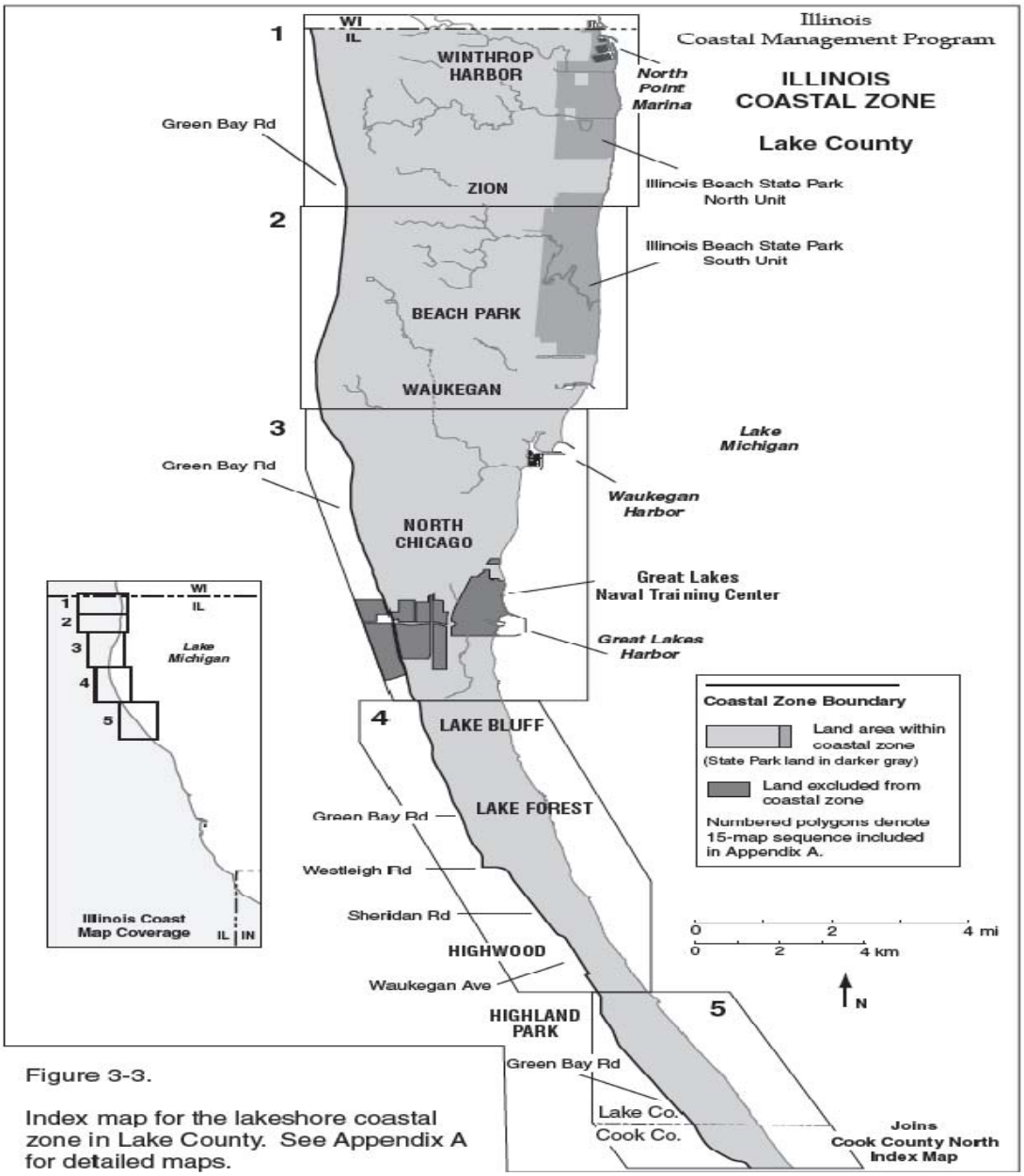

Figure 3-3.

Index map for the lakeshore coastal zone in Lake County. See Appendix A for detailed maps.

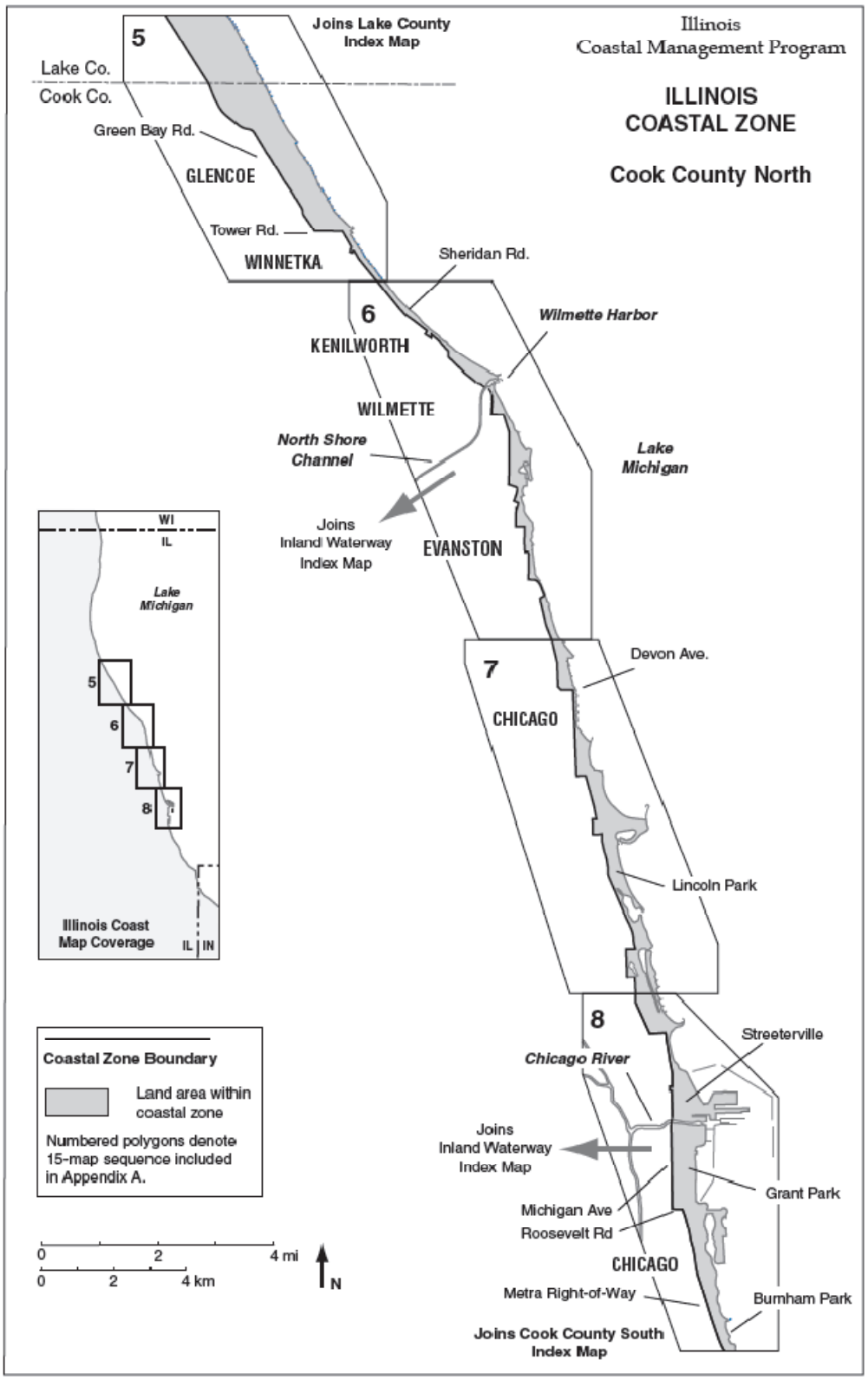

Figure 3-4. Index map for the lakeshore coastal zone in northern Cook County. See Appendix A for detailed maps.

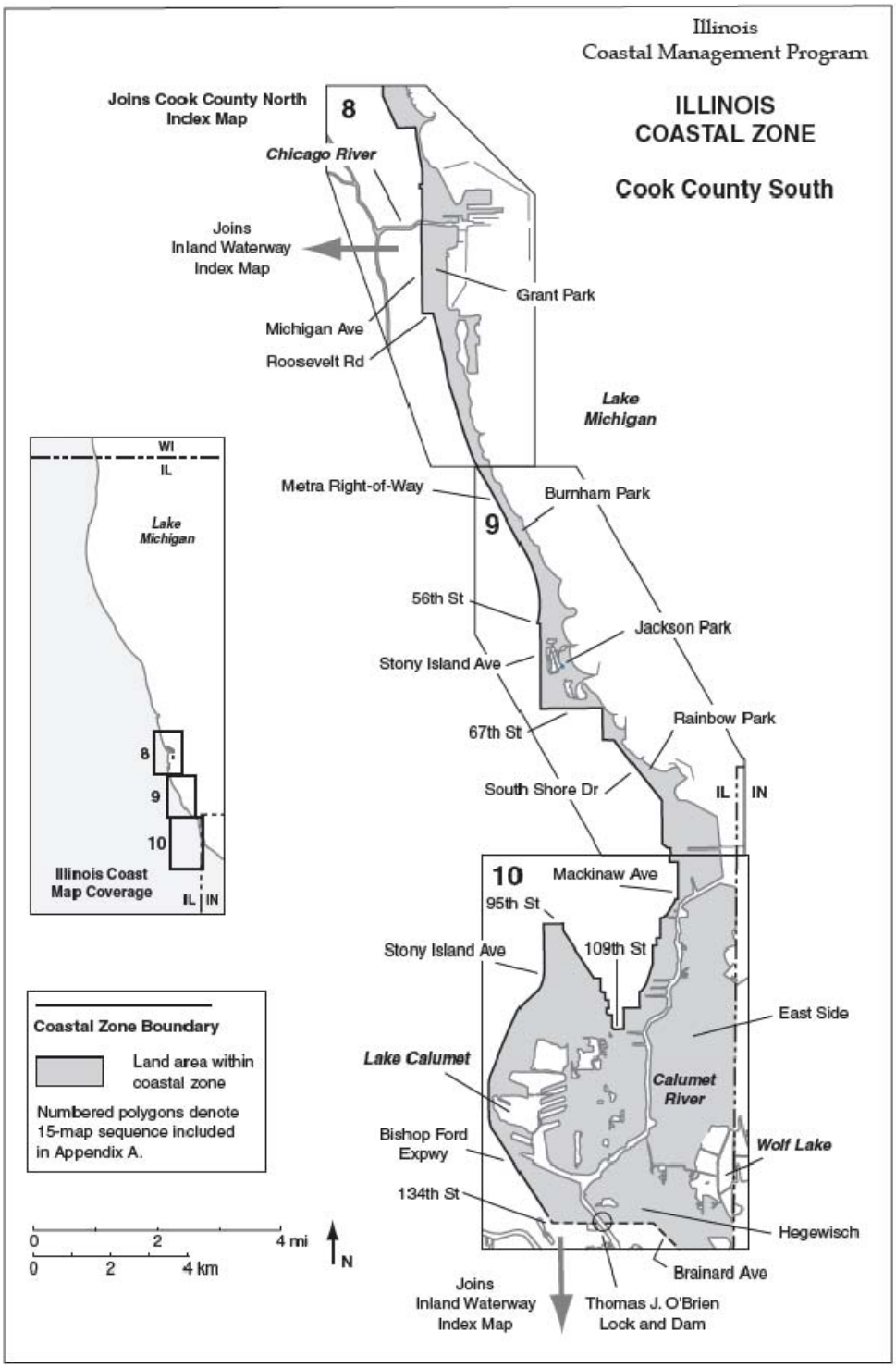

Figure 3-5. Index map for the lakeshore coastal zone in southern Cook County. See Appendix A for detailed maps.

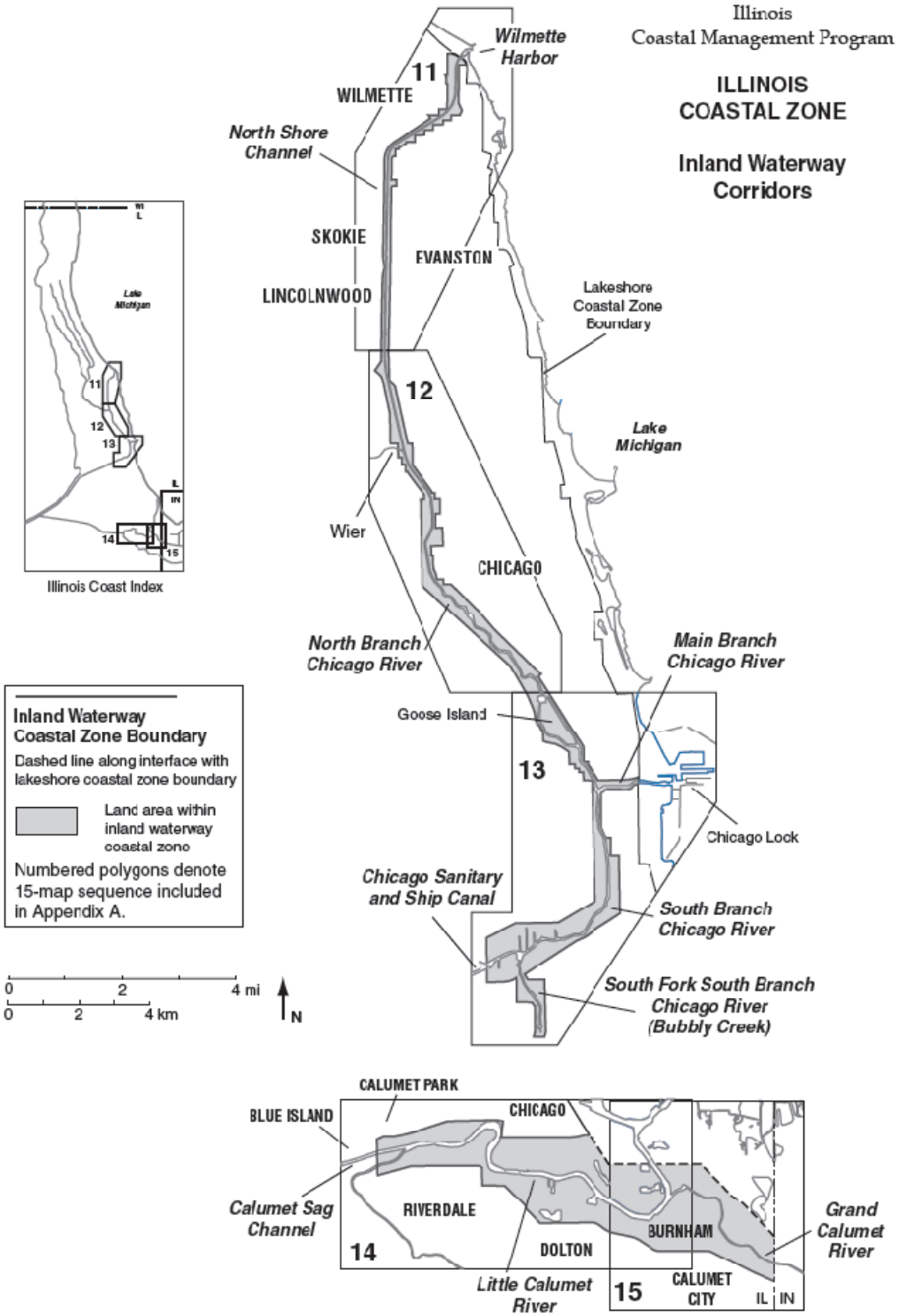

Figure 3-6. Index map for the inland waterway coastal boundary along the Chicago and Little/Grand Calumet River systems. See Appendix A for detailed maps.

This designated coastal zone boundary through Lake Bluff, Lake Forest, Highwood and Highland Park assures that the ravines of this coastal reach are within the coastal zone. These ravines provide intermittent drainage to Lake Michigan and pose coastal management challenges.

- Cook County North (Figure 3-4; Maps 5 through 8)

From the Lake-Cook County line progressing southward, the coastal zone boundary follows Green Bay Road through Glencoe into northern Winnetka, to the intersection with Tower Road. Tower Road provides a half mile east-west jog between Green Bay Road to the north and Sheridan Road to the south. North of Tower Road, the boundary along Green Bay Road is necessary for the coastal zone to incorporate the most landward reaches of the ravines that bisect the North Shore bluffs; south of Tower Road, there are no ravines.

Sheridan Road is the first arterial road inland along the shore from Winnetka, through Kenilworth, Wilmette, Evanston, and continuing southward to Chicago's far north side. Sheridan Road serves as the inland boundary along this reach.

Storm-water outfalls provide some discharge to Lake Michigan south of Tower Road, but these are limited in number. Combined sewers dominate, and prevent most of the upland surface drainage from reaching the lake. The watershed boundary southward from Tower Road is complex and not always easily defined. In some locations, the watershed boundary is essentially along the upper limits of the beaches, or along the upland limits where surface runoff can avoid being intercepted by a combined sewer, and instead continue overland to reach the beach or lake.

These abundance of lakeshore parks and public land along this segment of shore and arterial streets, along the landward limit of the parks and public land, provided a means to define a workable functional boundary. The boundary is defined along the first arterial road inland from the shore, if this includes all lakeshore parkland. Otherwise the boundary is adjusted further inland to an alternate street to assure that no parkland or public land is isolated on the landward side of the boundary.

The SE land adjustments in boundary lines account for "dog ears" that occur along the otherwise coast-parallel boundary. For example, in Winnetka an adjustment from the boundary along Sheridan Road occurs along the western perimeter of Maple Street Park, which straddles Sheridan Road (Map 5).

On the north side of the Chicago River (Map 8), the boundary along North Michigan Avenue includes the Streeterville community, which is predominantly private property. The North Michigan Avenue boundary allows inclusion of Lakefront Park, and public land within the central part of Streeterville that provides a visual and recreational connection to Lake Michigan. The inclusion also recognizes the unique coastal history of Streeterville, much of which resulted from the 1833 – 1869 sand accretion against the jetty built on the north side of the channel leading to, and from, the Chicago River. A dog ear on the boundary on the west side of North Michigan Avenue provides inclusion of parkland at the historic Chicago Water Tower which survived the Great Chicago Fire of 1871.

- Cook County South (Figure 3-5; Maps 8 through 10)

  On Chicago's south lakeshore, beginning at the south end of Grant Park at Roosevelt Road and continuing southward, the coastal zone boundary follows the right-of-way for the Metra railroad (former Illinois Central Railroad) (Maps 8 and 9). The right-of-way approximates the natural shoreline that existed prior to filling in the late 1800s and early 1900s to create land for Burnham Park. At 56th Street, the boundary jogs east to Stony Island Avenue which bounds the west side of Jackson Park.

  South of Jackson Park, the boundary follows the arterial route along Chicago's far south lakeshore. On the south end of Mackinaw Avenue, the boundary reaches to one city block of the Calumet River at the Ewing Avenue Bridge (Map 10). Here the boundary turns inland, away from the lakeshore, because the Calumet River and adjacent Lake Calumet have direct hydrologic connection to Lake Michigan and therefore water flows freely between these water bodies. The procedure used to define the boundary was to use the first street or road (or first arterial) inland from either the west bank of the river or the river slips.

  All land, wetland, and water area between the Calumet River and state line is within the lakeward coastal zone boundary. This provides inclusion of Wolf Lake and Indian Creek which connects Wolf Lake to the Calumet River as well as the Hegewisch Marsh and other wetland areas. This also provides an interface with the Indiana coastal zone on the Indiana side of the state line. The Chicago communities included in this area between the Calumet River and the state line are: East Side, and Hegewisch.

  The lakeward coastal zone boundary of the Calumet area intercepts the Inland Waterway corridor that extends along the Little and Grand Calumet Rivers. This intercept includes the Thomas J. O'Brien Lock and Dam, which separates water of the Calumet River to the north and water from the Little Calumet River to the south. The 134th Street/Brainard Avenue boundary is an approximation of the Lake Michigan watershed boundary across this area, as it is defined on the Illinois side of the Illinois-Indiana state line. Powder Horn Lake, and the adjacent Burnham Woods Forest Preserve are therefore included in the Lake Michigan watershed portion of the coastal zone.

Inland Waterway Coastal Zone Corridor Description

The Inland Waterway components of the coastal zone are corridors that contain the waterway, and land to either side of the waterway. These corridors are centered on select segments of the North Shore Channel, North Branch Chicago River, Main Branch Chicago River, South Branch Chicago River, Little Calumet River, and the Grand Calumet River. The Inland Waterway corridors intercept the lakeshore coastal boundary at three locations: 1) in Wilmette along Sheridan Road near Wilmette Harbor; 2) in the Chicago downtown area where Michigan Avenue crosses the Chicago River; and 3) in the Calumet area in far southeast Chicago and in Burnham.

Defining the coastal zone boundary to either side of the corridor was based on selecting the first through street inland from the waterway or the first arterial, if this provided a more readily defined boundary. The boundary was selected to assure that any existing parkland or public land adjacent to the inland waterway was included in the corridor, and no parkland or public land would be excluded.

- North Shore Channel (Figure 3-6; Maps 11 and 12)

  The North Shore Channel corridor has the most extensive and contiguous parkland and public space of any of the inland waterways. Besides the streets that define boundary lines, several alternate means of boundary definition were necessary because of the absence of through streets in three locations.

  In Wilmette near the northern end of the channel, the boundary along the east side of the corridor requires a northward projection of Girard Avenue between Isabella and Linden Avenues. There is no street along much of this reach.

  On the east side of the corridor between Main Street on the north and Howard Street on the south, the boundary is the corporate boundary between Skokie and Evanston. There is no street along this reach. The corporate boundary corresponds to a map projection between McDaniel Avenue to the north and Kedzie Avenue to the south.

  In Evanston to the west side of the corridor near Green Bay Road, the boundary is defined by an intersection of Green Bay Road and Colfax Street. A railroad right-of-way is a barrier to Colfax Street intercepting Green Bay Road. The boundary is based on a westward projection of Colfax Street.

- North Branch Chicago River (Figure 3-6; Maps 12 and 13)

  The confluence of the North Branch Chicago River and the North Shore Channel occurs in Chicago just south of Foster Avenue at West River and East River Parks. The North Branch corridor extends from this confluence southward to the Chicago downtown area and the confluence with the Main Branch Chicago River. Streets define the boundary along this entire corridor except for a segment near the southern end of the North Branch where the Metra railroad right-of-way defines the west side of the corridor.

  Elston Avenue and Clybourn Avenue are arterials that are not always the first streets inland from the waterway, but these are used in the boundary because of the advantage presented by their orientation, which is nearly parallel to the overall river trend for two miles or more. All of Goose Island is within this corridor. The inclusion of Goose Island is consistent with federal regulations that require that all land area of islands be included within the coastal zone.

  A notable boundary detail occurs near the confluence of the North Branch and the North Shore Channel. Here the corridor has a western boundary along Albany Avenue which is the western boundary of West River Park. The North Branch Chicago River flows into West River Park, flows

over a weir, and falls to the water elevation of the navigable part of the North Branch. The presence of this weir, and the lack of navigable waterway above this structure is the basis for precluding the corridor from continuing farther upstream on the North Branch beyond West River Park. The uppermost limit along the inland waterway corridor along the North Branch Chicago River is the footbridge that crosses the river at Albany Avenue.

- Main Branch Chicago River (Figure 3-6; Map 13)

  The Main Branch Chicago River (also called Main Stem) refers to the east-west one-mile segment of the river between Lake Michigan to the east and the three-way junction with the North Branch and South Branch to the west. The inland waterway corridor along the Main Branch is defined by Kinzie Street on the north and Wacker Drive on the south. The eastern limit of the corridor is Michigan Avenue and the Michigan Avenue Bridge. The waterway connection to Lake Michigan occurs one mile east of the Michigan Avenue Bridge at the Chicago Lock. The river segment east of the Michigan Avenue Bridge is within the lakeshore part of the coastal zone.

- South Branch Chicago River (Figure 3-6; Map 13)

  The inland waterway corridor along the South Branch Chicago River extends from the junction of the North and Main Branches to Damen Avenue and the Damen Avenue Bridge. The boundary goes beyond the first street inland from the waterway, where a more inland arterial provides a boundary that parallels the waterway. This also occurs along the arterials of Canalport Avenue and Archer Avenue. A segment of the Stevenson Expressway (Interstate 55) forms the south side of the corridor between Damen and Ashland Avenues.

  The South Branch corridor includes an extension centered on the South Fork South Branch Chicago River. This is also known as Bubbly Creek. The South Fork South Branch is a natural tributary that once drained a broad area to the south of the South Branch. The southern extent of the original stream channel has been filled, and all that remains is the segment north of Pershing Road.

  The western or “downstream” limit of the South Branch corridor is at Damen Avenue and the Damen Avenue Bridge. Historically, the South Branch continued another six miles farther west of this bridge and was called the West Fork South Branch. Nearly the entire channel of the West Fork South Branch has been filled. The inland waterway boundary at the Damen Avenue Bridge distinguishes the South Branch Chicago River, which is east of the bridge, and the Chicago Sanitary and Ship Canal which is west of the bridge.

- Little and Grand Calumet Rivers (Figure 3-6; Maps 14 and 15)

  The corridor along the Little and Grand Calumet Rivers adjoins the south side of the lakeshore boundary for the Lake Calumet area. This inland waterway is on the inland or “downstream” side of the O’Brien Lock and Dam.

The corridor along the Grand Calumet River is within the municipal limits of Chicago, Burnham and Calumet City. The corridor along the Little Calumet River is within all seven municipalities that comprise this southernmost part of the Illinois coastal zone (*i.e.,* Burnham, Calumet City, Dolton, Riverdale, Blue Island, Calumet Park and Chicago). The western limit of the corridor is Ashland Avenue and two bridge crossings on Ashland Avenue crossing the Calumet-Sag Channel to the north, and Little Calumet River to the south.

Coastal Boundary Junction with Neighboring States

Figure 3-7 compares the extent of the Illinois inland coastal zone, with the inland coastal zones for Wisconsin and Indiana. Wisconsin uses the full extent of coastal counties to define that state's inland coastal zone. Thus the coastal zone on the Wisconsin side of the Wisconsin-Illinois state line is defined by the landward extent of Kenosha County. Measured from the lake shoreline, this is an inland extent of 27 miles. On the Illinois side of the state line, the inland extent is 4.3 miles. This corresponds to where Green Bay Road intercepts the state line.

The Indiana coastal zone boundary is based on the Lake Michigan watershed and the township lines that most accurately approximate this watershed boundary. The difference in inland extent to either side of the Illinois-Indiana state line relates to differences in the watershed characteristics. The Indiana coastal zone corresponds with the natural watershed of the Little Calumet River as well as a broad area on the Indiana side of the state line artificially connected to the Little Calumet River by a network of drainage ditches.

The inland extent of the coastal zone on the Illinois side of the state line is in Calumet City where State Street intercepts the state line. Measured from the lake shoreline, this is an inland extent of six miles. On the Indiana side of the state line, the inland extent is 21 miles. This corresponds to the state line intercept of the township boundary that that includes the artificially extended watershed of the Little Calumet River.

The ICMP lakeward coastal boundary is the jurisdictional border that Illinois shares with Indiana, Michigan, and Wisconsin. The lakeward limits, as defined in this section, are for purposes of this program only and represent the area within which Illinois' coastal program may be authorized and financed. These limits are irrespective of any other claims state may have by virtue of other laws.

The ICMP consulted with the Coastal Programs in our neighboring states of Indiana, Wisconsin, and Michigan in the development of the Illinois coastal program boundary.

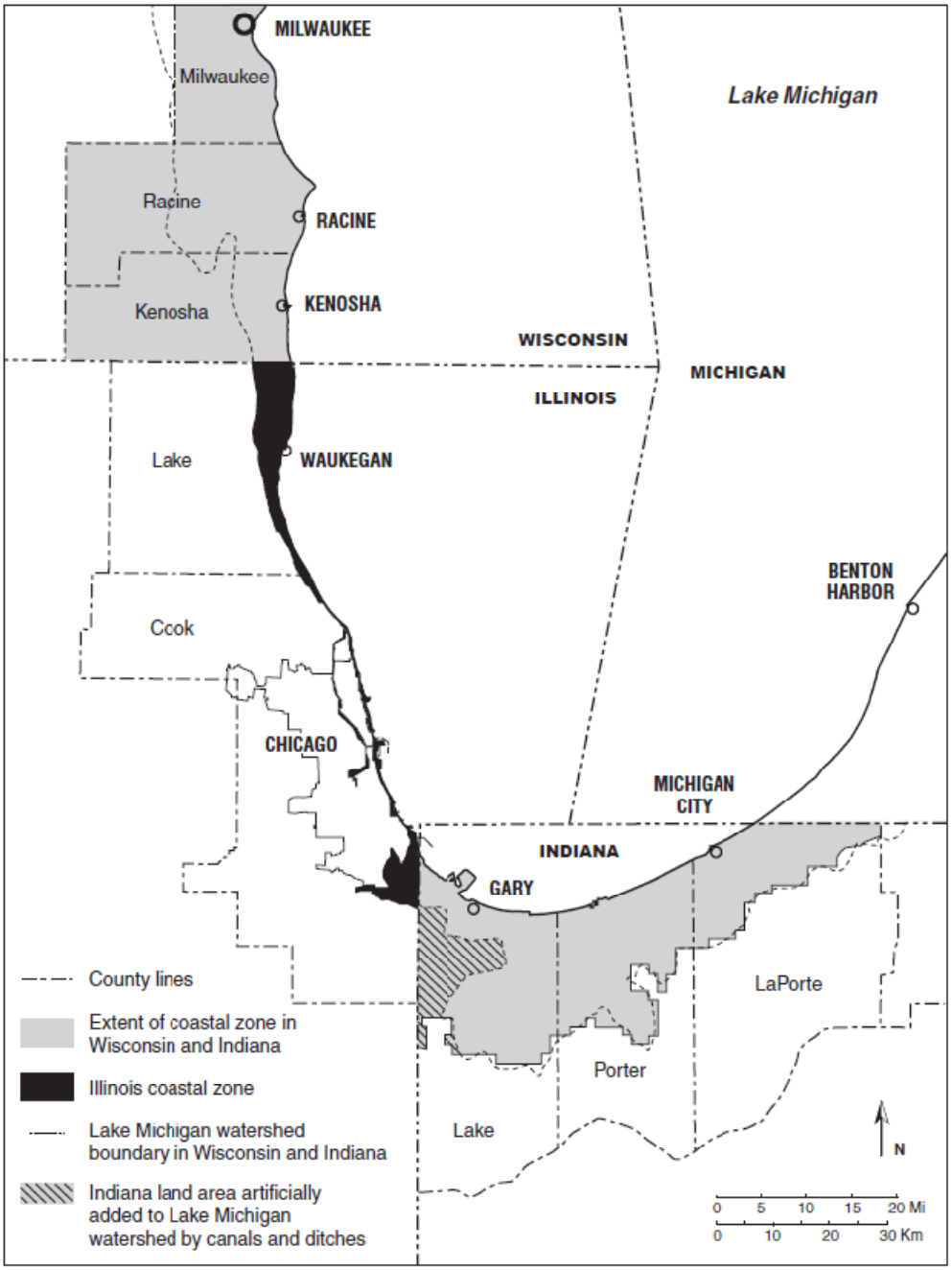

Figure 3-7. The Illinois coastal zone is substantially narrower than what occurs in the neighboring states of Wisconsin and Indiana. The Wisconsin coastal zone comprises the entire coastal county. The Indiana coastal zone extends to township lines that approximate the bcundary of the Indiana portion of the Lake Michigan watershed.

4
Coastal Erosion Assessment and Planning

The Lake Michigan coast is a dynamic setting influenced by waves, ice, and changing lake levels. The potential for coastal erosion exists along nearly the entire Illinois coast. This chapter discusses coastal erosion, how it has been addressed in the past, and how coastal erosion assessment and planning will occur in the ICMP.

Two aspects of coastal erosion along the Illinois coast are important for understanding past, present, and future erosional trends.

- Coastal Erosion in the Natural Setting

  Prior to any human modifications, the natural setting along the Illinois coast was nearly all erosional (Chrzastowski, Thompson and Trask 1994). There was an abundant supply of littoral sand moving along the shore. However, this sand was in transport to a depositional zone along the central Indiana coast. The exception to the erosional trends was the southern part of the Zion beach-ridge plain from near the mouth of Dead River southward to the North Chicago shoreline. This was the state's only accretional shore. The accretion resulted from the southward translation of the beach-ridge plain.

- Lake Level Influence on Coastal Erosion

  Erosion along the Illinois coast gains considerable public and media attention during times of high lake levels. High water causes partial to total submergence of some beaches; storm waves can damage and overtop shore structures, and localized coastal flooding may occur. A common misconception is that coastal erosion is limited to times of high lake levels. Erosion can be an ongoing process regardless of lake level. Changing lake levels simply shift the erosion zone either landward or lakeward.

Four Categories of Illinois Coastal Erosion

Four categories of coastal erosion have been, and continue to be, an issue along the Illinois Lake Michigan coast and inland waterways: Shore, bluff, lakebed, and waterway bank erosion. These correspond to different locations on the topographic/bathymetric profile.

- Shore Erosion

  Shore erosion impacts the exposed beach or land area adjacent to the shoreline. It results in a landward translation of the shoreline, loss of beach area, and sand volume. A related process to shore erosion is the damage and deterioration of engineered structures that occur along the shore such as revetments, riprap, groins, bulkheads and breakwaters. Because of the important role of

shore protection structures to stabilize the land/water interface, damage and deterioration of these structures can be equally important as any beach area or land area erosional loss.

- Bluff Erosion

  The Illinois bluff coast was near continuously eroding (*e.g.,* Atwood and Goldthwait 1908; Illinois Division of Waterways 1958). The bluff erosion commonly involved wave erosion cutting into the toe of the bluff and undermining the bluff slope. The bluffs could also erode due to either surface runoff or ground water moving over or through bluff materials. In the late 1970s to 1990s, substantial shore protection was installed to halt bluff erosion. By 2000, a survey of the bluff coast determined that wave-induced bluff erosion was active along no more than about 600 feet of the entire bluff coast (Chrzastowski 2000).

- Lakebed Erosion

  "Lakebed erosion" refers to underwater erosion across the bed of the lake. This erosion does not refer to the sand or gravelly sand that may occur along the lake bottom. Lakebed erosion refers to the erosion across the cohesive layers of glacial till or clay that underlie the sand. This type of erosion is also referred to as "Lakebed downcutting," or simply "Downcutting." The cause is wave and current action, as well as ice.

  Lakebed erosion is non-reversible because the loss of cohesive material cannot be replaced other than by a new glacial episode. The long-term impact of lakebed erosion is the lowering of the lake-bottom profile. As a result, deeper water occurs closer to shore, and the profile is steeper between the beach and nearshore. The deeper water, and steeper profile, allow larger waves to impact the shore. This can increase the potential for erosion along the beaches and the toe of the bluffs.

- Waterway Bank Erosion

  Banks along the inland waterways are subject to erosion by undermining, and slope instability. Bank erosion can result from natural processes, or human activity such as from boat wakes.

Historical Mitigation of Coastal Erosion

A variety of coastal erosion mitigation approaches along the Illinois coast have been used over time. Hardening the shore with engineered structures is the most common practice. In recent decades, there has been greater interest in using "soft" solutions to retain sand volume, such as beach nourishment alone or in combination with hard structures to retain sand volume.

- Shore-Protection Structures

A variety of shore-protection structures occur along the Illinois coast such as groins, riprap, revetments, and breakwaters. Many of the early shore-protection structures relied on timber to form the walls for rock-filled cribs in breakwaters and groins. Steel sheetpile is now the primary material for facing groins, jetties, and the base of stepped revetments. Quarry stone and reinforced concrete are also common materials.

Headland Beach Systems, are a type of shore protection that also provide recreational and aesthetic benefits. These engineered pocket beaches are held by groins or rubble-mound breakwater headlands. These beach systems have the advantage of: 1) creating a contained beach that is not dependent on any influx of sand from littoral transport, and 2) creating a beach that will minimize loss of sand to littoral transport. The headland beach systems have been used extensively on the bluff coast along private residential properties.

- Lakefill

  Filling in the shallow nearshore area to create new land and establish a more lakeward shoreline position has been used as a means of shore protection, particularly along the Chicago lakefront. The lakefill results in a durable new shoreline edge that can be built to withstand direct wave and ice impact, and be more erosion-resistant than the pre-lakefill shoreline.

- Beach Nourishment

  Beach nourishment is used along many of the municipal beaches and, to a limited degree, along private lakeshore properties. The most rigorous beach nourishment is done at Illinois Beach State Park. Maintaining the state park shore to be free of any additional shore protection, or offshore structures, is a long-term coastal management objective for the state park (Illinois Department of Natural Resources 2001).

Permitting Projects for Coastal Erosion Control - *General*

Two agencies are responsible for reviewing and permitting construction along the Illinois coast. They also are responsible for controlling coastal erosion. On the state level, permitting is done by the Office of Water Resources (OWR), Lake Michigan Management Section, of the Illinois Department of Natural Resources (IDNR). On the federal level, permitting is done by the USACE, Chicago District Regulatory Branch. In general, for both agencies, no projects are permitted that are deemed potentially disruptive to the movement of littoral transport along the beaches and nearshore areas. An exception to this restriction might include structures that will trap sand, but will have a sand management plan, which provides for the bypass or backpass of sand that is captured.

An IDNR permit is required for any shore protection that involves building a beach. This requirement includes the filling of the beach to the maximum capacity of computed sand retention, and, in addition to this capacity volume, including a 20 percent overfill. This overfill assures sand is available, if needed

for any unforeseen adjustment to the beach and nearshore profile. The IDNR distributes public notices for any permit applications, allowing public review for proposed project plans. There is a 30-day period for written comments, and no work can begin until the permit is issued.

The wide range of historical lake-level fluctuation, (6.3 feet; see Chapter 2), results in a need for shore protection that has direct interaction with lake water only during times of extremely high lake levels. An example is the revetments built at the toe of the bluffs. Although these revetments may have some wave impact during extreme storms, commonly a beach may exist adjacent to the revetment. Only at times of higher lake levels might the still water be in contact with the structure.

Permits are required for shore-protection structures for both private, and public, lakeshore property to be built extending onto the lake bottom. This is despite the lake bottom being state land held in public trust. Filling of lakeshore land is conditionally permitted by Illinois state law as long as the filling serves a public benefit. An example is the creation of the parkland along the Chicago lakefront.

Both the IDNR and the USACE, Chicago District, permit lakeshore construction to the Ordinary High Water Mark (OHWM). This is the typical or "ordinary" high level to which the lake water will rise in long-term fluctuation. Most often, the lake level is below this elevation.

In some coastal states, the OHWM defines the boundary between private property and public beach. In Illinois, private property and riparian rights along the Illinois coast extend to the calm water shoreline and migrate landward or lakeward with changing lake level (Illinois case law: Brundage v. Knox, 1917).

As defined by the USACE, the OHWM along the Illinois coast is 581.5 feet (177.2 m) relative to the International Great Lakes Datum (IGLD-85). Only shore construction that occurs below this elevation is subject to permitting by the IDNR and the USACE.

Permitting Projects for Coastal Erosion Control - *Specifics*

Both private and public construction activities in Lake Michigan require Illinois Department of Natural Resources, Office of Water Resources' (IDNR/OWR) authorization, pursuant to the *"Rivers, Lakes and Streams Act of 1911"* (615 ILCS 5) and IDNR/OWR (Part 3704) *"Regulation of Public Waters"*.
Both the IDNR/OWR and the USACE use the ordinary high water elevation, 581.5 ft. International Great Lakes Datum-1985 (IGLD-85) to determine whether a permit is required. Construction activities proposed at or lakeward of that elevation require IDNR/OWR authorization. IDNR/OWR permits are issued jointly with the Illinois Environmental Protection Agency (IEPA). The following two types of shore protection permits are issued for work in Lake Michigan:

- General Permits No. 1-LM are issued for minor shore parallel protection projects that do not exceed a length of 300 ft., and which meet the special conditions of that general permit. Examples of these projects would be stone revetments or steel sheet pile bulkheads built at the toe of a bluff. This permit does not require the issuance of a public notice but does require IEPA approval.

- All other types of shore protection projects proposed, within or adjacent to, and below an elevation of 581.5 IGLD-85 require a regular permit from IDNR. Examples of these types of projects include but are not limited to, revetments (longer than 300 ft.), seawalls or bulkheads (longer than 300 ft.), groins, breakwaters/offshore structures, beach nourishment, piers, and modifications to existing structures. These types of projects require the issuance of a 28-day public notice. These projects are reviewed by IDNR/OWR for compliance with Part 3704 Rules, and also require IEPA approval prior to a permit being issued.

Projects proposed outside the waters or the influence of Lake Michigan coastal processes, and which are entirely above the Department's regulatory elevation of 581.5 (IGLD-85), do not require a permit. These include projects on a bluff, and areas upslope or landward of the existing bluff toe or bluff toe protecting structure. Projects on bluffs or otherwise outside IDNR jurisdiction may still be within the ICMP boundary, and thus must be in accordance with ICMP enforceable policies. If a proposed activity would degrade water quality of Lake Michigan it would require a permit. Maintenance work associated with the restoration of an existing permitted project to its original specifications does not require a new permit.

As previously noted, IDNR/OWR personnel must determine whether a proposed shore protection project complies with the Department's Part 3704 Rules. Section 3704.70 specifically prohibits the conversion of public waters to private land by filling; however, fill material may be placed in public waters for such things as bank, shore or bluff protection, and beach nourishment. Section 3704.80(a) specifies that the proposed activity must not: 1) cause an obstruction to, or interfere with, the navigability of a public body of water, 2) result in an encroachment on a public body of water, 3) cause impairment of any rights, interests or uses of the public in any public body of water or to its natural resources, or 4) cause bank or shoreline instability on other properties.

Section 3704(b) outlines additional information an applicant should submit if the proposed activity might cause one or more of these impacts. Section 3704.90 contains the standards IDNR uses to determine whether a permit should be issued. Generally, proposed offshore structures should be located as close as possible to the shore and be no larger than needed to protect the applicant's property. The size of the structure including height, length, etc. should be comparable to adjoining structures in the area. Where possible, the project should provide some type of reasonable access over or around it on the landward side.

Upon receipt of an application, an initial review will determine the need for clarification, or additional information, if any. At the same time, the applications are forwarded to the IDNR, Office of Realty and Environmental Planning for their review. The applicant is responsible for contacting the Illinois Historic Preservation Agency for any requirements they may have. If the initial review determines that a project will not require a permit, the Department will inform the applicant by letter.

If a project requires a Regular Permit, a public notice will be issued. For shore protection projects, the minimum public notice period will be 28 days. This public notice period may be extended if needed to allow interested parties the opportunity to prepare and submit comments.

Once the Department has received all the required information including public notice comments and responses, it will determine whether the proposed project is in compliance with the provisions of our Part 3704 Rules. If the project is found to be in compliance with these rules, an IDNR/OWR Permit will be issued. If it is found not to be in compliance with the Part 3704 Rules, a denial letter will be issued. All denials are issued without prejudice and include a detailed explanation.

ICMP Coastal Erosion Assessment and Planning

- Assessment

  The vast majority of the Lake Michigan coastline in Illinois is protected from erosion by hardened structures. IDNR estimates that upwards of 85 percent is protected, and that much of this work was financed privately, specifically in the areas outside of public areas. In assessing coastal erosion issues, the ICMP reviews aerial photography that is conducted at three year intervals combined with visual inspections of areas not currently protected by hardened structures. Illinois Beach State Park represents approximately 95 percent of the area that is not currently protected by hardened structures.

- Planning

  When the IDNR erosion assessment process identifies a coastal erosion problem, the next step is to engage stakeholders and develop a management plan that incorporates several key perspectives regarding coastal processes along the Illinois coast. These are:

  The Illinois coast was nearly all erosional in its pre-development setting. The exception was the southern end of the Zion beach-ridge plain. Human activity has been responsible, in places and at times, to focus and exacerbate erosion. However, the human erosional influence is additional to naturally occurring erosion.

  Waves are the dominant agent of Illinois coastal change. Fluctuating lake levels, changing sediment budgets, and ice dynamics all contribute to change. However, waves provide the energy to move sediment and ice and cause the impact energy against shore structures.

  Lake-level change is a continuous and natural process with various times scales (hourly, daily, monthly, seasonally, yearly, decadal and geologic). Erosion planning needs to include consideration of future lake-level change while also recognizing the uncertainty in long-term lake level prediction.

Waves are the agent for moving sediment along the Illinois coast. Sediment can be moved northward by waves from the southeast quadrant or southward by waves from the northeast quadrant. Because of the greater fetch for northerly waves, these produce the net and regional littoral transport which is from north to south.

The Illinois coast has experienced reduction in the volume of littoral sand in transport during historical time. This is a result of both reduced sediment input from shore and bluff erosion and structural blockage and entrapment of littoral sand. Conservation of existing sand resources is critical.

The Illinois coast is what is geo-technically called a "cohesive coast." This means the upland to nearshore profile primarily consists of cohesive materials (glacial till). Any sand or gravel along the beaches and nearshore are a lens or veneer superimposed on the cohesive material. Erosion of the cohesive materials is non-reversible.

Areas of greatest concern for coastal erosion will change with time, and the ICMP efforts toward erosion management will adjust accordingly. For example, in the 1970s, most of the bluff coast was a critical erosion area, and during the record high lake levels of 1986-1987 erosion of beaches, parkland and deteriorated shore protection was a major concern along the Chicago lakefront.

Although localized erosion "hot spots" may intermittently come to the forefront, the ICMP will maintain a continuing focus on two erosion areas of critical concern. These will have a priority for erosion mitigation and long-term management.

- Illinois Beach State Park: This park lakeshore is dependent on an adequate supply and transport of littoral sand to maintain a balanced sediment budget. The most severe erosion is presently in the North Unit, but the potential for severe erosion exists along all of the state park shore if a littoral sediment supply is deprived. A management plan for Long Term Coastal Stewardship of Illinois Beach State Park and North Point Marina was completed in 2001.The ICMP will not fund beach nourishment, but the ICMP will prioritize other ways that are ICMP compliant to assist IDNR erosion monitoring and management.

- Nearshore Lakebed: Depletion of sand cover across the nearshore lake bottom, and erosion of the glacial till lakebed will be a sustained management concern. Evaluation and monitoring of this erosion will be promoted and supported. This is an erosion process that has implications for permanent change to the morphology of the Illinois coast.

  The ICMP coastal erosion management will involve partnerships with appropriate municipal, county and state agencies concerned with coastal erosion along the different segments of the Illinois coast. Partnerships will also be developed with governmental agencies having responsibility for erosion management along the inland waterways.

5
Shore Access and Recreation

This chapter provides an overview of the public access and recreational resources within the Illinois coastal zone. These are:

- The definition of a beach.
- The distinction between public and private beaches.
- The location of public beaches.

Definition of a Beach

Although it can be easy to achieve consensus that a beach is a sandy area along the shore, for the purposes of coastal zone management, it is important to clearly define what is meant by the term "beach." The degree of engineering along the Illinois coast requires a beach definition specifically for this coast.

Segments of the Chicago shore are concrete promenades atop revetments, with deep water marginal to the revetment. During summer, these promenades have assigned Chicago Park District lifeguards. Deepwater swimming is allowed, and the concrete promenade is commonly used for sunbathing. The Chicago Park District and the public, have at times referred to these concrete shore segments as "paved beaches."

The IDNR for the purposes of the ICMP defines a beach on the Lake Michigan shore as:

> *"the area of unconsolidated material (sand, gravel, pebbles and possibly cobbles), either naturally occurring or artificially placed, that has an upper limit either along the line of permanent vegetation or along the lakeward edge of any coastal structure such as a revetment, bulkhead, breakwater, groin or sidewalk, and a lower limit below water where sand persists across the lake bottom, and calm-water depths, no greater than six feet."*

This definition of a beach does not rely on whether swimming is permissible. Excluding the element of "swimming" from the definition avoids the complication of the seasonal aspect of swimming, and acknowledges that along some public beaches, for safety reasons, swimming may not be allowed. The depth limit of six feet, correlates with the shallowest depth contour shown on nautical charts (six feet is equivalent to one fathom). The six-foot depth is also the extreme limit to which a very tall person might be able to wade in calm water.

This definition of a beach makes no reference to lake-level elevation. The lake level of Lake Michigan is continually in flux, this beach definition reflects that the width of the beach will vary with the lake level. Times of higher lake levels will result in narrower beaches, times of lower lake level will result in wider

beaches. This definition also recognizes that some beaches on the Illinois coastline, in part or in whole, may exist due to artificial placement of sand to nourish or create the beach.
No distinction is made between artificial (engineered) and "natural" beaches. Because of the abundant shore protection along the Illinois coast, beaches are not a ubiquitous coastal feature. Some sections of shore may have no beach, such as where the lake water directly intercepts a breakwater, bulkhead or revetment, and the local shoreline occurs along the structure.

Public beaches are those areas that satisfy the above definition and are owned by a municipal, county, state or federal government. Although beaches along the Illinois coast typically allow public access, this does not necessarily mean unrestricted access. For example, there are permit requirements for access to the southern beach in the South Unit of Illinois Beach State Park, to manage human impact in this designated nature preserve. In addition, many of the municipal beaches along the North Shore require beach passes, tokens, parking passes, or other access controls, to manage the beach areas specifically for municipal residents or those from other municipalities willing to pay for use.

Distinction Between Public and Private Beaches

Public beaches along the Illinois coast are owned by government agencies. In contrast, private beaches are held by riparian owners. Riparian ownership along the Illinois coast is concentrated in the communities of the North Shore; and Lake Bluff to Evanston on Chicago's far North Side and far South Side.

According to Illinois Supreme Court (Brundage v. Knox, 1917), coastal sections with riparian ownership, the boundary between public and private ownership is the still-water shoreline. Above (*i.e.,* landward of) the still-water shoreline is private; below (*i.e*., lakeward of) the stillwater shoreline is public. As the lake level fluctuates and the still-water shoreline shifts landward or lakeward, the boundary line shifts accordingly. The submerged part of the beach, the sandy lake bottom lakeward from the still-water shoreline, always remains in public ownership.

Beach accretion of sand or gravel by natural or artificial means for which the riparian owner is not responsible, that accreted above-water beach area belongs to the riparian owner. Case law does not grant private ownership of any beach area resulting from the entrapment or retention of sand caused by construction of any type of shore structure. Because of a long history of constructing numerous private groins along the North Shore (Keefe 2002; Shabica *et al.* 2004), there are many such areas of accreted beach. However, any beach area that is artificially accreted beach is legally public.

Public Beach Distribution Along the Lake Michigan Shore

Engineering for lakeshore parkland has resulted in much of the public coastline consisting of revetments or bulkheads that preclude beach area. This is the case on the Chicago and Evanston shore where stepped revetments, (Chicago) or rubble-mound revetments, (Evanston) extend along the shoreline of much of the lakeshore parks. There is no beach adjacent to these structures. This results in an Illinois coast with a much greater extent of lakeshore parkland and public space than public beach.

The most extensive reach of continuous public beach is six miles along the North, and South units of Illinois Beach State Park. In contrast, some of the neighborhood street-end public beaches along Chicago's far north lakeshore, and several of the beaches along the filled land of the Chicago lakeshore, may be no more than several hundred feet.

Figure 5-1 shows the location and name of all public beaches and the municipality, state or county government responsible for beach management. The only public beaches under county management occur at Fort Sheridan Forest Preserve. The only federally managed beach area occurs at Great Lakes Naval Training Center, where the beach is accessible for only base personnel.

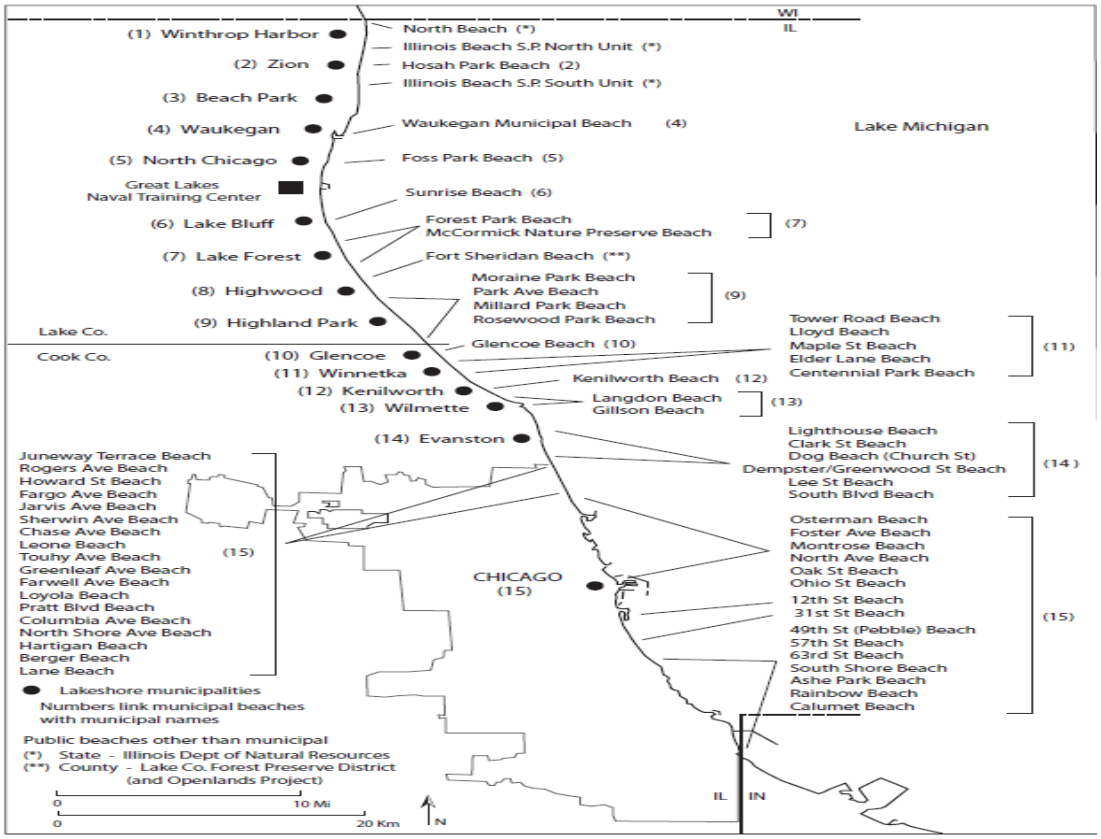

Figure 5-1. Public beaches of the Illinois coast of Lake Michigan associated with each of the fifteen municipalities that are on or near the lakeshore.

As shown in Figure 5-1, the majority of public beaches (33 named beaches) are on the Chicago coastline. Evanston has six, Winnetka has five, and Highland Park has four. Lake Forest and Wilmette each have two. There are six municipalities with one public beach including: Zion, Waukegan, North Chicago, Lake Bluff, Glencoe, and Kenilworth. The three municipalities of Winthrop Harbor, Beach Park, and Highwood have no municipal beaches along the lakeshore.

Beach-User Fees

Municipal beaches in Zion, Waukegan, North Chicago, and Chicago have unrestricted public access with no user fees. In contrast, North Shore community municipal beaches (from Lake Bluff to Evanston) have varied means of managing access. A user fee is a common technique requiring the purchase of a day, or season pass (or token), that permits beach use. The City of Waukegan and the City of Lake Forest do not require purchase of beach passes, but both manage access to beach areas by parking restrictions. Beach user fees are a long-standing practice for North Shore municipalities because revenue supports facility operations. This assures preference for municipal beach use to residents who support these beaches through local taxes. Evanston has an agreement with the neighboring municipality Skokie allowing Skokie residents to purchase Evanston beach tokens and passes at the resident rate.

Beaches Along Lake Calumet and Wolf Lake

Wolf Lake has public beach area at the William Powers State Recreation Area (described in a following section). This recreation area includes both land area bordering the lake as well as a major part of the open-water area (Figure 5-2).

No public beaches are present along the Lake Calumet shore. The majority of the Lake Calumet shoreline is part of the Lake Calumet Harbor complex, officially known as the Senator Dan Dougherty Harbor. The Harbor is managed by the Illinois International Port District. Along the northern shore of Lake Calumet, there is public land at the Harborside International Golf Course, and adjacent undeveloped parkland on the east side of the golf course. There are no public beaches along this public land. These shoreline areas are secured as part of the Port District's security plan, which is required by the U.S. Department of Homeland Security and the U.S. Coast Guard.

Municipal Public Land Bordering the Inland Waterways

In recent decades, the amount of publicly accessible land along the margins of the Inland Waterways has been increasing. Along the Main Stem Chicago River, a river walk continues to be developed. Ping Tom Park on the banks of the South Branch Chicago River, in Chicago's Chinatown, is an example of new parkland built on a site with a long previous history of railroad use. Canal Origins Park on the South Branch at Ashland Avenue is being developed in recognition of the history of the Illinois and Michigan Canal. Evanston, Skokie, and Lincolnwood have constructed bike paths and sculpture parks along the land that they lease from the MWRDGC on the margins of the North Shore Channel, has provided public access and recreation where no public amenities existed through the early and mid 1900s.

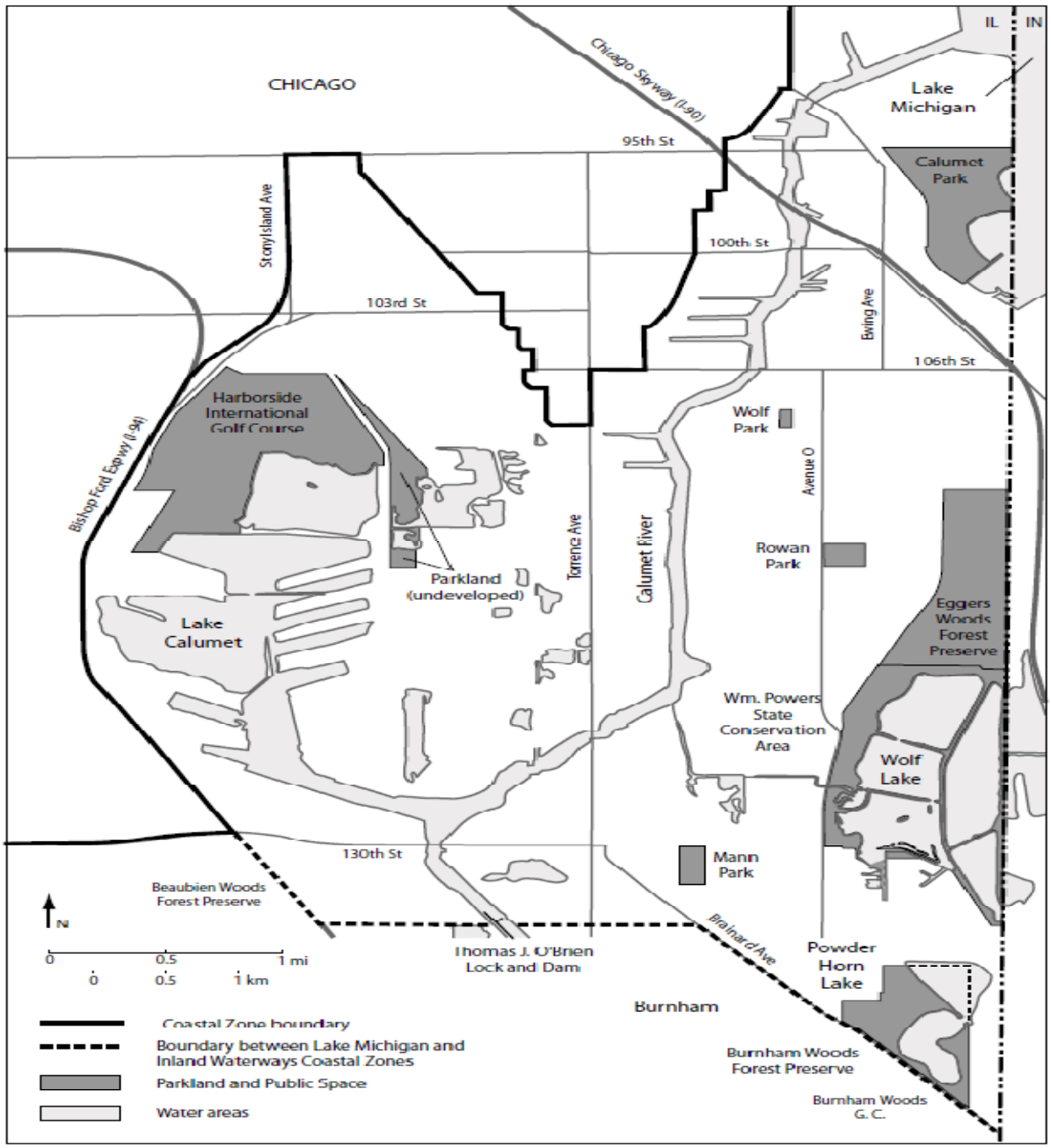

Figure 5-2. Parkland in the Calumet area of the Lake Michigan coastal zone.

Figure 5-3 shows the location and names of municipal, and county, parkland that borders the Inland Waterways. The North Shore Channel and North Branch Chicago River clearly account for the majority of parkland. These parks occupy land owned by the MWRDGC, which leases the land to the municipalities and park districts for park use.

Parkland along the MWRDGC's land bordering the North Shore Channel, and the far north segment of the North Branch Chicago River, consists of a series of long and narrow parcels segmented by arterial street crossings, railroad right-of-ways, or a few parcels of industrial/commercial land. Other than these relatively narrow disruptions, a nearly continuous park corridor exists from the origin of the North Shore

Channel in Wilmette, approximately nine miles southward to California Park on Chicago's northside. This exceptional intra-urban greenway connects Wilmette, Evanston, Skokie, Lincolnwood, and Chicago.

The other coastal zone parks along the Chicago River system include Chicago River Walk, Ping Tom Memorial Park, and Canal Origins Park. Limitations on public access to the river bank along the lower North Branch, Main Stem, and South Branch Chicago River is related to the history of commercial, industrial, and transportation land uses along these river margins.

Along the Little and Grand Calumet Rivers boundary, public land is primarily owned by the Forest Preserve District of Cook County. The only municipal park is Burnham Park on the Grand Calumet River in the Village of Burnham. Forest Preserve District land includes forested land, grassed open areas, and golf courses.

Public Access Along the Coastal Ravines

Ravines of the Far North, and North Shore Coasts are predominately held in private ownership across ravine slopes. They commonly include municipal easements for stormwater pipes or channels along the ravine bottom. There is no public access to the majority of the ravine system. However, numerous municipal, and county parks along select segments of the ravine system provide access into these distinct and picturesque landscape features.

Along the Far North coast (i.e., Winthrop Harbor, Zion, Beach Park, Waukegan and North Chicago), the ravines do not typically have as much relief as those along the North Shore. However, because of the more landward watershed boundary, these more northern ravines extend two miles or more inland from the coast, as opposed to the ravines of the North Shore, which are half or less in landward extent. Notable parkland along the ravines of the Far North coast includes Beulah Park in Zion, Bowen, Powell, Washington, and Roosevelt Parks in Waukegan.

Parkland along the ravines of the North Shore is typically associated with municipal beach. Ravines commonly provide access roads between the beach and upland areas. Moraine Park in Highland Park restricts vehicle access to the uplands and has only trails into and through the local ravine. The access roads to both the north and south ends of Forest Park Beach in Lake Forest occur within local ravines. The access road to Rosewood Park Beach in southern Highland Park (Figure 5-1) traverses nearly a quarter mile along the lower reach of a ravine. Ravine Drive, which is the access road to Highland Park's Millard Beach, similarly traverses a ravine.

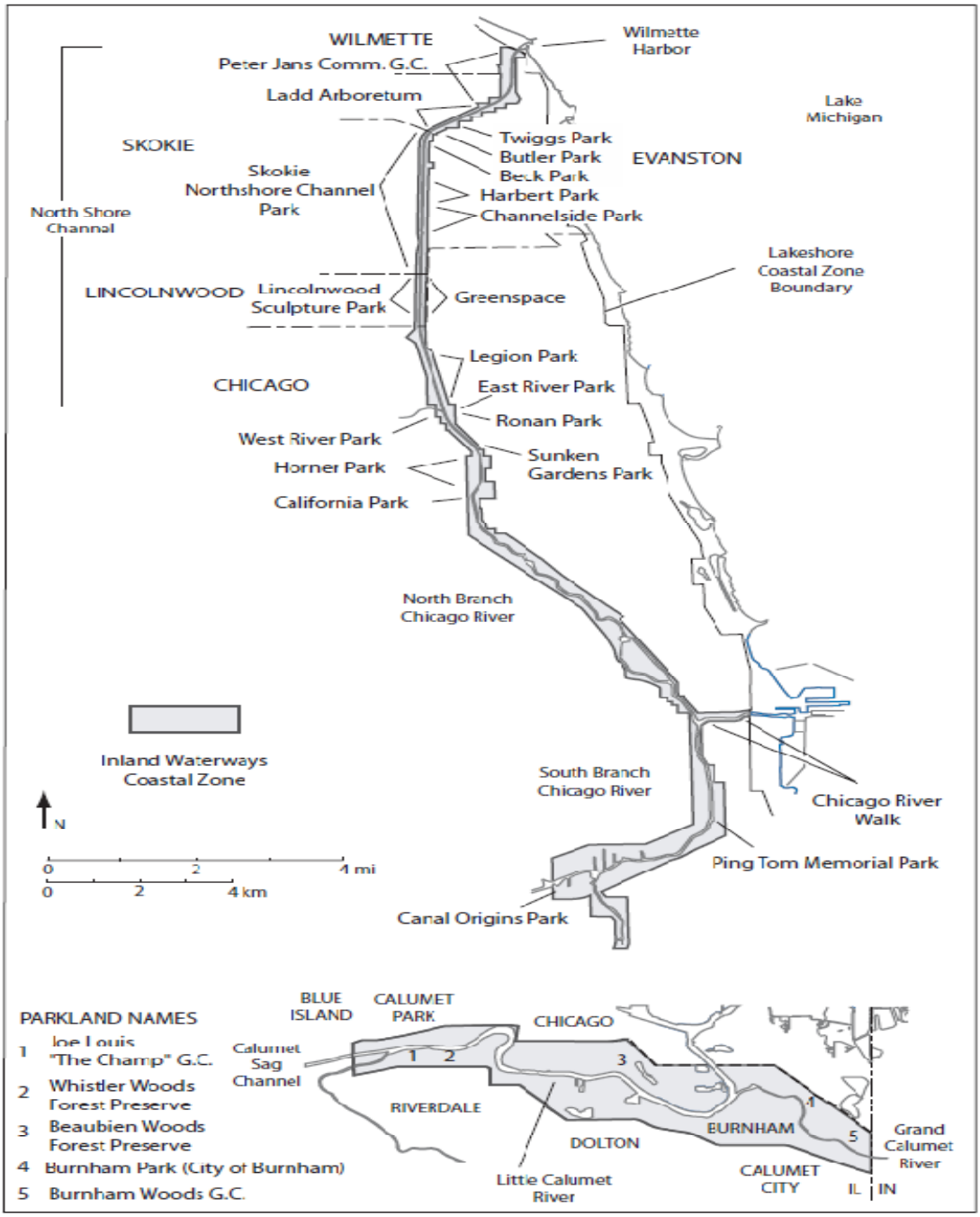

Figure 5-3. Named parks and public space within the limits of the Inland Waterways coastal zone.

Preserved at the Fort Sheridan Forest Preserve District are the Janes Ravine, a very high-quality ravine, and the Hutchinson Ravine. Janes Ravine includes one of the last remaining examples of mesic and dry-mesic upland forest that once dominated and distinguished the North Shore ravines. Bartlett Ravine, another high-quality ravine in a mostly natural condition, at the former Fort Sheridan property, is owned by Openlands as part of its Lakeshore Preserve. Openlands is planning to take ownership of two other ravines at the former Fort Sheridan property—Schenck and Van Horne Ravines.

State-Managed Coastal Zone Parks and Recreation Areas

Two state-owned and managed parkland areas occur within the ICMP boundary at the north and south extremes of the coastal zone. These two locations comprise a total of 3650 acres.

- Illinois Beach State Park/North Point Marina
  Located at the far northern reach of the Illinois coast, and bordering the Wisconsin state line, this coastal land consists of a 3070 acre state park, and an additional 140 acres at North Point Marina, of which about a 70 acre area is a 1500-slip marina basin. Although the state park is commonly referred to simply as Illinois Beach State Park, based on an act of the Illinois legislature. The complete park name is now Adeline Jay Geo-Karis Illinois Beach State Park. The state park and marina together, comprise what is known as the Bill Cullerton Complex, and are managed by the IDNR.

- William W. Powers State Recreation Area
  Located in the far southern part of the Illinois coastal zone (Figure 5-2), this parkland owned and managed by the IDNR, borders Wolf Lake and extends to the Indiana state line. This recreation area, totally within the corporate limits of Chicago, includes a total of 580 acres of which 419 are open-water, and 161 acres are land adjacent to the lake. This is a popular picnic and fishing site.

County-Managed Coastal Zone Parkland and Public Areas

Both the Lake County Forest Preserve District and the Cook County Forest Preserve District have land areas within or partially within the Illinois coastal zone boundary. These Forest Preserve facilities, and the municipalities within which they are located are as follows:

- <u>Lake County Forest Preserve District</u> — <u>Location</u>
  Spring Bluff Forest Preserve — Winthrop Harbor
  Thunderhawk Golf Club — Beach Park
  Lyons Woods Forest Preserve — Waukegan
  Greenbelt Forest Preserve — Waukegan
  Fort Sheridan Forest Preserve — Former Fort Sheridan

- <u>Cook County Forest Preserve District</u>
  Eggers Woods Forest Preserve Chicago — Chicago
  Whistler Woods Forest Preserve Riverdale — Riverdale
  (Including Joe Lewis "The Champ" Golf Course)
  Beaubien Woods Forest Preserve Chicago — Chicago
  Burnham Woods Forest Preserve Burnham — Burnham
  (Including Burnham Woods Golf Course)

Boating Access Along the Lake Michigan Shore

The small-boat harbors along the Illinois coast are primarily concentrated along the Chicago lakeshore in Cook County and along the far north lakeshore at North Point Marina and Waukegan in Lake County. Other than Wilmette Harbor in Wilmette, there is an absence of small-boat harbors along the North Shore from Lake Bluff south to Evanston. However, several of the municipalities along the North Shore have boat-launching facilities consisting of lifts and/or ramps at one of their lakeshore parks. These facilities also allow beach launching of shallow-draft sailboats.

The harbor at Great Lakes Naval Training Center is restricted for use by naval-station personnel; however this large harbor complex includes boat launching and harbor moorage for small boats. The only commercial facilities along the Illinois Lake Michigan shore for recreational launching, mooring and storage occur in the inner part of Waukegan Harbor (Larsen Marine Service) and at North Point Marina (Skipper Buds).

Figure 5-4 shows the distribution of public marinas and small-boat harbors as well as the locations of public boat launching facilities. The following list of the marinas and small-boat harbors identify the responsible authority for managing these facilities.

- Lake County Marinas and Small-Boat Harbors

North Point Marina	IDNR
Waukegan Marina	Waukegan Port District
Great Lakes Harbor	GLNTC – U.S. Navy*
	(*not a public facility, but offers emergency refuge)

- Cook County Marinas and Small-Boat Harbors

Wilmette Harbor	Wilmette Harbor Association (public/private)
Montrose Harbor	Chicago Park District
Belmont Harbor	Chicago Park District
Diversey Harbor	Chicago Park District
DuSable Harbor	Chicago Park District
Monroe Harbor	Chicago Park District
Burnham Harbor	Chicago Park District
59th Street Harbor	Chicago Park District
Jackson Park Harbors	Chicago Park District (Inner and Outer Harbor)

Commercial marinas exist along the Calumet River and provide direct access to Lake Michigan by way of the river mouth, which opens to Calumet Harbor. No public marinas are present along the Calumet River. No public or commercial marinas occur at Lake Calumet.

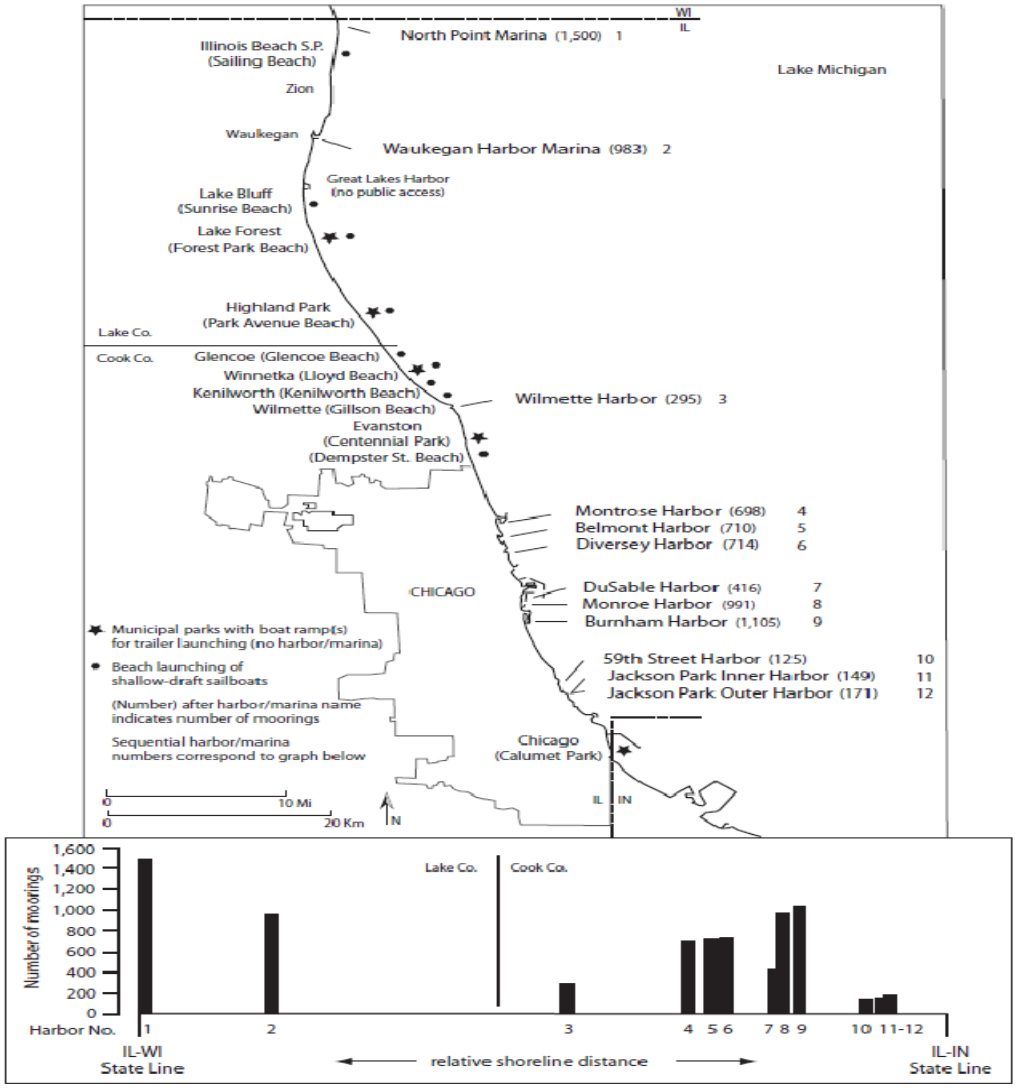

Figure 5-4. Locations of twelve recreational harbors/marinas along the Illinois coast, municipal boat-launch facilities without harbors, and beaches designated for beach launching of sailboats. Graph compares the mooring capacity of the twelve harbors/marinas.

Marinas along the Illinois coast provide for 7,857 slips/moorings (2007 data). Of this total, the Lake County segment of coast has 2,483 (32%) and the Cook County segment has 5,374 (68%). Prior to the 1980s, essentially all recreational moorage along the coast was along the Cook County shore and, other than moorage at Wilmette Harbor, the majority of Cook County moorings were at the small boat harbors along the Chicago lakeshore. Wilmette Harbor is identified in figure 5.4 as a public/private facility, because this is a public waterway. Harbor operations are managed by a private (membership; not-for-profit) harbor association.

Boating Access Along the Inland Waterways

The North Branch and South Branch Chicago River, and the Little Calumet River, each have commercial boatyards along the riverbanks that provide boating services, storage and launching. These facilities support recreation boats that moor through the season in the harbors on the Chicago lakeshore. Chicago harbors have ramps for trailer launching of small power and sailboats, but large power and sailboats require the lift equipment that's found in marinas along the inland Waterways.

In contrast to the abundance of private marinas and launch facilities, public boat-launch facilities on Inland Waterways within the coastal zone are minimal. There are no public boat ramps on the North or South Branches of the Chicago River, or the Main Stem. Along the North Shore Channel, there are no public or commercial facilities for powerboat launching. However, a facility for canoe and kayak launching (Thomas J. Dammrich Rowing Center) has been built in Skokie by the Skokie Park District at Oakton Street.

The Inland Waterway segment of the Little Calumet River has two public boat launch facilities that are part of, and maintained by, the Forest Preserve District of Cook County bordering the river. These boat-launching facilities occur at Beaubien Woods Forest Preserve and at the western margin of the Joe Louis "The Champ" Golf Course (Little Calumet Boating Center). There is no boat launching along the Grand Calumet River.

Boating between the Inland Waterways and Lake Michigan requires transit through either the Chicago Lock for the Chicago River, or the O'Brien Lock for the Little Calumet River. Both locks are operated and maintained by the USACE Chicago District. No boat passage occurs at the Wilmette Lock.

Lake Michigan Underwater Parks

Recreational diving is a popular sport along the Illinois coast. Several designated sites off the Chicago lakeshore provide diving for beginning and advanced divers. The Rachel Carson Scuba Park is an IDNR approved underwater park, located about three miles offshore from Chicago's 59th Street Harbor. Its depth is approximately 35 feet. The site offers the opportunity to dive on a World War II era, torpedo bomber-training plane. Other designated dive sites include the wreck of the MV Straits of Mackinaw, a 200-foot car and passenger ferry, and the Holly Barge wreck, which is a 120-foot barge. These dive sites are maintained by various diving foundations and associations.

Planning and Management Challenges

Lake and Cook County residents have the benefit of numerous access points to Lake Michigan. However, there remain considerable planning and management challenges to reach the full potential of public access and recreation.

Four elements of planning and management are important to address public access and recreation. These are:

- Maintaining existing access and recreation opportunities
- Enhancing existing access and recreation opportunities
- Identifying potential new access and recreation venues
- Planning for new access and recreation
- Maintaining Existing Access and Recreation

  Maintaining existing access and recreation is essential. Repairs and maintenance are needed to counter naturally occurring aging and deterioration. Walkways, shore-protection structures, lighting and landscaping are only a few examples of the numerous items that will require periodic repairs and maintenance.

  Areas that border existing access and recreation sites may have new construction. They may also have changes in land use, or the flow of vehicular or pedestrian traffic. This could negatively influence existing coastal zone access and recreation. Changes on the urban landscape are continuous and rapid. The challenge exists in assuring that communication and planning are necessary to avoid any detrimental impacts.

  The agencies responsible for maintaining existing access and recreation along the Illinois coast and the inland waterways are diverse, and span municipal, county, state, and federal government. Within a specific level of government, there may also be several different offices involved. For example, along a municipal beach there may be different access and recreation responsibilities for the municipal park district and the municipal engineering office. Identification of responsible agency or agencies must be determined on a site-by-site basis.

- Enhancing Existing Access and Recreation

  The ICMP will plan and implement enhancements to existing access and recreation that include access that is in compliance with ADA. (ADA, 1990) ICMP will also ensure that access is equitable to people of all ages. Although beaches and lakeshore parks in Chicago are accessible by public transportation, options are limited in the majority of the North Shore municipalities.

  Existing access and recreation can be enhanced by increasing user capacity, updating infrastructure, and improving site landscaping and/or aesthetics. In some areas, enhancing a coastal area to a natural area may require restrictions on the type of access. The ICMP will work to assure an appropriate balance across user interests.

- Identifying New Access and Recreation Venues

  One of the greatest success stories in creating new access and recreation has been the redevelopment of Chicago's Navy Pier. What in the late 1980s was abandoned dock space and deteriorated buildings has been transformed into the most popular tourist destination along the Illinois shore and the entire state. The Pier has become home to several dinner cruise boats, theatres, dining establishments, conference centers, and specialty shops.

  Navy Pier is an example of creating a new access and recreation venue specifically suited for the urban setting of the central Chicago lakeshore. The ICMP will seek opportunities to redevelop former commercial, industrial or transportation-related land for public access and recreation. Some potential areas occur in Chicago near the mouth of the Calumet River, along the Calumet River, and along the shore of Lake Calumet. Additional opportunities exist along the Inland Waterways. In Lake County, opportunities for new access and recreational venues exist along former industrial and commercial land at Waukegan and North Chicago.

  In contrast to the "urban" areas, there are also natural areas, along shoreline, and potential ecological improvements to existing recreation venues. The ICMP will identify incentives for individual private landowners to allow access to, or at least across, their stretch of private beach. Incentives may include additional policing, regular beach clean ups at no cost to the landowner, property tax breaks, and other options.

  Commercial and industrial activities will continue in the Lake Calumet area and along the Inland Waterways. Commercial water transportation and regional wastewater management are important economic uses. However, there are also untapped opportunities for access and recreation in these areas. The Chicago River portion of the inland Waterways (*i.e*., North Shore Channel, and North, South and Main Stem Chicago River) has unique recreational opportunities because it traverses the heart of Chicago's central business district. The coastal zone corridor along the Little Calumet and Grand Calumet Rivers provide opportunities because of the abundance of Forest Preserve District land.

- Planning For New Access and Recreation

  Lake Michigan is an asset to all Illinois residents. Future population growth in the Chicago metropolitan area requires that there be an increase public lakeshore access. One example of this is the growing popularity of canoe and kayak recreation along the Inland Waterways. There is also interest in further incorporating the Illinois lakeshore and the Inland Waterways into a plan for a Regional Water Trail (Openlands Project 2007). The ICMP will support the necessary planning to meet the growth and increased demand.

ICMP Integration into Existing IDNR Access and Recreation Planning Processes

The IDNR has numerous programs that assist with recreational improvements and projects.
The federal Land and Water Conservation Fund (LWCF) program, and the state Open Space Lands Acquisition and Development (OSLAD) program are Illinois' general-purpose outdoor recreation grant programs. They have comparable objectives, and both programs are managed by the IDNR with concurrent application due dates, equal grant maximums and similar general rules. Other IDNR outdoor recreation grant programs are the Recreational Trails Program, including the Bicycle Path Grant Program, Snowmobile Trail Establishment Fund, Off-Highway Vehicle Recreational Trails Program, Federal Recreational Trails Program, Local Government Snowmobile Grant Program, and the Boat Access Development Grant Program.
Illinois' outdoor recreation needs and priorities are identified in the IDNR's Statewide Comprehensive Outdoor Recreation Plan (SCORP), which is prepared as a five-year document to maintain eligibility. The OSLAD program is limited to local units of government for the acquisition of land, and development of facilities for outdoor recreation. In December 2009, IDNR completed the 2009-2014 SCORP, providing an assessment of Illinois residents' outdoor recreation needs; inventories of the state's outdoor recreation resources; and identifying the changing ways that people recreate in the outdoors. It set the following priorities for LWCF and OSLAD funding:

- Natural Resources Conservation
- Children in the Outdoors
- Greenways and Trails
- Revitalized Lands
- Water Resources
- Special Populations
- Healthy People and Communities
- Interagency Cooperation and Coordination

The LWCF and OSLAD programs are successful partnerships among federal, state and local governments. These programs assist in providing local agencies such as park districts, municipalities, and forest preserve districts, the needed close-to-home outdoor recreation lands and facilities. Local partners play a critical role in the management, and protection, of the state's natural and recreational resources. They further the public's understanding, and appreciation, of the state's natural resources through conservation education facilities and programs.

The IDNR Office of Realty and Environmental Planning (OREP) is responsible for outdoor recreation planning, program administration and project planning/coordination, and acquiring all real estate used by the IDNR for recreation, bikeway, natural areas, wildlife habitat, waterfowl, greenways and open

space programs. OREP provides real estate appraisal and acquisition assistance to the IDNR grant programs, and provides technical assistance related to land issues, to other IDNR Offices.
The ICMP has similar objectives and priorities. The ICMP and OREP will facilitate interagency interaction and communication, to coordinate coastal recreational and public access planning. The ICMP also offers a means to provide grant assistance for planning new coastal access and recreation, with an emphasis to broader aspects of regional planning. Exchange of grant proposals, and inventories of project needs, will happen annually. This exchange will be used to identify opportunities and needs best suited to the programs. This interagency coordination will also benefit local agencies.

6
Special Management Areas

Coastal Resources of National Significance

Illinois coastal resources of national significance are those with significant ecological, cultural, or historic values. An inventory of specific and enforceable authorities to protect these resources can be found in Chapter 9.

Collation of Issues and Areas Meriting Special Attention

In 2005 IDNR circulated a questionnaire to coastal stakeholders to identify resource issues and geographic areas as focal points for the ICMP. IDNR received 35 responses that served as a basis for a preliminary list, and also aided in developing a preliminary coastal boundary. Survey responses were sorted thematically to facilitate further discussion, and an issue paper was prepared on this subject. These can be found in the Issue Papers section of the CMP site.

The "Resource Issues" identified as meriting special attention were grouped as follows:

- Water Quality
- Shoreline Erosion
- Habitat, Ecosystem and Natural Area Restoration
- Ravine Systems
- Public Access and Recreational Resources
- Historic and Cultural Feature Preservation
- Education and Public Awareness
- Land Acquisition/Easement Opportunities

The "Specific Geographic Areas" identified as meriting special attention were grouped as follows:

- North Point Marina and Illinois Beach State Park
- Waukegan Harbor, Waukegan Lakefront and Waukegan River Watershed
- Chicago River and North Shore Channel River Corridors, and Wilmette Harbor
- Lake Calumet and Calumet River Area
- Little Calumet and Grand Calumet River Corridors

Role of the Technical Advisory Groups (TAGs)

IDNR recommended the formation of Technical Advisory Groups (TAGs) to assist in developing issue papers on resource issues and geographic areas identified as meriting special program attention. Over 100 individuals participated on at least one TAG. Participants represented city/county/state government, special interest groups, universities, property owners, and interested citizens.

TAG facilitators coordinated and received input from the TAG participants, and began preparing issue papers. In November 2005, the IDNR provided each TAG facilitator with a complete listing of TAG participants, showing title and work association, phone number, and e-mail address. A collated list of the questionnaire responses was provided along with directions and guidelines on how to proceed in developing papers. References to program requirements were given to participants to aid in understanding, and serve in developing the ICMP.

TAG Issue Paper Summary

The TAGS prepared 11 issue position papers, all of which are included in the Issue Papers section of the CMP site. ***The Issue Papers contain opinions that may or may not be the policy of the IDNR or all the TAG representatives.*** The issue papers raise concerns, management considerations, and suggested grant opportunities. They also provided analyses and discussion on interests of common consensus, and areas of differing viewpoints. The issue papers were an excellent resource for the ICMP and provided a better understanding of planning, management, and grant project needs.

Program Requirements for APC and APR

CZMA program regulation set forth the requirements for management program approvability. Areas of Particular Concern (APC),have important coastal-related values or characteristics, or may face pressures which require detailed attention beyond the general planning and regulatory system.

Section 923.20(b) of the CZMA regulations states, "*Where a State's general coastal management policies and authorities address state and national concerns comprehensively and are specific with respect to particular resources and uses, relatively less emphasis need be placed on designation of areas of particular concern."*

Section 923.21 requires, "*The management program must include an inventory and designation of areas of particular concern within the coastal zone, on a generic and/or site-specific basis, and broad guidelines on priorities of uses in particular areas, including specifically those uses of lowest priority. In developing criteria for inventorying and designating areas of particular concern, States must consider whether the following represent areas of concern requiring special management*:

(1) Areas of unique, scarce, fragile or vulnerable natural habitat; unique or fragile, physical, figuration (as, for example, Niagara Falls); historical significance, cultural value or scenic importance (including resources on or determined to be eligible for the National Register of Historic Places);

(2) Areas of high natural productivity or essential habitat for living resources, including fish, wildlife, and endangered species and the various trophic levels in the food web critical to their well-being;

(3) Areas of substantial recreational value and/or opportunity;

(4) Areas where developments and facilities are dependent upon the utilization of, or access to, coastal waters;

(5) Areas of unique hydrologic, geologic or topographic significance for industrial or commercial development or for dredge spoil disposal;

(6) Areas or urban concentration where shoreline utilization and water uses are highly competitive;

(7) Areas where, if development were permitted, it might be subject to significant hazard due to storms, slides, floods, erosion, settlement, salt water intrusion, and sea level rise;

(8) Areas needed to protect, maintain or replenish coastal lands or resources including coastal flood plains, aquifers and their recharge areas, estuaries, sand dunes, coral and other reefs, beaches, offshore sand deposits and mangrove stands."

Section 923.22 addresses requirements for Areas for Preservation or Restoration (APR) as follows:

"The management program must include procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, historical or esthetic values, and the criteria for such designations."

APC and APR Analysis for the ICMP

Our coastal region is somewhat unique because of the numerous levels of governmental authorities and extensive public input involving development and land use decisions. Management policies, regulations, and programs for the protection and use of land and water resources within our coastal boundary exist at all governmental levels, and are both general and specific. Nearly the entire inland coastal area is located within a municipal boundary. There are three ecosystem partnerships, and numerous interest groups that routinely provide input on coastal projects. Illinois has strong comprehensive authorities, programs and controls throughout the coastal area on both the state and local level.

The APC's will address the need for heightened or special management attention in the ICMP, and will include increased intergovernmental coordination, technical assistance, enhanced public expenditures, or additional public services to a designated area. It also may include regulatory, or permit requirements applicable only to the APC. In developing the issues and areas meriting special ICMP attention, no particular additional regulatory requirements were proposed. The ICMP will focus on these areas and issues using technical assistance, governmental coordination, and ICMP grants to assist in funding.

Many of the general issues and geographic areas identified as meriting special attention align with federal examples of general areas of concern. For Illinois, the entire ICMP boundary will be considered "An area or urban concentration where shoreline utilization and water uses are highly competitive." Several areas provide essential habitat for wildlife and endangered species, provide areas of substantial

recreational value, and are dependent upon access to our coastal waters. North Point Marina and Illinois Beach State Park possess significant habitat, endangered species, fragile environment, recreational value, and protection from shoreline erosion.
The ICMP established "general" areas for APC and APR. In response to the need for increased or special management attention on general APC and APR:

- ICMP staff will assist in coordinating governmental units to address complex or specific issues pertaining to APC and APR. Assistance will be provided in identifying and coordinating existing initiatives and partnership opportunities. The ICMP will also provide coordination on APC or APRs of regional concern, or interest that require coordination among several governmental units. Assistance will be provided in developing a comprehensive needs survey or cost share agreements amongst various governmental entities.

- The ICMP grants program will consider the needs and projects identified as APC and APR. Grants for special projects, research, planning, data needs, inventory, monitoring, and technical assistance are some of the areas that will be eligible for grant funding of APC and APR. Chapter 9 describes the criteria for eligibility, review and grant selection process.

ICMP Inventory and Designation of APC and APR

For each APC category, those uses that are most compatible with the needs and values of that respective APC will have highest priority. Lowest consideration is given to those activities that adversely affect the category. Illinois may designate additional APC's in the future as the ICMP is being implemented and as the need arises. Nominations of additional Areas of Particular Concern for inclusion in the Coastal Management Program may be suggested by State agencies, Federal agencies, local governments, organizations, and interested private citizens. New APC's must meet the criteria outlined and will be added as a routine program change.

Category 1: Areas to protect or improve Lake Michigan water quality and inland coastal waterways. Uses that maintain or improve the quality of Lake Michigan and inland coastal waterways will receive top priority. Low priority will be given to activities that harm the natural integrity of these waters.

Category 2: Areas of unique, scarce, fragile or vulnerable natural habitat, including areas of high natural productivity or essential habitat for living resources, including fish, wildlife, and threatened or endangered species. High priority uses are those that promote habitat preservation or wildlife management, undeveloped recreation, restoration, and scientific research. Low priority activities are those that would adversely affect the primary values for which such areas were acquired and are dedicated.

Category 3: Areas of substantial recreational value or opportunity, including public access opportunities. High-priority uses are those that provide public access and promote public recreation in such areas. Uses of low priority are those that inhibit the recreational potential of an area.

Category 4: Areas where development is dependent upon the use of, or access to, coastal waters for industrial or commercial use. High priority will be given to those uses that improve the capabilities of Illinois' ports, lakefronts, marinas, public utilities, roads, infrastructure, historic structures, shipping and navigation channels, brownfields adjacent to the Lake or shipping channels, and urban waterfront areas. Any uses that infringe upon a port, harbor, or navigable waterway's chief functions will be of low priority.

Category 5: Areas needed to protect, maintain or replenish coastal lands and significant resources subject to storms, floods, erosion, and settlement; including floodplains, wetlands, sand dunes, natural areas, offshore sand deposits, and recreational areas. High priority uses for wetlands are those that preserve and restore natural attributes, and serve natural preservation, wildlife habitat, hunting, floodwater retention, groundwater recharge, scientific research and environmental education functions. Any other uses are of lower priority.

The general APR will also include areas of historical significance or cultural value.

General APC Descriptions

This following describes the general APC areas meriting special program attention. The description includes the nature of the concern, and broad guidelines for ICMP assistance.

1. **Areas that protect or improve the water quality of Lake Michigan and the Inland coastal waterways.**

   Protecting and continuing to improve the water quality of Lake Michigan, and the inland coastal waterways, is essential to the health and prosperity of shoreline communities. waters.

   Water quality is a cardinal component for the majority of issues and all of the areas identified as meriting special program attention. Discussions on water quality are included in the issue papers on the inland waterways, Lake Calumet and the Waukegan River watershed. The breadth and depth of issues, studies, plans, and institutions involving water quality and their significance to our coastal region are immeasurable.

   Water quality is included in the ICMP as a general APC in recognition of its importance. The ICMP will assist in coordinating government efforts. Protection or improvement in water quality is achieved through a reduction in pollution sources, such as: point source discharges, road runoff, litter, abandoned landfills and industrial sites, and sailboat and powerboat sewage. The "Chicago River and North Shore Channel Corridors" issue paper discusses the significance of the Tunnel and Reservoir Project (TARP), the MWRDGC water reclamation plants, and the water quality standards and issues for the Chicago area waterways. The "Lake Calumet and Calumet River" issue paper discusses the numerous abandoned industrial sites, landfills, and associated pollution sources present in the area. The "Little Calumet and Grand Calumet" paper also discusses these same issues,

and the significance of wastewater effluent representing the majority of flow in the Little Calumet during dry periods. The Waukegan Harbor, Lakefront and Watershed issue paper discusses the federal listing of the Waukegan Harbor as an Area of Concern (AOC) for PCBs. It also discusses the potential for sanitary sewer overflows into the Waukegan River during storm events.

Water quality protection or improvement is also achieved through better stormwater and watershed management, through the protection or creation of wetlands, detention basins, aeration systems, and streambank stabilization. The "Ravine Systems" issue paper discusses the problems associated with rapid urban runoff and best management practices to slow the speed of runoff. Many ravines have historically been used as landfills. Stabilization of these ravines through e.g., revetment and/or vegetation could reduce erosion, and provide unique plant communities and wildlife habitat. The lack of stormwater detention, the need for streambank stabilization, and habitat improvement structures are also issues in the Waukegan River watershed.

With the intense use and demand for water dependent recreation, public health issues through water contact is a significant area of concern. Water quality monitoring and testing for fecal pollution is routinely conducted at public beaches during the swimming season by the Lake County Health Department and the Chicago Park District. Four Lake County beaches are monitored by the SwimCast systems, which provide real-time conditions allowing for the most accurate and timely decisions regarding the health of Lake County beaches. SwimCast measures various air and water quality conditions and parameters to help predict *E. coli* levels. The inland coastal waterways are increasingly used for secondary contact forms of recreation including boating, kayaking, and fishing. Engineering analyses are underway to provide feasibility studies, and cost analyses of various management options for protecting water quality. These include: supplemental aeration, disinfection of wastewater discharges, and eliminating combined sewer overflows.

An ICMP priority of the ICMP is to assist in efforts that will lead to the protection and improvement in water quality.

2. **Areas of unique, scarce, fragile or vulnerable natural habitat; including areas of high natural productivity, or essential habitat for living resources, including fish, wildlife, and threatened or endangered species.**

The number of TAG participants that assisted in the development of the the "Habitat, Ecosystem and Natural Area Restoration" issue paper was greater than for any other TAG. This is due to the number of interest groups where habitat protection is a major focus. The interest in natural habitat area protection is amplified and often parallels the interest in increased outdoor recreational areas. Many of the nature preserves, natural areas and parklands contain walking trails and wildlife viewing areas, that are appreciated by hikers and birders, or persons just looking for momentary sanctuary. These natural areas also provide significant water quality benefits, with their wetlands and vegetation serving as infiltration and collection pockets.

The variety of habitats within the Lake Michigan coastal area is greater than any other area of the state. Almost three-fourth of Illinois' threatened and endangered bird species are found here. The coastal area contains the only high-quality beach habitat and foredune, and more than half the remaining high-quality prairie. Many plant species, and entire plant communities, only exist in this area.

Illinois is a national leader in its programs and efforts to protect its most rare natural areas. In 1963, legislation was signed creating the Illinois Nature Preserves Commission (INPC), making Illinois the first state to develop a comprehensive statewide program for permanently protecting ecologically important natural areas. These last remaining remnants of our state's natural heritage are permanently protected by state law. Nature preserves are private and public lands that have rare plants, animals, or other unique natural features. Ranging in size from one acre to more than 2,000 acres, nature preserves protect tall grass prairies, oak groves, sandstone bluffs, wetlands, bogs and other threatened natural areas. Currently, nature preserves protect over 900 endangered and threatened plants and animals and contain more than 20% of all Illinois endangered species. The INPC is now a national model.

Many private landowners who have a rare, natural area dedicate their property as a nature preserve. Nature preserve landowners retain title to their land, have reduced property taxes, andreceive stewardship assistance. Options available to landowners include: nature preserve dedication, land and water reserve registration, or enrollment as an Illinois natural heritage landmark. The Illinois Natural Areas Preservation Act [525 ILCS 30] governs the INPC and authorizes it to preserve, protect and defend natural areas and endangered species habitat for public benefit.

A portion of Illinois Beach State Park became the first nature preserve in 1964. Since then, INPC's protection has expanded to 71,700 acres of private and public land in 93 of Illinois' 102 counties. Nature preserves provide unique opportunities for recreation, critical scientific study, and education. Many nature preserves are open to the public for hiking and nature watching. Each year the INPC issues 400-500 research permits to biologists, scientists, and students to study and monitor rare plants and animal species. This research will lead to improved ways to protect endangered plants and animals. The nature preserves system serves as a natural storehouse of genetic material, some of which could provide the chemical basis for new drugs and medicines. While protecting the last few remnants of our state's natural heritage, nature preserves also provide living classrooms to benefit future generations.

Illinois Nature Preserves Commission (INPC) areas located within the ICMP boundary are as follows:

- Burnham Prairie Nature Preserve
- Illinois Beach Nature Preserve
- Lyons Prairie and Woods Nature Preserve
- North Dunes Nature Preserve
- Powderhorn Prairie and Marsh Nature Preserve

- Spring Bluff Nature Preserve

  In 1978, Illinois completed the nation's first Natural Areas Inventory to document remaining natural communities and rare species habitats. The Illinois Natural Areas Inventory (INAI) is a comprehensive effort to find, evaluate, describe, and classify the best examples of Illinois' natural heritage, including high quality natural communities and endangered habitats. INAI areas are "environmentally sensitive resources" considered "irreplaceable assets." All state agencies and local governments are required by law to consult with the IDNR whenever actions that could jeopardize these resources are contemplated. The INAI serves as a guide for the INPC when determining the eligibility of lands for protection. The INAI served as a prototype for many other states.

  Currently there are only 654 high quality undisturbed natural communities in the state. Approximately half of these areas are unprotected and in danger of being destroyed. Each year, 12 to 15 new nature preserves are dedicated. Although IDNR updates the INAI quarterly, a more extensive update is made to take advantage of new knowledge and scientific discoveries. New inventories identify local and statewide areas of significance, and consider potential for restoring natural areas. A Geographical Information System is used for recording and protecting information about the site, and a website will be created where the public can access site information and area partnerships.

Illinois Natural Areas Inventory (INAI) sites located within the ICMP boundary are as follows:

130th Street Marsh
Blair Woods
Blodgett Bluff
Burnham Prairie
Crabtree Farm Woods
Dolton Avenue Prairie
Fort Sheridan Bluff
Fort Sheridan Site
Glencoe Botanical Area
Hubbard Woods Site
Illinois Beach
Illinois Dunes North
Lake Bluff Woods
Lake Calumet
Lyons Woods
McCormick Ravine
Montrose Beach Dune
Powderhorn Lake and Prairie
Ravinia Bluff
Waukegan Beach
Wolf Lake

- Ecosystem Monitoring

  A state-of-the-environment report published in 1994, titled "The Changing Illinois Environment: Critical Trends," concluded that ecosystems in Illinois are deteriorating, and their natural functions are being disrupted by fragmentation and stress. The state then began collecting data on both the extent, and condition of its ecosystems. The Critical Trends Assessment Program (CTAP) completed an atlas of Illinois land cover, an inventory of resource rich areas, and 30 regional watershed assessments. The team consisted of the Office of Realty and Environmental Planning, Natural

History Survey, State Geological Survey, State Water Survey, Waste Management and Research Center, and the State Museum. These offices will coordinate with the ICMP by serving as its Technical Advisory Committee (TAC).

The inventory of resource rich areas established priorities for the state's Conservation 2000 Ecosystems Program. Most of the program's Ecosystem Partnerships have at their core a resource-rich area. Ecosystem Partnerships consist of individuals and interest groups that work together to maintain and enhance ecological and economic conditions within a defined boundary. The Ecosystem Partnerships working within the ICMP boundary are the Lake Michigan Watershed, Chicago Wilderness, and Lake Calumet. As Ecosystem Partnerships were formed, CTAP prepared regional "Critical Trends" reports for their areas. Usually based on watershed boundaries, the reports describe an area's geology, water resources, living resources, socio-economics, environmental quality, and archaeological resources. They are designed to provide the baseline information the partnerships need to set priorities and develop management plans.

Two assessment reports have been prepared on areas within the ICMP boundary. *The Chicago River/Lake Shore: An Inventory of the Region's Resources* (October 2004), provides an excellent discussion on the various terrains and natural habitats which evolved, and which exist today. The other report, *The Calumet Area: An Inventory of the Region's Resources,* includes a description of changes in the prairies, rivers, streams, lakes, wetlands, forests, and savannas. Another excellent report, *The Illinois Steward, Discovering Our Place in Nature* (Volume 14, No. 4, Winter 2006) published by the University of Illinois at Urbana-Champaign, the Illinois-Indiana Sea Grant College Program, and the Illinois Natural History Survey. This report provides an overview of transformations of the Chicago River; highlights nature preserves within its watershed, and the change in social attitudes toward the river. It also discusses current challenges posed by invasive species, and recent efforts to improve the river to meet the growing demands of its urban setting.

CTAP has developed a long-term monitoring network, that provides current information on the condition of the major natural ecosystems. This information will support ICMP efforts to preserve, restore, and manage ecosystems across the state. CTAP seeks to develop a base of practical, real-world information that will help shape effective and economical environmental policies for the future on a sound ecosystem basis.

Trained volunteers in the EcoWatch network carry out less detailed biological surveys at several hundred sites. Together the two groups collect a representative set of biological indicators that measure environmental quality. The indicators include information on plants, birds, fishes and aquatic insects that will track changes in the four ecosystems.

Some general findings and issues applicable statewide and within the ICMP boundary include:

- Habitat fragmentation

This is a widespread threat to ecosystem functioning, which could limit attempts to maintain and enhance biodiversity. The splintering of wetlands, prairies, and forests into fragments makes it harder for small, isolated populations of plants and animals to breed. It also leaves them vulnerable to accidental eradication through fire or other mishap. Competition from exotic species also often increases when contiguous habitats are split by development. By 1976, less than 1/100th of 1%, or 2,352 acres, of high-quality original prairie remained in Illinois. Four of every five remaining acres of prairie are less than ten acres in size. The result is a trend toward a generic environment populated mainly by "generalist" species able to exploit simplified ecosystems. Habitat fragmentation and competition from exotic species have combined to threaten once-stable ecosystems. Healthy complex ecosystems linger mainly in habitats of marginal use to humans, such as river bottomlands, swamps, hillsides and bogs.

- Urban Sprawl

By 1990, Illinois' urban fringe had grown to house 37% of the state's population. The trend has affected air quality, petroleum consumption, and land use that are disproportionate to the population. Physical, rather than chemical, changes are probably the most disruptive force in Illinois stream ecology today. Urbanization is encroaching on Illinois streams and widespread channelization has altered water flow.

Most streams that drain prairie landforms have been straightened, their canopies removed, and watersheds tiled to drain fields more quickly. The data collected by CTAP scientists and RiverWatch volunteers note that most streams lack natural habitat features such as wooded riparian corridors, winding stream channels, and stable in-stream habitat such as coarse rocks and wood debris. Restoring native vegetation along streams would shade the streams, stabilize banks, and filter sediment and chemicals from runoff before they reached the streams, resulting in less siltation and desiccation and lower water temperatures.

Illinois wetlands harbor a great wealth of biological diversity and include many different environments, such as wet sand prairie, marsh and sedge meadow. An estimated 64 percent of Illinois' threatened or endangered species inhabit wetlands. Pre-settlement wetlands constituted one acre in every five; wetlands have since dwindled to 918,000 acres, of which only 6,000 acres are undisturbed. Recent laws have slowed the rate of wetlands destruction, and federal rules have led to the mitigation of wetland losses by the construction or restoration of wetlands. Unfortunately, even intact wetlands remain vulnerable to invasion by pollutants, sediments and exotic species. Artificial wetlands to date have duplicated neither the biological diversity nor the hydrological complexity of natural wetlands.

Asian Carp and other non-native species are threatening native populations. These species have rendered the ecology of Lake Michigan coastal zone unstable. Native mussels are threatened by accidentally introduced zebra mussels. Invasions by exotic or invasive plants and insect species are

increasing in severity and scope. The movement threat of Asian carp and other species and viruses between the Great Lakes and the Illinois/Mississippi River system is of great concern.

The Illinois coastal zone contains the richest variety and concentrations of habitat in the state. Beach and foredune habitat are found nowhere else. The area contains about 55 percent of the all-remaining high-quality sand prairie. Illinois Beach State Park contains the largest undeveloped single tract of coastal habitat. Its 6.5 miles of shoreline and the Illinois Beach and North Dunes nature preserves contain unique coastal beach ridge, and swale topography, including 14 high quality natural communities and at least 31 state threatened or endangered species. The area contains 1,153 acres of wetland that have not been degraded. The diverse prairie habitat found at Spring Bluff Forest Preserve provides a home to many bird species found nowhere else in the area. The Lake Michigan bluff ravine system may contain as many as 16 state threatened or endangered species supported by the unique wetland habitat created by seepage exiting into the ravines. Remnant prairie and wetland systems exist throughout the Lake Calumet area. The Lake Michigan shoreline is especially important for bird migratory stopover habitat, such as Montrose Point. Other important habitat areas are discussed in the CTAP assessment reports, the TAG issue papers, and other reference documents.

Endangered and Threatened Species located within the ICMP boundary are as follows:

Scientific Name	Common Name
Aflexia rubranura	Redveined Prairie Leafhopper
Agalinis skinneriana	Pale False Foxglove
Amelanchier sanguine	Shadbush
Ammodramus henslowii	Henslow's Sparrow
Ammophila breviligulata	Marram Grass
Arctostaphylos uva-ursi	Bearberry
Aster furcatus	Forked Aster
Bartramia longicauda	Upland Sandpiper
Bolboschoenus maritimus	Alkali Bulrush
Cakile edentula	Sea Rocket
Calopogon tuberosus	Grass Pink Orchid
Carex aurea	Golden Sedge
Carex garberi	Sedge
Carex viridula	Little Green Sedge
Castilleja sessiliflora	Downy Yellow Painted Cup
Catostomus catostomus	Longnose Sucker
Ceanothus herbaceous	Redroot
Chamaesyce polygonifolia	Seaside Spurge
Chlidonias niger	Black Tern
Cirsium pitcher	Pitcher's (Dune) Thistle
Clonophis kirtlandi	Kirtland's Snake

Cypripedium candidum	White Lady's Slipper
Drosera rotundifolia	Round-leaved Sundew
Egretta caerulea	Little Blue Heron
Egretta thula	Snowy Egret
Eleocharis olivacea	Spikerush
Eleocharis pauciflora	Few-flowered Spikerush
Elymus trachycaulus	Bearded Wheat Grass
Emydoidea blandingii	Blanding's Turtle
Etheostoma exile	Iowa Darter
Falco peregrines	Peregrine Falcon
Fundulus diaphanous	Banded Killifish
Gallinula chloropus	Common Moorhen
Haliaeetus leucocephalus	Bald Eagle
Hypericum kalmianum	Kalm's St. John's Wort
Incisalia polios	Hoary Elfin
Ixobrychus exilis	Least Bittern
Juncus alpinoarticulatus	Richardson's Rush
Juniperus communis	Ground Juniper
Juniperus horizontalis	Trailing Juniper
Kinosternon flavescens	Illinois Mud Turtle
Lathyrus ochroleucus	Pale Vetchling
Lechea intermedia	Pinweed
Lycaeides melissa samuelis	Karner Blue Butterfly
Menyanthes trifoliate	Buckbean
Notropis heterodon	Blackchin Shiner
Nyctanassa violacea	Yellow-crowned Night Heron
Nycticorax nycticorax	Black-crowned Night Heron
Oenothera perennis	Small Sundrops
Orobanche fasciculate	Clustered Broomrape
Paraphlepsius lupalus	Leafhopper
Phalaropus tricolor	Wilson's Phalarope
Pinus banksiana	Jack Pine
Platanthera clavellata	Wood Orchid
Platanthera flava var. herbiola	Tubercled Orchid
Platanthera leucophaea	Eastern Prairie Fringed Orchid
Platanthera psycodes	Purple Fringed Orchid
Poa alsodes	Grove Bluegrass
Poa languid	Weak Bluegrass
Polygonatum pubescens	Downy Solomon's Seal
Populus balsamifera	Balsam Poplar
Potamogeton gramineus	Grass-leaved Pondweed
Potamogeton robbinsii	Fern Pondweed

Rhynchospora alba	Beaked Rush
Rubus odoratus	Purple-flowering Raspberry
Rubus pubescens	Dwarf Raspberry
Salix syrticola	Dune Willow
Scirpus microcarpus	Bulrush
Shepherdia Canadensis	Buffaloberry
Spermophilus franklinii	Franklin's Ground Squirrel
Spiranthes lucida	Yellow-lipped Ladies' Tresses
Sterna hirundo	Common Tern
Tofieldia glutinosa	False Asphodel
Triglochin maritime	Common Bog Arrow Grass
Triglochin palustris	Slender Bog Arrow Grass
Utricularia cornuta	Horned Bladderwort
Utricularia intermedia	Flat-leaved Bladderwort
Utricularia minor	Small Bladderwort
Veronica scutellata	Marsh Speedwell
Viola conspersa	Dog Violet
Xanthocephalus	Yellow-headed Blackbird

3. Areas of substantial recreational value or opportunity, including public access.

Recreational resources within the Illinois coastal zone are critical to quality of life in the area. The combined population of Cook and Lake Counties is over 6 million and is projected to grow to 6.8 million by 2030. Public access to the recreational coastal areas not only serves local residents but also the numerous visitors. Many communities already have planning documents that address recreation and public access needs. Planning efforts to increase and improve upon recreational resources, such as lakeshore parks and open space are ongoing. The ICMP can assist coastal communities by building upon their planning efforts and in seeking out opportunities to provide public access and recreational resources. The ICMP can play a unique role in assisting the integration of broad based or regional goals with neighboring municipalities.

Chapter 5, and the *Public Access and Recreational Resources* issue paper provide descriptions of the existing recreational resources, and issues requiring special program attention and assistance. Several considerations discussed in these documents are summarized as follows:

- Recreation interests in this urban coastal setting are diverse and include areas and activities that are water or trail dependent, for nature viewing or retreat, trail use, or which support outdoor and public events. The stewardship and development challenge is to provide a diversity of access and recreation.

- Multiple approaches may be needed to improve public access to assure that the greatest number of citizens can benefit. These may include improvements in public transportation, parking for vehicles and bicycles, accessibility for seniors and persons with a disability, accessibility over major roadways

and tracks, and trails which link parks, beaches and recreation areas. Providing safe access for pedestrians between the bluff portions of lakeshore parks down to the beach. Trail improvements are needed within many of the ravine parks.

- Access and recreational opportunities should be enhanced, and expanded, to the highest degree possible, but not create unrestricted access to all public areas. Prudent stewardship requires restricted or denied access, to recreational uses in certain areas for reasons such as site preservation, habitat restoration, or public safety.

- The inland waterways, Lake Calumet, and the Calumet River may provide the greatest opportunities for improving pedestrian and watercraft access. These waterways offer intra-urban recreational opportunities as well as access and links between inland waters and Lake Michigan. However, efforts to enhance or increase public access/recreation along these water ways must consider the primary role in storm and wastewater management and commercial use.

4. Areas where industrial or commercial development is dependent upon the use of, or access to, coastal waters.

This general APC includes ports and harbors, port loading facilities, docking and mooring areas, shipping and navigation channels, brownfields adjacent to the lake or shipping channels, prime industrial and urban waterfront areas, and associated dependent facilities. The geographic areas that contain these water dependent facilities include the Calumet Harbor; Lake Calumet; the Calumet River; the ICMP corridor sections of the Little Calumet and Grand Calumet Rivers; the Chicago Harbor; the ICMP corridor sections of the Chicago River and its branches; the North Shore Channel; Wilmette Harbor; Waukegan Harbor; the Waukegan Lakefront, and North Point Marina.

Chicago has been referred to as “America’s crossroads,” where all modes of travel and freight intersect. Five federal highways and six major railroads pass through Chicago, and it’s economy is directly tied to its central location, its transportation infrastructure, and its port facilities.

Waterway transportation is the most efficient method per unit cost. It dramatically reduces the number of trucks on the road, and the environmental impacts of alternatives. The Port of Chicago links the inland-river system and the Great Lakes. It yearly moves over 26 million tons of natural resources and other goods. In a survey conducted for 2002, it was estimated that 30,000 jobs in the area were related to Port activities.

These geographic areas also contain most of the resource issues identified as meriting special program attention: water quality; erosion; habitat; public access; recreation; and land acquisition opportunities. Coastal water dependent areas contain the controlling structures separating Lake Michigan and the inland waterways, and the routes controlling effluent discharges and storm runoff. They also connect between the Great Lakes and the Mississippi River basins, providing a route for the passage of invasive species. Constraining factors include the U.S. Supreme Court

Decree limiting diversions, the demand for Lake Michigan water supply, navigation, and public safety.

Land use decisions in these coastal water dependent areas require analysis of the complex resource-related issues, and weighing the competing demands for these limited areas and resources. The desire and need for maintenance or development of industrial areas competes with the desire and need for commercial development. They each compete with the desire and need for open space, recreation, and public access demanded by the ever growing population. These complex issues require multi-objective planning, that most often requires balancing of interests to gain the greatest societal benefits. Many organizations ave adopted plans and vision statements for land use and development.

5. **Areas that protect, maintain or replenish coastal lands and significant resources subject to storms, floods, erosion, and settlement, including floodplains, wetlands, sand dunes, natural areas, offshore sand deposits, recreational areas, ports, lakefronts, marinas, public utilities, roads, infrastructure, and historic structures.**

   The ICMP will assist on issues related to the protection of coastal lands and significant resources from precipitation and wind, and changes in lake level and climate.

   This APC includes the issue paper descriptions on erosion occurring on the coastal shoreline, ravine systems, and in the Waukegan River. It also includes the Illinois Beach State Park and North Point Marina, including the Dead River and Kellogg Creek watersheds and in issue papers describing wetlands, floodplains, natural areas, ports, infrastructure and public recreational facilities.

APC Summary

The ICMP will provide technical assistance, facilitate governmental coordination, and award and provide oversight to address the issues and significance of these areas. The ICMP, with input from the TAC and the CAG, will prioritize issues. Broad APC guidelines will include:

- Importance of the issue with respect to its urgency and impact upon failure to take action
- Degree of regional benefit the action will provide
- Cost benefit ratio of the proposed effort
- Likelihood of achieving beneficial results in the manner and effort proposed

APR Description

The following is a general description of Areas for Preservation and Restoration (APR). Section 923.22 of the CZMA regulations states "*the management program must include procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, historical or esthetic values, and the criteria for such designations*."

Through APR's, the ICMP provides the opportunity for a specific area designation process. Through enforceable management and other legal instruments, a specific area may be preserved or become eligible for restoration and assistance. Future specific APR designation will provide the flexibility for the ICMP to address situations that may change over time. The criteria for designation and nomination guidelines for APR designations are discussed below.

Criteria for APR Designation

- The specific area for designation must be located within the ICMP Boundary
- The specific area must meet at least one of the general APC categories
- The specific area must require additional management criteria or a legal instrument for preservation or restoration
- The specific area must be either on publicly controlled lands, or a legal instrument must be provided, to ensure APR designation remains in perpetuity.
- The methods proposed to preserve or restore a specific area must be technically and financially feasible and achievable.
- The ICMP will only consider voluntary requests from landowner(s) of the specific areas for preservation or restoration.
- The ICMP will only consider APR designation from landowner(s) who agree to comply with all legal instruments and actions necessary to meet the objectives to preserve or restore the area.

Designating APRs

- The ICMP will only review nominations that meet all of the criteria for designation
- The ICMP will seek input and comments from the TAC, the CAG and any state or local governmental agency, as needed, to ensure that the criteria for designation has been met
- Nominations for designating an APR will be subject to final approval of the IDNR Director

7
Program Organization and Implementation

Purpose

The ICMP is organized to enhance the state's role in supporting partnerships among governmental agencies, and organizations. The ICMP strengthens local stakeholder capacity, and initiates and continues effective coastal management consistent with identified state standards and criteria.

The ICMP plays an important role in shaping coastal ecosystem management policies, streamlining procedures, and providing a clearinghouse for information on coastal regulatory programs. It increases public awareness, involvement, and opportunities for citizens to participate in decisions affecting our Lake Michigan coastal resources.

Executive Order

Executive Order 10-14 (EO) by Governor Pat Quinn designates IDNR as lead agency for implementation of the CMP. It outlines coastal management objectives, establishes a Technical Advisory Committee consisting of relevant state agencies, and identifies a conflict resolution process. Executive order 10-14 can be found in Appendix C.

ICMP Organization

DNR is designated as the lead state agency to receive and administer coastal management funds to implement the ICMP. The ICMP will review federal activities within the coastal zone for consistency, administer the coastal grants program, and support coastal communities in the development of sustainable coastal management policies.

The IDNR Coastal Management Program Office will report to the Director. IDNR staff and technical resources will support the ICMP. ICMP staff will collaborate with IDNR's Office of Water Resources Lake Michigan Division in reviewing federal consistency determinations.

Coastal Program Network and Roles

Implementation of Illinois laws and policies is conducted by many state agencies and local units of government. Their respective regulatory functions will continue to be performed as required under existing statutes and authorities. The ICMP document identifies a framework of existing programs, laws and policies that brings state agencies into a comprehensive network. This network will improve coordination and focus of efforts to protect and manage our coastal resources.

Consistency among State Agencies and within IDNR

State agencies are responsible for implementing polices and regulations in a manner consistent with Illinois State law. The ICMP will enhance coordination in the Coastal Zone in two ways. First, the ICMP authority originates within Executive Order 10-14 which ensures consistency amongst state agencies. Secondly, the ICMP network including the Technical Advisory Committee (TAC), and the Citizen Advisory Group (CAG) will also ensure state consistency on coastal policies.

Members of Coastal Program Network

- **Technical Advisory Committee**
  The Technical Advisory Committee (TAC) will review, and provide comment on the project recommendations received from the CAG. The TAC will also provide recommendations on priority issues, and emphasis areas. The TAC performs and important role as the forum for state agency input, consistency review, and coordination with other state or local agencies on projects or issues having an effect on land and water resources within the coastal zone. The TAC will formally meet twice a year to review and recommend grants proposals. In addition the TAC will form topic specific sub committees, to meet on a monthly basis or as necessary.

- **Coastal Advisory Group**
  The Coastal Advisory Group (CAG) will be the forum for broad public input. The CAG will form topic specific sub committees, to meet on a monthly basis or as necessary. The CAG makes recommendations which will provide better direction and implementation of the ICMP.

Regulatory Authorities

The IDNR is the state agency responsible for implementation. IDNR's mission is to manage, protect, and sustain Illinois' natural and cultural resources, further the public's understanding and appreciation of those resources, and promote the education, science and public safety of our natural resources for present and future generations. The following top priorities, identified in IDNR's Strategic Plan, support the IDNR's lead agency role.

- Maintain and meet the outdoor educational and recreational demands in a manner that preserves and protects fish, wildlife and other natural resources.

- Pursue direct acquisition of property to meet ecosystem based management and resource compatible recreation objectives.

- Improve quality of life for Illinois citizens through the proper management of the water resources of the state, including water supply, flood damage reduction, watershed planning, and regulation of development within floodplains.

- Collect data and information on natural and cultural resources, and effectively integrate Information Technology operations to increase productivity, enhance service delivery, and provide objective scientific and technological information to policy makers, students and scientists around the state.

- Encourage the public's safe use of recreational and natural resources.

- Utilize public/private partnerships and agency streamlining to achieve our priorities with limited fiscal resources.

- Maximize economic and recreational benefits to distressed areas by targeting grant dollars and focusing on internal recreational goals and objectives creating job opportunities in these communities.

IDNR Management and Regulatory Authorities Affecting the Coastal Zone:

See (20 ILCS 805/Art. 805)**. For specific enforceable policies for federal consistency please consult Chapter 11.**

i. Section 805-100 Conservation of fish and game
ii. Section 805-105 Conservation of fauna and flora
iii. Section 805-110 Statistics related to fauna and flora
iv. Section 805-115 Conservation information
v. Section 805-120 Pollution prevention
vi. Section 805-125 Agreements with federal agencies
vii. Section 805-130 Conservation of forests
viii. Section 805-120 Purchasing land for State parks
ix. Section 805-220 Historic structures
x. Section 805-225 Conservation of natural or scenic resources
xi. Section 805-230 Developing recreational areas
xii. Section 805-300 Public accommodation, educational and service facilities
xiii. Section 805-535 Conservation Police Officers

IDNR State Agencies Linkages

As the state's umbrella agency for management and protection of natural resources, the IDNR has been given broad regulatory authority, and management responsibility, for the coastal zone. These authorities and policies are cited in Chapters 9, 10, and 11. Within these statutes formal linkages exist between IDNR and other state agencies. These include:

- Rivers Lakes and Streams Act (615 ILCS 5/14a) (from ch. 19, par. 61a)
  Sec. 14a. It is the express intention of this legislation that close cooperation shall exist between the Pollution Control Board, the Environmental Protection Agency, and the Department of Natural Resources and that every resource of State government shall be applied to the proper preservation and utilization of the waters of Lake Michigan.

- Illinois Groundwater Protection Act (415 ILCS 55/4))(from ch. 111 ½. par. 7454)
  Sec. 4a. There shall be established within State government an interagency committee which shall be known as the Interagency Coordinating Committee on Groundwater. The Committee shall be composed of the Director, or his designee, of the following agencies:

- Illinois Environmental Protection Agency, who shall chair the Committee
- Illinois Department of Natural Resources
- Illinois Department of Public Health
- Office of Mines and Minerals within the DNR
- Office of the State Fire Marshall
- Division of Water Resources of the DNR
- The Illinois Department of Agriculture
- The Illinois Emergency Management Agency

- The Illinois Department of Nuclear Safety
- The Illinois Department of Commerce and Economic Opportunity
- **Interagency Wetland Policy Act of 1989** (20 ILCS 830/2-1) (from ch.96 ½, par.9702-1)
  An Interagency Wetlands Committee, chaired by the Director of Natural Resources or his representative, is established. The Directors of the following agencies, or their respective representatives, shall serve as members of the Committee:

- Capital Development Board
- Department of Agriculture
- Department of Commerce and Economic Opportunity
- Environmental Protection Agency
- Department of Transportation
- Historic Preservation Agency

The Interagency Wetlands Committee shall also include 2 additional persons with relevant expertise designated by the Director of Natural Resources. The IDNR offices carry out these responsibilities in conjunction with or with the advice and recommendations of various boards and commissions, as follows:

- Council on Forestry Development
- Illinois Endangered Species Protection Board
- Illinois Geographic Information Council
- Illinois Nature Preserves Commission
- Illinois State Museum Board
- Natural Resources Advisory Board
- Oil and Gas Board
- State Mining Board

In addition to the above, Executive Order 10-14 that established the Illinois Coastal Management Program within the Illinois Department of Natural Resources also formalized the linkages between state agencies.

"…I hereby direct all state agencies to carry out their legally established duties consistently with this program and in a manner which promotes coordination among those agencies in achieving its goals and objectives…"

IDNR Local Communities Linkages

There are other communication pathways and linkages that exist between the IDNR, and local governments, that provide for efficient and proper management of the ICMP. The IDNR has legislative mandates to coordinate with other state and local programs on the environment and natural resources. Existing authorities include IDNR issues:

- Permits for construction in Lake Michigan
- Permits for Lake Michigan diversions in all 21 communities in Coastal Zone
- Permits for construction in any floodplain or waterway
- Permits for Dam construction or modification

- Reviews of activities under Comprehensive Environmental Review Process (EAS)
- Floodplain mapping revisions (insurance)

IDNR manages State Parks and Natural Areas and has three ecosystem partnerships within the Coastal Zone Boundary. It also has the administrative capability to monitor and evaluate the management of the state's coastal resources by the various agencies having specified responsibilities, and to present evidence and make periodic reports to the OCRM and the Governor, regarding the performance of all agencies in adhering to the ICMP.

ICMP Administration

IDNR's organizational structure provides an effective, continuing consultation and coordination between the state agencies. Administration and implementation of the ICMP will be housed within the Illinois Coastal Program. The ICMP will expand IDNR's capacity to take on new tasks that the agency is not currently able to perform rather than absorbing tasks that are already underway.

The ICMP will:

- Provide for consultation and coordination within IDNR, IEPA and other state agencies, local governments, interstate agencies, and regional agencies within the coastal zone, assuring full participation in carrying out the purposes and management policies as cited in the ICMP.

- Administer an Illinois Coastal Grants Program, making annual funds available for competitive grants.

- Coordinate with the IEPA to jointly develop a Coastal Nonpoint Pollution Control Program.

- Administer Federal Consistency reviews to ensure that federal actions affecting land or water use within the coastal zone are consistent with the ICMP.

Carrying out the above responsibilities will require the following services and support:

- Fiscal management
- Grants administration
- Program development
- Resource management
- Project management
- GIS and website support

The ICMP Office will carry out these responsibilities from the IDNR offices in Chicago. Program support will be provided from the IDNR headquarters in Springfield. The IDNR Office of Realty and Environmental Planning will support land acquisitions funded through ICMP grants, and conduct internal reviews initiated by ICMP staff under the Comprehensive Environmental Review Process (CERP). This will be done to ensure that grant funded programs comply with relevant state and federal environmental statutes.

The OWR Division of Water Resource Management - Lake Michigan Programs Section is responsible for managing the state's interests in Lake Michigan, and issuing permits for work in and along the Lake

Michigan shore. The Section also administers water allocation from Lake Michigan, and monitors technical studies related to the lake level, bank erosion, and sediment movement. ICMP will work closely with the Lake Michigan Office of OWR to meet coastal communities and local governments' needs.

Other ORC divisions and IDNR offices provide support to facilitate administration, and to satisfy other special needs, such as GIS, website, procurement of services, and legal support. The ICMP initially employs 5 full-time staff to effectively administer the ICMP Program. ICMP requirements include ensuring state and federal consistency, developing the coastal NPS program, conducting TAC and CAG meetings, maintaining a website, and fulfilling numerous reporting requirements. The ICMP will hold grant workshops, monitor projects, and provide grant reporting.

ICMP Program Implementation

The ICMP will be implemented through existing state land and water resource authorities, within state and federal rules and regulations. Chapters 9, 10, and 11 describe the existing state authorities and policies for management and regulation of land and water resources within the coastal zone. They also identify the state agencies that administer those authorities.

The statutory authorities and enforceable policies are both comprehensive and specific in regulating land and water uses. The authorities vested within the IDNR and the IEPA comprise the foundation for addressing the special management areas cited in Chapter 6. These statutory authorities, together with other existing cooperative and coordinative linkages between the IDNR and the IEPA, provide jurisdictional framework to ensure proper implementation of the ICMP policies.

The following statutes are used to preserve and protect the waters of Lake Michigan. State agency and state-local coordination is cited under existing statute the **Rivers Lakes and Streams Act** 615 ILCS 5/14a. This statute requires IDNR, IEPA, and all state agencies to exercise their authorities in conformance with the policies of the ICMP. For specific enforceable policies for federal consistency please consult Chapter 11. Section 5/14a reads as follows:

Sec.14a. "*It is the express intention of this legislation that close cooperation shall exist between the Pollution Control Board, the Environmental Protection Agency, and the Department of Natural Resources and that every resource of State government shall be applied to the proper preservation and utilization of the waters of Lake Michigan.*

"The Environmental Protection Agency shall work in close cooperation with the City of Chicago and other affected units of government to: (1) terminate discharge of pollutional waste materials to Lake Michigan from vessels in both intra-state and inter-state navigation, and (2) abate domestic, industrial, and other pollution to assure that Lake Michigan beaches in Illinois are suitable for full body contact sports, meeting criteria of the Pollution Control Board."

"The Environmental Protection Agency shall regularly conduct water quality and lake bed surveys to evaluate the ecology and the quality of water in Lake Michigan. Results of such surveys shall be made available, without charge, to all interested persons and agencies. It shall be the responsibility of the Director of the Environmental Protection Agency to report annually or at such other times as the Governor shall direct; such report shall provide hydrologic, biologic, and chemical data together with recommendations to the Governor and members of the General Assembly."

"The requirement for reporting to the General Assembly shall be satisfied by filing copies of the report with the Speaker, the Minority Leader and the Clerk of the House of Representatives and the President, the Minority Leader and the Secretary of the Senate and the Legislative Research Unit, as required by Section 3.1 of "An Act to revise the law in relation to the General Assembly", approved February 25, 1874, as amended, and filing such additional copies with the State Government Report Distribution Center for the General Assembly as is required under paragraph (t) of Section 7 of the State Library Act. In meeting the requirements of this Act, the Pollution Control Board, Environmental Protection Agency and Department of Natural Resources are authorized to be in direct contact with individuals, municipalities, public and private corporations and other organizations which are or may be contributing to the discharge of pollution to Lake Michigan."

Another example that highlights the coordination between the IDNR and the IEPA, and which further ensures the responsibility to exercise their authorities in conformance with ICMP policies, is cited under existing statute of the **Rivers Lakes and Streams Act** 615 ILCS 5/18. Paragraphs 1, 2 and 3 of Section 18, which read as follows, specifically address the requirements for the Permit approval process for structures and fill in Lake Michigan:

"Sec. 18, Paragraphs 1, 2 and 3 "It is unlawful to make any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description or build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, causeway, harbor, or mooring facilities for watercraft, or build or commence the building of any other structure, or do any work of any kind whatsoever in any of the public bodies of water within the State of Illinois, without first submitting the plans, profiles, and specifications therefor, and such other data and information as may be required, to the Department of Natural Resources of the State and receiving a permit therefor signed by the Director of the Department and authenticated by the seal thereof. However, this requirement does not apply to duck blinds which comply with regulations of the Department of Natural Resources."

"However, except as provided in this Act, no permit shall be issued or renewed authorizing any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description in Lake Michigan unless the Illinois Environmental Protection Agency makes a final determination pursuant to subsection (a) of Section 39 of the Environmental Protection Act, as now or hereafter amended, that the proposed dredging or deposit of material will not cause a violation of the Environmental Protection Act or Pollution Control Board regulations."

"Nothing herein shall be construed to authorize the discharge or other disposition of materials of any kind into Lake Michigan without first obtaining a joint permit from the Department of Natural Resources and the Illinois Environmental Protection Agency. Any person, corporation, company, city or municipality, or other agency, who or which (1) discharges or disposes of any such materials into Lake Michigan without a permit or in violation of a permit, or (2) does any of the things prohibited by this Section shall be guilty of a Class A misdemeanor."

Construction projects in Illinois waterways, floodplains and wetlands often require both state and federal authorization. In furtherance of a coordinated permit review process, a Memorandum of Agreement was signed in 1982 to simplify the approval process for the applicants seeking project authorization from the U. S. Army Corps of Engineers, the IDNR Office of Water Resources, and the IEPA. This resulted in the use of a joint permit application.

Another key statute exemplifying the IDNR's authority and cooperation with other governmental agencies and organizations is the "Lake Michigan Shore Line Act." This Act provides the means or methods of preventing erosion along the shore of Lake Michigan and empowers the IDNR to enter into agreements to accomplish such. Sections 1 and 2 of the **Rivers Lakes and Streams Act** 615 ILCS 55 read as follows:

Sec. 1. "The Division of Water Resources of the Department of Natural Resources shall cause investigations, surveys and studies to be made in cooperation with appropriate federal, State and local agencies with the view to devising effective means or methods of preventing erosion of the shore of Lake Michigan by waves, currents, structures or other elemental and artificial processes, and of preventing or minimizing in the immediate future damage to homes and other buildings and danger to human life resulting from such erosion. Any expenses incident and necessary thereto shall be paid from funds specifically appropriated for such purpose."

Sec. 2. "The Division of Water Resources may in the execution of its powers and duties under this Act, cooperate and enter into agreements with the proper agencies of the United States government, municipal corporations or political subdivisions of the State or any public or private corporation, organization or individual. Such agreements may assign to the cooperating agencies, organizations or individuals specific projects, particular phases or portions of any such project or phase for the purposes of this Act and may provide for joint undertakings and contributions of funds or other resources to perform or accomplish any work agreed upon between the parties to such agreements."

ICMP Technical Advisory Committee

The ICMP Technical Advisory Committee (TAC) provides the forum for state agency input, consistency review, and coordination with other state agencies on projects or issues that could have an effect on land and water resources within the coastal zone. The Technical Advisory Committee (TAC) as one of its primary functions, will review and comment on all projects proposed for funding. The TAC will also serve as the central mechanism ensuring that all State agencies exercising their authorities within the coastal zone adhere to the ICMP policies and management techniques.

The TAC is composed of representatives having working knowledge and/or having job responsibilities associated with managing our coastal resources. As technical advisors, the TAC includes representatives familiar with the land and water uses, and areas of particular concern, for preservation, or restoration, or meriting special attention. Representatives must have working knowledge of their existing authorities, data, studies, reports, and programs within the coastal boundary. The Office Director, or Managers, of each of the following offices appoint the best qualified person as their representative.

The TAC also includes a representative from the Illinois-Indiana Sea Grant Program that conducts research on water resources in the southern Lake Michigan Great region, providing a valuable source for information and an interstate link.

- IDNR Coastal Management Program Office
- IDNR Office of Water Resources
- IDNR Office of Realty and Environmental Planning
- IDNR Office of Resource Conservation
- IDNR Office of Land Management
- Illinois State Geological Survey

- Illinois Natural History Survey
- Illinois Board of Natural Resources Sustainability
- Illinois State Water Survey
- IEPA Bureau of Water
- Illinois-Indiana Sea Grant Program

The following is a brief summary of the duties and functions of TAC members:

- IDNR Coastal Management Program Office preserves, protects, restores, and where possible, enhances the coastal resources in Illinois for this and succeeding generations. The program will improve the quality of decision-making by the state and coastal communities resulting in more effective outcomes.

- IDNR Office of Water Resources administers regulatory programs for construction in the floodways of rivers, lakes, and streams; shore waters of Lake Michigan; construction and operation of dams; construction in public bodies of water; diversion of water from Lake Michigan; and withdrawal of water from Lake Shelbyville, Carlyle Lake, and Rend Lake. The Office is the lead state agency for water resources planning, navigation, floodplain management, the National Flood Insurance Program, and interstate water resource organizations. Interagency duties include the state water plan, drought response, flood emergency situation reports, and the comprehensive review of Illinois water use law.

- IDNR Office of Realty and Environmental Planning directs environmental analysis functions of the IDNR to ensure preservation and protection of natural resource values through implementation of the Endangered Species Protection Act, Interagency Wetlands Policy Act, and the Illinois Natural Areas Preservation Act. It coordinates planning for departmental sites, greenways and trails by providing financial and technical assistance to local agencies and organizations. The Office is responsible for acquisition of all real estate for use in the IDNR's recreational and wildlife programs.

- IDNR Office of Resource Conservation's mission is to facilitate the protection, enhancement, and utilization of the state resources for its citizens. The Office administers federal aid and special funds programs such as the Wildlife Preservation Fund, and conservation programs, the Illinois Conservation Reserve Enhancement Program (CREP), the Landowner Incentive Program, and Illinois River 2020. Office Divisions are Fisheries, Wildlife Resources, and Habitat Resources, which manages forestry and exotic species. The Office works with the Nature Preserves Commission, and the Endangered Species Protection Board. The Office is also responsible for monitoring, maintaining, enhancing and restoring biological diversity, and the ecological condition of the Illinois landscape, through local partnerships and the Partners for Conservation Program. The Critical Trends Assessment Project provides an on-going process to evaluate the state's environment. The Office also addresses contaminant issues that impact IDNR properties.

- IDNR Office of Land Management is responsible for managing 308 state parks, and recreational sites located on more than 475,000 acres of land. The Office manages lodges, resorts, and activities at these sites, and provides information and educational programs on recreational activities, including camping, hiking, biking, fishing, and hunting. The Office prepares annual site work, a statewide site camping, and trails plan, and operations handbook which includes guidelines for new licenses, leases, permits and/or agreements.

- Illinois State Geological Survey provides earth science information relevant to the state's environmental quality, economic vitality, and public safety. Some 200 scientists and technical support staff conduct basic and applied research in geology, compile geologic maps, and gather and manage the state's geological data to provide information to industry, governmental agencies, and the public about Illinois geology and mineral resources.

- Illinois Natural History Survey (INHS) has been the guardian and recorder of biological resources since 1858. Over 200 scientists and technicians investigate and document biological resources, and acquire and provide natural history information to promote common understanding, conservation, and management of these resources. INHS maintains research programs in basic and applied ecology, systematics, and biogeography capable of addressing emerging issues relevant to conservation, management, and sustainable use of biotic resources. INHS provides a long-term repository of biological collections and ecological data, promotes cross-disciplinary collaboration to address complex ecological issues, and disseminates information on Illinois ecology and biodiversity.

- Illinois Board of Natural Resources Sustainability is the primary external advisory body for the Prairie Research Institute, provides input and advice on the scientific and research agenda, management, and funding of the Institute. The Institute contains five Divisions: Illinois Natural History Survey, Illinois State Archeological Survey, Illinois State Geological Survey, Illinois State Water Survey, and the Illinois Sustainable Technology Center.

- Illinois State Water Survey includes the Center for Atmospheric Science, Center for Chemistry & Technology, Center for Groundwater Science, Center for Watershed Science, and the National Atmospheric Deposition Program. The Water Survey provides monitoring, analytical, and mathematical modeling under these programs. The mission of the Center for Watershed Science is to generate historical and spatial scientific data, investigate and understand watershed processes, and provide state-of-the-art scientific and engineering analyses to policymakers, planners, and resource managers so they can develop and implement sustainable watershed programs based on the best scientific and engineering analyses.

- IEPA Bureau of Water ensures that rivers, streams and lakes support uses for which they are designated, including protection of aquatic life, recreation, and drinking water supply. This ensures that every public water system provides water that is safe to drink, and is protective of groundwater resources designated for drinking water and other beneficial uses. These water programs have been integrated to address major goals of the federal Clean Water Act, the federal Safe Drinking Water Act, and state regulations that address water pollution and water supply. The Bureau of Water conducts the following programs to protect and enhance the quality surface waters: permit programs, compliance/enforcement, surface water quality monitoring and assessment, watershed management, operator certification, field operations, and water quality standards.

- Illinois-Indiana Sea Grant Program (IISG) is one of 32 programs constituting the National Sea Grant network dedicated to research, education, and outreach to promote wise use of our nation's coastal, ocean, and Great Lakes resources for a sustainable economy and environment. The IISG serves clients along 104 miles of heavily urbanized and industrialized shoreline in Illinois and Indiana. IISG is jointly sponsored by the University of Illinois and Purdue University. The IISG focuses its resources on local topics, which also address priorities outlined in the NOAA, and National Sea Grant Program Strategic Plans. The IISG addresses local and regional needs and opportunities in four

thematic areas: habitats and ecosystems, water for our future, coastal cities, and nourishing healthy communities.

ICMP Coastal Advisory Group

The Coastal Advisory Group (CAG) provides recommendations on priority issues and emphasis areas with particular relevance being the forum for broad public input on regional issues and community involvement. The CAG makes recommendations to the ICMP providing direction and implementation. The CAG will identify coastal areas, emerging issues, or policy assistance needs on other management issues and long term goals. It will also assist in addressing conflict resolution.

The major duties for the CAG are to:

- Provide recommendations on priorities for studies/projects to be included in the annual grant applications
- Provide recommendations on ICMP policy direction, comprehensive coastal resource management issues, and long term development goals
- Provide assistance in conflict resolution

The ICMP Coastal Advisory Group includes one representative from each of the following:

- Office of the Lieutenant Governor
- Chicago Metropolitan Agency for Planning
- Alliance for the Great Lakes
- Lake County Forest Preserve District
- Forest Preserve District of Cook County
- Metropolitan Water Reclamation District of Greater Chicago
- Chicago Wilderness
- Lake Michigan Watershed Ecosystem Partnership
- Lake Calumet Ecosystem Partnership
- Friends of the Chicago River
- Lake County Stormwater Management Commission
- Illinois International Port District
- Waukegan Harbor Citizens Advisory Group
- One regional representative from the following coastal segments and inland waterway corridors:
  - Far North Coast (sand plain) Winthrop Harbor, Zion, Beach Park, Waukegan, North Chicago
  - Central Coast (bluff coast) Lake Bluff, Lake Forest, Highwood, Highland Park, Glencoe, Winnetka, Kenilworth, Wilmette
  - South Coast (lake plain) Chicago, Evanston
  - Chicago River and North Shore Channel Corridors (Inland Waterway) Chicago, Evanston, Lincolnwood, Skokie, Wilmette
  - Little Calumet and Grand Calumet River Corridors (Inland Waterway) Blue Island, Burnham, Calumet City, Calumet Park, Chicago, Dolton, Riverdale

Regional representation may be from a department, park district, commission, or the community, subject to approval of the municipalities identified within that region. Regional representation on the CAG will rotate on a biennial basis, or as agreed to by the municipalities. To ensure the CAG will be the primary mechanism for continuing consultation and coordination beyond state government, it will meet

annually, with monthly meetings of subcommittees as needed. Representation on the ICMP Coastal Advisory Group is subject to approval of the IDNR Director.

The following provides a brief description of the duties and functions of the non-municipal groups represented on the CAG:

- Office of the Lieutenant Governor is first in line of succession to the Governor, and has several defined duties. These include serving as chair of the following entities: Illinois River Coordinating Council, Governor's Rural Affairs Council, Illinois Main Street CAG, Illinois Green Government Coordinating Council, and Broadband Deployment Council.

- Chicago Metropolitan Agency for Planning (CMAP) was created by merging the Northeastern Illinois Planning Commission (NIPC) and the Chicago Area Transportation Study (CATS), in order to integrate planning for transportation and land use. CMAP serves Cook, Lake, McHenry, DuPage, Kane, Kendall, and Will counties and continues NIPC's mandate for leadership of regional growth management and comprehensive land-use planning. CMAP conducts planning research for the region, including data collection on population trends, social, economic, physical, aesthetic, and governmental factors affecting development. It advises units of government concerning the plans, projects, proposals, and policies adopted or under consideration by any units of government to other plans, projects, proposals ,and policies in the region; and recommends generalized comprehensive plans and policies which are metropolitan in character.

- Alliance for the Great Lakes works to conserve and restore the world's largest freshwater resource through policy, education and local efforts. The Alliance works on basin-wide policies, in partnership with other organizations, and mobilizes local efforts on behalf of the Great Lakes. It also works with the region's residents, teachers, scientists, economists, legal specialists, government representatives, communities, and individuals. Programs focus on water quality, water conservation, habitat recovery, land use, clean energy, education, and outreach.

- Lake County Forest Preserve District manages land and natural, cultural, educational, and recreational resources. The District presents the history and culture of Lake County through diverse exhibits and programs; comprehensive environmental education programs; a land preservation and acquisition program; master plans, and manages recreation, trail, and capital improvement projects. The District implements natural resource management programs including habitat restoration, reforestation, and fish and wildlife monitoring.

- Forest Preserve District of Cook County "Acquires… and holds lands to protect and preserve the flora, fauna, and scenic beauties within the district, and to restore, restock, protect, and preserve the natural forests...". The District oversees construction and maintenance of facilities, and manages a Nature Education Program, Land Management Programs, and six Nature Centers.

- Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) is an independent government and taxing body including approximately 91% of the land area of Cook County. The MWRDGC controls approximately 76 miles of navigable waterways, connecting the Atlantic Ocean to the Great Lakes and the Gulf of Mexico. The MWRDGC serves an area of 883 square miles, which includes the City of Chicago and 125 suburban communities having an equivalent population of 10.35 million people (5.25 million people, and a commercial and industrial equivalent of 4.5 million people). The District treats an average 1.5 billion gallons of wastewater each day. The District's

Tunnel and Reservoir Project (TARP) is one of the country's largest public works projects for pollution and flood control. One hundred and nine miles of tunnels have already been completed and are in operation.

- Chicago Wilderness is a regional nature reserve that includes more than 225,000 acres of protected natural areas. It stretches from southeastern Wisconsin, through northeastern Illinois and into northwestern Indiana. The protected areas are forest preserves, state parks, federal lands, county preserves, and privately owned lands. There are also many unprotected natural areas that offer refuge to native wildlife. The Chicago Wilderness consortium is an alliance of more than 180 public and private organizations working together to protect, restore, study and manage the natural ecosystems of the Chicago region. The consortium's mission is to restore the region's natural communities to long term viability, enrich local residents' quality of life, and contribute to the preservation of global biodiversity.

- Lake Michigan Watershed Ecosystem Partnership was designated an ecosystem partnership by IDNR's C2000 program in January 2006. Goals for the partnership include improving water quality, protecting and restoring natural areas and wildlife habitat, managing stormwater and enhancing lakefront recreational opportunities. The partnership also demonstrates the ability of interstate, public, and private stakeholders to work together, including various local, state, and federal agencies, and the ICMP.

- Lake Calumet Ecosystem Partnership became an IDNR C2000 partnership in 1999. Its boundaries include a dozen urban residential communities in Southeast Chicago and South suburbs. These communities located in Cook County surround Lake Calumet, the Calumet River and Illinois portions of the Little Calumet and Grand Calumet Rivers. This partnership focuses on restoring the natural environment, interpreting our history, fostering a sustainable economy, revitalizing our community and protecting environmental health.

- Friends of the Chicago River "Friends" fosters vitality of the Chicago River for the human, plant and animal communities within its watershed. Priorities are to provide public access to the Chicago River and shows the Chicago River can be both ecologically healthy and a catalyst for community revitalization. "Friends" envisions a continuous Chicago River Trail, linking the more than 50 urban neighborhoods and communities along the River's 156 miles. "Friends" mobilizes volunteers, brings together coalitions, initiates planning solutions, connects people to the River through public outreach and education programs, and actively pursues on-the-ground projects.

- Lake County Stormwater Management Commission (SMC) coordinates the stormwater management activities of over 90 jurisdictions. SMC provides technical assistance, local knowledge and problem-solving skills to coordinate flood damage reduction, flood hazard mitigation, water quality enhancement, and natural resource protection projects and programs. The SMC 2002 Comprehensive Stormwater Management Plan includes implementation of countywide minimum standards for new development; projects to reduce existing flooding and water pollution; flood hazard mitigation; multipurpose use of open space, natural floodplains and other natural resources through coordination, technical assistance, and public information.

- Illinois International Port District is governed by a nine-member Board of Directors. The Port District has studies harbor plans and recommends changes to meet changing business and commercial needs. The Port District has rights and powers to issue permits for construction; to acquire,

construct, own, lease and develop any port related facility or service; to police its property and exercise police powers; to acquire by purchase or lease real property for the development of adequate channels, ports, harbors, and terminal facilities; and the power to apply for and accept grants from the Federal government or the state.

ICMP State Consistency

Through an extensive networking approach, the state will provide for proper communication and coordination. The network will maintain checks and balances, a well-focused effort, and clear establishment of priorities needed for effective planning and management. Together, the network and state's statutory requirements provide for implementing the full range of policies and management techniques. ICMP staff provide for implementing public outreach, state and local agency coordination, state consistency review, grant administration, education, scheduling meetings, and maintaining an ICMP website.

- IDNR Environmental Position — IDNR Office of Realty and Environmental Planning, Division of Ecosystems and determines an official IDNR environmental position on internal and external projects. This includes permits, and plans related to construction, development or other activities that would change existing environmental conditions, unless otherwise officially designated by the IDNR Director. The Division will carry out this responsibility under the IDNR's CERP Program.

- Distinguishing ICMP Consistency and the IDNR Environmental Position —The ICMP will work with the Division of Ecosystems and Environment to ensure state consistency. ICMP staff will be the point of contact for providing ICMP state consistency reviews and determinations. To ensure ICMP state consistency, all projects will undergo a CERP review conducted by the OREP's Division of Ecosystems and Environment.

The TAC will be the key mechanism for ensuring state administrative review of development plans, projects, or land and water use regulations to ensure ICMP state consistency. Other state and relevant agency contacts will be identified in order to make consistency determinations for state authorities not represented on the TAC or to seek consultation on specific issues of relevance as necessary. The IDNR Director has final authority on any change to the makeup or representation on either the TAC or the CAG to best satisfy ICMP objectives and requirements.

ICMP Framework Summary

Here is a summary of the key roles in implementing a framework that meets the program management requirements:

- Lead Agency —IDNR is the lead agency for administering the ICMP. The IDNR Director is the final authority in recommending programmatic changes to NOAA, in making changes to the network including representation on the TAC and CAG, and making decisions to resolve conflicts in program direction, administration, or ICMP consistency.

- Lead ICMP Office —The ICMP staff is a separate office within the IDNR reporting to the Director. It maintains its offices in Chicago. The ICMP staff is the central point of contact for program administration.

- Lead Supporting Agency — IEPA is the lead supporting agency to the IDNR in administering the ICMP. IEPA provides full support to the IDNR in developing a Coastal NPS Control Program Development Plan.

8
Coastal Management Program Funding and Grants Program

ICMP Grants Program

The primary goal of the ICMP Grants Program is to assist in the preservation, protection, and enhancement of Illinois' Lake Michigan coastal resources. An objective of the ICMP will be to facilitate cooperation and coordination among state and local units of governments, regional agencies, interest groups, and stakeholders. The IDNR will make available a portion of 306/306A funding through the ICMP Grants Program. To support eligible organizations and assist in funding studies and projects which are consistent with ICMP policies, goals, and objectives. The ICMP will provide an annual list of priority areas and needs.

The ICMP Grants Program will provide assistance to coastal communities to plan for balanced growth and sustainability, and for watershed management to address coastal nonpoint pollution. Priority will be given to projects which encourage communities to adopt comprehensive plans to protect coastal resources. The ICMP will also support projects addressing hazard mitigation, natural resource protection or restoration, economic viability, or projects which enhance public access. Funding may also be available to provide assistance for research, data collection, education or public awareness.

Recipients Eligible for ICMP Grants

IDNR may allocate a portion of Section 306 and 306A grant funds to the following recipients for projects or activities consistent with ICMP priorities and policies:

- Units of local government, including municipalities, townships, counties, villages and water reclamation districts
- Area-wide agencies, including county and regional planning agencies designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966
- State agencies
- Colleges, universities and other institutions of higher learning
- Park districts, conservancy districts, school districts and port authorities
- Basin commissions
- Nonprofit organizations that are 501(c)(3) organizations and have been nominated to undertake the project by one of the other eligible entities listed above. Nonprofit organizations are only eligible for non-construction and non-acquisition projects.

Examples of Eligible Projects

- Coastal Hazard Mitigation
- Public Access
- Nonpoint Source Pollution Control
- Coastal Wetland Protection
- Government Coordination and Decision Making
- Historic Preservation
- Coastal Resource Research and Data Collection
- Community Planning
- Education and Public Awareness
- Habitat Restoration
- Land Acquisition

Examples of Ineligible Projects

- Beach re-nourishment
- Restroom facilities
- Large-scale hard structure erosion control projects
- Maintenance
- General recreational facilities such as playgrounds or ball fields
- Road and parking lot construction
- Water and sewer line construction
- Wetland or habitat restoration required as a permit condition or mitigation program
- Cleanup of contaminated sites required as a permit or regulatory action
- Improvements to private property or for private enterprises

Identifying Annual Priority Areas for the ICMP Grants Program

The ICMP will be a dynamic program reflecting the continually changing coastal environment. Project evaluation criteria will be weighted to provide incentives for projects addressing the ICMP priority issues and emphasis areas. The following approach will be taken to identify these priority needs and emphasis areas:

- The Coastal Advisory Group (CAG) will identify priority issues and emphasis areas. The CAG will also make recommendations on direction and implementation of the ICMP.

- The Technical Advisory Committee (TAC) will review and comment on the recommendations received from the CAG. The TAC will also provide recommendations on priority issues and emphasis areas. Final approval on projects will be made by the IDNR Director.

9
Management Policies and Authorities

General Requirements

Existing regulatory authorities, programs, and case law meets federal requirements for program approval. Thus, state land and water use planning and regulations, described as "control technique B" at subsection 306(d)(11)(B) of the CZMA, will be the means by which Illinois will enforce its coastal management policies. The ICMP program also will make use of "technique A" to regulate flooding, erosion and sedimentation as the State of Illinois delegate authority to local or regional entities in this area. This is discussed in greater detail on pages 111-113.

The Governor designated IDNR as the lead agency administering the ICMP and coordinating with other state agencies to ensure program compliance. IDNR will lead a network consisting of other state agencies, which manage land and water uses to protect our coastal resources.

Program regulations require that the ICMP include a definition of what shall constitute "Uses Subject To Management" within the coastal zone which have a direct and significant impact on the coastal waters [15 CFR 923.11(a)1]. To fulfill this requirement, the following definition has been established:

"Uses subject to management within the coastal boundary that have a direct and significant impact on coastal resources, have obtained all required federal and state permits, and can demonstrate compliance with all federal and state regulatory programs."

These uses are separate and distinct from "uses of a regional benefit" which are those uses that generally serve more than one community, such as an energy facility, or public park. Existing authorities and case law ensure that local land and water use regulations do not unreasonably exclude uses of regional benefit.

ICMP Land and Water Use Authorities

The ICMP provides for the management of land and water uses having a direct and significant impact on coastal waters. Identifying the land and water use authorities appropriate for coastal management purposes require identifying current land uses and demand for natural and man-made resources within the boundary. It also requires an analysis of projected changes in land use, and increases in demand, respectful of the geographic and political nature of our coastal boundary. It considers the individual and cumulative impacts of current and projected uses on Lake Michigan. The following analysis establishes land and water uses that potentially have an impact on Lake Michigan. State laws, regulations, and programs pertinent to these land and water uses are identified. Authorities which administer these state laws, regulations, and programs are identified by state agency and listed. These authorities are "networked" and are responsible for ensuring ICMP conformance.

- Geographic and Political Considerations: The ICMP inland boundary encompasses about 110 square miles. It is highly urbanized and located within Cook and Lake Counties with a population over 6 million people. The boundary is a jigsaw connection of 15 coastal municipalities, beginning with Winthrop Harbor at the Wisconsin border, to the City of Chicago at the Indiana border. Inclusion of the inland waterway corridors adds portions of eight additional municipalities. This is significant because the majority of the ICMP inland boundary lies within a municipality and is either mostly urbanized, sanctioned as park or recreational areas, or was once industrialized and is since left to redevelopment.

  By 2030, the population of Cook and Lake Counties is projected to increase to over 6.8 million people. The six-county northeastern Illinois region is forecasted at a population over 10 million by 2030, a 20 percent increase. This increase in population will place additional demands on our coastal resources and elevate their value. Land use decision-making, and planning to achieve the highest, or best land use, will involve assessments of needs for public recreation, parks, trails, and open areas.

- Water Dependency Considerations: Water is the common thread of the coastal area, and its protection as a resource is the key management component. The engineered waterways, water control structures, shoreline fills, and revetments have completely transfigured the hydrology of the area into a managed hydraulic network.

  With population densities exceeding 20,000 people per square mile in several coastal areas, individual impacts add up quickly. Common practices of fertilizing lawns, plastic bottle use, boat cleaning, walking of pets, and washing cars have cumulative impacts on our waters as do the oils and exhaust deposits associated with transportation. Ongoing programs address non-point source pollution, with efforts and incentives to address direct runoff from impervious pavements.

  State regulations and programs continue to evolve and change in efforts to improve water quality, reduce flooding, and provide a safe water supply. Water quality in the Chicago area waterways has improved dramatically, and completion of the Tunnel and Research Project (TARP) to control stormwater will likely mean the end to stormwater/effluent discharges entering into Lake Michigan.

  New issues and concerns continually emerge creating additional challenges to address. Issues such as hypoxia, invasive species, habitat destruction, and climate change are of global concern and parallel our regional concerns of nutrient loading on streams and Lake Michigan, the threat of Asian carp entering the Great Lakes, and invasive plants taking over our natural areas.

  Land uses that affect quality or quantity of water will be key areas of ICMP attention. Regulations and programs pertaining to discharges, flood control, construction in floodways and public waters, non-point source pollution, and water supply are identified.

- Urban Development Considerations: Few areas within the inland coastal boundary remain undisturbed. Agricultural land use has been mostly lost to urban development. High land values within the coastal boundary drive investment decisions on land use and development. New construction is often "redevelopment" with decisions involving rebuilding, restoring, demolition, or salvage value. Development issues in abandoned industrial sites involve analyses of environmental liabilities and risks in disturbing areas. Abandoned industrial sites and brownfields are often considered as viable sites for recreation or parkland use. Several sites have been capped with soil and/or parking lots to allow for best use of such sites. These are mostly government driven ventures serving a public need.

  Since almost all inland coastal boundary is located within a municipality, land use decisions are constrained by local and county zoning ordinances. All communities have planning and economic development staff. Many have planning commissions and neighborhood planning committees with common missions and goals to redevelop distressed property, revitalize neighborhoods, provide job opportunities, and generate tax revenue to support bringing amenities to the neighborhoods.

  In general, neighborhoods and citizens actively participate in the revitalization and redevelopment plans for their community. Most communities have developed guiding principles that identify constraints and practical needs in land use considerations for future development. Some have integrated urban design considerations reflecting both the state and national interests. Many community plans include measures addressing mass transportation and thoroughfare routes, pedestrian and bicycling needs, parking, and preservation of historic districts and community aesthetics.

  Each of the coastal communities possesses a unique character and history. Development plans often include measures to sustain the architectural and historical vitality of neighborhoods by aiding in the restoration, rehabilitation, and conservation of historic buildings and preservation districts. Several municipal development plans necessarily include zoning designations that balance needs. For example, planning guidelines may be specified which allow tall buildings for high-density business/residential development that keep intact the neighborhood character as much as possible.

Summary of Considerations

The ICMP inland boundary area is highly urbanized and densely populated. Increases in population within the boundary and northeastern Illinois, will challenge the achievement of a proper balance of economical growth, employment, preservation of historic features and natural areas unique to the area, and increasing public recreational facilities, parks, and open space.

Coastal communities are vibrant, well informed, and understand the needs of their community and the value of their resources. Many communities have developed comprehensive redevelopment plans, identifying vision statements, guiding principles and land use considerations. While the ICMP will utilize state regulations and programs to meet federal regulations for management purposes, the IDNR recognizes the value and asset of working with the coastal communities in meeting common objectives.

Water quality and quantity issues transcend political boundaries with impacts affecting all coastal communities. The identification of state authorities and programs that address land or water use actions, which have a significant impact or effect on water quantity or quality, will be a key management issue for the ICMP.

The ICMP will coordinate urban land uses within the boundary. It will assist communities in targeted and appropriate way that maximizes the best use of coastal resources.

Management Authorities by Category

The ICMP developed a clear set of criteria to identify "Uses subject to management":

- Located in the Coastal Zone boundary.
- Has a detrimental environmental impact upon any coastal use or resource within the coastal zone boundary.
- Creates adverse effects on the quality or quantity of natural, economic, social, or historical coastal resources.
- Disrupts access to a public coastal resource.

Corresponding resource categories have been established to provide uses subject to management:

Category 1: Public Waters, Navigation and the Public Interest

Category 2: Erosion and Flooding

Category 3: Water Quality and Water Supply

Category 4: Habitats, Wetlands, and Wildlife

Category 5: Historic, Archaeological and Cultural Resources

Category 6: Recreation and Public Access

Category 7: Economic Development

Category 8: Energy Facilities and Air Quality (Addressed in Chapter 10)

The state meeting the management criteria required for ICMP approval follow in this chapter, and in chapter 10, which describes the state's energy facility planning process. They reference Acts by statute and administrative rules as appropriate. There are also some references to state programs, which are not regulatory, but provide an important management aspect , for example economic incentives.

The information referenced in this chapter was obtained from the Illinois General Assembly website at www.ilga.gov.or state agency websites.

The following are abbreviations commonly used in this chapter:

ILCS Illinois Compiled Statutes [reference enclosed in brackets for ease of identification]
IAC Illinois Administrative Code (reference enclosed in parenthesis)
IDNR Illinois Department of Natural Resources
IEPA Illinois Environmental Protection Agency
IPCB Illinois Pollution Control Board
IDOA Illinois Department of Agriculture
IHPA Illinois Historic Preservation Agency
INPC Illinois Nature Preserves Commission
DCEO Illinois Department of Commerce and Economic Opportunity

Category 1: Public Waters, Navigation and the Public Interest

Uses subject to management:

- Any construction in Lake Michigan
- Diversion or withdrawal of water from Lake Michigan for any purpose
- Activities affecting natural areas, nature preserves, terrestrial or aquatic wildlife habitat and areas of historical significance
- Development of public parks and resources

Public Trust Doctrine Principles and Applicable Court Decisions

The ***Public Trust Doctrine*** is the principle of federal law that **preserves** certain resource for public use. Public trust waters are the state's navigable waters and public trust lands are the lands beneath those navigable waters, up to the ordinary high water mark. The Supreme Court has broadened the definition of public trust waters to include all waters subject to the ebb and flow of the tide, regardless of navigability. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469 (1988). In some instances, states may override common law with legislation, establishing different boundaries public and private land.

States hold the title to submerged lands under navigable waterways. *Martin v. Waddell,* 41 U.S. 367 (1842). In *Illinois Central Railroad Co. v. Illinois*, the U.S. Supreme Court described a state's title in public trust lands as "a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties." 146 U.S. 387, 452 (1892). The public's right of access for fishing, fowling, and navigation overrides the private property owner's rights in the public trust lands; however, the public's rights are subservient to the private owner's right to build docks, among other activities.

States may convey public trust lands only in limited circumstances. The United States Supreme Court, in *Illinois Central Railroad Co. v. Illinois*, held that a "State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace." *Illinois Central*, 146 U.S. at 452-54.

In *People ex rel. Scott v. Chicago Park District*, the Illinois Supreme Court recognized that the state may grant land to a private party only when it would further a public purpose. 66 Ill. 2d 65, 81 (Ill. 1976). The courts should be critical of attempts by the state to surrender valuable public resources to a private entity. *Lake Michigan Federation v. US Army Corps of Engineers*, 742 F. Supp. 441 (Ill. 1990). Such attempts by the state should be invalidated under the public trust doctrine. *Id.* The fact that the university planned to provide some unrestricted public access did not change the fact that the legislature was transferring submerged lands under Lake Michigan to a private university, thus violating the public trust doctrine. *Id.*

The "riparian rights" of a shore owner are the rights of accretion and right of access to the water from the land. *Bowes v. City of Chicago*, 120 N.E. 2d 15 (Ill. 1954). Riparian right of access to a body of water depends on whether the owner's property touches the water, thereby enabling access to water to be gained without going over property of others and not depend upon ownership of or title to submerged lands. *Bouris v. Largent*, 236 N.E. 2d 15. Riparian right of access to a body of water is not affected by description of owner's property unrelated to the body of water since it is only necessary that the description of the property include or encompass the shoreline. *Bouris v. Largent*, 236 N.E. 2d 15.

In Illinois, waters subject to the foregoing public trust doctrine principles and court decisions, specifically including Lake Michigan, are considered "Public Waters" and are listed in the Illinois Department of Natural Resources' Regulation of Public Waters administrative rule [17 Ill.Admin.Code 3704, Appendix A] promulgated pursuant to the Illinois ***Rivers, Lakes and Streams Act*** [615 ILCS 5]. As federal law, all State of Illinois actions regarding such Public Waters, again specifically including Lake Michigan, must comply with the Public Trust doctrine and the caselaw applying same. This specifically would include State of Illinois actions regarding the Coastal Management program. The State's opinion is that the Coastal Management Program is consistent with the Public Trust doctrine and the intent of the State is to implement the Coastal Management Program consistent with the Public Trust doctrine.

State Statutes and Rules

Under Section 18 of the ***Rivers, Lakes and Streams Act*** [615 ILCS 5], *"it is unlawful to make any fill or deposit or any refuse matter of any kind, or build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, causeway, harbor, or mooring facilities for watercraft, or any other structure or work of any kind whatsoever in any of the public bodies of water within the state, without first submitting the plans, profiles, and specifications therefore, and such other data and*

information as may be required to the IDNR and receiving a permit from the IDNR. No permit shall be issued authorizing any deposit or any refuse matter of any kind in Lake Michigan unless the IEPA makes a final determination pursuant to Section 39 of the Environmental Protection Act…"

"The building of any causeway, harbor, or mooring facilities for watercraft in Lake Michigan shall be confined to those areas recommended by the IDNR and authorized by the General Assembly and approved by the Governor and shall be in aid of and not an interference with the public interest or navigation. Any structure, fill, or deposit erected or made in any of the public bodies of water of this state is a purpresture and may be abated as such at the expense of the person, corporation, or municipality…"

The terms public waters or public bodies of water mean all open public streams and lakes capable of being navigated by water craft for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharged their waters into navigable lakes or rivers within, or upon the borders of the state.

"The IDNR may grant a permit to a non-riparian owner, to use the water from any of the public bodies of water for industrial manufacturing or public utility purposes, and to construct the necessary intakes, structures, tunnels, and conduits in, under, or on the beds of such bodies of water, provided such use shall not interfere with navigation. Such permit shall be for a definite period of years not exceeding 40 years."

Where a permit is sought, the IDNR shall require as condition precedent to the issuance of such permit, a signed statement approving such action by all riparian owners whose access to public waters will be directly affected by such structure, fill, or deposit. No such permit shall be issued without the approval of the governor and without a public hearing. Whenever a permit to fill or deposit in a slip is issued, all work done pursuant to the permit is by authorization and under the direction of the IDNR.

"Wherever the terms public waters or public bodies of water are used in this Act, they mean all open public streams and lakes capable of being navigated by water craft for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharged their waters into navigable lakes or rivers within, or upon the borders of the state…. Nothing herein contained applies to the location of any harbor under the jurisdiction and control of any city or village of less than 500,000 population."

"The title to the bed of Lake Michigan and all other meandered lakes in Illinois is held in trust for the benefit of the people of the state. The IDNR is designated as the trustee authorized to exercise administrative jurisdiction and control thereover in the execution of the powers and duties under this Act. It shall be the duty of the IDNR, to carefully examine the shore lines of Lake Michigan, all other meandered lakes in Illinois and the Chicago River each year for the purpose of seeing that encroachments are not made upon or other unauthorized uses made of these bodies of water, and for

the purpose of preventing any land being made along the said Chicago River, Lake Michigan or meandered lakes in such manner as might become an encroachment thereon." **Rivers Lakes and Streams Act** [615 ILCS 5/24]

The conversion of public waters to private land by filling is prohibited. Fill material may be placed in public waters only for bank, shore or bluff protection; beach nourishment; establishing a uniform shoreline; spur dikes, wing dams, and similar structures; dams; projects of an emergency nature; or projects authorized by the General Assembly. No activity, which would result in an obstruction to, or interference with, the navigability of any public body of water, will be permitted. No activity which would result in bank or shoreline instability on other properties will be permitted. (See *Regulation of Public Waters*, Sections 17 IAC 3704.70 and 17 IAC 3704.90)

The ***Navigable Waters Obstruction Act*** [615 ILCS 20] states *"it is unlawful to tie up or anchor vessels or other water craft in public or navigable waters of the state in such a manner as to prevent or obstruct in any manner, between the shore lines thereof, the passage of any vessels or craft; or to voluntarily or carelessly sink, or permit or cause to be sunk, vessels or other water craft in such waters …. Whenever a vessel, raft, or other water craft is wrecked and sunk in any such waters, accidentally or otherwise, it is the duty of the owner of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night… and to commence its immediate removal. Failure of an owner to remove any such sunken craft shall be considered as abandonment of such craft, and subject to removal by the state."* This Act provides the IDNR authority to remove obstructions which exist longer than 30 days

Under the ***Shore Lands for Park Use Act*** [65 ILCS 105], a city or village owning lands bordering public waters and riparian rights may grant, convey or release any of such lands or rights to any park entity for park purposes of submerged lands under the public waters adjacent to the lands controlled by such city or village; however, that no such park entity may grant, convey, lease or release any lands so acquired or the riparian rights appurtenant thereto to any private person or corporation.

Category 2: Erosion and Flooding

Uses subject to management:

- Any construction in Lake Michigan including erosion and flood control effort
- Management of public water supplies
- Activities that cause degradation or decline in sustainability of groundwater supplies
- Activities affecting natural areas, nature preserves, terrestrial or aquatic habitat and areas of historical significance

- Erosion

  The ***Lake Michigan Shore Line Act*** [615 ILCS 55] assigns to the IDNR Office of Water Resources (OWR) the responsibility to *"cause investigations, surveys and studies to be made in cooperation with appropriate federal, state and local agencies with the view to devising effective means or*

methods of preventing erosion of the shore of Lake Michigan by waves, currents, structures or other elemental and artificial processes, and of preventing or minimizing in the immediate future damage to homes and other buildings and danger to human life resulting from such erosion."

As funds are made available for expenditure, the OWR will prepare a report summarizing the results of investigations, studies and surveys and any recommendations to prevent and minimize damage to property or persons.

Under the ***Rivers, Lakes, and Streams Act*** [615 ILCS 5], *"if deemed necessary in the public interest, the IDNR may for the purposes of establishing uniform shore lines upon Lake Michigan or other streams or lakes, permit fills of rock, earth or sand to be placed inside a bulkhead, wall or breakwater so constructed as not to permit the escape of such materials into Lake Michigan or any such lake, river, or stream…. The IDNR may also permit the placing of unconfined fills or deposits of clear sand, rock or other material approved by the IDNR in or along the shores of Lake Michigan … for the purpose of replacing or augmenting the natural material in the littoral currents, for creating new beaches or for replenishing existing beaches, for the protection of the shore against erosion…. The IDNR may permit the deposit of dredged material in Lake Michigan only where the IEPA makes a final determination that the dredging or deposit will not cause a violation of the Environmental Protection Act or IPCB regulations."*

The ***Soil and Water Conservation Districts Act*** [70 ILCS 405] declares as state policy to strengthen and extend the present erosion and sediment control activities and programs for both rural and urban lands, and to establish and implement, through the IDOA and soil and water conservation districts in cooperation with units of local government … a statewide comprehensive and coordinated erosion and sediment control program to conserve and protect land, water, air and other resources.

The state enacted the ***Watershed Improvement Act*** [505 ILCS 140] as a means of offering a sound approach to flood prevention and proper management for surface water resources and for the maximum development of surface water storage for municipal, industrial, agricultural and recreational uses; to reduce the siltation of streams and lakes; and help to maintain stable normal water levels in our streams for navigation and other uses.

- Flooding

Under the ***Counties Code*** [55 ILCS 5], counties are authorized to adopt and enforce floodplain regulations consistent with Federal Emergency Management Agency (FEMA) regulations implementing the National Flood Insurance Act of 1968. These regulations apply to all buildings, structures, construction, excavation, and filling in the floodplain in order to prevent damaging floods and to preserve the free flow of streams. The IDNR shall prepare manuals and model ordinances and advise counties on achieving floodplain regulation purposes without unnecessarily interfering with land uses. The purpose of Section 55 ILCS 5/5-1062 is to allow management and mitigation of

the effects of urbanization on stormwater drainage in metropolitan counties located in the area served by the Northeastern Illinois Planning Commission (now included in the Chicago Metropolitan Area of Planning).

This does not apply to any county with a population in excess of 1,500,000, which excludes Cook County. Stormwater management in Cook County shall be conducted as provided in Section 7h of the Metropolitan Water Reclamation District Act. Stormwater management in Lake County has been delegated to the Lake County Stormwater Management Commission.

The Lake County Watershed Development Ordinance was implemented in 1992 and included minimum standards for development in and around floodplains, detention, water quality and natural resources. The floodplain management rules and regulations adopted by Lake County meet the minimum standards set forth by the IDNR Office of Water Resources and the requirements of FEMA for participation in the National Flood Insurance Program.

Under the ***Rivers, Lakes and Streams Act*** [615 ILCS 5], the IDNR is charged with defining floodplains within the state on a township basis and issuing permits for any construction within such floodplains. The IDNR must consider planning and zoning requirements of regional agencies by allowing for a 30-day comment period regarding any proposed floodplain area. The IDNR is charged with the planning, development and evaluation of the most economic combination of retention storage, channel improvement and floodplain preservation in defining and establishing floodplain areas. The IDNR is charged with defining the 100-year floodway within Lake and Cook counties (except for the City of Chicago). No person may engage in any new construction within the 100-year floodway as designated by the IDNR in such metropolitan counties, unless such construction relates to an appropriate use of the floodway. No unit of local government, including home rule units may issue any building permit or other apparent authorization for any prohibited new construction within the 100-year floodway.

The rules governing construction and filling in the regulatory floodway of rivers, lakes and streams in northeastern Illinois (excluding Chicago) are covered in 17 IAC Part 3708. Regulatory Floodway is defined as *"the channel and that portion of the floodplain adjacent to a stream or watercourse which is needed to store and convey the anticipated future 100-year frequency flood discharge with no more than a 0.1 foot increase in stage due to the loss of flood conveyance or storage, and no more than a 10% increase in velocities."* IDNR delegates to municipalities within incorporated areas and to counties within unincorporated areas IDNR's authority to issue permits for non-governmental activities, upon determination that the municipality or county is participating in the regular phase of the National Flood Insurance Program, has enacted an ordinance that adopts requirements at least as restrictive as this Part; and the municipality or county has enacted an ordinance which requires that all proposed regulatory floodway projects are reviewed under the supervision of a registered professional engineer.

The ***Flood Control Act of 1945*** [615 ILCS 15] recognized that the unregulated flow of the rivers and waters constitutes a menace to the general welfare of the people of the state, resulting in periods of destructive floods and periods of inadequate low water flows wherein the public water supplies are dangerously reduced, facilities for public recreation are rendered inadequate, and the propagation and conservation of wild life is adversely affected. It is therefore stated that regulation of the flood and low water flows of the rivers and waters of Illinois is a proper activity of the state, and that the state should improve or participate in the improvement of the rivers and waters, including their watersheds, for the purpose of regulating the flood and low water flows and the development and utilization of water, waterways and water resources if the benefits are in excess of the estimated costs. The IDNR is authorized to make examinations and surveys, prepare plans and estimates for, and to construct, reconstruct, control, maintain, and operate, or supervise the construction, reconstruction, control, maintenance and operation of all works for the control of floods, the improvement of upland and bottom land drainage and the conservation of low water flows in the rivers and waters of Illinois, including the watersheds thereof, either independently or in cooperation with federal and state agencies, units of local government and school districts.

- **Flood Control in the Coastal Zone**

Stormwater management and flood control within the Illinois Coastal Zone is divided geographically between the City of Chicago, The Metropolitan Water Reclamation District, and the Lake County Stormwater Management Commission.

The City of Chicago Department of Water management has responsibility for stormwater management with the city limits per agreement with the MWRD.
Authority for this is contained in P.A. 93-1049, eff. 11-17-04 which amends the ***Metropolitan Water Reclamation District Act.*** (70 ILCS 2605/7h new)

This Section does not affect the power or duty of any unit of local government to take actions relating to flooding or stormwater, so long as those actions conform with this Section and the plans, rules, and ordinances adopted by the District under this Section.

A home rule unit located in whole or in part in Cook County (other than a municipality with a population over 1,000,000) may not regulate stormwater management or planning in Cook County in a manner inconsistent with this Section or the plans, rules, and ordinances adopted by the District under this Section; provided, within a municipality with a population over 1,000,000, the stormwater management planning program of Cook County shall be conducted by that municipality or, to the extent provided in an intergovernmental agreement between the municipality and the District, by the District pursuant to this Section; provided further that the power granted to such municipality shall not be inconsistent with existing powers of the District. Pursuant to paragraph (i) of Section 6 of Article VII of the Illinois Constitution, this Section specifically denies and limits the exercise of any power that is inconsistent with this Section by a home rule unit that is a county with a population of 1,500,000 or more or is located, in whole or in part, within such a county, other than a municipality

with a population over 1,000,000.

The Metropolitan Water Reclamation District of Greater Chicago has responsibility for stormwater management in Cook County.
This authority is contained in the **Metropolitan Water Reclamation District Act**.(70 ILCS 2605/7hnew)

Stormwater management in Cook County shall be under the general supervision of the Metropolitan Water Reclamation District of Greater Chicago. The District has the authority to plan, manage, implement, and finance activities relating to stormwater management in Cook County. The authority of the District with respect to stormwater management extends throughout Cook County and is not limited to the area otherwise within the territory and jurisdiction of the District under this Act

The Lake County Stormwater Management Commission has responsibility for stormwater management in Lake County. This authority is contained in 55ILCS 5/5-1062
(55 ILCS 5/5-1062) (from ch. 34, par. 5-1062)

The purpose of this Section is to allow management and mitigation of the effects of urbanization on stormwater drainage in metropolitan counties located in the area served by the Northeastern Illinois Planning Commission, and references to "county" in this Section shall apply only to those counties. This Section shall not apply to any county with a population in excess of 1,500,000, except as provided in subsection (c). The purpose of this Section shall be achieved by:
(1) consolidating the existing stormwater management framework into a united, countywide structure;
(2) setting minimum standards for floodplain and stormwater management; and
(3) preparing a countywide plan for the management of stormwater runoff, including the management of natural and man-made drainageways. The countywide plan may incorporate watershed plans.

Category 3: Water Quality and Water Supply

Uses subject to management:

- Any construction in Lake Michigan including erosion and flood control effort
- The diversion or withdrawal of water from Lake Michigan for any purpose
- Management of Public Water supplies
- Activities that cause degradation or decline in sustainability of groundwater supplies
- Activities affecting natural areas, nature preserves, terrestrial or aquatic habitat and areas of historical significance

- Agency Cooperation

Section 5/14a of the ***Rivers, Lakes and Streams Act*** identifies the close level of cooperation between the IEPA, the IPCB and IDNR in the preservation, utilization, and protection of Lake Michigan waters from pollution. Section 5/14a reads, *"It is the express intention of this legislation that close cooperation shall exist between the Pollution Control Board, the Environmental Protection Agency, and the Department of Natural Resources and that every resource of state government shall be applied to the proper preservation and utilization of the waters of Lake Michigan.*

The Environmental Protection Agency shall work in close cooperation with the City of Chicago and other affected units of government to: (1) terminate discharge of pollutional waste materials to Lake Michigan from vessels in both intra-state and inter-state navigation, and (2) abate domestic, industrial, and other pollution to assure that Lake Michigan beaches in Illinois are suitable for full body contact sports, meeting criteria of the Pollution Control Board.

The Environmental Protection Agency shall regularly conduct water quality and lakebed surveys to evaluate the ecology and the quality of water in Lake Michigan. Results of such surveys shall be made available, without charge, to all interested persons and agencies. It shall be the responsibility of the Director of the Environmental Protection Agency to report annually or at such other times as the Governor shall direct; such report shall provide hydrologic, biologic, and chemical data together with recommendations to the Governor and members of the General Assembly….

…In meeting the requirements of this Act, the Pollution Control Board, Environmental Protection Agency and Department of Natural Resources are authorized to be in direct contact with individuals, municipalities, public and private corporations and other organizations which are or may be contributing to the discharge of pollution to Lake Michigan."

- Water Quality Statutes and Administrative Rules

Title III of the Environmental Protection Act [415 ILCS 5] "Water Pollution," states National Pollutant Discharge Elimination System to regulate the discharge of contaminants to U.S. waters under the Federal Water Pollution Control Act and the underground injection control program (UIC) regulates the underground injection of contaminants under the federal Safe Water Drinking Act. Section 415 ILCS 5/12 lists prohibited actions and general permit compliance conditions. The IPCB, pursuant to procedures prescribed in Title VII (Regulations), may adopt regulations to promote the purposes and provisions of the Title III. [415 ILCS 5/13]

Part 352 "*Procedures for Determining Water Quality Based Permit Limitations for NPDES Dischargers to the Lake Michigan Basin*" contains IEPA rules for the application of the IPCB rules (for the Lake Michigan Basin at 35 IAC 302. Subparts A and E) of the NPDES permit program regulates discharges to the Lake Michigan Basin. Subpart E under Part 302 "Water Quality Standards" contains Sections 302.501 through 302.595. These sections cover "Lake Michigan Water Quality Standards." These rules are required pursuant to Final Guidance for the Great Lakes System, 60 FR 15366 adopted on March 23, 1995 by USEPA to implement Section 118(c)(2) of the Clean Water Act (33 USC 1268) as

amended by the Great Lakes Critical Programs Act of 1990 (P. L. 101-596, 104 Stat. 3000). This guidance identifies minimum water quality standards, antidegradation policies and implementation procedures states must establish for the Great Lakes System to protect human health, aquatic life and wildlife.

Under the ***Rivers, Lakes and Streams Act [615 ILCS 5/18]***, *"no permit shall be issued or renewed authorizing any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description in Lake Michigan unless the IEPA makes a final determination, that the proposed dredging or deposit of material will not cause a violation of the Environmental Protection Act or IPCB regulations."* Authorization of the discharge or other disposition of materials of any kind into Lake Michigan requires a joint permit from IDNR and IEPA.

The United States and Canada entered into the Great Lakes Water Quality Agreement of 1978 (amended by protocol November 18, 1987). Under that agreement, the U.S. and Canada are required to identify "Areas of Concern" (AOC) that fail to meet objectives of the Agreement and that have, or are likely to cause, impairment of beneficial use or failure of the area to support aquatic life. Waukegan Harbor in Illinois was designated an AOC in 1981. Beneficial use impairments at Waukegan Harbor were identified as restrictions on fish consumption, degradation of benthos, restrictions on dredging activities, degradation of phytoplankton and zooplankton populations, and loss of fish and wildlife habitat. The IEPA is prohibited from issuing a permit to develop, construct, or operate within one mile of any portion of Lake Michigan that has been designated an area of concern under the Great Lakes Water Quality Agreement, unless the applicant submits to the Agency proof that the site or facility has received local siting approval….[415 ILCS 5/9.11]

In 1987, Section 319 was added to the ***Clean Water Act*** (CWA) to provide a framework for funding state and local efforts to address pollutants from nonpoint sources (NPS) not addressed by the NPDES program. Section 319 allows states to receive federal funds from USEPA that enable them to work with local governments to develop control strategies. To obtain funding, states are required to submit NPS Assessment Reports identifying state waters that, without additional control of NPS pollution, could not reasonably be expected to attain or maintain applicable water quality standards or requirements of the CWA. States are also required to prepare and submit for USEPA approval a statewide NPS Management Program for controlling nonpoint source water pollution to navigable waters, and must identify specific Best Management Practices (BMPs) and measures the state will implement within three years after program aproval. NPS Programs funded under Section 319 include both regulatory and nonregulatory state and local approaches.

The ***Illinois Groundwater Protection Act*** [415 ILCS 55] states that because a large portion of residents rely on groundwater for consumption and commercial use, the water must be protected from contamination, and it is state policy to restore, protect, and enhance groundwater. Consistent with this policy, groundwater resources must be utilized for beneficial purposes and waste and degradation be prevented. The Act established an Interagency Coordinating Committee on Groundwater (ICCG) to review and coordinate the state's policy on groundwater protection; review

and evaluate state laws, regulations, and procedures relating to groundwater protection; and to make recommendations for better coordination among state programs; procedures for response to groundwater contamination; research needs, and data collection. The Act established a Groundwater Advisory Council charged with similar duties as the ICCG.

- Water Supply

Title IV of the ***Environmental Protection Act*** [415 ILCS 5] contain state statutes that address "Public Water Supplies." Title IV provides IEPA with authority to propose groundwater regulations to the IPCB, prescribing standards and requirements for activities related to landfilling, storage of special waste, storage and related handling of pesticides and fertilizers for commercial application or distribution, and storage and handling of road oils, and de-icing agents at a central location. The IPCB may adopt regulations governing the location, design, construction, and continuous operation and maintenance of public water supply installations, changes or additions that may affect continuous sanitary quality, mineral quality, or adequacy of public water supply, pursuant to Title VII of the Environmental Protection Act.

IEPA established a regional groundwater protection-planning program in cooperation with IDNR, and designated priority groundwater protection planning regions taking into account the location of recharge areas identified and mapped by IDNR. IEPA established a regional planning committee for each priority groundwater protection planning region which is responsible for identification of and advocacy for region-specific groundwater protection matters along with other requirements regarding monitoring and progress reports regarding implementation of groundwater protection, maintaining a registry of instances where IEPA issued an advisory of groundwater contamination hazards within the region, and facilitating informational and educational activities relating to groundwater protection. IEPA provides supporting services to the regional planning committee.

Title 35 of the IAC, Parts 601 through 680, contain IPCB rules pursuant to the Environmental Protection Act and the Safe Drinking Water Act, for owners and official custodians of a public water supply to provide continuous operation and maintenance of public water supply facilities so water is safe in quality, cleanliness, adequate in quantity, and of satisfactory mineral characteristics for ordinary domestic consumption.

The ***Water Use Act of 1983*** [525ILCS 45] declares it public policy, and in the public interest, to better manage and conserve water, to establish a mechanism for restricting withdrawals of groundwater in emergencies, and provide for public notice of planned substantial water withdrawals from new points before water is withdrawn.

Under the ***Level of Lake Michigan Act*** [615 ILCS 50], IDNR controls and regulates diversion of Lake Michigan water and apportionment of water diverted from the Lake Michigan watershed. All diversions of Lake Michigan water require a valid allocation permit from IDNR. IDNR cannot allocate water for use outside the state or any other Great Lake state without approval of other Great Lakes

states and the International Joint Commission (IJC). IDNR cooperates with the IJC, federal agencies, and state and local agencies, for regulation and maintenance of the levels and use of the waters of Lake Michigan and the other Great Lakes. The "International Joint Commission" is the permanent unitary body established under the Boundary Waters Treaty of 1909 between the United States and Canada to help prevent and settle disputes regarding the use of boundary waters.

"The IDNR shall make all necessary surveys, collect all necessary data and cooperate and enter into agreements with any and all agencies of the United States, the IJC, the Canadian provinces of Ontario and Quebec, other States, municipal corporations, regional organizations, public or private corporations… for the formulation of plans and construction of all projects for the regulation and maintenance of the levels of Lake Michigan and for the extraction and utilization of waters taken from Lake Michigan and other resources located in the counties of Cook, DuPage, Kane, Lake, McHenry, and Will."

"The IDNR shall devise and develop a continuing program for the apportionment of water to be diverted from Lake Michigan among regional organizations, municipalities, political subdivisions, agencies or instrumentalities for domestic purposes (includes all public water supply pumpage and water supplied to commercial and industrial establishments) or for direct diversion into the Sanitary and Ship Canal to maintain such canal in a reasonably satisfactory sanitary condition; provided, however, that in developing the continuing program and in making allocations, the amount used for discretionary dilution for water quality purposes in the Sanitary and Ship Canal shall not exceed an annual average of 320 cubic feet per second. The IDNR shall give priority to allocations for domestic purposes in making allocations to new users of Lake Michigan water, and shall to the extent practicable make any allocations to new users of Lake Michigan water with the goal of reducing withdrawals from the Cambrian ‑Ordovician aquifer."

The ***Illinois Water Well Construction Code*** [415 ILCS 30] states the Illinois Department of Public Health (IDPH) has general supervision and authority over the location, construction, and modification of water wells, closed loop wells, and monitoring wells, and issuing permits for the construction or change in depth of any water well, other than community public water systems and monitoring wells. The ***Illinois Water Well Pump Installation Code*** [415 ILCS 35] authorizes the IDPH adopt and amend rules and regulations necessary to effectuate policy which provides criteria for the proper installation of water well pumps and equipment.

Category 4: Habitats, Wetlands, and Wildlife

Uses subject to management:

- Any construction in Lake Michigan or public waters of Illinois including flood control and floodplain controls.
- Activities that cause the degradation or decline in sustainability of groundwater supplies.

- Activities affecting natural areas, nature preserves, terrestrial or aquatic wildlife habitat, and areas of historical significance.
- Harvesting Fish for commerce or sport, taking of wild game.
- Development of public parks and recreational resources.

The Illinois Legislature passed the ***Interagency Wetlands Policy Act of 1989*** (IWPA) [20 ILCS 830] in recognition of the significant loss in wetlands and the corresponding loss in functional values they provide; such as reducing flooding and shoreline erosion, improving water quality, providing groundwater recharge, and providing critical habitat for many threatened and endangered plants and animals. IWPA directs state agencies to preserve, enhance, and create wetlands where possible, and avoid adverse impacts from state and state pass-through funded activities, such as construction, land management, or technical assistance. A state goal is no overall net loss of existing wetland acres, or their functional value due to state supported activities. State agencies preserve, enhance, and create wetlands where necessary to increase the quality and quantity of the state's wetland resource base through the State Wetland Mitigation Policy and Agency Action Plans.

IEPA regulates activities resulting in a discharge of any pollutant into a wetland. This authority is limited, however, to only those activities requiring a federal permit or license. Section 401 of the CWA requires all permits or licenses issued by the federal government for activities affecting waters of the United States be certified by the state in which the discharge is to occur, and that the activityl complies with water quality standards of that state. These water quality standards must be equal to, or more stringent, than those established in Section 303 of the CWA. IEPA is the state agency that sets water quality standards in Illinois and has authority to certify federal permits and licenses.

If an activity is going to result in the discharge of a dredge or fill material into a wetland, or any other water of the US, Section 401 authority applies in review of individual (404) permit applications.

IWPA created an Interagency Wetlands Committee (IWC), lead by IDNR, is responsible for developing rules and regulations, guidelines for developing individual Agency Action Plans, technical procedures for consistent wetland identification, research and educational materials.

IWPA mandates review for *"any construction, land management or other activity performed by, or for which financial assistance is administered or provided by, a State agency that will result in an adverse impact to a wetland."* Agency activities requiring review include, but are not limited to the alteration of a wetland, discharge of dredged or fill material into a wetland, disturbance of the water table, destruction of plant life, and the transfer of state wetlands to any entity other than another state agency. State agency activities falling within the above categories may not be undertaken until completion of a wetlands review by IDNR, and a wetlands compensation plan has been approved, for any unavoidable adverse wetlands impacts. (17 IAC 1090.20, 1090.50)

Each state agency on the IWC must prepare an Agency Action Plan, which is the agency's procedural plan for IWPA implementation. If, after reviewing the proposed activity, the agency determines that no feasible alternative exists, and adverse wetland impacts are unavoidable, such impacts must be mitigated through a Wetland Compensation Plan approved by DNR.

The ***Illinois Natural Areas Preservation Act*** [525 ILCS 30] states it is *"the public policy of the state to secure for the people of present and future generations the benefits of an enduring resource of natural areas, including the elements of natural diversity present in the state, by establishing a system of nature preserves, protecting nature preserves and gathering and disseminating information regarding them, providing for appropriate use of nature preserves that will not damage them, establishing and maintaining a register of natural areas and buffer areas, providing certain forms of protection and control of registered natural areas and registered buffer areas and otherwise encouraging and assisting in the preservation of natural areas and features."*

The Act created the Illinois Nature Preserves Commission (INPC). INPC adopts policies and rules and meets at least annually. Powers and duties of the INPC include: maintaining inventories and records of nature preserves and other natural areas along with their features, approving the dedication of nature preserves; preparation of master plans for protection, management and use; promoting protection of natural areas not dedicated as nature preserves; adopting policies and promulgating rules related to development and maintenance of the nature preserves system; selection, acquisition, dedication, registration, and protection of registered areas; and protection of habitat, geological, and archaeological sites.

IDNR has power and duty to dedicate land held by IDNR as nature preserves, to cooperate and provide assistance to the INPC, to review and approve rules promulgated by INPC and to enforce rules pertaining to public use of nature preserves. IDNR also has the power to acquire by gift, legacy, purchase, transfer, grant, agreement, dedication or condemnation… the fee simple title to real property or any lesser estates, interests or rights therein… and to register natural areas and buffer areas.

The Act establishes a state system of nature preserves held in trust for the benefit of the people. A natural area becomes a nature preserve upon its dedication by the owner of the land, or of an interest or a right therein, with the approval of the INPC and the Governor. Land may be dedicated as a buffer area, with the same status and protection of a nature preserve. An owner of a nature preserve retains custody of the land and may assign, lease or convey an interest or ownership, or contract for custody, maintenance or operation of, subject to the instrument of dedication, policies of the INPC, rules, the plan, and this Act.

Each nature preserve has a custodian, which is either the owner of the land or a designated individual or agency that administers, manages, and protects the nature preserve in accordance with the instrument of dedication, rules, and the master plan or management schedule. (17 IAC 4000.130) A master plan must be developed for each nature preserve or registered area. The

master plan must address preservation, protection, management, development, and use of the nature preserve; identify the nature preserve owner, and location and description of the nature preserve, and conditions of custody and access. The master plan must also identify the presence and location of high quality natural communities, threatened or endangered species, and other significant or notable natural features.

All state and local government agencies must evaluate, through consultation with IDNR, whether actions are authorized, funded, or carried out by the agency are likely to result in the destruction or adverse modification of any natural area registered under the Act or identified in the Illinois Natural Areas Inventory. If the agency determines the action will have an adverse impact, the agency must study the action to determine possible methods of eliminating or mitigating adverse impact and attempt to mitigate or eliminate it.

The ***Illinois Natural Heritage Fund Act*** [30 ILCS 150] provides IDNR with funding to support activities and programs *"to preserve, protect and manage for future generations natural heritage lands held in the public trust."* Natural heritage lands are *"lands and waters dedicated as Nature Preserves in accordance with the Illinois Natural Areas Preservation Act and other lands and waters representing outstanding examples of native ecological communities or providing habitat for endangered or threatened species and so categorized by the IDNR in the Illinois Natural Areas Inventory or the Illinois Natural Heritage Database maintained by the IDNR…"* The Natural Heritage Fund is used exclusively by IDNR for preservation and maintenance of natural heritage lands held in public trust.

The ***Habitat Endowment Act*** [525 ILCS 25] provides a "stable and supplemental source of money to support activities and programs undertaken by the IDNR or other managers of land to preserve, protect, acquire, and manage habitat. Habitat quality is measured by such parameters as type, native diversity, size, structure, scarcity, and location." Such habitats include wetlands, woodlands, grasslands, and agricultural lands that support populations of wildlife at any stage of their life cycle. The Act establishes the Illinois Habitat Fund and the Illinois Habitat Endowment Trust Fund. The Illinois Habitat Fund is used exclusively by IDNR for the preservation and maintenance of high quality habitat lands and is financed through transfers of investment income earned by the Illinois Habitat Endowment Trust Fund, deposits of fees from the sale of State Habitat Stamps, artwork as provided for in the Wildlife Code, and revenue derived from the sale of Sportsmen Series license plates. The Illinois Habitat Endowment Trust Fund is financed by a combination of private donations, and transfers or deposits from the Park and Conservation Fund. IDNR shall not use eminent domain proceedings to acquire property unless the landowner agrees to submit to eminent domain proceedings.

The ***Ecosystems Program of Conservation 2000*** ("Ecosystems Program") was developed by IDNR to establish and protect a system of representative, functioning ecosystems in both public and private ownership. The mission of the Ecosystems Program is to monitor, maintain, enhance and restore the biodiversity and ecological conditions of Illinois' landscapes through local partnerships. The Ecosystems Program provides technical, policy, administrative and financial assistance to Ecosystem

Partnerships that are watershed or ecosystem based coalitions of individuals and organizations cooperating to improve the natural resource base of watersheds, while promoting compatible and sustainable economic activity. Adoption of bylaws is the foundation upon which each Ecosystem Partnership is built. IDNR ensures Ecosystem Partnerships execute their responsibilities through an open and democratic process that provides an opportunity for broad participation, and encourages non-profit status be legally recognized. [17 IAC 1523.10] Within the ICMP boundary, there are currently three active ecosystem partnerships.

Under the ***State Forest Act*** [525 ILCS 40], IDNR *"shall have control, supervision and management of all state forests. State forests shall include only such lands as are decided by the IDNR to be more valuable for the growing of forests than for other purposes, and shall have for their purpose the production of forest products, the protection of watersheds that are subject to serious erosion, the maintenance of purity of springs and streams and to afford recreation places."* IDNR may purchase, lease, receive by donation or legacy, or take options on tracts of land suitable for state forests. IDNR has authority to designate portions of state forests as wildlife or fish sanctuaries.

IDNR is responsible for implementing the ***Fish and Aquatic Life Code*** (Code) [515 ILCS 5]. The Code applies to "*aquatic life or parts of aquatic life (i) in or from any of the lakes, rivers, creeks, sloughs, bayous, or other waters or watercourses or lands wholly within the boundaries of the State of Illinois or over which the State of Illinois has concurrent jurisdiction with any other State or (ii) which may be brought into the State of Illinois..." "IDNR takes all measures necessary to conserve, distribute, introduce, and restore aquatic life… ,and bring or cause to be brought actions and proceedings to enforce this Code, and to recover any and all fines and penalties provided for."*

Authorized IDNR employees may enter all lands and waters to enforce the Code. They may *"examine all buildings, private or public clubs (except dwellings), fish markets, cold storage houses, locker plants, camps, vessels, cars (except sealed railroad cars or other common carriers), conveyances, vehicles, water craft, or any other means of transportation or shipping, tents, game bags, game coats, or other receptacles and to open and examine any box, barrel, package, or other receptacle in the possession of a common carrier, that they have reason to believe contains aquatic life or any part of aquatic life taken, bought, sold or bartered, shipped, or had in possession contrary to this Code, including administrative rules, or that the receptacle containing the aquatic life is falsely labeled."*

"IDNR may establish and enforce daily limits and seasons for fisheries. Commercial fishermen must obtain a license to fish from the IDNR. Any person found illegally using fishing devices or taking, transporting, holding or conveying any aquatic life contrary to the Code is subject to seizure of the item(s) by the IDNR. It is unlawful to set, drift, or drag any net or seine except a minnow seine in Lake Michigan within 1,000 yards of any pier or pillar or of the low water mark on the shore line."

Aquaculture, transportation, stocking, importation, and/or possession of aquatic life is regulated by IDNR. (17 IAC 870.10-80) It is unlawful *"to release any aquatic life into the wild in this State without*

first securing permission of the IDNR to do so, except that the owner of a body of water may release aquatic life indigenous to the State of Illinois into waters wholly upon his or her property" or *"to possess, transport, or release any live specimen or viable gametes of any species listed as injurious by administrative rule, unless authorized by that rule."* IDNR prohibits injurious species, as listed in 17 IAC 805.20, from being *"possessed, propagated, bought, sold, bartered, or offered to be bought, sold, bartered, transported, traded, transferred or loaned to any other person or institution unless a permit is first obtained."* All waters subject to jurisdiction of the state, including boundary waters, are considered aquatic preserves in which the aquatic life may only lawfully be taken by sport fishing.

IDNR regulates management of aquatic plants in Illinois public waters of Lake Michigan to protect residents using public waters, and endangered species of plants and animals from being exposed to harmful aquatic herbicides. These waters include *"all the open waters of Lake Michigan from the Wisconsin state line south to the Indiana state line and from the Michigan state line west to the Illinois shore, all harbors of the body of water that are or were navigable and are open or dedicated to public use, and the navigation channels connecting these harbors to Lake Michigan."* (17 IAC 897)

Under the ***Wildlife Code*** [520 ILCS 5], IDNR is authorized to manage and regulate the taking of all wildlife for the purposes of providing public recreation and controlling wildlife populations. IDNR manages wildlife through a Natural Resources Advisory Board and implementation of seasons and limits. In managing wildlife, IDNR may establish and maintain refuges or public hunting areas on lands and waters owned by the state or federal government, and declare such by administrative rule. Further, it is unlawful to take any species of wildlife from a refuge. IDNR is authorized to use the power of eminent domain to create a refuge. Conservation, distribution, introduction and restoration of birds and mammals are the responsibility of IDNR. IDNR brings or causes actions and proceedings to enforce provisions of the Act, and to recover all fines and penalties.

Under the ***Illinois Endangered Species Protection Act*** [520 ILCS 10], *"it is unlawful for any person to possess, take, transport, sell, offer for sale, give or otherwise dispose of any animal or the product thereof of any animal species which occurs on the Illinois List; to deliver, receive, carry, transport or ship in interstate or foreign commerce plants listed as endangered by the federal government without a permit therefor issued by the IDNR as provided in Section 4 of this Act; to take plants on the Illinois List without the express written permission of the landowner; or to sell or offer for sale plants or plant products of endangered species on the Illinois List."*

"The Endangered Species Protection Board is created whose duties include listing, delisting, or change of listing status of species for the Illinois List, in consultation with and written approval by the IDNR, in accordance with the Illinois Administrative Procedure Act, on rules for listing and delisting species of animals or plants as endangered or threatened species of animals or plants, or changing their status. The Board shall advise the IDNR on methods of assistance, protection, conservation and management of endangered and threatened species and their habitats, and on related matters. Any species or subspecies of animal or plant designated as endangered or

threatened under the Endangered Species Act of 1973 (P.L. 93-205) shall be automatically listed as an endangered or threatened species and placed on the Illinois List without notice or public hearing." IDNR may authorize, under prescribed terms and conditions, any taking if that taking is incidental to the carrying out of an otherwise lawful activity. No taking shall be authorized by IDNR unless the applicant submits to IDNR a conservation plan which includes a description of the impact, steps taken to minimize and mitigate that impact…and an implementing agreement that describes the obligations and responsibilities of all the parties that will be involved in the taking as authorized by the permit.

"It is the public policy of all agencies of state and local governments to utilize their authorities in furtherance of the purposes of this Act by evaluating through a consultation process with the IDNR whether actions authorized, funded, or carried out by them are likely to jeopardize the continued existence of Illinois listed endangered and threatened species or are likely to result in the destruction or adverse modification of the designated essential habitat of such species …"

Under the ***Wildlife Restoration Cooperation Act*** [520 ILCS 15], *"the state assented to the provisions of the act of Congress entitled An Act to provide that the United States shall aid the States in wildlife-restoration projects, and for other purposes, approved September 2, 1937 (Public No. 415, 75th Congress). The IDNR is authorized and directed to perform such acts as may be necessary for the conduct and establishment of cooperative wildlife-restoration projects as defined in said Act of Congress."*

Category 5: Historic, Archaeological and Cultural Resources

Uses subject to management:

- Activities that affect natural areas, nature preserves, terrestrial or aquatic wildlife habitat, and areas of historical significance.

  The ***Illinois Historic Preservation Act*** [20 ILCS 3410] requires the Illinois Historic Preservation Agency (IHPA) to establish and maintain an Illinois Register of Historic Places. Historic places are designated by the Director of IHPA upon recommendation of Illinois Historic Sites Advisory Council. The Council also has the power to recommend nominations to the National Register of Historic Places, removal of places from the National Register and the Illinois Register, establish guidelines determining the eligibility for listing and removing places on the Illinois Register of Historic Places, and advise IHPA on matters pertaining to historic preservation.

  A place may be listed on the Illinois Register of Historic Places if it has "special historical, architectural, archeological, cultural, or artistic interest or value;" meets the IHPA definition of "place"; and satisfies the criteria listed in Section 6 of the IHPA which states that historic places shall be limited to those:

that are associated with events or the lives of persons that have made a significant contribution to the broad patterns of our history; or that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or that exemplify elements of our cultural, economic, social or historic heritage; or that have yielded, or are likely to yield, information important in prehistory or history. It is unlawful for any person to collect or take IHPA-controlled artifacts or "mutilate, destroy, deface, or excavate any IHPA-controlled archaeological site except as provided by written permit" issued by the IHPA. (17 IAC 4160.90)

It is unlawful to *"demolish, cause to be demolished, or permit or order the demolition of any Critical Historic Feature of a Registered Illinois Historic Place unless the Director has issued a Certificate of Compliance for the proposed action."* Critical historic features are *"those physical and environmental components which taken singly or together make a place eligible for designation as a Registered Illinois Historic Place."* State agencies must not expend public funds on projects "which will have an adverse economic or environmental impact" on a registered historic place unless the Director determines that "(1) the project is necessary to provide an important public service or benefit, (2) the project cannot be carried out practically so as to avoid the adverse effect and (3) the adverse effect is minimized to the maximum extent feasible."

The ***Archaeological and Paleontological Resources Protection Act*** [20 ILCS 3435], provides the state *"the exclusive right and privilege of regulating, exploring, excavating or surveying, through the IHPA, all archaeological and paleontological resources found upon or within any public lands."* Archaeological resources include *"any significant material remains or localities of past human life or activities on public land, including but not limited to artifacts, historic and prehistoric human skeletal remains, mounds, earthworks, shipwrecks, forts, village sites or mines."* The Act prohibits exploration, excavation, or collection of an archaeological or paleontological resource without a permit from IHPA. It is also unlawful to knowingly disturb a protected resource, or offer for sale or exchange any object collected or excavated in violation of the Act. Archaeologists and paleontologists wishing to conduct permitted activities must meet minimum standards of education and experience.

The ***Local Legacy Act*** [20 ILCS 3988] provides technical assistance and funding in the form of grants, to encourage partnerships between counties and municipalities, for the creation of an inventory of their natural areas, farmland, and cultural assets and to develop a Resource Protection Plan for protecting those areas. *"It is the purpose of this Act to promote voluntary county-municipal partnerships by the year 2020, which will inventory resources, develop Resource Protection Plans, and implement their respective plans."* The Act created the Local Legacy Program to provide grants to counties and municipalities to inventory their natural areas, farmland, and cultural resources and develop Resource Protection Plans.

Category 6: Recreation and Public Access

Uses subject to management:

- Any construction in Lake Michigan or the public waters of Illinois including mooring facilities for watercraft including marinas, harbors and ports
- Activities that cause the degradation or decline in sustainability of groundwater supplies
- Activities affecting natural areas, nature preserves, terrestrial or aquatic habitat, and areas of historical significance
- Development of public parks and recreational resources

Under the ***Open Space Lands Acquisition and Development Act*** (OSLAD) [525 ILCS 35], IDNR *"shall make grants to local governments as financial assistance, on a reimbursement basis, for the capital development and improvement of park, recreation or conservation areas, marinas and shorelines, including planning and engineering costs, and for the acquisition of open space lands, including acquisition of easements… if the IDNR determines that such property interests are sufficient to carry out the purposes of this Act. The IDNR shall give priority to projects which will provide the greatest benefit to the residents of areas which have the highest concentration of population, which are based upon criteria which reflect outdoor recreation priorities as identified in the Statewide Comprehensive Outdoor Recreation Plan (SCORP), or which are located in flood plain areas."*
The Act creates the Open Space Lands Acquisition and Development Fund to make OSLAD grants. It also creates the Natural Areas Acquisition Fund *"used for the acquisition, preservation and stewardship of natural areas, including habitats for endangered and threatened species, high quality natural communities, wetlands, and other areas with unique or unusual natural heritage qualities."*

IDNR priorities include natural area and wetland preservation, protection of endangered/threatened species and critical habitat resources, conservation education, creation of greenways and long distance trail corridors, water-based recreation, recreation for disadvantaged populations, and adaptive re-use/redevelopment of urban lands, including brownfields. Determination of local need is based on existing supply of recreation facilities per capita and existing supply and distribution of open space and park land acreage (measured in acres/capita), in comparison to statewide mediums. (17 IAC 3025.60)

The ***Illinois Open Land Trust Act*** [525 ILCS 33] provides acquisition of *"natural areas, wetlands, forests, prairies, open spaces, and greenways provide critical habitat for fish and wildlife and are in need of protection."* Acquiring such lands for the conservation of natural resources and public recreation promote the public health, prosperity, and general welfare and are proper responsibilities of state government and non-profit organizations for conservation and recreational purposes to prevent disappearance of crucial lands.

IDNR "shall develop and administer the Illinois Open Land Trust Program to acquire real property, or conservation easements for natural areas, from willing sellers for conservation and recreation purposes. The land shall be chosen because it will preserve and enhance Illinois' natural environment, create a system of open spaces and natural lands, and improve the quality of life and

provide recreation opportunities... The IDNR may make grants to units of local government as financial assistance for the acquisition of open space and natural lands if the IDNR determines that the property interests are sufficient to carry out the purposes of this Act... The IDNR may establish an Open Lands Loan Program to assist local government in the purchase of property to protect open spaces and lands with significant natural resource attributes."

Under the ***Outdoor Recreation Resources Act*** [20 ILCS 860], state agencies are authorized to participate in *"federal assistance programs for outdoor recreation resources and historically significant properties of the state... The IDNR, with the DCEO, is authorized to have prepared and keep up-to-date comprehensive plans for the development of the outdoor recreation resources and for the preservation of the historically significant properties... The IDNR and the IHPA are respectively authorized to survey, design, develop, operate, and maintain outdoor recreation areas and facilities (IDNR) and historically significant properties and interests (IHPA), and to acquire land, waters, structures, and interests in land, waters and structures for such areas and facilities. The IDNR and the IHPA may enter into contracts and agreements with the United States or any agency thereof …in accordance with their authorization."*

The ***Illinois Conservation Enhancement Act*** [505 ILCS 35] establishes the Reinvest in Illinois Natural Resources Fund to fund the Save Illinois Topsoil and Natural Resource Enhancement Programs. Approved expenditures from the fund include soil and water conservation practices, to improve water quality, reduce soil erosion and crop surpluses; enhance habitat on public and private lands; and acquisition and development of public access sites as well as recreation easements for lakes, streams and rivers for fish and wildlife oriented recreation.

The ***Shore Lands for Park Use Act*** [65 ILCS 105] allows a city, town or village owning lands bordering public waters and riparian rights to grant, convey or release any lands or rights to any park entity for park purposes of submerged lands under the public waters adjacent to the lands controlled by such city, town or village; however, that no such park entity may grant, convey, lease or release any lands so acquired or the riparian rights appurtenant thereto to any private person or corporation.

The ***Recreational Trails of Illinois Act*** [20 ILCS 862] provides establishment and maintenance of recreational trails by the state, important for promotion of recreation and conservation, that the federal government emphasized by enacting the Symms National Recreational Trails Act of 1991. Illinois adopted a comprehensive recreational trails Act for the establishment and maintenance of recreational trails. The Off-Highway Vehicle Trails Fund was created and is used by IDNR for grants for construction and maintenance of off-highway vehicle recreational trails, trailside facilities, acquisition of property from willing sellers.

Category 7: Economic Development

Uses subject to management:

- Any construction in Lake Michigan or the public waters of Illinois including mooring facilities for watercraft including marinas, harbors and ports and constructing sewer and water facilities
- The Diversion or withdrawal of water from Lake Michigan for any purpose
- Management of Public Water Supplies
- Activities that cause the degradation or decline in sustainability of groundwater supplies
- Activities affecting natural areas, nature preserves, terrestrial or aquatic habitat, and areas of historical significance
- Laying out, altering, or discontinuing highways
- Emitting air pollutants from point sources
- Development of public parks and recreational resources
- Redevelopment of brownfields

The power of eminent domain allows state and federal agencies to take private property for public purposes. In Supreme Court decision, *Kelo v. City of New London*, the Court broadened the definition of "public purpose," allows for the expansion of eminent domain. 545 U.S. 469 (U.S. 2005) In response, Illinois enacted a new law placing greater restrictions on state and local governments attempting to take private property. The ***Eminent Domain Act*** [735 ILCS 30], which went into effect January 1, 2007, requires that an authority attempting to acquire property under *"eminent domain for public ownership and control, then the condemning authority must prove that the acquisition of the property is necessary for a public purpose, and the acquired property will be owned and controlled by the condemning authority or another governmental entity."* Taking private property for private ownership or control in certain instances requires a showing of clear and convincing evidence that the taking is primarily for the benefit, use, or enjoyment of the public and necessary for a public purpose. However, all eminent domain statutes are required to be strictly construed to protect the property rights of landowners. *Town of Libertyville v. Bank of Waukegan*, 152 Ill. App. 3d 1066 (Ill. App. Ct. 1987)

The Act includes a list of the ILCS Sections that include express grants of the power to acquire property by condemnation or eminent domain. This list includes express grants for conservation and habitat protection (ILCS Chapters 505 525). Such provisions include but are not limited to the Fish and Aquatic Code, the Wildlife Code, the Habitat Endowment Act, the Illinois Natural Areas Preservation Act, and the State Forest Act. ILCS Chapters 605 through 625, include express grants to the IDNR for land along public waters for pleasure, recreation, or sport purposes, under the Rivers, Lakes, and Streams Act, and for purposes under the Flood Control Act of 1945.

The ***Department of Commerce and Economic Opportunity Law*** [20 ILCS 605], DCEO acts as the official state planning agency and accepts and uses planning grants or other financial assistance from the federal government, for statewide comprehensive planning work including research and coordination directly related to urban needs, and for state and interstate comprehensive planning, research, and coordination. DCEO focuses on commercial aspects of planning, for example, the encouragement of new industry, incentives for foreign firms to locate in Illinois, industrial growth,

and jobs. DCEO also has the power to formulate economic development plans and to recommend economic development legislation.

This law created the Economic Development Matching Grants Program authorizing DCEO to make grants from the ***Statewide Economic Development Fund*** [30 ILCS 105/6z-55] for promoting statewide economic development activities and enhance marketing of Illinois by enabling regions and communities to market themselves and attract new business and industry. DCEO is authorized to make grants to nonprofit organizations and local units of government to promote Illinois communities as sites for industrial and business location and expansion. [20 ILCS 605/605-328]

DCEO, in cooperation with IDOA and the International Trade and Port Promotion Advisory Committee, has the power and duty to establish a freight rate information service for U.S. and foreign shippers, promoting advantages of Illinois water ports and existing airport facilities through appropriate means and media in this country and overseas, and to cooperate with the export expansion projects and any other activity that results in the additional flow of agricultural and manufactured products through Illinois water ports and existing airport facilities. [20 ILCS 605/605-625]

The ***Economic Development Area Tax Increment Allocation Act*** [20 ILCS 620] allows municipality to submit adopted ordinances, approving economic development plans, establishing economic development project areas, and authorizing tax increment allocation financing for economic development project areas to DCEO who then determines if it qualifies as an economic development area and certifies it accordingly. [20 ILCS 620/5]

Under the ***Illinois Economic Development Board Act*** [20 ILCS 3965], the state authorizes a long-term economic development strategy through the establishment of a unique public/private partnership to attract new businesses and encourage investment. The Illinois Economic Development Board was created within DCEO to assist in developing a strategy to spur economic growth, enhance opportunities for core industries, and encourage new job creation and investment.

The Board has responsibility and power to secure private sector, and community support in the analysis of economic development opportunities and in development of specific recommendations. The Board assists DCEO's research efforts to identify key businesses, and industries, and determine their potential for expansion, diversification and production of value-added goods; to propose appropriate state roles in new product development, venture capital formation, and research and development; and to assist DCEO’s efforts to study key components for a long-term strategy based on consensus goals and principles, including education and training, energy, environmental conditions, research and development, capital, land, transportation, advanced communications, taxes, and regulations.

The ***Site Remediation Program*** described under ***Title XVII of the Environmental Protection Act*** establishes a risk-based system of remediation based on protection of human health and the

environment. This system assesses present and future uses of the site and assures that remedial action considers the adequacy for the new land use. The Program provides incentives to the private sector to undertake remedial action, establishes expeditious alternatives for review of site investigation, and remedial activities, and provides assistance to local government for contaminated property remediation.

This Title establishes procedures for investigative and remedial activities at sites where there is a release, threatened release, or suspected release of hazardous substances, pesticides, or petroleum and review and approval of those activities. "Brownfields site" or "brownfields" means a parcel of real property, or a portion of the parcel, that has actual or perceived contamination and active potential for redevelopment. The *Municipal Brownfields Redevelopment Grant Program* provides financial assistance to municipalities for coordination of activities related to brownfields redevelopment.

Under the ***Department of Transportation Law*** [20 ILCS 2705], IDOT has the power to undertake port and waterway development planning and studies of port and waterway development problems. It also can provide technical assistance to port districts and units of local government and port and waterway development activities. IDOT provides financial assistance for the ordinary, and contingent expenses of port districts upon the terms and conditions that IDOT finds necessary to aid in development of those districts. IDOT coordinates all its activities with DCEO. IDOT has the power to advise in formulating a mass transportation policy for the state, proposals designed to help meet and resolve special problems of mass transportation, and programs for comprehensive planning, development, and administration of mass transportation facilities and services.

Under the ***River, Lakes and Streams Act*** [615 ILCS 5], IDNR can issue permits to individuals, corporations, firms, or governments to take sand, earth, minerals, and gravel from the bed or below the bed of any state water. IDNR is also authorized to issue permits to any individual, corporation, firm or government to remove oil, coal or gas from the bed or below the bed of any water.

Under the ***Lake Calumet Harbor Act*** [615 ILCS 65], the term "harbor" refers only to water area and not to lands adjacent thereto, and having a basin and slips, a depth of not less than 21.34 feet Chicago datum and a total area of not less than 500 acres of which not less than 300 acres in the basin, may be constructed by the City of Chicago in and near Lake Calumet in the City of Chicago. The acceptance of the City of Chicago of lands granted by this Act obligates the city to maintain the harbor at the depth stated. *"The City of Chicago may use for any of the purposes conferred and authorized by Division 123 of Article 11 of the 'Illinois Municipal Code,' approved May 29, 1961, may sell and convey, or may lease for any term of years, any part or parts or all of the lands granted to the City by this Act for industrial, manufacturing or harbor purposes. When any lands are sold or leased, such grant or lease shall contain a clause in the deed, or lease to the effect that the lands shall be used for the purpose authorized within a certain time fixed or agreed upon between the City of Chicago and its grantees or lessees."* Such sale or lease shall be approved in writing by the IDNR Director.

Category 8: Energy Facilities and Air Quality

Uses subject to management:

- Any construction in Lake Michigan or public waters of Illinois
- The diversion or withdrawal of water from Lake Michigan for any purpose including the use of water for industrial or public utility purposes
- Siting electrical generating and high voltage transmission facilities
- Emitting air pollutants from point sources
- Siting of energy facilities
- Storing and transporting energy resources

Energy facility and air quality management authorities are addressed in Chapter 10: Energy Facility Planning Process.

Overview of ICMP Management Authorities by State Agencies, Boards and Commissions

The following is a general description of the authorities of state agencies, boards, and commissions networked with the ICMP:

- Illinois Department of Natural Resources (IDNR)

  IDNR conserves, preserves, and enhances Illinois resources, while meeting the outdoor recreation needs of a large and diverse population. IDNR programs address a wide scope of concerns, ranging from recreational facilities development on public lands, to protecting natural areas.
  IDNR Office of Realty and Environmental Planning (OREP)

  OREP is responsible for natural resource and outdoor recreation planning. OREP administers Illinois Endangered Species Protection and Illinois Natural Areas Preservation Acts. These Acts require state and local units of government (municipalities and counties) to participate in a consultation process with OREP prior to approving, funding or performing activities that will disturb water, land or air development. OREP also reviews Section 404 wetland permits for impacts to fish and wildlife resources, it administers the IWPA.

  IDNR Office of Resource Conservation (ORC)

  ORC reviews Section 404 wetland permits for impacts to fish and wildlife resources. ORC protects, restores, and enhances fisheries and other aquatic resources in Illinois through regulation, ecological management, and public education. The ORC also performs fish surveys as part of basin studies and biannual sampling programs.

  IDNR Office of Architecture, Engineering and Grants

Administer IDNR grants, including state and federal grants for open space programs. Open Space Lands Acquisition and Development (OSLAD) is the state's grant program; Land and Water Conservation Fund (LWCF or LAWCON) is the federal program. These grants provide 50% reimbursement for open space acquisition.

IDNR Office of Water Resources (OWR)

OWR is responsible for administering regulatory programs for construction in the floodways of rivers, lakes and streams; construction in the shore waters of Lake Michigan; construction and operation of dams; construction in public bodies of water; and diversion and withdrawal of waters from the state's lakes. It is also the lead state agency for water resource planning, navigation, floodplain management; the National Flood Insurance Program, and interstate organizations on water resources. The OWR performs initial surveys and collects water resource data to make recommendations to local officials for flood control or acquisition projects. If a project is warranted, the OWR coordinates planning and funding, and provides project design.

IDNR Coastal Management Program

Preserves, protects, restores, and where possible, enhances the coastal resources in Illinois for this and succeeding generations. The program will improve the quality of decision-making by the state and coastal communities resulting in more effective outcomes.

- Illinois Environmental Protection Agency (IEPA)

  IEPA's mission is to safeguard environmental quality consistent with the social and economic needs of the state, to protect health, welfare, property, and quality of life. The Environmental Protection Act is Illinois' primary statute for restoring, protecting, and enhancing the environment. IEPA investigates violations of this Act, any rule or regulation adopted under this Act, any permit or term or condition of a permit, or any IPCB order; takes necessary enforcement actions. IEPA has authority to make recommendations to the IPCB to adopt regulations (Title VII) and represent the state in all matters pertaining to plans, procedures, or negotiations for interstate compacts or other governmental arrangements relating to environmental protection. IEPA is designated as the implementing agency for the State for all purposes of the following federal acts: the Water Pollution Control Act; the Safe Drinking Water Act (except for Section 1425); the Clean Air Act; the Solid Waste Disposal Act; the Resource Conservation and Recovery Act; the Noise Control Act; and the Comprehensive Environmental Response, Compensation, and Liability Act. IEPA can enter into written delegation agreements with any unit of local government and it can delegate all or portions of its inspecting, investigating, and enforcement functions.

- Illinois Pollution Control Board (IPCB)

  IPCB is an independent agency created in 1970 by the Environmental Protection Act. The IPCB adopts Illinois' environmental regulations and decides contested environmental cases. The IPCB's

environmental regulations on air pollution, land pollution, water pollution, and other types of pollution are found in Title 35 of the IAC. The IPCB's procedural rules (35 IAC 101-130) explain how to initiate and participate in IPCB proceedings. Any person can file a complaint with the IPCB against an alleged polluter. The IPCB is Illinois' environmental court for pollution cases, and therefore hears and decides environmental enforcement actions, but does not prosecute or investigate alleged pollution.

- Illinois Department of Agriculture (IDOA)

  IDOA coordinates district programs to reduce erosion and sedimentation, protect water quality, control flooding, plan land use, and enhance woodland, wildlife, and recreational resources. Conservation practices, such as terraces, filter strips and grass waterways, are designed to reduce soil loss on cropland. The Streambank Stabilization and Restoration Program funds streambank erosion demonstration projects utilizing bioengineering techniques. IDOA administers programs to control and eradicate plant pests, diseases, and noxious weeds, and it enforces proper storage, containment, and disposal of pesticides and fertilizers. The IDOA also manages a livestock management facilities program.

- Illinois Department of Commerce and Economic Opportunity (DCEO)

  DCEO is the lead state planning agency responsible for improving competitiveness of Illinois in the global economy. DCEO is charged with enhancing Illinois' economic competitiveness by providing technical and financial assistance to businesses, local governments, workers and families. DCEO provides information, assistance and advocacy to facilitate the economic development process in partnership with communities, businesses, and Illinois' network of public and private service providers.

- Illinois Emergency Management Agency (IEMA)

  IEMA coordinates state flood and other disaster planning, response, and mitigation activities. IEMA provides training programs for local governments, reviews local plans, offers advice and assistance on emergency preparedness, and provides operational support during an emergency. IEMA also collects flood damage data from local units of government and administers FEMA funded programs, including the mitigation grant programs.

- Illinois Nature Preserves Commission (INPC)

  INPC assists private and public landowners in protecting high quality natural areas and habitats, of endangered and threatened species, in perpetuity, through voluntary dedication or registration of such lands with the Illinois Nature Preserves System. INPC promotes preservation of these significant lands and provides leadership in their stewardship, management, and protection.

- Illinois Department of Transportation (IDOT)

  IDOT is responsible for transportation planning, road and bridge construction, and maintenance along some sections of highways and routes. IDOT has an aeronautics division, a traffic safety division, and a public and intermodal transportation division.

ICMP Statutory Authorities, Policies and Programs by State Agency

- Illinois Department of Natural Resources (IDNR)

  20 ILCS 805/ Department of Natural Resources Act
  20 ILCS 830/ Interagency Wetlands Policy Act of 1989
  20 ILCS 860/ Outdoor Recreation Resources Act
  20 ILCS 862/ Recreational Trails of Illinois Act
  20 ILCS 1120/ Energy Policy and Planning Act
  20 ILCS 3988/ Local Legacy Act (Board also includes IHPA and IDOA)
  30 ILCS 150/ Illinois Natural Heritage Fund Act
  55 ILCS 5/ Counties Code regarding the National Flood Insurance Act of 1968
  70 ILCS 1810/ Illinois International Port District Act
  415 ILCS 55/ Illinois Groundwater Protection Act
  515 ILCS 5/ Fish and Aquatic Life Code
  520 ILCS 5/ Wildlife Code
  520 ILCS 10/ Illinois Endangered Species Protection Act
  520 ILCS 15/ Wildlife Restoration Cooperation Act
  520 ILCS 25/ Habitat Endowment Act
  525 ILCS 30/ Natural Areas Preservation Act
  525 ILCS 33/ Illinois Open Land Trust Act
  525 ILCS 35/ Open Space Lands Acquisition and Development Act
  525 ILCS 40/ State Forest Act
  525 ILCS 45/ Water Use Act of 1983
  615 ILCS 5/ Rivers, Lakes and Streams Act
  615 ILCS 5/14a IEPA, IDNR, IPCB coordination preservation of Lake Michigan water
  615 ILCS 5/18 (permitting of fills along streams and Lake Michigan)
  615 ILCS 5/18a, b, d (permitting/use of materials and minerals at or below bed of public waters)
  615 ILCS 5/18f (defining and permits for construction in floodplains)
  615 ILCS 5/24 Shoreline encroachment and bed of Lake Michigan in trust for Illinois citizens
  615 ILCS 15/ Flood Control Act of 1945
  615 ILCS 20/ Navigable Waters Obstruction Act
  615 ILCS 50/ Level of Lake Michigan Act
  615 ILCS 55/ Lake Michigan Shore Line Act
  615 ILCS 65/ Lake Calumet Harbor Act

- Illinois Environmental Protection Agency (IEPA)

  415 ILCS 5/ Illinois Environmental Protection Act
  415 ILCS 5/9.11 Great Lakes Water Quality Agreement (Great Lakes AOCs)
  415 ILCS 5/14-19 Title IV: Public Water Supplies
  415 ILCS 5/39 Title X: Permits
  415 ILCS 5/39.5 Clean Air Act Permit Program
  415 ILCS 5/58.13 Municipal Brownfields Redevelopment Grant Program
  415 ILCS 55/ Illinois Groundwater Protection Act
  615 ILCS 5/14a IEPA, IDNR, IPCB coordination preservation of Lake Michigan water

- Illinois Pollution Control Board (IPCB)

  415 ILCS 5/13 Authority to adopt regulations for the Environmental Protection Act
  415 ILCS 5/17 Authority to adopt regulations for public water supplies
  615 ILCS 5/14a IEPA, IDNR, IPCB coordination preservation of Lake Michigan water

- Illinois Department of Agriculture (IDOA)

  20 ILCS 3988/ Local Legacy Act (Board also includes IHPA and IDNR)
  70 ILCS 405/ Soil and Water Conservation Districts Act
  415 ILCS 60/ Illinois Pesticide Act
  505 ILCS 35/ Illinois Conservation Enhancement Act
  505 ILCS 140/ Watershed Improvement Act

- Illinois Historic Preservation Agency (IHPA)

  20 ILCS 860/ Outdoor Recreation Resources Act
  20 ILCS 3410/ Illinois Historic Preservation Act
  20 ILCS 3435/ Archaeological and Paleontological Resources Protection Act
  20 ILCS 3988/ Local Legacy Act (Board also includes IDNR and IDOA)

- Illinois Nature Preserves Commission

  60 ILCS 1/115-100 Township Code – dedication of nature preserves
  525 ILCS 30/ Illinois Natural Areas Preservation Act

- Illinois Commerce Commission (ICC)

  220 ILCS 5/ Public Utilities Act
  220 ILCS 5/8-406 Certificate of Public Convenience and Necessity
  220 ILCS 15/ Gas Storage Act

220 ILCS 25/ Gas Transmission Facilities Act
220 ILCS 30/ Electric Supplier Act

- Illinois Department of Public Health

  415 ILCS 55/ Illinois Groundwater Protection Act

- Illinois Emergency Management Agency (IEMA)
  20 ILCS 3310/ Nuclear Safety Law of 2004
  420 ILCS 5/ Illinois Nuclear Safety Preparedness Act
  420 ILCS 10/ Illinois Nuclear Facility Safety Act
  420 ILCS 15/ Spent Nuclear Fuel Act
  430 ILCS 75/ Boiler and Pressure Vessel Safety Act

- Illinois Department of Transportation (IDOT)

  20 ILCS 2705/285 (can undertake port and waterway development planning and studies)

- Illinois Department of Commerce and Economic Opportunity (DCEO)
  20 ILCS 605/ Statutory Responsibilities and Economic Development Matching Grants
  20 ILCS 620/ Economic Development Area Tax Increment Allocation Act
  20 ILCS 860/ Outdoor Recreation Resources Act
  20 ILCS 3965/ Illinois Economic Development Board Act
  30 ILCS 105/6z-55 Statewide Economic Development Fund

- Other relevant statutes cited with no reference to a specific state agency authority:
  65 ILCS 105/ Shore Lands for Park Use Act
  70 ILCS 3405/ Surface Water Protection District Act
  70 ILCS 3715/ Water Authorities Act
  415 ILCS 25/ Water Pollutant Discharge Act
  735 ILCS 30/ Eminent Domain Act

Land and Water Uses of Regional Benefit

Land and water uses of regional benefit serve more than one community. Examples of regional benefit include construction of an energy facility, a coastal recreational trail, or a public park, which could benefit many communities. Since many activities can have a regional benefit, it is necessary to define what would be considered as an unreasonable exclusion by a local government action.

Several state statutes directly address state agencies authorities in meeting public interests and needs. These include authorities cited in the various Acts under Chapter 220 “Utilities,” such as the Public Utilities Act, the Gas Storage Act, and the Electric Supplier Act. Other statutes include the Metropolitan Water Reclamation District of Greater Chicago under the Metropolitan Water Reclamation District Act

[70 ILCS 2605/], and the Department of Transportation under the Illinois Highway Code [605 ILCS 5/]. These authorities include procedures and requirements governing the use of eminent domain, or requirements for utilities need to demonstrate that proposed construction is necessary to provide adequate, reliable, and efficient service.

Exercise of eminent domain is most relevant when addressing land and water uses of regional benefit. The Eminent Domain Act [735 ILCS 30/] cites limitations on the exercise of this power. If exercise of eminent domain authority is to acquire property for public ownership and control, then the condemning authority must prove that (i) the acquisition of the property is necessary for a public purpose, and (ii) the acquired property will be owned and controlled by the condemning authority or another governmental entity. With exceptions as cited in Article 5 of the Act, if the exercise of eminent domain is to acquire property for private ownership or control, or both, then the condemning authority must prove with clear and convincing evidence that acquisition of the property for private ownership or control is (i) primarily for the benefit, use, or enjoyment of the public, and (ii) necessary for a public purpose.

Article 15 of the Eminent Domain Act provides a list of Sections of the Illinois Compiled Statutes that include express grants of power to acquire property by condemnation or eminent domain. The grants of power provided in the Eminent Domain Act are given to the State and its various divisions and agencies, and all units of local government, school districts, and other entities. The list is intended to be comprehensive. The following is a short list of several cited statutes:

- (20 ILCS 3110/5); ***Building Authority Act; Capital Development Board***; for purposes declared by the General Assembly to be in the public interest
- (70 ILCS 2605/16); ***Metropolitan Water Reclamation District Act***; quick‑take power for improvements
- (70 ILCS 2605/17); ***Metropolitan Water Reclamation District Act***; for bridges
- (70 ILCS 2605/35); ***Metropolitan Water Reclamation District Act***; for widening and deepening a navigable stream
- (70 ILCS 3610/3 and 3610/5); ***Local Mass Transit District Act***
- (70 ILCS 3615/2.13); ***Regional Transportation Authority Act***
- (220 ILCS 5/8‑509); ***Public Utilities Act***; public utilities
- (220 ILCS 15/1); ***Gas Storage Act***; corporations engaged in the distribution, transportation, or storage of natural gas or manufactured gas
- (220 ILCS 30/13); ***Electric Supplier Act***; electric cooperatives
- (515 ILCS 5/1‑145); ***Fish and Aquatic Life Code***; Department of Natural Resources
- (520 ILCS 5/1.9); ***Wildlife Code***; Department of Natural Resources
- (605 ILCS 5/4‑501); ***Illinois Highway Code***; Department of Transportation and counties
- (605 ILCS 5/4‑505); ***Illinois Highway Code***; Department of Transportation
- (610 ILCS 5/17); ***Railroad Incorporation Act***; railroad corporation; for real estate for railroad purposes

- (615 ILCS 5/19); ***Rivers, Lakes, and Streams Act***; Department of Natural Resources
- (615 ILCS 10/7.8); ***Illinois Waterway Act***; Department of Natural Resources
- (615 ILCS 15/7); ***Flood Control Act of 1945***; Department of Natural Resources

Uses of Regional Benefit Subject to Management

The following is a list of uses that affect, or produce some regional benefit along the Illinois Coast:

- Major transportation facilities such as interstate highways, state roads, airports, railroads, passenger transit systems, ports, marinas, harbors and important navigational projects
- Public recreation facilities, natural areas, or historical significance in the region
- Regional water supply and wastewater treatment facilities or systems
- Regional waste disposal systems
- Major energy transmission, generation or distribution facilities
- Major public facilities such as hospitals and universities
- Housing development and community growth

Illinois courts have consistently ruled that the inherent powers of local government do not include the power to enact ordinances that conflict with state regulations. See 259 Ill. Dec. 909, 759 N.E.2d 970 (Ill.App. 2 Dist. 2001).

10
Energy Facility Planning Process

Program Requirements

The ICMP contains the state's planning process for energy facilities which are likely to be located in or which may significantly affect the coastal zone, including the process for managing impacts resulting from facilities. The CZMA defines "energy facilities" as any equipment or facility which is, or will be used primarily in the exploration for, or the development, production, conversion, storage, transfer, processing, or transportation of, any energy resource; or, for the manufacture, production, or assembly of equipment, machinery, products, or devices involved. The term "energy facilities" includes, but is not limited to the following:

- Electric generating plants;
- Petroleum refineries and associated facilities;
- Gasification plants;
- Facilities used for transportation, conversion, treatment, transfer, or storage of liquefied natural gas;
- Uranium enrichment or nuclear fuel processing facilities;
- Oil and gas facilities, including platforms, assembly plants, storage depots, tank farms, crew and supply bases, and refining complexes;
- Facilities including deepwater ports, for petroleum transfer;
- Pipelines and transmission facilities; and
- Terminals associated with any of the above mentioned facilities.

The ICMP process will identify energy facilities likely to locate in or which may significantly affect our coastal zone, and procedures for assessing site suitability. It must also identify enforceable state laws and authorities for managing impacts from these facilities and procedures for public participation and input in planning, siting, and management of such facilities. The ICMP will adequately consider national interest in planning, siting, and management of energy facilities which are of greater than local significance.

Existing Energy Facilities Located within the ICMP Boundary

The ICMP coastal zone land area includes the 85 square mile "present-day watershed," and the inland waterway corridors which add roughly another 25 square miles. Due to the highly urbanized and developed nature of Illinois' coastal zone, siting new land based major energy facilities within the boundary is likely limited to areas in the northern portion of Lake County or within the Lake Calumet area in southern Cook County.

- Electric generating plants – nuclear

There are no active nuclear power plants within the ICMP boundary. The Zion Station, located on a 257 acre site on the western shore of Lake Michigan in the community of Zion, is a former nuclear generating facility. After over 20 years of operation, Zion's two reactors were permanently shut down in 1998. All nuclear fuel has been removed from the reactor vessel. Currently, 1,019 metric tons of spent nuclear fuel is being stored in the plant's onsite spent fuel pool. Exelon announced in December

2007 that it had contracted with ZionSolutions, an EnergySolutions company, to decommission the nuclear power plant. ZionSolutions intends to remove all structures and components, except for the switchyard, and debris, and return most of the site to a Greenfield status. In September 2010, the United States Nuclear Regulatory Commission approved the transfer of the plant's license from Exelon to ZionSolutions. During the decommissioning process, ZionSolutions will remove the spent nuclear fuel from the spent fuel pool and place the fuel into dry storage casks. The casks will be placed in an Independent Spent Fuel Storage Installation (ISFSI), which will be constructed on site. The ISFSI will include a concrete pad, on which the casks will be placed, a surrounding security fence, guard shack and other support structures. Including the security exclusion zone, the ISFSI will occupy a 5 to 6 acre site. The decommissioning is scheduled for completion in 2018, at which time the license for the ISFSI will be transferred to Exelon. Exelon will retain title to the real property and the spent nuclear fuel during this entire process. The switchyard will remain intact and be operated by Commonwealth Edison for distribution and voltage stabilization.

There are no Petroleum Refineries, Gasification Plants, Uranium Enrichment, or Nuclear Fuel processing facilities located within the ICMP boundary.

- Existing Electric generating plants - fossil fuel or biogas (Source: IEPA Clean Air Act Permit Program)

  Below is a listing of existing electric generating facilities located within, or in close proximity to the ICMP boundary to identify facilities where modifications, including an expansion of a facility, may occur. Existing facilities often undergo equipment modifications or plant expansions with changes in energy demands, financial incentives, and regulatory requirements. A new energy facility may also locate at or near an existing facility, or within an abandoned industrial area, due to present infrastructure and land use. The listing is for general information only. More detailed information can be found at the USEPA website by inserting the USEPA Federal Registration System Number (FRS).

PLANT FACILITY NAME	ADDRESS	FUEL	Nom	NPR	USEPA FRS	IEPA SID
Avon Energy Partners LLC	2000 E. 122nd St., Chicago	landfill biogas		3.3	110002453871	031600GBM
Bio Energy (Illinois), LLC	701 Green Bay Rd., Zion	landfill biogas			110012153828	097200ABC
Calumet Energy Team LLC	11653 S. Torrence Ave., Chicago	natural gas	400		110001350948	031600GHA
Crawford Electric Generating Station	3501 S. Pulaski Rd., Chicago	coal (sub)	586		110000434717	031600AIN
Devonshire Power Partners, LLC	138th St. and Cottage Grove Ave., Dolton	landfill biogas		5.5	110007262185	031069ABX
Fisk Electric Generating Station	1111 W. Cermak Rd., Chicago	coal (sub)	349	662.8	110000433905	031600AMI
Southeast Chicago Energy Project	3141 E. 96th St., Chicago	natural gas	350	407.2	110012514662	031600GKE
Trigen Peoples District Energy Smedley	2211 S. Martin Luther King Jr. Dr., Chicago	natural gas		3.3	110018199572	031600FVB
Waste Management of IL,	130th St. and Stony	landfill				031600FHJ

CID Landfill	Island, Chicago	biogas				
Waukegan Station (Midwest Generation)	10 Greenwood Ave., Waukegan	coal (sub)	805	914.7	110000430178	097190AAC
Winnetka Electric Plant	725 Tower Rd., Winnetka	gas & fuel oil		33.4	110018263733	031333AAD
Zion Energy Center	5701 W. Ninth St., Zion	gas & fuel oil	480		110021292260	097200ABB

EPA FRS is the USEPA Federal Registration System Number, a centrally managed database that identifies facilities and sites subject to environmental regulations or of environmental interest.

EPA SID is the State ID number assigned by IEPA.

Nom is the nominal capacity of the generating units in megawatts (MW) obtained from permit data.

NPR is the nameplate rating in MW of a generator or other electric power production equipment under specific conditions designated by the manufacturer, usually indicated on a nameplate physically attached to the generator. It is the full-load continuous rating or initial capability of a piece of electrical equipment. Actual capability can vary due to age, wear, or conditions.

The Avon Energy Partners, LLC, Harbor View Landfill Electrical Plant is situated at a closed municipal solid waste landfill owned by Stony Island Reclamation and operated by the Land and Lakes Company. The source utilizes landfill gas (biogas) for the production of electricity and as capture to control landfill gas emissions. Avon Energy Partners, LLC is a separate corporate entity that has contracted with the Land and Lakes Company Harbor View Landfill to use the gas generated from the landfill. The electrical generation facility consists of five 987 kW gensets and a backup flare.

Bio Energy (Illinois), LLC contracted with Onyx-Zion Landfill, Inc. to use the gas generated from the landfill in its gas to energy facility. The gas to energy facility includes four existing, and one planned landfill gas fired internal combustion engine-driven generator sets (13.99 mmBtu/hr each). The landfill is located east of Green Bay Road. The energy facility is located just west of Green Bay Road.

The Calumet Energy Team Facility is a peaking power plant that utilizes two 200 MW Natural Gas or Distillate Fuel Oil Fired Turbines (2,080 mmBtu/hr) to generate electricity.

The Crawford Plant (Midwest Generation EME, LLC) operate two coal-fired utility boilers and associated steam turbine generators to produce electricity. The plant has a nominal capacity of 586 MW. The boilers have electrostatic precipitators for particulate matter control. The Crawford Plant is outside the ICMP boundary but is a major energy facility in serving the Chicago area.

Devonshire Power Partners, LLC contracted with the Land and Lakes Company, Inc. to use gas generated from landfills for the production of electricity and to control landfill gas emissions. Landfill gas is generated from the 138th St. landfills (Land and Lakes Landfill #1 and #2 - owned by MCM Land Co.) and the River Bend Prairie landfill (Dolton). Land and Lakes Company owns the River Bend Prairie landfill and operates all three landfills. The electrical generation facility consists of five 1,055 kW Jenbacher Energie Systems landfill gas fired gensets (9.96 mmBtu/hr per engine).

The Fisk Plant (Midwest Generation EME, LLC) operates one coal-fired utility boiler and associated steam turbine generator to produce electricity. The plant has a nominal capacity of about 349 MW.

Other fuel materials, such as used oil generated at the source, may also be fired with coal in the boiler. The boiler has electrostatic precipitators to control particulate matter, and low NOx burners to control NOx.

The Southeast Chicago Energy Project is a peaker power plant that has eight simple cycle gas turbines (nominal plant capacity - 350 MWe, rated heat input 467 mmBtu/hr per turbine).

The Trigen Peoples District Energy Smedley facility includes three gas turbines, two package boilers and one heat recovery steam generator, all natural gas-fired. This facility is located just west of the Metra right of way outside the ICMP boundary.

The Waste Management of IL, Inc. CID Landfill facility burns landfill gas with three simple gas turbines with a rated heat input of 55 mmBtu/hr each.

The Waukegan Energy Facility (Midwest Generation EME, LLC) operates two coal-fired utility boilers and associated steam turbine generators with a nominal capacity of about 470 MW. The boilers have electrostatic precipitators for particulate matter control. The plant also has four oil-fired peaking turbines.

The Winnetka Electric Plant is a municipal power plant with four natural gas-fired boilers, with fuel oil backup, and two 2408 KW fuel oil-fired engines (25.6 mmBtu/hr each).

The *Zion Energy Center* operates three 160 MW natural gas turbines with fuel oil backup and low NOx combustors to generate electricity.

Deepwater Ports Including Terminals and Navigable Waterways

- History of Port Development

  The Illinois and Michigan canal in 1848, created an unbroken inland waterway from the Atlantic Ocean to the Gulf of Mexico. Shipping in Chicago expanded, even as the emerging railroad industry was eclipsing the era of canals. Port activities in the region remained centered on the Chicago River until well into the 20th century. In 1921, the Lake Calumet Harbor Act was passed authorizing the City to build a deep-water port at Lake Calumet. Regularly scheduled overseas shipping service was established in 1935. In 1946, Congress authorized the Calumet-Sag Project to facilitate barge traffic between Lake Michigan and the Illinois and Mississippi Rivers.

  In 1951, the General Assembly created the Chicago Regional Port District to oversee harbor and port development. In 1952, the District was established as an independent municipal corporation with title to approximately 1500 acres of marshland at Lake Calumet. A plan released in 1953 called for construction of a turning basin, docks, grain elevators, and public terminals. The harbor, named the Senator Dan Doughty Harbor, opened in 1958. In 1960, Union Tank Car created an enlarged deep-water turning basin and additional slips along the east side of Lake Calumet and eventually built 91 liquid storage tanks with a combined capacity of 800,000 barrels. In 1972, Navy Pier officially ended commercial shipping. In 1978, the Port District acquired 190 acres at the mouth of the Calumet River, built two new terminals sheds and rechristened the site "Iroquois Landing," giving the District a second major waterfront site for future development.

- The Calumet Harbor and River Project is located on the southwest shore of Lake Michigan about 11 miles southeast of Chicago Harbor in Chicago. Most of its breakwaters, harbor navigation channel, and anchorage areas, are located in Indiana. Construction and improvement of this navigation project was originally authorized in 1899. Today it consists of an outer harbor protected by a 6,714 feet long concrete capped timber crib breakwater to the north and northeast and a 5,007 feet long stone filled steel sheet pile detached breakwater to the northeast. The project also includes (a) a 29 feet deep by 3200 feet wide harbor approach channel, (b) a 28 feet deep by 3000 feet wide outer harbor channel and anchorage area and (c) a 27 feet deep by 290 feet wide river entrance channel. The Calumet River portion consists of a 27 feet deep navigation channel that runs about 7 miles inland to Lake Calumet and connects to the 9 feet deep Illinois Waterway Project at 130th Street. The harbor portion of the project was last dredged in 2000.

- Lake Calumet Harbor operations and terminals are located at the junction of the Grand Calumet and Little Calumet Rivers approximately 6 miles inland from Lake Michigan. The Lake Calumet Harbor, also referred to as the Port of Chicago, offers terminals that handle ocean and lake vessels as well as barges. The Lake Calumet Harbor is served by four railroads and has access to Interstates 90 and 94. The Illinois International Port District in Chicago is a Foreign Trade Zone, providing low-cost production and warehousing facilities for imported and export-bound products. The southwest quadrant of Lake Calumet consists of three transit sheds totaling over 315,000 square feet adjacent to approximately 3000 linear feet of ship and barge berthing space. It has two grain elevators with 14 million bushel capacity, and an 800 thousand barrel liquid bulk terminal. Lake Calumet Harbor handles liquid bulk, bulk grain, steel and scrap, aluminum, zinc, lead, sugar, cement, stone and stone products. Specializing in intermodal container service, Iroquois Landing is located at the mouth of the Calumet River at Lake Michigan, and is a 100 -acre, open paved terminal with 3000 linear feet of ship and barge berthing space with a navigational depth of 27 feet. There are two 110,000 square-foot transit sheds, with direct truck and rail access. There are 100 acres of adjacent property available for lease and development.

- The Chicago Harbor is located at the confluence of Lake Michigan and the Chicago River in Chicago. It was the former commercial port of Chicago and is now used mainly by pleasure boats. Some shipping enters the river through the locks here but the bulk of the City's lake commerce is now handled by the Calumet Harbor. A water filtration plant and Navy Pier is located 1 mile north of the Chicago River lock. Navy Pier was opened to the public in 1916. In World Wars I and II, it served as a naval training center. It is now an entertainment, recreation, and exposition center. Construction and improvement of Chicago Harbor began in 1833. The harbor includes a 970-acre outer basin protected by exterior breakwaters totaling 12,663 feet in length and a 224-acre inner basin protected by interior breakwaters totaling 6,578 feet in length. The project also includes a 29 feet deep approach channel, a 28 feet deep maneuvering channel and a 21 feet deep river entrance channel separated by the Chicago Harbor Lock. The lock's chamber is 80 feet wide by 600 feet long and 22.4 feet deep at its low pool elevation. The lock is operated 24 hours per day, seven days per week.

- Chicago River serves as a vital transport link between Lake Michigan and the Illinois River. Federal responsibility for improving navigation on the river began in 1899. By 1941, the river was transformed into its present configuration. The USACE Chicago District maintains the main and north branches which includes a 21 feet deep navigation channel from Rush Street to North Avenue. The south branch of the Chicago River is maintained by the USACE Rock Island District. It consists of a 9 feet deep navigation channel connected to the Illinois River by the Chicago Sanitary and Ship Canal. Principal commodities transported on the river consist of sand, gravel, crushed rock,

scrap iron, fuel oil, coal, and non-metallic minerals.

- Waukegan Harbor is located in Waukegan about 38 miles north of Chicago. Initial improvement of Waukegan Harbor began in the 1880s and was developed into its present configuration in 1966. The harbor is protected by a 1,894 feet long outer breakwater and two parallel jetties. The north jetty is 998 feet in length, and the south jetty is 3,225 feet in length. The harbor also includes a 390 feet wide by 22 feet deep navigation channel from Lake Michigan to the head of the north jetty and a 200 feet wide by 18 feet deep channel between the jetties leading to the inner basin. The inner basin is 18 feet deep and covers 13 acres. Dredging of the outer harbor channel was completed in 2003. Principal commodities entering the harbor include gypsum and cement. The harbor is also a popular recreational site.

  Discovery of PCBs in Waukegan Harbor sediments has prevented dredging of the primary navigation channels since 1975. Dredging Waukegan Harbor in 1992 and 1993 removed 1 million pounds of PCBs from the Waukegan Harbor Area of Concern. Dredging approximately 4,000 cubic yards of sediment from Slip 1 in 2001 allowed ships to increase cargo loads from 30% to 70%.

  Presently, Waukegan is working to enable an environmental dredge of the harbor.

Energy Policy and Planning Authorities and Initiatives

Under the ***Public Utilities Act*** [220 ILCS 5/8-406], a Certificate of Public Convenience and Necessity (CPCN) is required for projects owned by a regulated public utility. It requires information on cost and needs prior to construction. The Illinois Commerce Commission (ICC) has authority for granting the CPCN for the construction of a new electric generating facility; it also reevaluates the propriety and necessity for the certificate at least every 3 years considering any changes in the plans for the utility and the state.

Subsection (b) of Section 8-406 “Certificate of Public Convenience and Necessity” cites the ICC’s power to issue a CPCN, after a hearing, if it determines that the utility demonstrates the proposed construction is necessary to provide adequate, reliable, and efficient service to its customers and is the least cost means of satisfying service needs of its customers; the utility is capable of efficiently managing, and supervising the construction process, and has taken sufficient action to ensure adequate and efficient construction and supervision thereof; and the utility is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers.

Under the Public Utilities Act, "*public utility* " includes every corporation, company, limited liability company, or association that owns, controls, operates or manages, within this state, directly or indirectly, for public use, any plant, equipment or property used or to be used for or in connection with, or owns or controls any franchise, license, permit or right to engage in the production, storage, transmission, sale, delivery or furnishing of heat, cold, power, electricity, water, or light, except when used solely for communications purposes; the disposal of sewerage; or the conveyance of oil or gas by pipe line. "*Public utility*" does not include utilities that are owned and operated by any political subdivision, public institution of higher education, or municipal corporations.

While the ICC does not regulate non-public utility-owned electric generation, municipal electric companies or electric cooperatives, the ICC monitors the status of generators through contacts with electric utilities and regional transmission organizations that operate in Illinois; PJM Interconnection,

L.L.C. (PJM), and Midwest Independent Transmission System Operator, Inc. (MISO).

Subsection 8-406(c) of the Public Utilities Act provides that no construction shall commence on any new nuclear power plant, and no CPCN or other authorization shall be issued by the ICC, until the IEPA Director finds that the United States Government, through its authorized agency, has identified and approved a demonstrable technology or means for the disposal of high level nuclear waste, or until such construction has been specifically approved by a statute enacted by the General Assembly.

Under the Public Utilities Act, the ICC prepares an annual report on Electricity, Gas, Water and Sewer Utilities which includes review of significant decisions and other regulatory actions for the preceding year, an analysis of the state of each utility industry regulated by the ICC, and significant changes, trends and developments. The report includes a specific discussion of the energy planning responsibilities and activities of the ICC and energy utilities, including the extent to which conservation, cogeneration, renewable energy technologies and improvements in energy efficiency are being utilized by energy consumers, and a description of existing and proposed programs and policies designed to promote and encourage such utilization. The ICC also prepares annual reports on the Development of Natural Gas Markets in Illinois to analyze the status and development of retail natural gas market in the state.

Under the ***Department of Commerce and Economic Opportunity Law*** [20 ILCS 605], the Illinois Department of Commerce and Economic Opportunity (DCEO) may provide financial assistance for a newly constructed electric generation plant or new generation capacity expansion at an existing facility, including transmission lines and equipment. The DCEO is authorized to accept and use planning grants for planning assistance to municipalities, groups of adjacent communities having related planning problems resulting from rapid urbanization, and to official governmental planning agencies. This includes surveys, land use studies, urban renewal plans, and technical services.

The ***Illinois Resource Development and Energy Security Act*** [20 ILCS 688] specifically addressed utilizing the plentiful supply of Illinois coal and deploying advanced clean coal technology that allows high sulfur Illinois coal to be burned efficiently while meeting strict state and federal air quality limitations, such as through coal gasification. It also promoted renewable forms of energy as an important element of the energy and environmental policies of the state, providing a goal that at least 5% of the state's energy production and use be derived from renewable forms of energy by 2010 and at least 15% from renewable forms of energy by 2020.

The ***Illinois Power Agency Act*** [20 ILCS 3855] created an “Illinois Power Agency” with objectives which included developing electricity procurement plans to ensure adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time, for electric utilities that on December 31, 2005 provided electric service to at least 100,000 customers in Illinois. The procurement plan included cost-effective renewable energy resources. A minimum percentage of each utility's total supply to serve the load of eligible retail customers, as defined in Section 16-111.5(a) of the Public Utilities Act, procured for each of the following years shall be generated from cost- effective renewable energy resources: at least 2% by June 1, 2008; at least 4% by June 1, 2009; increasing 1% each succeeding year, to at least 10% by June 1, 2015; and increasing by at least 1.5% each year thereafter to at least 25% by June 1, 2025. As available, at least 75% of the renewable energy resources shall come from wind generation. Provisions for reductions in renewable energy resources were included to limit the annual estimated average net increase due to the costs of these resources paid by eligible retail customers.

Governor Executive Orders (EO) and Initiatives

Have specifically addressed emerging energy policy issues and have provided financial incentives to assist in meeting policy objectives. In 2001, an EO created an Energy Cabinet, which developed an Illinois Energy Policy Report (2002), making 56 specific recommendations to achieve the goal of increasing use of Illinois natural resources and moderating demand as steps toward energy independence. In 2006, an EO created the Illinois Climate Change Advisory Group to consider a full range of policies and strategies to reduce greenhouse gas emissions by enhancing the use of wind power, biofuels and through energy efficiency. It targeted a six percent reduction in greenhouse gas emissions from governmental activities by 2010. In December of 2010, Governor Pat Quinn signed Executive Order 14 (2010) establishing the Illinois Coastal Management Program within the Illinois Department of Natural Resources. Executive Order 14 can be found in Appendix C.

State Regulations Specific to Energy Facilities

The preceding section described state requirements and initiatives for comprehensive energy policy and planning. This section identifies state statutes and administrative rules, which specifically address particular energy facilities or are an important regulatory component in planning for and siting of an energy facility. Obtaining an air pollution control permit is a major component in the ability to site fossil fuel electric generating facilities. ***Title II "Air Pollution" of the Environmental Protection Act*** contains Illinois' statutory air pollution regulations. Section 4 of the Environmental Protection Act designates IEPA as the air pollution agency for the state for all purposes of the Clean Air Act of 1970. A comprehensive air quality construction permit is required for a new major source of emissions or a major modification to existing source. The permit also implements the federal permit required by the Prevention of Significant Deterioration rules, administered by IEPA.

The ***Gas Storage Act*** [220 ILCS 15] provides that any corporation which is engaged in or desires to engage in, distribution, transportation, or storage of natural or manufactured gas, intended for ultimate distribution to the public in the state, shall have the right to enter upon, take or damage private property or any interest therein, in the manner provided for by eminent domain, necessary or convenient for its operations, including the storage of gas, all operations are hereby recognized and declared to be affected with a public interest and all of the property used declared for public use. No order is issued by the ICC unless proposed storage is confined to geological strata lying more than five hundred feet below soil surface, will not injure any water resources, and public convenience and necessity of a substantial portion of the gas consuming public will be served by acquisition.

The ***Gas Transmission Facilities Act*** [220 ILCS 25] authorizes the promotion of more efficient use and distribution of natural gas, including methane gas produced from municipal refuse and eliminates the necessity for construction of transmission facilities for gas produced or sought to be transported by a private energy entity separate from those which may already exist to serve the same area and are owned and operated by a public utility subject to the jurisdiction of the ICC. The ICC shall authorize construction of an interconnection by a private energy entity upon application of such entity if the ICC makes the findings required by Section 3 of this Act.

The ***Electric Supplier Act*** [220 ILCS 30] states it is in the public interest that, in order to avoid duplication of facilities and minimize disputes between electric suppliers which may result in inconvenience and diminished efficiency in electric service, any two or more electric suppliers may contract, subject to ICC approval, the respective areas in which each supplier is to provide service.

The ***Illinois International Port District Act*** [70 ILCS 1810] required the Port District to adopt a comprehensive plan for the development and promotion of commerce to and from the District; to acquire, construct, own, lease and develop terminals, wharf facilities, piers, docks, warehouses, bulk terminals, grain elevators, tug boats and other harbor crafts, and any other port facility or port-related facility or service it finds necessary and convenient. The District shall study existing harbor plans and recommend to the appropriate governmental agency, changes and modifications that may be required to meet changing business and commercial needs.

The District has authority to issue permits for the construction of all wharves, piers, dolphins, booms, weirs, breakwaters, bulkheads, jetties, bridges or other structures of any kind; and to acquire, own, construct, sell, lease, operate, and maintain port and harbor, water, and land terminal facilities. The District may acquire and accept by purchase, lease, gift, grant or otherwise; any and all real property, whether a fee simple, absolute, or a lesser estate, or any right therein that may be useful for its purposes and provide for development of adequate channels, ports, harbors, terminals, port facilities, and terminal facilities adequate to serve the needs of commerce within the Port District.

The District may acquire by condemnation, property lying within the Lake Calumet area and any real property lying within 1/2 mile of the Calumet River or Lake Calumet and the whole of any parcel of real property adjacent to the river or lake which is wholly within the corporate limits of Chicago, even though part of such parcel may be more than 1/2 mile from the river or lake. The District may sell, convey, or operate any of its buildings, structures or other improvements located upon District property, including the right to grant easements and permits for its use.

Other State Regulations by Agency

- IEPA Bureau of Water

  An NPDES Permit is required prior to operation for discharge of wastewater to surface waters. The procedures for determining water quality based permit limitations for NPDES discharges to the Lake Michigan Basin are found at 35 IAC PART 352.

- Illinois Historic Preservation Agency

  Consultation is required to request comments from the State Historic Preservation Officer concerning possible project effects on cultural resources (both structural and archaeological) for purposes as cited under the Section 106 of the National Historic Preservation Act and the *Illinois State Agency Historic Resources Preservation Act* [20 ILCS 3420].

- IDOT Division of Aeronautics

  A *Determination of Obstruction Hazard* is required for construction of tall structures greater than 200 feet or located less than 20,000 feet from an airport.

- IDNR Office of Realty and Environmental Planning (OREP)

  Requires *Endangered Species/Natural Areas Consultation* for state agencies/local governments that

authorize, fund, or perform actions altering environmental conditions, and which must use their authority to avoid or minimize adverse impacts. The Illinois Wetland Policy Act of 1989 [20 ILCS 830] requires that all projects receiving state support meet the state goal of no overall net loss to Illinois' existing wetland acres.

- IDNR Office of Water Resources (OWR)

  Issues permits for work in and along the rivers, lakes, and streams, including Lake Michigan; for activities in and along the public waters; for the construction, operation and maintenance of new dams. The standard joint application form includes copies for the USACE and the IEPA. OWR also administers Illinois' allocation of water from Lake Michigan.

  IDNR participates in the Great Lakes Wind Collaborative, a regional body coordinating the development of wind resources. In addition state policy guidelines are under development governing the siting of offshore wind projects in Illinois coastal waters.

Public Participation and Consideration of the National Interest in the Energy Facility Siting Process

Although the major role regarding energy facility siting lies with the Illinois Commerce Commission (ICC), the proper hearing of concerns of local citizens and governments and federal interests is essential to ensure provision of reliable energy sources in an environmentally sound manner. Development of the ICMP thus has involved substantial input from both local and federal entities throughout the policy development and review phases. Federal government contacts were provided copies of all working documents for review. Comments pursuant such reviews were incorporated into the draft document.

Consideration of the national interest is currently, and will continue to be, provided for through federal agency review during permit and certification processes as in the case of local citizen and governmental participation. Opportunities for the public and federal agencies to participate in the energy facility planning process are available at multiple steps of the regulatory process. Citizens can comment on proceedings at the Illinois Commerce Commission who must issue a "Certificate of Public Convenience and Necessity" which is required prior to construction. Additionally other permits are required from IDNR and IEP that also have public notice and comment requirements.

Public Utilities Act (220 ILCS 5/2-107). (from Ch. 111 2/3, par. 2-107)

"*The Commission shall hold stated meetings at least once a month and may hold such special meetings as it may deem necessary at any place within the State. At each regular and special meeting that is open to the public, members of the public shall be afforded time, subject to reasonable constraints, to make comments to or to ask questions of the Commission.*

The Commission shall provide a web site and a toll-free telephone number to accept comments from Illinois residents regarding any matter under the auspices of the Commission or before the Commission. The Commission staff shall report, in a manner established by the Commission that is consistent with the Commission's rules regarding ex parte communications, to the full Commission comments and

suggestions received through both venues before all relevant votes of the Commission.

The Commission may, for the authentication of its records, process and proceedings, adopt, keep and use a common seal, of which seal judicial notice shall be taken in all courts of this State; and any process, notice, order or other paper which the Commission may be authorized by law to issue shall be deemed sufficient if signed and certified by the Chairman of the Commission or his or her designee, either by hand or by facsimile, and with such seal attached; and all acts, orders, proceedings, rules, entries, minutes, schedules and records of the Commission, and all reports and documents filed with the Commission, may be proved in any court of this State by a copy thereof, certified to by the Chairman of the Commission, with the seal of the Commission attached"

Notwithstanding any other provision of this Section, the Commission's established procedures for accepting testimony from Illinois residents on matters pending before the Commission shall be consistent with the Commission's rules regarding ex parte communications and due process.
(Source: P.A. 95-127, eff. 8-13-07.

11
Federal Consistency and the National Interest

This chapter describes the federal-state coordination requirements of the CZMA, the CZMA's national interest considerations, and the federal consistency process.

Illinois coordinates and collaborates with federal agencies on state and federal coastal projects and issues. Illinois has developed the ICMP, in part, by providing a meaningful opportunity to federal agencies to participate in program development. Illinois contacted each "relevant" federal agency listed in 15 C.F.R. § 923.2(d) and other federal agencies the state determined to be relevant in identifying potential federal actions that have an impact on our coastal lands and waters.
Illinois took the following steps to solicit input from federal agencies on the development of the ICMP:

On March 16, 2010, Illinois solicited statements from the head of each of these federal agencies concerning activities and resources of national interest and benefit, and review of federal activities, permits and licenses, and assistance programs conducted within the Lake Michigan watershed.

Federal contacts were asked to submit any input by April 9, 2010. These written comments are included in Appendix D. Federal agencies were solicited for comments by phone on March 31, 2010. Comments were received, addressed, and incorporated in the ICMP from the U.S. Coast Guard, U.S. Fish and Wildlife Service, U.S. Navy, Naval Facilities Engineering Command Midwest, and the U.S. Army Corps of Engineers.

On January 18, 2011, regional federal agency contacts, as well as all Great Lakes states coastal program contacts, were sent notification through electronic mail of the Illinois Coastal Management Program's public hearing and webinar component on February 18, 2011, in Chicago, Illinois. The ICMP website also contained detailed information prior to and following the hearing, including presentation materials. Electronic mail was sent to all contacts prior to the hearing as a reminder on February 1, 2011. Comments were received electronically, addressed, and incorporated in the ICMP from the U.S. Navy, Naval Facilities Engineering Command Midwest and the Nuclear Regulatory Commission.

Letters and electronic correspondence received can be found in Appendix D.

The following federal agencies were contacted:

- USEPA
- US Coast Guard
- USDOT Federal Highway Administration
- USDOT Maritime Administration

- US Fish and Wildlife Service
- U.S. Navy, Naval Facilities Engineering Command Midwest
- U.S. Army Corps of Engineers
- Federal Energy Regulatory Commission
- U.S. Department of Housing and Urban Development
- Nuclear Regulatory Commission
- General Services Administration

The ICMP public hearing took place on Friday February 18, 2011, at the James R. Thompson Center in Chicago, Illinois from 12:00 to 3:00 PM CST. The first hour of the hearing was an open house. Attendees were able to view the boundary maps and other ICMP material in the hearing room. Formal presentations began at 1:00 PM and were accompanied by an online webinar. Three presentations were given, links to each can be found on the home page of the ICMP website. Presentations were:

- *The Illinois Coast – Geologic History, Human Impact, and Management Challenges [PowerPoint slides].* Michael J. Chrzastowski, Ph.D., P.G. Senior Coastal Geologist, Illinois State Geological Survey. University of Illinois at Urbana-Champaign.
- *Illinois Coastal Management Program [PowerPoint slides].* Todd Main, Senior Policy Advisor. Illinois Department of Natural Resources.
- *Clean and Green Marina Program [PowerPoint slides].* Rachel Sudimack, Policy Assistant. Illinois Department of Natural Resources.

Following the presentations, the public asked questions and provided comments which were transcribed with the corresponding response by IDNR and NOAA in Appendix D. Written comments were received from the Alliance for the Great Lakes and Friends of the Chicago River and can be found in Appendix D as well.

Federal-State Consultation Requirements

The CZMA and NOAA's regulations provide substantial opportunity for federal agencies to review and comment on the content of a state's program. The state must evaluate federal comments received during program development, and where appropriate based on the review of the state and NOAA, accommodate federal agencies' comments in the management program. Federal agency comments should focus on one or more of the following areas of the ICMP:

- Management of coastal resources for preservation, conservation, development, enhancement or restoration,
- Statements of the national interest in planning for or siting of facilities more than local in nature,
- Uses subject to the management program,
- Areas of particular concern to the management program,
- Boundary determinations, including delineation of federal lands excluded from the coastal zone,
- Shorefront access and protecting planning, energy facility planning, and erosion planning processes,
- Federally developed or assisted plans that must be coordinated with the management program pursuant to subsection 306(d)(3) of the CZMA, and
- The federal consistency process described in the ICMP pursuant to CZMA § 307 and 15 C.F.R. Part 930.

Identifying the National Interests

The ICMP must provide adequate consideration of the national interest involved in planning for, and managing the coastal zone, including the siting of facilities such as energy facilities which are of greater than local significance. The state must describe the national interest in planning for and siting of facilities considered during program development; indicate the sources relied upon for a description of the national interest; indicate how and where consideration of the national interest is reflected in the management program; and, describe the process for continued consideration of the national interest. Federal agencies administer many federal laws and programs within the ICMP coastal boundary, such as dredging navigation channels and harbors, protection of federally endangered species, and cleanup of contaminated sites. Federal agencies own land such as military bases, national forests, national monuments, and conduct many projects and activities within our coastal area. They also provide financial assistance for projects including our transportation systems.

In developing the CZMA, Congress recognized the distinct and irreplaceable nature of the nation's coast and its value to the present and future well being of the nation. The primary focus for consideration of the national interest under this program is to provide for protection of facilities, and due consideration of activities which are in the national interest. Consideration of the national interests is a benefit to states and local communities because these requirements establish a reciprocal state-federal relationship. Federal agencies have the opportunity to give full consideration of their interests in the development of the ICMP ensuring comprehensive coastal management purposes. Identifying specific national interests within the ICMP boundary assists in identification of federal activities subject to federal consistency.

The following is a general list of issues and federal activities that the state considers to be in the national interest within our coastal boundary:

- Water transportation, ports and other navigation facilities
- Highway, air and rail transportation
- National defense
- Energy facility siting and production, including transport and transmission
- Maintaining recreational uses of areas and developing and expanding public recreation areas
- Protection of threatened and endangered species and their habitats
- Protection of historical, cultural, and archeological sites
- Protecting wetlands and significant habitat areas
- Activities conducted under CERCLA (Superfund)
- Hazardous Waste Management (RCRA)
- Developing improved methods to stop and control the spread of invasive species
- Homeland Security activities

The ICMP will consider national interest in the review, certification, and permitting processes conducted by IDNR which are placed on public notice and made available to federal agencies. Review of these applications considers the national interest as reflected in the regulations and policies, and also considers comments from the public and from federal agencies involved in making a decision on the permit application. Consideration of the national interest may also be requested of IDNR by federal agencies at any time. Specific information on energy facility siting procedures is outlined in Chapter 10. Federal agencies were given multiple opportunities to comment on the national interest in the development of the ICMP program. A summary of their comments can be found in Appendix D.

Federal Consistency

The ICMP must describe the procedures it will use to implement the federal consistency authority. The requirements for inclusion in the ICMP submission are provided in CZMA § 306(d)(14), 15 C.F.R. § 923.53 and 15 C.F.R. Part 930. These include: designating a single state agency to implement federal consistency and issue federal consistency concurrences and objections; state procedures the designated state agency shall use to for federal consistency purposes; provide for public participation in the State agency's review of a federal agency's consistency determination or an applicant's consistency

certification for a federal license or permit activity; have identifiable enforceable policies; and a list of federal license or permit activities that will be subject to consistency. Federal regulations governing federal consistency for states with approved coastal management programs are provided at 15 C.F.R. Part 930. These regulations cover many of the processes, procedures, and variable situations that need to be followed by state and federal agencies, applicants requiring a federal license or permit, or state agencies and local governments seeking federal assistance. This chapter summarizes the federal consistency requirement and describes the ICMP's federal consistency procedures.

General Federal Consistency Requirements and Objectives

The "Federal Consistency" provision of the CZMA gives states with federally approved coastal management programs the responsibility for reviewing federal actions to ensure they are consistent with enforceable policies of the federally-approved ICMP.

One regulatory objective is to implement the federal consistency requirement in a manner that strikes a balance between the need to ensure consistency for federal actions affecting any coastal use or resource with the enforceable policies of approved management programs, and the importance of federal activities. Another objective is to provide flexible procedures that foster intergovernmental cooperation, and minimize duplicative effort and unnecessary delay, while making certain that the objectives of the CZMA are met.

> *Federal agencies, State agencies, and applicants should coordinate as early as possible in developing a proposed federal action and may mutually agree to intergovernmental coordination efforts, to meet the requirements of these regulations, provided that public participation requirements are met and applicable State management program enforceable policies are considered.* 15 C.F.R. § 930.1(c).

Illinois state agencies and federal agencies are working on many projects of common interest. Federal consistency provides a mechanism through which federal agencies and applicants for federal authorization and funding become aware of the ICMP's enforceable policies and any state authorizations required for a proposed activity that are part of the ICMP. The process encourages early coordination, review, and comment on federal actions that may have reasonably foreseeable effects on the uses or resources of our coastal zone. It provides an opportunity for state and federal agencies to improve existing coordination efforts, and may provide a unique role for improving coordination with regional and local governments.

Federal Actions subject to Federal Consistency

The following federal actions are subject to federal consistency:

Federal Agency Activities - means any functions performed by or on behalf of a federal agency in the exercise of its statutory responsibilities. The term "Federal agency activity" includes a range of activities

where a federal agency makes a proposal for action initiating an activity or series of activities when coastal effects are reasonably foreseeable. The term federal “development project” means a federal agency activity involving the planning, construction, modification, or removal of public works, or facilities, and includes the acquisition, use, or disposal of any coastal use or resource (See 15 C.F.R. Part 930, Subpart C).

Federal License or Permit Activities - means any required authorization, certification, approval, lease, or other form of permission which any Federal agency is empowered to issue to a non-federal applicant (See 15 C.F.R. Part 930, Subpart D). “Applicant” means any individual, public or private corporation.

Federal Assistance means assistance provided under a federal program to an applicant agency through grant or contractual arrangements, loans, subsidies, guarantees, insurance, or other form of financial aid (See 15 C.F.R. Part 930, Subpart F). “Applicant agency” means any unit of state or local government, or any related public entity such as a special purpose district, which submits an application for federal assistance.

The federal consistency requirements and procedures regarding each of the three above actions are different and are discussed separately as follows:

Federal Agency Activities

The federal agency conducting the activity is responsible for determining if the proposed activity will affect any coastal use or resource. For federal agency activities, if the federal agency finds that a proposed activity will affect any coastal use or resource of the Illinois coastal zone, then the federal agency must prepare and submit a "consistency determination" to the ICMP at least 90 days before final approval of the activity. The consistency determination must describe the federal agency activity, describe its coastal effects and describe how the federal agency will be consistent with applicable enforceable policies of the federally-approved ICMP. Federal agency activities requiring a consistency determination must be conducted in a manner “consistent to the maximum extent practicable.” The phrase "consistent to the maximum extent practicable" mean fully consistent with the enforceable policies in the federally-approved ICMP, unless compliance is prohibited by existing law applicable to the federal agency's operations.

This chapter includes a “List of Federal Activities and Development Projects” where the ICMP believes the listed federal agency activity will have reasonably foreseeable effects to coastal uses or resources. For federal agency activities on the list, and also for federal agency activities not listed, the federal agency determines if the proposed activity will have reasonably foreseeable coastal effects, regardless of the location of the activity. If the federal agency determines there are coastal effects from a listed activity, it must provide IDNR with a consistency determination.

If the federal agency determines that an activity on the “List of Federal Activities and Development Projects” or other situation as described in 15 C.F.R. § 930.35 will not have coastal effects, then the

federal agency shall provide the ICMP with a negative determination. The negative determination shall be submitted at least 90 days prior to final approval of the activity. It shall contain a brief activity description, its location, and the basis set for the negative determination. If the federal agency determines that its proposed action will not have reasonably foreseeable coastal effects, and a negative determination is not required, then the federal agency is not required to coordinate a federal consistency review.

The ICMP will provide for public participation in the ICMP review of federal agencies' consistency determinations. The ICMP will use joint public notices with federal agencies where possible to minimize duplication of efforts. For public notices that are not provided by the federal agency or a state agency reviewing the action, the ICMP will provide public notice on its website and in a local newspaper serving the coastal area most likely to be affected by the federal activity. The public notice shall summarize the activity and announce the availability for public inspection of the consistency determination and accompanying information. In addition, the ICMP will list federal activities and development projects submitted by a federal agency for consistency review on the ICMP website. The public comment period shall be 30 days from publication of the notice on the website and newspaper.

If the ICMP does not respond to a consistency determination or a negative determination within 60 days from ICMP receipt of the federal agency's consistency determination, then ICMP concurrence shall be presumed. State agency concurrence, objection and mediation procedures are outlined in 15 C.F.R. Part 930, Subparts C and G.

NOAA's regulations at 15 C.F.R. Part 930, Subpart C, encourage federal agencies to review their activities (other than development projects), to identify *de minimis* activities which can be considered by the ICMP as exclusions from consistency determinations. State and federal agencies may also agree to exclude environmentally beneficial federal agency activities from review. General consistency determinations, phased consistency determinations, and national or regional consistency determinations are also available to facilitate federal-state coordination. These could include repeated or routine activities. These coordination measures along with the use of existing procedures will be used by the ICMP in order to reduce waste, duplication of effort, and to reduce federal and state agency administrative burdens. IDNR will work with applicable federal agencies to use these administrative provisions in NOAA's regulations and once IDNR and the federal agencies have agreed, these exclusions will be identified on the ICMP web site.

Federal Licenses or Permit Activities

A private individual or business, or a state or local government agency, or any other type of non-federal entity, applying to the federal government for a required permit or license or any other type of authorization, is subject to the requirements of the federal consistency provisions of the CZMA and CZMA regulations (15 C.F.R. Part 930, Subpart D) . The ICMP must determine that the activity is consistent with the enforceable policies of the ICMP and either concur with or object to an applicant's "consistency certification." The licensing federal agency cannot authorize the activity unless a state

concurs or, if the state objects, the applicant appeals the state objection to the U.S. Secretary of Commerce and the Secretary overrides the state's objection.

For projects proposed by non-federal entities within the coastal boundary requiring a federal permit or license that is listed in the ICMP, the applicant must provide the federal agency and IDNR with a Consistency Certification in the following form: "The proposed activity complies with the enforceable policies of the ICMP and will be conducted in a manner consistent with such policies." The applicant must also provide to IDNR data and information necessary to demonstrate consistency. Concurrence shall be conclusively presumed if the ICMP's response is not received within six months from the ICMP's receipt of the consistency certification.

Illinois has identified a "List of Federal Licenses and Permit Activities" (provided at the end of this chapter), which the state believes could affect a coastal use or resource if conducted with the state's coastal zone and will review for federal consistency. Federal license and permit activities not listed at the end of this chapter will be monitored with the assistance of and consultation with state and local agencies and IDNR may choose to request NOAA approval to review unlisted activities on a case-by-case basis pursuant to 15 C.F.R. § 930.54.

In Illinois, there are several coordination mechanisms between state and federal agencies that jointly seek input and review of actions. For example, construction projects in Illinois waterways, floodplains and wetlands often require both state and federal authorization. In order to simplify the approval process for the applicant seeking project authorizations from the USACE, the IDNR Office of Water Resources, and the IEPA, a joint application process was established. The "joint application form" allows for a coordinated review of identical information, as provided in the application, in seeking authorizations pursuant to Sections 401 and 404 of the Clean Water Act and the Rivers, Lakes and Streams Act (615 ILCS 5). This process also allows for consultation under the provisions of the Fish and Wildlife Coordination Act (16 U.S.C. §§ 661-664), which gave the IDNR the permit review responsibilities relative to Corps of Engineers permit applications.

The issuance of relevant state permits can constitute ICMP consistency concurrence, if the state permitting agency coordinates with IDNR, ensures that all applicable ICMP policies and public participation requirements are met, and complies with all applicable CZMA procedures and time frames. The ICMP will rely upon the public notice provided by the federal agency reviewing the application for the federal license or permit if such notice satisfies the minimum requirements set forth in 15 C.F.R. § 930.61. If public notice cannot be satisfied in this manner, then public notice will be provided for as stated under "Federal Agency Activities."

Federal Assistance to State and Local Governments

For federal financial assistance programs to state agencies or local governments, the applicant agency shall submit an application to the ICMP for consistency review if the assistance program is included in the ICMP federal consistency lists or if IDNR seeks to review an unlisted assistance activity pursuant to

15 C.F.R. Part 930, Subpart F. IDNR's timeframe for reviewing federal financial assistance activities is within 60 days.

ICMP Federal Consistency Review Procedures

The ICMP Office within IDNR is the lead State agency for federal agencies and the public to discuss consistency reviews. All applications, consistency determinations, negative determinations, consistency certifications and other federal consistency requests shall be submitted to the ICMP Office. The ICMP Office will be the sole responsible entity for making final decisions for federal consistency and for providing any written decisions to federal agencies and applicants.

Members of the Technical Advisory Committee are responsible to submit appropriate consistency information to the ICMP. The ICMP has communicated with the relevant federal agencies and non-federal applicants will be advised in the state permit process to consult with the ICMP for consistency review. In addition all state agencies are bound by Executive Order 10-14 to comply with policies of the ICMP.

Here is the outline of the coordination between the ICMP and other permitting units of state government.

1. ICMP receives request for consistency determination from federal agency.

2. Within 14 days ICMP provides 30 day public notice for comments on whether proposed activity is consistent with ICMP enforceable policies.

3. Within 14 days ICMP forwards request for consistency determination to appropriate permit office at IDNR, IEPA, or other state agency. These agencies have 30 days to review and return comments to ICMP.

4. ICMP makes consistency determination within 60 days.

The IDNR/ICMP Office will be the lead state agency for coordinating the review of federal actions to determine consistency of proposed actions with the ICMP. The IDNR will also be responsible for securing necessary review and comment from other state, regional, or local government agencies, and, where applicable, the public.

The ICMP has developed a networked program that will rely on the appropriate state agency to evaluate the federal action for consistency under their authoritative responsibilities. The networked state agencies responsible for administering or implementing the state policy or authority that will potentially be affected by the federal action or activity are identified in Chapter 9.

Each of the state agencies networked with the ICMP manages its own responsibilities, issues its own permits, and administers its own federal grant programs. ICMP staff will coordinate federal consistency reviews with these state agencies to ensure that all applicable enforceable policies are considered. However, federal consistency decisions shall only be made by the ICMP Office.

Consistency Determination and Review Process for Federal Agency Activities
(See 15 C.F.R. Part 930, Subpart C for complete requirements)

The federal agency proposing an activity within or outside of Illinois' coastal zone determines if a proposed activity will affect any land or water use or natural resource of the coastal zone. All "development projects" (i.e. construction) within the coastal zone are construed as activities affecting the coastal uses or resources. If the federal agency decides that a proposed activity does affect Illinois' coastal uses or resources, it prepares and submits to the ICMP a Consistency Determination at least 90 days before final approval of the activity. If the agency decides that the activity does not affect coastal uses or resources, the agency may have to provide the state (at least 90 days prior to final approval of the activity) with a negative determination as required under 15 C.F.R. § 930.35.

A Consistency Determination must include a detailed description of the activity, its coastal effects, and comprehensive data and information sufficient to support such determination.

The ICMP Office coordinates the state's review of the Consistency Determination with the appropriate state agencies. The state has 60 days from receipt (plus appropriate extensions, if granted) to concur with or object to the federal agency's consistency determination. Concurrence is presumed if the ICMP does not respond (or request an extension) within 60 days.

If the ICMP Office objects to a Consistency Determination, it must describe why the proposed activity will be inconsistent with specific enforceable policies and should describe any alternative measures that would allow the activity to proceed. If the federal agency has failed to provide sufficient information, the ICMP Office may describe the nature of the information required and its necessity and may also object for lack of information.

The ICMP Office will provide public notice after a Consistency Determination has been received. Where possible, the ICMP Office will provide a joint public notice with the relevant federal agency. The public notice shall summarize the activity and announce the availability for public inspection of the Consistency Determination and accompanying public information and data. The public will be able to provide comment on whether the project is consistent with the enforceable policies of the ICMP.
If there is a dispute between the federal agency and the ICMP Office regarding the Consistency Determination, either party may seek the mediation services of the U.S. Secretary of Commerce or NOAA's Office of Ocean and Coastal Resource Management (OCRM).

Consistency Certification and Review Process for Federal License or Permit Activities
(See 15 C.F.R. Part 930, Subpart D for complete requirements)

Applicants for federal licenses or permits must submit a consistency certification in their application to the federal agency, furnishing the ICMP a copy of such certification and data and information necessary to demonstrate consistency.

For an activity not included in the list of Federal Licenses or Permits subject to Federal Consistency on p. 165 (an "unlisted activity"), an applicant is required to submit a consistency certification if: a) the Office decides that such activity will affect the ICMP coastal uses or resources; b) the ICMP Office properly informs the federal agency, the applicant, and OCRM; and c) OCRM approves the ICMP Office's unlisted activity review. The federal agency and the applicant have 15 days from receipt of the ICMP Office's decision to provide comments to OCRM. In the event of a dispute between a federal agency and the ICMP Office regarding whether an unlisted federal license or permit activity is subject to consistency review, either party may consult with OCRM.

The consistency certification consists of a statement in a letter to the ICMP Office or in the applicant's application to the federal agency that states, "The proposed activity complies with the enforceable policies of Illinois' approved coastal management program and will be conducted in a manner consistent with such policies." The applicant must also furnish the ICMP Office with a sufficient project description and the necessary data and information described at 15 C.F.R. § 930.58 to demonstrate consistency.

Following the ICMP Office's receipt of the consistency certification and the necessary data and information, the ICMP Office will provide public notice according to IC 4-21.5 and 15 C.F.R. § 930.61. Where possible, the ICMP Office will provide a joint public notice with the relevant federal agency. The public notice shall summarize the activity and announce the availability for public inspection of the consistency certification and accompanying public information and data.

If the consistency review will take over three months, the ICMP Office must notify the applicant and the federal agency. The ICMP Office will concur with or object to the consistency certification within six months.

If the same activity requiring a federal license or permit also requires a state permit, the issuance of a permit by the state will include and constitute a consistency decision. The state will evaluate project consistency based on the ICMP enforceable police as described at the end of this chapter.

Early coordination with the ICMP is encouraged for projects affecting ICMP coastal uses or resources. If the ICMP Office concurs with the consistency certification, it will notify the federal agency and the applicant immediately. The agency is then free to either issue or deny the federal license or permit. If the ICMP Office objects to the consistency certification, it must notify the applicant, the federal agency, and OCRM, and the federal agency cannot authorize the activity, unless the applicant appeals to the Secretary of Commerce and the Secretary overrides the ICMP Office's objection.

Consistency Review Process for Federal Financial Assistance Activities
(See 15 C.F.R. Part 930, Subpart F for complete requirements)

A government unit at the state or local level, or any related public entity, submitting an application for federal financial assistance for an activity affecting Illinois' coastal uses or resources must obtain the ICMP's consistency concurrence in order to receive such assistance if the federal financial assistance

program is listed in the ICMP's federal consistency lists. The applicant should submit the application for federal assistance to the ICMP Office.

The ICMP Office will conduct the consistency review for federal financial assistance activities. The ICMP Office will coordinate with the appropriate state agency for consistency review. In the event of a dispute between a federal agency and the ICMP regarding whether a federal assistance activity is subject to consistency review, either party may request mediation by the Secretary of Commerce.

The ICMP Office can either concur with or object to the application based on the consistency of proposed actions within the application. The ICMP Office will notify the applicant and the federal agency of its decision within 60 days of receipt of application for federal assistance. Objections will also be sent to OCRM. If the ICMP Office determines that the proposed project is consistent with ICMP enforceable policies, the federal agency may approve or deny the request for assistance. If the federal agency denies the request, it must immediately notify the applicant and the ICMP Office. If the ICMP Office objects to the proposed project, the federal agency shall not approve assistance for the project, unless the applicant successfully appeals to the Secretary of Commerce.

Conflict Resolution
(See 15 C.F.R. Part 930, Subpart G for complete requirements)

In the event of a dispute between the federal agency and Illinois over whether the federal activity, federal license or permit, or federal financial assistance affects Illinois' coastal uses or resources or whether a consistency determination for a federal activity was correctly made, either party may seek mediation by the Secretary of Commerce or through OCRM (15 C.F.R. § Subpart G). The responding party has the option of participating, but if it declines, it must indicate the basis for its refusal to participate. The Secretary of Commerce will attempt to encourage participation, but if unsuccessful will cease efforts to mediate. Judicial review is available to any party without having to exhaust the mediation process.

Appeal Process
(See 15 C.F.R. Part 930, Subpart H for complete requirements)

The applicant for a federal license or permit or for federal financial aid who has been subject to a consistency objection by the ICMP Office may appeal to the Secretary of Commerce within 30 days of receipt of Illinois' objection (15 C.F.R. § 930 Subpart H). To appeal, the applicant should file a notice of appeal with the Secretary of Commerce, accompanied by a statement in support of the applicant's position and supporting data. The applicant should also send copies of these documents to the ICMP Office and the federal agency involved.

If the Secretary of Commerce finds that the proposed activity is consistent with the objectives or purposes of the Coastal Zone Management Act, or is necessary in the interest of national security, the federal agency may issue the license or permit or grant the financial aid. This is called a Secretarial

override. If the Secretary does not make either of these findings, the federal agency shall not approve the activity. A Secretarial override does not obviate the need for the applicant to obtain any permit or other authorization required by the state of Illinois.

Overview of the ICMP Federal Consistency Review Process

1. For Federal Agency Activities:

    a. Federal Agency makes determination that proposed activity affects any land or water use or natural resource of the Illinois coastal zone;
    b. Federal Agency prepares and submits consistency determination to the ICMP Office at least 90 days prior to final approval of activity;
    c. The ICMP Office provides public notice to receive public comments on whether proposed activity is consistent with the enforceable policies of the ICMP and reviews Federal Agency consistency determination within 60 days;
    d. If the ICMP Office objects to the Federal Agency determination it must state why the activity is inconsistent with specific enforceable policies; and
    e. Disputes may be resolved through mediation services provided by OCRM.

2. For Federal License or Permit Activities:

    a. Applicants must submit consistency certification and necessary data and information to the ICMP Office;
    b. For unlisted activities, the ICMP Office may require a consistency certification if prior approval is granted by OCRM;
    c. ICMP Office has six months to respond to a consistency certification, but ICMP Office must notify applicant if review will go beyond three months; and
    d. Applicant may appeal an ICMP Office's objection to the Secretary of Commerce.

3. For Federal Financial Assistance:

    a. Public entities applying for federal financial assistance must submit the application to the ICMP Office for review if activity is listed;
    b. The ICMP Office will review application for consistency within 60 days;
    c. If the ICMP Office objects to the application it will notify applicant and OCRM; and
    d. An applicant agency may appeal an ICMP Office objection to the Secretary of Commerce.

ICMP Lists of Federal Actions Subject to Federal Consistency

Federal Agency Activities (16 U.S.C. § 1456(c)(1) and 15 C.F.R. Part 930, Subpart C)

Department of Defense-Secretary of the Army and the Army Corps of Engineers – 33 U.S.C. § 404-426, 33 U.S.C. § 471-472, 33 U.S.C. § 540-633, 33 U.S.C. § 701, 16 U.S.C. § 460d, 42 U.S.C. § 1962d-5, 10 U.S.C. § 801, 33 U.S.C. § 1251

- Constructing, maintaining and improving channels
- Dredging, storing, testing, sampling, dewatering, and disposing of dredged material
- Selection of storage, dewatering, and disposal sites for dredged material
- Building, maintaining, and repairing breakwaters, jetties, barriers, harbors, piers, docks
- Establishment of harbor lines
- Creation of permanent sand bypass systems
- Creating habitat areas, including wetlands and offshore islands, from dredged material
- Beach nourishment and replenishment activities, reinforcing dunes and beaches
- Creation of man-made dunes and other man-made land
- Building and maintaining erosion control structures
- Constructing navigational works, and marking anchorage grounds
- Constructing and maintaining flood control works, i.e., floodwalls, levees, diversion channels
- Land acquisition or disposal, including sites for disposal of dredged material
- Cleanup activities in areas contaminated with hazardous waste, radioactive waste, toxic waste, active munitions, hazardous substances or materials, or other wastes or debris

Department of Energy-Federal Energy Regulatory Commission – 42 U.S.C. § 7171, 16 U.S.C. § 796

- Grant of right of eminent domain for right of way for natural gas pipeline under the Natural Gas Act, 15 U.S.C. § 717f (h)

Department of Homeland Security-U.S. Coast Guard – 49 U.S.C. §108, 14 U.S.C.

- Location, design, construction, alteration, abandonment, or disposition of Coast Guard stations, bases, and lighthouses

- Expansion, abandonment, designation of anchorages, lighting areas, and shipping lanes

- Oil and hazardous material pollution response activities, and Area Contingency Plans developed under Sec. 311 of the Clean Water Act, 33 U.S.C. § 1321, as amended by the Oil Pollution Control Act of 1990, 33 U.S.C. § 2701

- Responses to the release of hazardous substances under CERCLA, 42 U.S.C. § 9601

- Construction, operation, maintaining, improving or expanding Vessel Traffic Services under the Port and Waterways Safety Act, 33 U.S.C. § 1221

- Regulating the bulk transport by vessel of hazardous material or petroleum products

Department of Interior-U.S. Fish and Wildlife Service – 16 U.S.C. § 742a

- Acquisition of lands, wetlands, and other suitable habitat for migratory birds, endangered species, and other wildlife; granting rights-of-way
- Fish habitat creation, maintenance, and management

- Recovery plans under Endangered Species Act, 16 U.S.C. § 1531

- Nuisance species (i.e., zebra mussel, lamprey) control measures
  Department of Transportation-Maritime Administration – 49 U.S.C. § 109, 40 U.S.C. § 474, 46 U.S.C. § S App. 861, 46 U.S.C. § S App. 1101, 46 U.S.C. § App. 1601

- Port planning

Environmental Protection Agency – 42 U.S.C. § 6901, 42 U.S.C. § 9601, 33 U.S.C. § 1341, 42 U.S.C. § 300h

- Activities conducted under CERCLA (Superfund), 42 U.S.C. § 9601

- Activities conducted under Resource Conservation & Recovery Act, 42 U.S.C. § 6901

- Open disposal of dredged material

- Oil and hazardous material pollution response planning and response activities, and Area Contingency Plans developed under the Oil Pollution Control Act, 33 U.S.C. § 1321

General Services Administration – 40 U.S.C.

- Disposition and disposal of federal surplus lands and structures

Federal License or Permit Activities (16 U.S.C. § 1456(c)(3)(A) and 15 C.F.R. Part 930, Subpart D):

Department of Defense-Secretary of the Army, and Army Corps of Engineers

- Permits for the construction of structures (i.e., piers, wharves, breakwaters, bulkheads, jetties, weirs, transmission lines, pipes, or pipelines) in, under, or over navigable waters required by Sec. 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403

- Permits for excavating or dredging from navigable waters, or for the alteration or modification of the course, location, condition, or capacity of such waters, required by Sec. 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403

- Permits for disposal of dredged or fill material into navigable waters required by Sec. 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403

- Permits for the disposal of dredged or fill material into waters of the United States required by Sec. 404 of the Clean Water Act, 33 U.S.C. § 1344

- Permits for the alteration or occupation of seawall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the U.S., or of any piece of plant used in the construction of such work, or of any material composing such work, required by Sec. 14 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 408

Department of Energy-Federal Energy Regulatory Commission – 42 U.S.C. § 101

- Licenses, renewals, or amendments to licenses, or approvals for transfers of licenses or rights thereunder, for nonfederal hydroelectric projects and primary transmission lines under Sec. 3 (11), 4(e), 8, and 15 of the Federal Power Act (FPA), 16 U.S.C. § 796 (11), 797(e), 801, and 808, and under Sec. 405 of FPA, 16 U.S.C. § 2701

- Regulation of transportation of natural gas, and the entities engaged in such, under Sec. 1(b) of the Natural Gas Act (NGA), 15 U.S.C. § 717(b)

- Issuing certificates of public convenience and necessity for the construction and operation of interstate natural gas pipelines and pipeline facilities, and for the transportation of natural gas, under 7(c) of the NGA, 15 U.S.C. § 717f (c)

Department of Homeland Security-United States Coast Guard

- Approval of construction or modification of bridges, causeways, pipelines, or other structures over, on, or under navigable waters pursuant to Sec. 9 or 10 of the Rivers and Harbors Act, 33 U.S.C. § 401, 403, and the Bridge Act, 33 U.S.C. § 491

- Marine event permits issued under authority of 33 U.S.C. § 1233, found at 33 C.F.R. § 100.15

Environmental Protection Agency

- National Pollutant Discharge Elimination System (NPDES) permits and other permits for federal installations discharges, sludge runoff, aquaculture permits and all other permits pursuant to Sections 401, 402, 405, and 318 of the Federal Water Pollution Control Act of 1972, 33 U.S.C. § 1341, 1342, 1345, and 1328

- Permits pursuant to the Resource Conservation and Recovery Act (RCRA) of 1976, 42 U.S.C. § 9601

- Permits pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. § 6901

Nuclear Regulatory Commission

- Licensing, certification, and determination of the siting, construction, and operation of nuclear generating stations, fuel storage, and processing centers pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. 10101 *et seq.,* Atomic Energy Act of 1954, 42 U.S.C. § 2011 *et seq*., and Title II of the Energy Reorganization Act of 1974, 42 U.S.C. § 5841 *et seq*.

Federal Financial Assistance Activities (16 U.S.C. § 1456(d) and 15 C.F.R. Part 930, Subpart F):

This is a list of federal financial programs that require a federal consistency review. Numbers refer to the Catalog of Federal Domestic Assistance Programs. Program descriptions can be found at the Catalog's website at www.gsa.gov/fdac.

Department of Agriculture
10.028 Wildlife Services
10.069 Conservation Reserve Program
10.072 Wetlands Reserve Program
10.086 Aquaculture Grants Program (AGP)
10.093 Voluntary Public Access and Habitat Incentive Program
10.099 Conservation Loans
10.683 National Fish and Wildlife Foundation
10.760 Water and Waste Disposal Systems for Rural Communities
10.770 Water and Waste Disposal Loans and Grants (Section 306C)

Department of Commerce

11.300 Investments for Public Works and Economic Development Facilities
11.407 Inter-jurisdictional Fisheries Act of 1986
11.427 Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program
11.463 Habitat Conservation

Department of Defense

12.100 Aquatic Plant Control
12.101 Beach Erosion Control Projects
12.102 Emergency Rehabilitation of Flood Control Works or Federally Authorized Coastal Protection Works
12.103 Emergency Operations Flood Response and Post Flood Response
12.104 Flood Plain Management Services
12.105 Protection of Essential Highways, Highway Bridge Approaches, and Public Works
12.106 Flood Control Projects
12.107 Navigation Projects
12.108 Snagging and Clearing for Flood Control
12.109 Protection, Clearing and Straightening Channels
12.110 Planning Assistance to States12.610 Joint Land Use Studies (Defense Authorization Act, 10 U.S.C. 2391)

Department of Housing and Urban Development (Sections refer to the National Housing Act)

14.246 Community Development Block Grants/Brownfields Economic Development Initiative
14.523 Transformation Initiative Research Grants: Sustainable Community Research Grant Program
14.703 Sustainable Communities Regional Planning Grant Program

Department of the Interior

15.605 Sport Fish Restoration Program
15.608 Fish and Wildlife Management Assistance
15.611 Wildlife Restoration
15.614 Coastal Wetlands Planning, Protection and Restoration Act
15.615 Cooperative Endangered Species Conservation Fund
15.616 Clean Vessel Act
15.622 Sportfishing and Boating Safety Act
15.623 North American Wetlands Conservation Fund
15.916 Outdoor Recreation Acquisition, Development and Planning
15.918 Disposal of Federal Surplus Real Property for Parks, Recreation, and Historic Monuments

Department of Transportation

20.205 Highway Planning and Construction
20.219 Recreational Trails Program
20.500 Federal Transit Capital Investment Grants
20.514 Public Transportation Research
20.600 State and Community Highway Safety
20.933 Surface Transportation Infrastructure Discretionary Grants for Capital Investments II

Environmental Protection Agency (EPA)

66.454 Water Quality Management Planning
66.458 Capitalization Grants for Clean Water State Revolving Funds
66.460 Nonpoint Source Implementation Grants
66.461 Regional Wetland Program Development Grants
66.462 National Wetland Program Development Grants and Five-Star Restoration Training Grant
66.463 Water Quality Cooperative Agreements
66.468 Capitalization Grants for Drinking Water State Revolving Funds
66.469 Great Lakes Program
66.472 Beach Monitoring and Notification Program Implementation Grants
66.474 Water Protection Grants to the States
66.479 Wetland Program Grants - State/Tribal Environmental Outcome Wetland Demonstration Program
66.480 Assessment and Watershed Protection Program Grants
66.701 Toxic Substances Compliance Monitoring Cooperative Agreements
66.708 Pollution Prevention Grants Program
66.801 Hazardous Waste Management State Program Support
66.802 Superfund State, Political SubOffice, and Indian Tribe Site-Specific Cooperative Agreements
66.804 Underground Storage Tank Prevention, Detection and Compliance Program
66.805 Leaking Underground Storage Tank Trust Fund Corrective Action Program
66.808 Solid Waste Management Assistance Grants
66.809 Superfund State and Indian Tribe Core Program Cooperative Agreements
66.810 Chemical Emergency Preparedness and Prevention (CEPP) Technical Assistance Grants Program
66.813 Alternative or Innovative Treatment Technology Research, Demonstration, Training, and Hazardous Substance Research Grants
66.816 Headquarters and Regional Underground Storage Tanks Program
66.818 Brownfields Assessment and Cleanup Cooperative Agreements
66.940 Environmental Policy and State Sustainability Grants

Department of Energy (DOE)

81.041 State Energy Program

81.119 State Energy Program Special Projects
Department of Health and Human Services (HHS)

93.113 Environmental Health
93.887 Health Care and Other Facilities

Enforceable Policies

Federal consistency provides states with an important tool to manage coastal uses and resources and to facilitate cooperation and coordination with Federal agencies. Chapters 9 and 10 identify the key management statutes, state agency authorities, and state cooperative programs to assist in the cooperation and coordination of federal actions. The following represent the ICMP's enforceable policies for federal consistency purposes:

NOTE: *Enforcement of these state laws comes from the regulatory and or permitting process.*
Enforceable policies implemented through a permitting system include:

- *Rivers, Lakes, and Streams Act, 615 ILCS 5*: Establishes IDNR as the agency with jurisdiction over public waters in the state. It requires permits for any construction activity in any public water.
- *Floodway Construction in Northeastern Illinois, 17 IAC 3708.100:* Permits construction in a floodway and provides for injunctive relief for abatement of removal of unlawful construction *Allocation of Water from Lake Michigan, 17 IAC 3730.301:* Allows for the use of water from Lake Michigan per allocation permit issued by IDNR.
- *Fish and Aquatic Life Code, 515 ILCS 5:* Establishes authority for IDNR to develop rules permitting the taking of aquatic life in the state.
- *Illinois Endangered Species Act, 520, ILCS 10:* Establishes authority for IDNR to develop rules permitting the taking of wildlife in the state.
- *Public Utilities Act,* 220 ILCS 5/8-406: Requires public utilities to obtain a permit before conducting business, or beginning construction on any facility in the state.
- *Environmental Protection Act, Title II: Air Pollution, 415 ILCS 5/9:* Prohibits the discharge of any emission or contaminant that would cause air pollution without a permit.
- *Environmental Protection Act, Title III: Water Pollution 415 ILCS 5/11:* Prohibits the discharge of any contaminant that would cause water pollution without a permit.

Enforceable Policies implemented through a system of regulatory rules include:

- *Regulation of Public Waters, Section 17 IAC 3704.70, and 3704.90:* Prohibits any activity that would obstruct navigability of public waters, or contribute to bank or shoreline instability.
- *Shore Lands for Park Use Act, 65 ILCS 105:* Ensures that submerged lands transferred to local park districts must remain publicly held.
- *Navigable Waters Obstruction Act, 615 ILCS 20:* Prohibits the obstruction of navigable waters and provides for the disposition of sunken vessels impacting navigable waters.
- *Interagency Wetlands Policy Act of 1989, 20 ILCS 830:* Establishes the preservation of wetlands as a state priority when agencies develop construction or land management plans. It also provides for the development of a compensation plan to mitigate adverse impacts.

- *Illinois Natural Areas Preservation Act, 525 ILCS 30/3.11 and 30/3.02* Establishes rules allowing for the protection of natural areas for future generations.
- *Illinois Historic Preservation Act, 20 ILCS 3410*: Allows for the preservation of historical places, and prohibit the demolition of such places.
- *Archeological and Paleontological Resources Protection Act, 20 ILCS 3435:* Establishes primacy for the State of Illinois in regulating, exploring, excavating or surveying, all archaeological and paleontological resources found upon or within any public lands.

Civil violations are enforced though administrative channels and the Attorney General of the State of Illinois. Criminal violations are enforced by the State's Attorney's office and the Attorney General of the State of Illinois.

Category 1: Public Waters, Navigation and the Public Interest

1.1 *The building of any causeway, harbor, or mooring facilities for watercraft in Lake Michigan shall be confined to those areas recommended by the IDNR and authorized by the General Assembly and approved by the governor and shall be in aid of and not an interference with the public interest or navigation. Any structure, fill, or deposit erected or made in any of the public bodies of water of this state is a purpresture and may be abated as such at the expense of the person, corporation, or municipality. The terms public waters or public bodies of water mean all open public streams and lakes capable of being navigated by water craft for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharged their waters into navigable lakes or rivers within, or upon the borders of the state.* See **Rivers, Lakes and Streams Act**, 615 ILCS 5

1.2 *It is unlawful to make any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description or build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, causeway, harbor, or mooring facilities for watercraft, or build or commence the building of any other structure, or do any work of any kind whatsoever in any of the public bodies of water within the state of Illinois, without first submitting the plans, profiles, and specifications therefor, and such other data and information as may be required, to the IDNR and receiving a permit therefor signed by the IDNR Director and authenticated by the seal thereof*. See **Rivers, Lakes and Streams Act**, 615 ILCS 5.

1.3 *The conversion of public waters to private land by filling is prohibited. Fill material may be placed in public waters only for bank, shore or bluff protection; beach nourishment; establishing a uniform shoreline; spur dikes, wing dams, and similar structures; dams; projects of an emergency nature; or projects authorized by the General Assembly. No activity which would result in an obstruction to, or interference with, the navigability of any public body of water will be permitted. No activity which would result in bank or shoreline instability on other properties will be permitted*. See **Regulation of Public Waters**, Sections 17 IAC 3704.70 and 17 IAC 3704.90.

1.4 *A city or village owning lands bordering public waters and riparian rights may grant, convey or release any of such lands or rights to any park entity for park purposes of submerged lands under the public waters adjacent to the lands controlled by such city or village; however, that no such park entity may grant, convey, lease or release any lands so acquired or the riparian rights appurtenant thereto to any private person or corporation*. See **Shore Lands for Park Use Act**, 65 ILCS 105.

1.5 *It is unlawful to tie up or anchor vessels or other water craft in public or navigable waters of the state in such a manner as to prevent or obstruct in any manner, between the shore lines thereof, the passage of any vessels or craft; or to voluntarily or carelessly sink, or permit or cause to be sunk, vessels or other water craft in such waters*. See ***Navigable Waters Obstruction Act***, 615 ILCS 20.

Category 2: Flooding

2.1 *All construction undertaken in a regulatory floodway without a permit, or contrary to a permit issued in accordance with IAC 3708P, shall be unlawful and the IDNR or any affected municipality or county will proceed to obtain injunctive relief for abatement or removal of such unlawful construction*. (See ***Floodway Construction in Northeastern Illinois***, 17 IAC 3708.100.

Category 3: Water Quality and Water Supply

3.1 *It is state policy to restore, maintain and enhance the purity of the waters of this state in order to protect health, welfare, property, and the quality of life, and to assure that no contaminants are discharged into the waters of the state, including, but not limited to, waters to any sewage works, or into any well, or from any source within Illinois, without being given the degree of treatment or control necessary to prevent pollution, or without being made subject to such conditions as are required to achieve and maintain compliance with state and federal law. No person shall cause, threaten or allow the discharge of any contaminants into the environment in any state to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or to violate regulations or standards adopted by the Illinois Pollution Control Board.* See ***Environmental Protection Act, Title III: Water Pollution***, 415 ILCS 5/11.

3.2 *No permit shall be issued or renewed authorizing any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description in Lake Michigan unless the IEPA makes a final determination that the proposed dredging or deposit of material will not cause a violation of the Environmental Protection Act or IPCB regulations.* See ***Rivers, Lakes and Streams Act***, 615 ILCS 5.

3.3 *No regional organization, municipality, political subOffice, agency or instrumentality, or any other organization, association or individual desiring to use water from Lake Michigan, which is subject to allocation under the Level of Lake Michigan Act, shall divert or use any such water after July 1, 1977, unless it has previously obtained from the IDNR a valid allocation permit*. See ***Allocation of Water from Lake Michigan***, 17 IAC 3730.301.

Category 4: Habitats, Wetlands and Wildlife

4.1 *The ownership of and title to all aquatic life within the boundaries of the state, are hereby declared to be in the state, and no aquatic life shall be taken or killed, in any manner or at any time, unless the person or persons so taking or killing the aquatic life shall consent that the title to the aquatic life shall be and remain in the state for the purpose of regulating the taking, killing, possession, use, sale, and transportation of aquatic life after taking or killing, as set forth in the Fish and Aquatic Life Code. If any person causes any waste, sewage, thermal effluent, or any other pollutant to enter into, or causes or allows pollution of, any waters of this state so as to kill aquatic life, the IDNR, through the Attorney General, may bring an action against that person and recover the value of and the related costs in determining the value of the aquatic life destroyed by the waste, sewage, thermal effluent, or pollution. Illinois assents to the provisions of the Act of Congress entitled "An act to provide that the United States shall aid the States in fish restoration and management projects, and for other purposes" (Public Law 681, 81st Congress), and the IDNR is authorized, empowered, and directed to perform any acts necessary for the conduct and establishment of cooperative fish restoration projects, as defined in that Act of Congress, in compliance with that Act and its rules and regulations promulgated by the Secretary of the Interior*. See ***Fish and Aquatic Life Code***, 515 ILCS 5

4.2 *State agencies shall preserve, enhance, and create wetlands where possible and avoid adverse impacts to wetlands from state and state pass-through funded activities, such as construction, land management, or technical assistance. It is the goal of the state that there be no overall net loss of the state's existing wetland acres or their functional value due to state supported activities. State agencies shall preserve, enhance, and create wetlands where necessary in order to increase the quality and quantity of the state's wetland resource base. See* ***Interagency Wetlands Policy Act of 1989***, 20 ILCS 830

4.3 Nature preserve means a natural area, and land necessary for its protection, any estate, interest or right in which has been dedicated under this Act to be maintained as nearly as possible in its natural condition and to be used in a manner and under limitations consistent with its continued preservation, without impairment, disturbance or artificial development, for the public purposes of present and future scientific research, education, esthetic enjoyment and providing habitat for plant and animal species and communities and other natural objects. See ***Illinois Natural Areas Preservation Act***, 525 ILCS 30/525 ILCS 30/3.11.

Buffer area means an area of land, any estate, interest or right in which has been dedicated or registered under this Act as a buffer area because it protects, provides access to or otherwise serves as a necessary adjunct to a nature preserve or registered natural area or because in the opinion of the Commission it will, with protection, become a natural area suitable for dedication as a nature preserve in the future. See ***Illinois Natural Areas Preservation Act***, 525 ILCS 30/3.02.

4.4 *It is the public policy of all agencies of state and local governments to use their authorities in furtherance of the purposes of the Illinois Endangered Species Protection At by evaluating through a consultation process with the IDNR whether actions authorized, funded, or carried out by them are likely to jeopardize the continued existence of Illinois listed endangered and threatened species or are likely to*

result in the destruction or adverse modification of the designated essential habitat of such species. See ***Illinois Endangered Species Protection Act****, 520 ILCS 10.*

4.5 Aquatic and Terrestrial Invasive species represent a significant threat to indigenous species. The IDNR prohibits injurious species as listed in 17 IAC 805.20 from being possessed, propagated, bought sold, bartered, transported, traded, transferred or loaned to any other person or institution unless a permit is first obtained. All waters subject to the jurisdiction of the state, including boundary waters, are considered aquatic preserves in which the aquatic life may only lawfully be taken by sport fishing. *See* ***Illinois Endangered Species Protection Act****, 520 ILCS 10.*

Category 5: Historic, Archaeological and Cultural Resources

5.1 The Illinois Historic Preservation Agency (IHPA) maintains an Illinois Register of Historic Places. Historic places are designated by the IHPA Director upon the recommendation of the Illinois Historic Sites Advisory Council, which has the power to advise the IHPA on matters pertaining to historic preservation. It is unlawful to *"demolish, cause to be demolished, or permit or order the demolition of any Critical Historic Feature of a Registered Illinois Historic Place unless the Director has issued a Certificate of Compliance for the proposed action."* Critical historic features are *"those physical and environmental components which taken singly or together make a place eligible for designation as a Registered Illinois Historic Place."* State agencies must not expend public funds on projects which will have an adverse economic or environmental impact on a registered historic place unless the Director of the IHPA determines that the project is necessary to provide an important public service or benefit, the project cannot be carried out practically so as to avoid the adverse effect and the adverse effect is minimized to the maximum extent feasible. See ***Illinois Historic Preservation Act****,* 20 ILCS 3410.

5.2 The state has *"the exclusive right and privilege of regulating, exploring, excavating or surveying, through the IHPA, all archaeological and paleontological resources found upon or within any public lands."* Archaeological resources include "*any significant material remains or localities of past human life or activities on public land, including but not limited to artifacts, historic and prehistoric human skeletal remains, mounds, earthworks, shipwrecks, forts, village sites or mines."* The exploration, excavation, or collection of an archaeological or paleontological resource without a permit from the IHPA is prohibited. See ***Archaeological and Paleontological Resources Protection Act*****,** 20 ILCS 3435.

Category 6: Recreation and Public Access

There are no ICMP enforceable policies in this category for federal consistency purposes, however category 1.1, 1.2, 1.3 and 1.4 reference the public interest and public waters.

Category 7: Economic Development

There are no ICMP enforceable policies in this category for federal consistency purposes.

Category 8: Energy Facilities and Air Quality

8.1 A *"Certificate of Public Convenience and Necessity"* (CPCN) is required for projects owned by a regulated facility, and requires information on cost and need for the project prior to construction. The Illinois Commerce Commission has the authority for granting the CPCN for the construction of a new electric generating facility, and reevaluates the propriety and necessity for the certificate at least every 3 years. See ***Public Utilities Act***, 220 ILCS 5.

8.2 It is state policy to restore, maintain, and enhance the purity of the air of this state in order to protect health, welfare, property, and the quality of life and to assure that no air contaminants are discharged into the atmosphere without being given the degree of treatment or control necessary to prevent pollution. No person shall cause or threaten or allow the discharge or emission of any contaminant into the environment in any State to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Illinois Pollution Control Board. See ***Environmental Protection Act, Title II: Air Pollution,*** 415 ILCS 5/9.

8.3 The IEPA shall not issue any permit to develop, construct, or operate, within one mile of any portion of Lake Michigan that has been designated an Area of Concern (Waukegan Harbor has been designated an Area of Concern) under the Great Lakes Water Quality Agreement, any site or facility for the thermal treatment of sludge, unless the applicant submits to the IEPA proof that the site or facility has received local siting approval from the governing body of the municipality in which the site or facility is proposed to be located (or from the county board if located in an unincorporated area), in accordance with Section 39.2 of this Act. See ***Environmental Protection Act, Title 2: Air Pollution,*** 415 ILCS 5/9.11.

12
Coastal Nonpoint Source Pollution Program

Following the enactment of the Clean Water Act (CWA) in 1972, regulatory attention has focused on the chemical aspects of water quality and controlling "point source" pollution discharged into waters through pipes, primarily from industrial facilities and municipal sewage treatment plants. These efforts were controlled by permits issued by states and USEPA under the National Pollutant Discharge Elimination System (NPDES) established by section 402 of the CWA.

The NPDES program continues to have considerable success in cleaning up the nation's waters. However, nonpoint source pollution (NPS) remains a major problem. Unlike “point source” pollution, NPS is created by many diffuse sources. Rainfall and snowmelt move across the ground as runoff, picking up and transporting pollutants to rivers, lakes, and wetlands. This threatens our drinking water supplies, recreation, fisheries, and wildlife. NPS results from a variety of land use practices including:

- Excessive application of fertilizers, herbicides and pesticides from agricultural lands and residential areas
- Oil, grease, salt, and toxic chemicals from urban roadways
- Sediment from construction sites, agriculture, forestlands, and eroding drainage ways
- Bacteria and nutrients from livestock, pet waste and faulty septic systems

To address NPS, Congress enacted Section 319 of the CWA in 1987, authorizing the USEPA to adopt and implement control programs and issue grants to states. Under Section 319, NPS is defined as *"Land management activity or land use activity that contributes or may contribute to ground and surface water pollution as a result of runoff, seepage, or percolation and that is not defined as a point source in Section 115.01, subdivision 15*.” Requirements include identification of best management practices (BMPs) and measures that will be used to reduce pollutant loads on the state's surface and groundwater resources, along with the identification of programs and goals to guide and achieve their implementation.

NPS is a key factor in the degradation of many coastal waters, including the Great Lakes. It affects diversity of plants and animals, major recreational areas, and water supplies for millions of people. Coastal waters are especially affected by NPS due to the large number of people that live near the coast. The population density, and growth and development in coastal regions, has resulted in pressure on our coastal lands and waters.

In recognition of coastal population growth, Congress made determined that state management programs under the CZMA are among the best tools for protecting coastal resources and improving coastal water quality. A new program was enacted under Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), specifically addressing NPS effects on coastal water quality. It is jointly administered by NOAA and USEPA, bringing together the state’s coastal zone management agency (IDNR) and the state’s Section 319 agency (IEPA).

Section 6217 requires each state with an approved coastal zone management program to develop a coastal NPS program and implement coastal NPS *"management measures"* to restore and protect coastal waters. The central purpose of Section 6217 is to strengthen the links between federal and state coastal zone management and water quality programs and to enhance state and local efforts to manage land use activities that degrade coastal waters and habitats.

Program Objectives and General Requirements

The coastal NPS program will improve coordination, and build partnerships and networks, that facilitate methods to minimize polluted runoff. Working with state and local authorities, the program encourages pollution prevention at a local level, particularly improvements to land use planning and zoning practices. The program serves as an update and expansion of Illinois' Section 319 program as it relates to land and water uses affecting coastal waters.

Within 30 months following ICMP approval, Section 6217 requires that Illinois develop a draft Coastal NPS program and submit it to the USEPA and NOAA for approval. General Section 6217 requirements will include:

- Identification of, and a continuing process for identifying land uses which, individually or cumulatively, may cause or contribute significantly to degradation of those coastal waters where there is failure to attain or maintain applicable water quality standards or protect designated uses, which are threatened by reasonably foreseeable increases in pollution. These areas will be considered critical coastal areas within which any new land uses or substantial expansion of existing land uses will be subject to management measures.

- The implementation of additional management measures applicable to the identified land uses and critical coastal areas necessary to achieve and maintain water quality standards and protect designated uses.

- Assistance to local governments and the public for implementing the management measures and determining their effectiveness, including assistance in developing ordinances and regulations, technical guidance and training, demonstration projects, and financial incentives.

- Opportunities for public participation in all aspects of the program, including public hearings, technical and financial assistance, and public education.

- Establishment of mechanisms to improve coordination among state agencies and between state and local officials responsible for land use programs, permitting and enforcement, habitat protection, public health and safety, i.e., through joint project review and memoranda of agreement.

The NPDES Phase I storm water rule continues to apply to construction activities greater than five acres, as well as to municipal separated storm sewer systems (MS4s) in urbanized areas that serve more than 100,000 people. NPDES Phase II, expanded coverage of permitted activities to include construction activities between one and five acres, as well as MS4s in urbanized areas that serve between 50,000 and

100,000 people (and, in some cases, localities with fewer than 50,000 people). USEPA and NOAA identified ten management measures that overlap in part or in full with the expanded NPDES storm water regulations. Thus, storm water runoff that ultimately is regulated by a NPDES permit is not required to be addressed the coastal NPS program.

NOAA and USEPA approved use of Section 401 Clean Water Act certifications to manage the impacts of NPS. States can implement management measures in sequence and assess their effectiveness in achieving water quality goals. Guidance documents identified major categories of nonpoint sources that impair or threaten coastal waters nationally:

- Agricultural Runoff
- Silvicultural (forestry)
- Urban Runoff (developing and developed areas)
- Marinas and Recreational Boating
- Hydromodification: Channelization and Channel Modification, Dams, and Streambanks and Shoreline Erosion
- Wetlands, Riparian areas, and Vegetated Treatment Systems (This category promotes the protection and restoration of wetlands and riparian areas, and vegetated treatment systems as management measures to control NPS emanating from a broad variety of sources.)

These guidance documents provide general technical guidance for NPS management such as source control, delivery reduction and a management systems approach. USEPA determined management measures identified in the guidance are economically achievable, and Congress defined "management measures" to mean "*economically achievable measures ... which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives.*"

The 1993 guidance provided both regulatory and non-regulatory approaches, and other innovative approaches to ensure implementation of management measures. Many examples are in-place in our coastal communities. Examples include local storm water ordinances for development projects to control storm water peak flows, total runoff volume, or pollutant loading. Developers are often required to implement storm water practices, such as detention ponds or constructed wetlands, to meet performance standards.

Non-regulatory approaches include flexibility to employ economic incentives, disincentives, or innovative approaches to address non-point sources, if the state can ensure such approaches will result in the necessary implementation. States must include enforcement authorities for voluntary programs that could include sunset provisions for incentive programs. State tax credits, tax deductions, tax

rebates, cost-share programs, performance bonds, loan programs, and other economic incentives may be used to provide financial support.

NOAA and USEPA expect states employ a range of approaches to meet enforceable policies and mechanisms, and identify those portions of the coastal nonpoint programs that will be implemented by local governments. They also expect states to include a program to provide technical and other assistance to local governments and the public. NOAA and USEPA do not expect states to implement management measures for nonpoint sources that do not, individually or cumulatively, have a significant impact on coastal waters. NOAA and USEPA allow states to further exclude sources either by category, subcategory or management measure, or on a geographic basis (e.g., a Section 6217 management area, watershed, county) where states can provide information (e.g., monitoring data) to demonstrate a source is, or reasonably not expected to, become significant, either individually or cumulatively.

Existing Water Quality Management Plans and Programs in Illinois

- Illinois Environmental Protection Agency. 1988. *Assessment of Nonpoint Source Impacts on Illinois Water Resources*. Division of Water Pollution Control, IEPA/WPC/88-020

- Illinois Department of Agriculture. 1992. *Statewide Survey for Agricultural Chemicals in Rural, Private Water-Supply Wells in Illinois.* #8522

- Illinois Environmental Protection Agency. 1992. *Illinois Water Quality Management Plan.* Division of Water Pollution Control, IEPA/WPC/92-220

- Illinois Environmental Protection Agency. August 2008. *Illinois Integrated Water Quality Report and Section 303(d) List – 2008.* Bureau of Water, IEPA/BOW/08-016

- Illinois Environmental Protection Agency. July 2001. *Illinois Nonpoint Source Management Program.* Bureau of Water, IEPA/BOW/01-009

- Chicago Metropolitan Agency for Planning and the Illinois Environmental Protection Agency. May 2007. *Guidance for Developing Watershed Action Plans in Illinois*

Illinois' Current Nonpoint Source Management Program

State assessment of nonpoint source impacts show the majority of Illinois' NPS problems are caused by agriculture, urban runoff, hydrologic modifications, and resource extraction.

The Illinois Nonpoint Source Management Program (INSMP) provides an overview of program initiatives to address water resource problems and provide guidance in the management of NPS water resource problems. Requirements of Section 319 include:

- Identification of BMPs and measures that will be used to reduce pollutant loads on the state's surface and groundwater resources;

- Identification of programs to achieve implementation of BMPs;
- Identification of goals to guide implementation of BMPs and NPS control programs;
- Certification that the laws of the State provide adequate authority to implement the NPS management program;
- Identification of financial assistance programs, which will support the implementation of BMPs and NPS control programs; and
- Identification of federal assistance programs and development projects the state reviews for their effect on water quality.

The primary objective of the INSMP is to continue reduction of NPS in Illinois. The ICMP, following development of its NPS program, will:

- Expand, update and/or create research programs to protect the state's water resources from NPS;
- Continue the process that enables state agencies and organizations to equitably prioritize NPS control projects for funding;
- Continue incorporation of "improved water quality" as a priority objective in all NPS reduction programs; and
- Increase the public's awareness and involvement in local NPS initiatives to serve as a catalyst for state and federal involvement.

IEPA Regulatory Authorities

Section 319 of the CWA requires that Illinois identify those laws or authorities, which certify the IEPA as the state water pollution control agency responsible for developing and implementing the Nonpoint Source Management Program.

Section 4(1) of the Illinois Environmental Protection Act ("Act") designates IEPA as the "water pollution control agency" for the state. One of the purposes of the CWA, as stated in Section 101(a)(7), is the *"expeditious development and implementation of programs for the control of nonpoint sources of pollution."* Section 319 requires, among other things, the development of state management programs for controlling pollution to navigable waters from nonpoint sources. The Act designates IEPA as the "water pollution control agency" for Illinois. IEPA is also authorized under Section 4(1) to take necessary action to secure benefits of the CWA and other federal acts (e.g., NPS Program and Section 6217).

Section 319(a)(2) permits a state to rely upon information developed pursuant to Section 303(e), among others, to develop the Assessment required to be submitted in conjunction with the State NPS Program - Section 303(e), IEPA is required to have a continuing planning process approved by USEPA resulting in

water quality management plans for all navigable waters in the state. States were also allowed to use in state assessment reports, appropriate elements of waste treatment management plans developed pursuant to CWA Sections 208(b) and 303(e). IEPA is authorized pursuant to Section 4(m) of the Act to engage in planning processes and activities pursuant to Section 303(e) and use that information for state assessment reports is a further indication of IEPA's authority to develop state management programs to control nonpoint sources of pollution to navigable waters.

Illinois' NPS Assessment report entitled *"Assessment of Nonpoint Source Impacts on Illinois Water Resources"* was developed pursuant to Section 319 primarily for the purpose of identifying waters in the state that need additional corrective actions to attain or maintain *"applicable water quality standards or the goals and requirements"* of the CWA, and to identify the nonpoint sources which add significant pollution to navigable waters. Assessment updates are provided by the biennial 305(b) report. Data from this report and other sources assess the IEPA's success.

The following is a summary of assessment results found for Lake Michigan (Reference 5, p. 6):

Lake Michigan includes 63 shoreline miles forming the northeastern portion of Illinois' border. All 63 miles were rated full support/threatened for overall use due to sport fish consumption advisories. Aquatic life use was also rated full/threatened. For swimming use, 50 miles of Illinois' beaches were rated full use and 13 miles partial support/minor impairment. All 63 miles of the Illinois shoreline fully supported drinking water uses but were rated as non-support for fish consumption.

Of the five Illinois harbors evaluated, four (Waukegan, GLNTC, Chicago, and Calumet) were rated as non-support for fish consumption due to fish advisories, and one (Wilmette) as partial support/moderate impairment for both overall and aquatic life use. Support of the swimmable use in harbors could not be determined for lack of data. Swimming in most harbors is not allowed by local authorities for reasons other than water quality.

Priority organics, PCBs and chlordane pose a potential major impact along the entire 63 miles of Illinois Lake Michigan shoreline. Priority organic compounds tend to bioaccumulate in fish flesh even though rarely detected in water column samples and are a problem in sediment in localized harbor areas. Lead, zinc, and copper are a major problem in harbor sediments. Harbors with heavily polluted sediments include Waukegan Harbor (PCBs, lead, and zinc), GLNTC Harbor (copper, lead, and zinc), Chicago Harbor (lead), and Calumet Harbor (lead and zinc). Urban runoff and combined sewer overflows are a moderate/minor source of pollutants.

Best Management Practices (BMPs)

IEPA's Assessment describes the process that Illinois agencies and organizations cooperatively work with local watershed steering committees to select effective BMPs for implementation. BMPs, utilized to reduce NPS during implementation of these watershed projects, are identified in Table 1 in the IEPA July 2001 report. There are 157 BMPs listed in that table. All BMPs implemented through the Illinois NPS

Management Program must be designed and constructed in accordance with the standards and specifications as identified in the report.

Illinois NPS Program Initiatives

Illinois has an aggressive NPS control program that includes many local, state, and federal organizations. Illinois organizations conduct many programs to address the major NPS categories, including agriculture, construction, urban runoff, resource extraction, hydrologic modification, and silviculture. Citizen groups, not-for-profit organizations, and educational institutions have developed a variety of NPS project initiatives. These initiatives frequently cover areas not normally included in state and federal NPS programs.

The Illinois Water Quality Management Plan (WQMP) serves as a catalyst for the development of many NPS programs.

ICMP Non-Point Pollution Control Enforceable Policies and Authorities

IEPA Land Use Categorical Assessment

The CZARA amendments contain guidance that specify management measures to address source categories of NPS: agriculture, silviculture, urban, marinas, and hydromodification. The ICMP inland coastal zone includes the entire Lake Michigan and the inland waterway corridors. The ICMP will only include the Lake Michigan watershed portion (approximately 85 square miles) in the Coastal NPS Control Program. The watershed is nearly exclusively in urban land use. The following is a summary of IEPA's assessment of the land uses, and programs, by categories.

- Agriculture Source

  de minimis

  The exclusion of agriculture is proposed since agricultural use in Illinois' Coastal Area represents an insignificant portion of the total land usage, and nonpoint source inventories and data (305(b) and 303(d)) do not significantly contribute to degradation by agricultural activities.

- Forestry Source Category

  de minimis

  Exclusion of forestry is proposed since commercial forestland use in Illinois' Coastal Area represents an insignificant portion of the total land usage, and nonpoint source inventories and data (305(b) and 303(d)) do not significantly contribute to degradation by forestry management or harvesting.

- Urban Areas Source

55 ILCS 5/ Counties Code regarding the National Flood Insurance Act of 1968
415 ILCS 55/ Illinois Groundwater Protection Act
525 ILCS 45/ Water Use Act of 1983
615 ILCS 5/ Rivers, Lakes and Streams Act
615 ILCS 5/14a IEPA, IDNR, IPCB coordinate preservation of Lake Michigan water
615 ILCS 5/18 (permitting of fills along streams and Lake Michigan)
615 ILCS 5/18a, b, d (permitting/use of materials and minerals at or below bed of public waters)
615 ILCS 5/18f (defining and permits for construction in floodplains)
615 ILCS 5/24 Shoreline encroachment and bed of Lake Michigan in trust for Illinois citizens
615 ILCS 15/ Flood Control Act of 1945
615 ILCS 20/ Navigable Waters Obstruction Act
70 ILCS 3715/ Water Authorities Act
415 ILCS 25/ Water Pollutant Discharge Act

"*NPDES Storm Water Program*" - The CWA Amendments of 1987 established the NPDES storm water program. The Act called for implementation in two phases. Phase I addressed the most significant sources of pollution in storm water runoff. Phase II addressed other sources to protect water quality. Municipalities located in urban areas as defined by the Census Bureau are required to obtain NPDES permit coverage for discharges from their municipal separate storm sewer systems (MS4s). Municipalities located outside urbanized areas may need to comply within 180 days notice or as determined by the NPDES Permitting Authority. As of March 10, 2003, construction sites that disturb one acre or more are required to have a NPDES general permit for storm water discharges from construction site activities. Municipalities under 100,000 populations are no longer exempt from the construction site and the industrial storm water requirements. Wastewater treatment plants of 1.0 mgd or more need a General Storm Water Permit for Industrial Activities. The "no-exposure" exemption definition has been expanded to all industrial categories except construction.

"*303(d)/TMDL Program*" - Section 303(d) of the CWA requires states to identify waters that do not meet applicable water quality standards or do not fully support their designated uses. States are required to submit a prioritized list of impaired waters, known as the 303(d) List, to USEPA for review and approval. The CWA also requires a Total Maximum Daily Load (TMDL) be developed for each pollutant of an impaired water body. Establishment of a TMDL sets a pollutant reduction goal necessary to improve impaired waters. It determines the load, or quantity, of any given pollutant that is allowed in a particular water body. A TMDL must consider all potential sources of pollutants, whether point or nonpoint, taking into account scientific uncertainty and the effects of seasonal variation. Developing TMDLs in a watershed begins with the collection of vast amounts of data on factors including water quality, point source discharge, precipitation, soils, geology, topography, and land use. All impaired water-body segments within the watershed are identified, along with the potential pollutants causing the impairments. IEPA then determines the tools (e.g. computer models) necessary to calculate pollutant loads and develop the TMDL. The model can be used to develop different scenarios, by first

determining the amount of specific pollutants each source contributes, then calculating the amount each pollutant needs to be reduced, and finally specifying how the reduced pollutant load would be allocated among the different sources. After the reduced pollutant loads have been determined, an implementation plan is developed, spelling out the actions necessary to achieve the goals, specifying limits for point source discharges and recommending BMPs for nonpoint sources. It also estimates associated costs and lays out a schedule for implementation.

- Marinas and Recreational Boating Source Category

  20 ILCS 860/ Outdoor Recreation Resources Act
  20 ILCS 2705/285 (can undertake port and waterway development planning and studies)
  615 ILCS 5/18 (permitting of fills along streams and Lake Michigan)
  615 ILCS 5/18a, b, d (permitting/use of materials and minerals at or below bed of public waters)
  615 ILCS 5/18f (defining and permits for construction in floodplains)
  615 ILCS 5/24 Shoreline encroachment and bed of Lake Michigan in trust for Illinois citizens
  615 ILCS 20/ Navigable Waters Obstruction Act

"*Dredge and Fill Permit Program*" - Construction projects in Illinois waterways, floodplains, and wetlands often require authorizations from both t USACE and IEPA. Applicants seeking a permit to allow discharges of dredged or fill material into waters of the United States, including streams, lakes, and wetlands must apply to the USACE for a permit under Section 404 of the CWA. Activities that require a Section 404 permit include navigational dredging, levee construction, channel clearing, filling of wetlands for land development, and waterway impoundment for construction of a water reservoir. IEPA issues water quality certification pursuant to Section 401 of the CWA. This certification must be issued prior to the commencement of construction activity for all projects requiring a Section 404 permit.

"*Water Quality Standards*" - All waters in Illinois, including Lake Michigan and its tributaries, must meet State Water Quality Standards. This means that all waters in the Great Lakes basin must be free from substances, materials, debris, oil or scum attributable to municipal, industrial, agricultural, and other land use practices. Also, other discharges must not form objectionable deposits; not be in amounts to be unsightly; not produce color, visible oil sheen, odor, or other objectionable conditions; or not be in concentrations that will contribute to the growth of algae or aquatic plants to a degree of being a nuisance; and should not be in amounts that are toxic to aquatic life, other animals or humans.

- Hydromodification Category (Channelization and Channel Modification, Dams, and Streambanks and Shoreline Erosion)

  615 ILCS 5/ Rivers, Lakes and Streams Act
  615 ILCS 5/14a IEPA, IDNR, IPCB coordinate preservation of Lake Michigan water
  615 ILCS 5/18 (permitting of fills along streams and Lake Michigan)
  615 ILCS 5/18a, b, d (permitting/use of materials and minerals at or below bed of public waters)
  615 ILCS 5/18f (defining and permits for construction in floodplains)

615 ILCS 5/24 Shoreline encroachment and bed of Lake Michigan in trust for Illinois citizens
615 ILCS 15/ Flood Control Act of 1945
615 ILCS 20/ Navigable Waters Obstruction Act
70 ILCS 3715/ Water Authorities Act

"*Dredge and Fill Permit Program*" (See above)

"*Nonpoint Source Pollution Control Program*" - Under Section 319(h), IEPA receives federal funds for NPS control projects in cooperation with local units of government and other organizations. The program emphasizes funding for implementing corrective, and preventative BMPs on a watershed scale; demonstration of new and innovative BMPs on a non-watershed scale; and the development of public information/materials on NPS control programs. State and local government units, citizen and environment groups, individuals, and businesses are eligible to receive Section 319(h) funds to carry out approved NPS management projects. Examples of funded activities include streambank and shoreline stabilization, wetland restoration, storm water detention basins, bio-swales, terraces, waterways, sediment basins, nutrient management, and education programs. Activities required by law or permit are ineligible.

The "*Illinois Clean Lakes Program*" (ICLP) is a grant program that supports lake owners' interest and commitment to long-term, comprehensive inland lake management, and improved water quality, and enhanced inland lake use. Detailed "Phase I" feasibility studies scientifically document the causes, sources, and magnitude of lake impairment. Data generated from these monitoring studies are used to recommend lake protection or restoration practices for future implementation. "Phase II" implementation project grants are awarded to implement Phase I report recommendations. Through the ICLP, IEPA provides technical and financial assistance primarily to governmental entities that manage publicly owned lakes with extensive public access and use. Program objectives are control of pollution sources that affect water quality, restoring lakes with impaired recreational and ecological quality, and protecting high quality lake resources. State funding for the program is made available under Conservation 2000.

The "*Priority Lake and Watershed Implementation Program*" supports inland lake protection/restoration activities at "priority" lakes where causes and sources of problems are apparent, project sites are highly accessible, project size is relatively small, and local entities are in a position to implement needed treatments. Priority lakes are identified in the IEPA report "Targeted Watershed Approach - A Data Driven Prioritization" (IEPA/BOW/97-004). Priority lakes are generally high quality recreational or unique aquatic resources, and/or lakes serving multiple uses (recreation and public water supply) in need of protection or restoration. IEPA works cooperatively with managers of publicly owned inland lakes to implement lake protection and restoration activities. Fundable projects include shoreline erosion control (rip rap and/or bioengineering methods); aerator/destratifier installation; near lake dry dams, filter strips; spillway/dam repair; best management practices in immediate watershed of the lake; macrophyte harvest to address public access/use; or dredging to address public access/use.

The "*Lake Education Assistance Program*" provides for reimbursement of costs incurred up to $500 for school and other not-for-profit participation in lake/lake watershed related educational field trips and activities or attendance at related workshops.

- Wetlands, Riparian areas, and Vegetated Treatment Systems Category

  20 ILCS 830/ Interagency Wetlands Policy Act of 1989
  515 ILCS 5/ Fish and Aquatic Life Code
  520 ILCS 15/ Wildlife Restoration Cooperation Act
  520 ILCS 25/ Habitat Endowment Act
  525 ILCS 30/ Natural Areas Preservation Act
  525 ILCS 33/ Illinois Open Land Trust Act
  525 ILCS 35/ Open Space Lands Acquisition and Development Act
  415 ILCS 55/ Illinois Groundwater Protection Act

This category includes management measures used in implementation plans to address major categories of nonpoint sources that impair or threaten coastal waters nationally. The programs listed below and previously stated for other categories may include these management measures:

"*Dredge and Fill Permit Program*" (described above)
"*Nonpoint Source Pollution Control Program*" (described above)
"*Illinois Clean Lakes Program*" (described above)
"*Priority Lake and Watershed Implementation Program*" (described above)
"*Lake Education Assistance Program*" (described above)

IDNR and IEPA Plan for Coastal NPS Program Development

IEPA is a key supporting state agency to IDNR in ICMP development. IEPA will continue to provide support to the ICMP in developing a Coastal NPS Control Program Development Plan.

Illinois will dedicate a portion of their ICMP funding, funding from the IEPA 319 program, and other funding as needed to develop and administer the Coastal NPS Program. One person from the IDNR-ICMP will be assigned to work with one person from the IEPA Bureau of Water.

On approval of the ICMP, IDNR will develop a land use map of the boundary. IDNR and IEPA will work closely with the USEPA and NOAA to ensure that the map will enable decision making to address management and category/subcategory areas that can be excluded. This map will also delineate those areas covered by NPDES permits excluded from the Coastal NPS Program. Development of Coastal NPS Program requires cooperation and assistance of coastal communities in defining their local ordinances and management strategies.

End Notes

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Appendix A
The Federal Coastal Zone Management Act and Cross Reference to Program Requirements

In response to intense pressure on coastal resources, and because of the importance of coastal areas of the United States, Congress passed the Coastal Zone Management Act of 1972 as amended [CZMA] (16 USC 1451). The program is administered by the Secretary of Commerce, who in turn has delegated this responsibility to the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM). The Act authorizes a federal program to encourage coastal states and territories to develop comprehensive coastal programs. Currently, 34 states and territories have coastal programs approved by the Assistant Administrator of the National Ocean Service.

Sections 305, 306, and 307 of the CZMA and implementing regulations published on March 28, 1979 (44 CFR Part 18595) as codified at 15 CFR Part 923 provide the requirements and procedures for state coastal program development and federal approval. In summary, the requirements for program approval are that a state develop a coastal program that among other things:

- Identifies and evaluates those coastal resources recognized in the Act that require management or protection by the state or territorial government;
- Re-examines existing policies or develops new policies to manage these resources. These policies must be specific, comprehensive, and enforceable, and must provide an adequate degree of predictability as to how coastal resources will be managed;
- Determines specific uses and special geographic areas that are to be subject to the coastal program, based on the nature of identified coastal concerns. Uses and areas subject to management should be based on resource capability and suitability analyses and socioeconomic considerations;
- Identifies the inland and seaward areas subject to the coastal program;
- Provides for consideration of the national interest in planning for the siting of facilities; and
- Includes sufficient legal authorities and organizational structure to implement the program and to ensure conformance to it.

In arriving at these substantive aspects of the coastal program, states are obligated to follow an open process which involves providing information to and considering the interests of the general public, interest groups, local governments, and regional, state, interstate, and federal agencies. Section 303 of the CZMA provides guidance on specific national objectives that warrant full consideration during the implementation of approved state coastal programs. Section 305 of the CZMA as amended by PL 101-508 in 1990 and subsequent appropriations language authorized annual grants to states desiring to develop a coastal program.

After its coastal program receives federal approval, the state is then eligible for annual grants under Section 306 to implement its coastal program. Section 306A of the CZMA also provides that states may use a portion of their Section 306 awards for low cost construction projects that result in the preservation of important natural areas, improved public access, or renewal of urban waterfronts. Section 307 contains the federal consistency provisions of the CZMA to ensure that federal actions are consistent with the state's federally approved coastal program. Paragraphs (1) and (2) of Section 307(c) require that federal activities and development projects in or directly affecting the coastal zone be consistent to the maximum extent practicable with a federally approved state coastal program. Subparagraphs (A) and (B) of Section 307(c) require that federally licensed and permitted activities affecting the coastal zone also are consistent with the federally approved state program. Section 307(d) requires federal assistance to state and local governments for projects affecting the coastal zone to be consistent with federally approved state coastal programs. Federal regulations implementing Section 307 are found at 15 CFR Part 930.

Section 309, as amended by PL 101-508 in 1990, establishes a coastal enhancement grant program. This Section provides that a portion of Section 306 funds is available to states to develop program changes, which strengthen their CZM program's ability to address particular coastal issues. State efforts to seek such improvements are meant to focus on priorities based on a self-assessment of the nine objectives listed in Section 309, e.g., stronger wetland protection, improved management of coastal hazards and additional public access. Section 312 directs the Secretary to evaluate the performance of state coastal programs on a continuing basis. OCRM formally reviews the implementation of each state program on a three-year cycle. Section 315 establishes a National Estuarine Research Reserve System to preserve a representative series of representative estuarine areas for long-term scientific and educational purposes. The Coastal Zone Reauthorization Amendments of 1990 (CZARA) established a new Coastal Nonpoint Pollution Control Program, in addition to updating the CZMA. Illinois has agreed to submit a complete 6217 program within 30 months of program approval.

CZMA Section	Requirement	CZMA Approval Regulations	Program Document
306(d)(1)	The ICMP contains policies to adequately manage all uses with direct and significant impacts on coastal waters and ensures protection of those resources and areas that make the Illinois coast a unique, vulnerable or valuable area.	15 CFR §923.3	**Chapters 1, 6, 7, 9, 10 and 11**
306(d)(1)	The ICMP was developed after notice and with the opportunity for full participation by federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties and individuals, public and private.	15 CFR §923.3	**Chapters 1, 6, 7, 11, 12 and Appendix D**
306(d)(2)(A)	The ICMP includes sufficient inland, seaward, and interstate boundaries.	15 CFR §923.31- 34	**Chapter 3 and Appendix A**
306(d)(2)(B)	The ICMP identifies the land and water uses subject to the management program.	15 CFR §923.11	**Chapters 6 and 9**
306(d)(2)(C)	The ICMP designates Areas of Particular Concern.	15 CFR	**Chapter 6**

		§923.21-23	
306(d)(2)(D)	The ICMP identifies the means by which the state will exert control over the defined land and water uses.	15 CFR §923.40-43	**Chapters 7 and 9**
306(d)(2)(E)	The ICMP contains broad guidelines on priorities of uses in particular areas, including those uses of lowest priority.	15 CFR §923.21	**Chapter 6**
306(d)(2)(F)	The ICMP includes a description of the organizational structure proposed to implement the program, including the responsibilities and interrelationships of local, area wide, state, regional, and interstate agencies in the management process.	15 CFR §923.46	**Chapter 7**
306(d)(2)(G)	The ICMP includes a definition of the term beach, and a planning process for the protection of, and provision of access to, public beaches and other public coastal areas.	15 CFR §923.24	**Chapter 5**
306(d)(2)(H)	The ICMP includes a planning process for energy facilities likely to be located in, or which may significantly affect, the coastal zone, including a process for anticipating the management of the impacts from such facilities.	15 CFR §923.13	**Chapter 10**
306(d)(2)(I)	The ICMP includes a planning process for assessing the effects of, and studying and evaluating ways to manage the impacts of, shoreline erosion and for restoring areas adversely affected.	15 CFR §923.25	**Chapter 4**
306(d)(3)(A)	The state has coordinated the ICMP with local, area wide, and	15 CFR	**Chapters 1**
	interstate plans applicable to areas within the coastal zone	§923.56	**and 6**
	existing on 1-1-11.		
306(d)(3)(B)	The state has established an effective mechanism for continuing	15 CFR	**Chapter 7**
	consultation and coordination between the lead agency and	§923.57	
	local governments, interstate agencies, regional agencies, and		
	area wide agencies within the coastal boundary.		
306(d)(4)	The state has held adequate public hearings during the	15 CFR	**Chapters 6**
	development of the ICMP.	§923.58	**and 13**
306(d)(5)	The Governor has reviewed and approved the ICMP and	15 CFR	**Gubernatorial**
	certifies it contains adequate authorities.	§923.48	**Letter**
306(d)(6)	The Governor has designated a lead coastal agency.	15 CFR	**Chapter 7 and**
		§923.47	**Gubernatorial**
			Letter
306(d)(7)	The state is organized to implement the ICMP.	15 CFR	**Chapters 7**
		§923.46	**and 9**
306(d)(8)	The ICMP provides for adequate consideration of the national	15 CFR	**Chapters 6,**
	interest.	§923.52	**10 and 11**
306(d)(9)	The ICMP includes a program by which specific areas may be	15 CFR	**Chapter 6**
	designated for the purpose of preserving or restoring them for	§923.22	
	their conservation, recreational, ecological, historical, or		
	aesthetic values.		
306(d)(10)	The state has authority for the management of the coastal zone	15 CFR	**Chapters 7**
(A) and (B)	in accordance with the ICMP including the power to: a)	§923.41	**and 9**
	administer land use and water use regulations to control		
	development to ensure compliance with the ICMP; b) resolve		

	conflicts among competing uses; and c) acquire fee simple and		
	less than fee simple interests in land, waters, and other property through condemnation or other means, if necessary.		
306(d) (11)	The ICMP uses any or a combination of the following	15 CFR	**Chapters 1, 7**
	techniques for control of land uses and water uses within the	§923.41-	**and 9**
	coastal zone: a) state establishment of criteria and standards for	923.44	
	local implementation, b) direct state land and water use		
	planning and regulation; and/or c) state administrative review of development plans, projects, or land and water use regulations.		
306(d)(12)	The ICMP ensures that local land use and water use regulations	15 CFR	**Chapter 9**
	within the coastal boundary do not unreasonably restrict or	§923.12	
	exclude land uses and water uses of regional benefit.		
306(d)(13)	The ICMP provides for an inventory and designation of areas	No	**Chapters 6**
	that contain one or more coastal resources of national	regulations	**and 11**
	significance and specific and enforceable standards to protect		
	such resources.		
306(d)(14)	The ICMP provides for public participation in permitting	No	**Chapters 7, 9,**
	processes, consistency determinations, and other similar	regulations	**and 11**
	decisions.		
306(d)(15)	The ICMP ensures all state agencies will adhere to the	No	**Chapters 7**
	program.	regulations	**and 9**
306(d)(16)	The ICMP contains enforceable policies and mechanisms to	Guidance	**Chapters 7, 9**
	implement applicable requirements of 6217(g).	Jan., 1993	**and 12**
307(b)	Consideration of federal agency views	15 CFR	**Chapter 11**
		§923.51	
307(c) & (d)	Federal consistency procedures	15 CFR	**Chapter 11**
		§923.53	
307(f)	Incorporation of federal air and water quality standards	15 CFR	**Chapters 9**
		§923.45	**and 10**

Appendix B
Coastal Management Program Boundaries

Overview (See Chapter 3 of Program Document for more detail)

The coastal zone boundary for the Illinois Coastal Management Program (ICMP) defines the land and water areas that are within the limits of this program. A lakeward coastal zone boundary for Illinois is the Illinois state line in Lake Michigan. This state line borders the open-water areas of Wisconsin on the north, Michigan on the east, and Indiana on the south. Approximately 1500 square miles of lake and lake bottom are included within this area. The neighboring Lake Michigan states similarly include all of the lake and lake bottom within their defined coastal zone boundaries.

In defining the landward limit for a coastal zone boundary, the neighboring states of Wisconsin and Indiana have both used political boundaries. In Wisconsin, county lines were used such that the entire land area of counties bordering the state's Lake Michigan shore is within the coastal zone. In Indiana, township lines were used such that the entire land area of townships are included that contain any land that is within the state's Lake Michigan watershed.

The approach taken for Illinois has been to define the coastal zone boundary with a focus strictly on the landscape. Specifically, the boundary is primarily based on the Lake Michigan watershed within Illinois. There is no provision made for political boundaries. However, because of the high degree of altered drainage, river engineering and urban development, some flexibility was required in using the watershed approach.

Because of the degree of urbanization across the entire Illinois coastal area, the demarcation of the coastal zone boundary is along the center line of selected streets, roads and highways that approximate the watershed limits. In a few locations, it was necessary to use railroad right-of-ways. The use of the road and railroad infrastructure to define the coastal zone boundaries provides the advantage of defining a line that is easily identified on the ground.

A Two-Tiered Coastal Zone Boundary

The geologic and engineering history of the Illinois coast gives this coastal setting some physical attributes which are distinct to the Great Lakes Region. The coastal zone boundary for Illinois has taken into account these physical attributes and results in a two-tiered designation. The primary or "lakeshore" coastal zone boundary defines the land area within the present-day Lake Michigan watershed. This "present-day watershed" area is roughly 85 square miles. A secondary or "inland waterway" coastal zone boundary defines corridors along select segment of rivers that historically flowed to Lake Michigan but were engineered in the early 1900s to flow away from the lake. These inland waterways have a navigable link to Lake Michigan and are a critical interface between Lake Michigan and the regional river system. The inland waterways included in the coastal zone boundary add roughly another 25 square miles to the inland portion of our coastal zone.

Lakeshore Coastal Zone Boundary

Green Bay Road plays a major role in defining the coastal zone boundary through Lake County and into northern Cook County. This arterial generally follows the crest of a glacial moraine (the Highland Park Moraine) that is the high ground forming the boundary of the Lake Michigan watershed. In northern Lake County, Green Bay Road is as much as four miles inland from the Lake Michigan shoreline, and thus northern Lake County has a broad area within the coastal zone. This extent includes all of the watersheds of streams that drain this area and discharge to Lake Michigan such as Kellogg Creek near Winthrop Harbor, Bull Creek in Zion and Beach Park, Waukegan River in Waukegan, and Pettibone Creek in North Chicago.

The coastal zone boundary along Green Bay Road assures that all of the ravines of the North Shore municipalities are within the designated coastal zone. These ravines include intermittent streams that discharge stormwater and surface drainage to Lake Michigan. The ravines also have a variety of slope stability and erosion issues that are critical coastal management concerns.

The coastal zone boundary along Green Bay Road (with a few road name changes in Lake Forest, Highwood, and Glencoe) extends as far south as Tower Road in Winnetka. At Tower Road, the boundary shifts about one half mile eastward to Sheridan Road. This boundary shift occurs for two reasons. First, Tower Road approximates the southern limit of the North Shore ravines. Second, and more importantly, this shift is consistent with how the lake watershed is defined through the municipalities to the south. Surface drainage is directed to combined sewers and there is no storm-water discharge to Lake Michigan. In the municipalities of Glencoe, Winnetka, Kenilworth, Wilmette, Evanston and all but far southern Chicago, the Lake Michigan watershed boundary is essentially along the upper limits of the beaches or along the shore-protection structures along the shoreline. This narrow band of Lake Michigan watershed is a result of the river and drainage engineering of this urbanized shore.

The watershed basis for defining the Illinois coastal zone boundary would dictate that much of the lakeshore from Glencoe southward would have little or no coastal zone land. However, a boundary has been defined to assure inclusion of all parkland that borders or is in proximity to the lakeshore. Sheridan Road provides an arterial and common boundary from Winnetka southward to Chicago's far north lakeshore. Streets that border the western (landward) side of Chicago's lakeshore park system are used to define the boundary. Through the Chicago Loop, Michigan Avenue provides a boundary to include all of Grant Park as well as parkland north of the Chicago River in the Streeterville neighborhood. On Chicago's near south lakeshore, the Metra right-of-way provides a boundary to include the full extent of Burnham Park to either side of Lake Shore Drive. On Chicago's far south lakeshore, the boundary along South Shore Drive and connecting arterials provides for inclusion of all lakeshore parks and follows the designated route of the Lake Michigan Circle Tour.

In southeastern Chicago, the lakeshore coastal zone boundary extends inland to encompass a broad area of lakes, streams and wetlands that have a hydrologic connection to Lake Michigan and are part of the Lake Michigan watershed. Lake Calumet and the Calumet River are key features, as well as Wolf Lake, Indian Creek, and Hegewisch Marsh. The lakeshore coastal zone boundary through the Calumet area has generally been defined along the first through street landward from the water or wetland areas. The boundary crosses the Calumet River at the

Thomas J. O'Brien Lock and Dam. This facility separates water of the Lake Michigan watershed from water diverted away from Lake Michigan in the Illinois Waterway system.

Inland Waterway Coastal Zone Boundary

The second-tier boundary for the Illinois coastal zone consists of land corridors along the two river systems in the Chicago area that historically flowed to Lake Michigan but now have their flow diverted away from the lake. The Chicago River was diverted in 1900 with completion of the Chicago Sanitary and Ship Canal. The Little and Grand Calumet River flowed to Lake Michigan until 1922 with completion of the Calumet-Sag Channel.

Dams and bulkheads form a water barrier between these river systems and Lake Michigan. However, locks provide navigation access between the rivers and lake. These locks also provide a means to open river flow into Lake Michigan during heavy precipitation storm events, when it is necessary to manage a surplus of combined-sewer flow into the river system. The segments of these river systems in proximity to the Lake Michigan watershed provide a front line for managing water quality, invasive species, and recreational and commercial boating between the rivers and lake.

A corridor along these inland waterways is defined to include land that borders these waterways and to include existing parkland and public space along the water edge. The primary basis used in defining these corridors was to use the first through street landward from the waterway. In some cases, this boundary division was straight forward, such as along a major part of the North Shore Channel where McCormick Boulevard is parallel to the west side of the channel and corresponds to the border of existing channel-side parkland. Where it was possible to define a boundary along arterials that parallel the waterway, these arterials were used rather than secondary streets closer to the waterways. Examples of such selected arterials are Elston and Clybourn Avenues along the North Branch Chicago River, and Archer and Canalport Avenues along the South Branch Chicago River.

The downstream limits of the inland waterways were determined by the bridge crossing closest to the where these rivers transition into the engineered channels that provide for their westward diversions. The downstream limit of the corridor along the South Branch Chicago River occurs at the Damen Avenue Bridge. The downstream limit of the corridor along the Little Calumet River occurs at the Ashland Avenue Bridge.

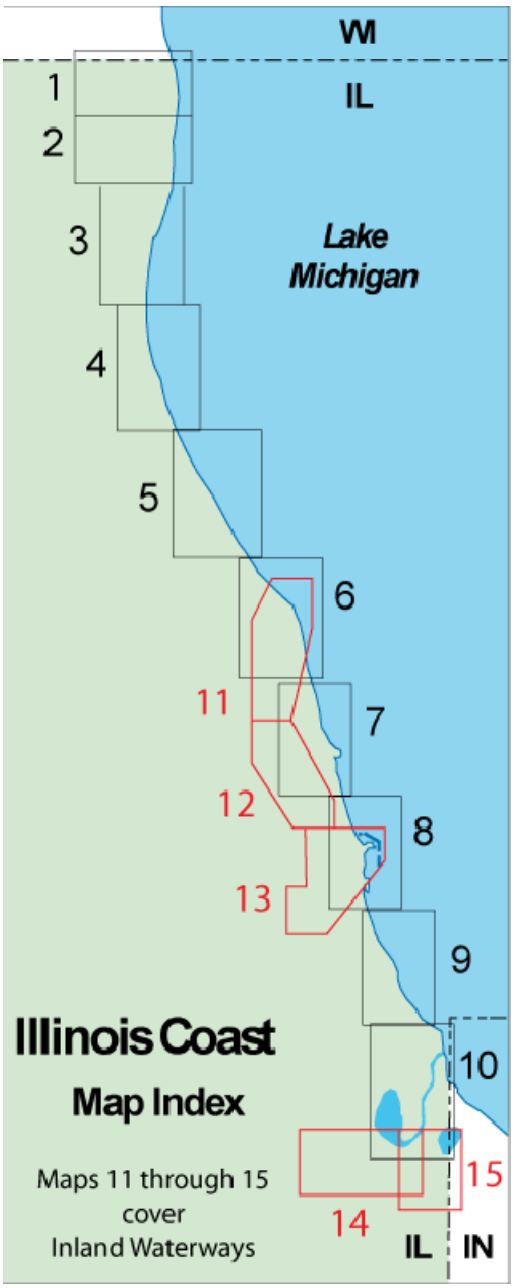
An upstream limit for the corridor along the North Branch Chicago River is defined as the dam and weir located on the North Branch at West River Park near Foster Avenue. This structure corresponds to the upstream navigable limit of the North Branch.

Summary

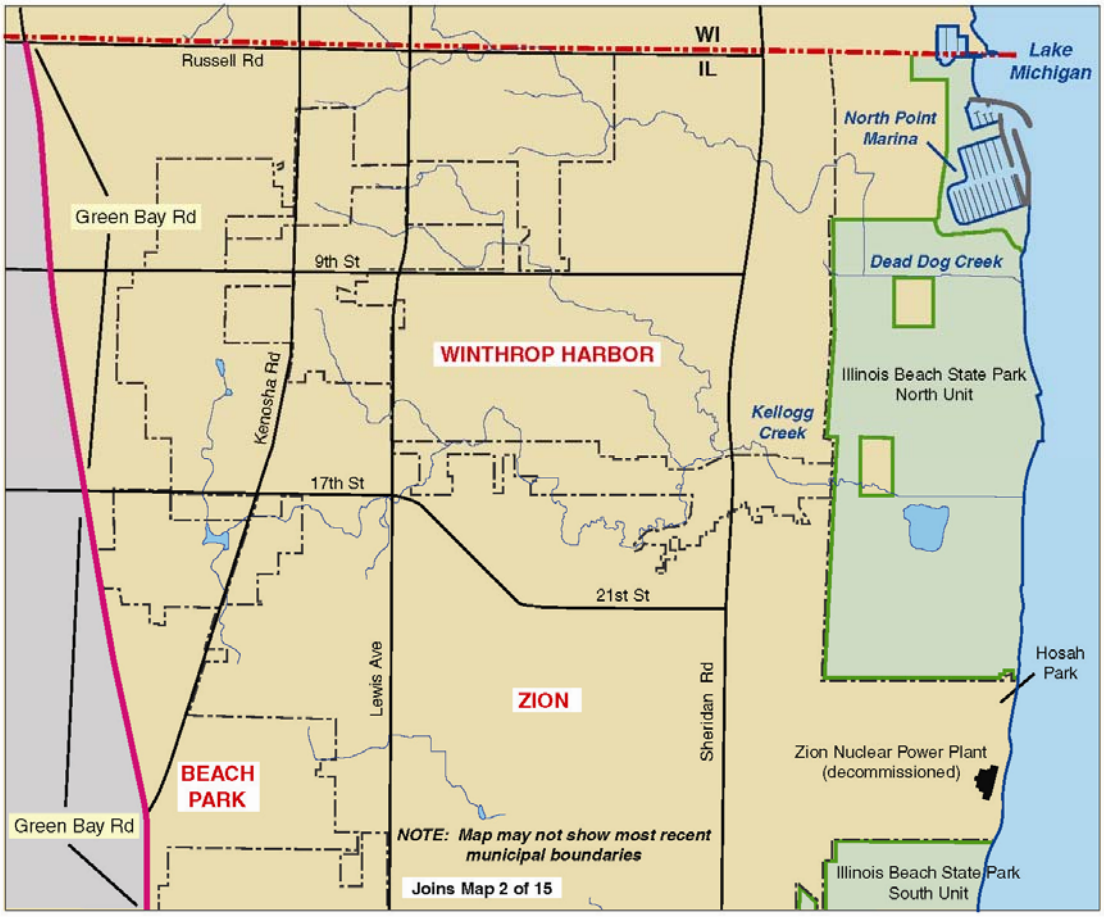
The Illinois Coastal Zone Boundary focuses strictly on the landscape, and only to the extent necessary to control shorelands, those which could have a direct and significant impact on the coastal waters. The total landward zone is estimated at 110 square miles, which is one of the smallest inland boundaries in the country.

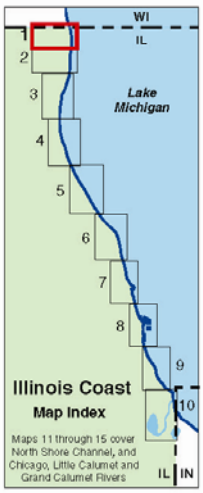
The boundary is delineated in a manner which is clear and exact enough to easily permit determination of whether property or an activity is located within the Illinois CMP. By using

roads and railroads to define the boundary, which the public can readily recognize, the CMP coordination and review processes will be facilitated for all parties involved. The boundary is foresighted, in that it includes those areas which could reasonably be expected necessary in order to address the issues identified as meriting special attention through the Illinois CMP. It includes navigable segments of the immediate inland waterways, which will enable addressing critical Lake Michigan issues, such as invasive species, combined-sewer overflow, recreational boating, tourism, and water quality. It also assures that all existing public parks along these waterways are included. These areas are appropriate for inclusion, based on the dependency of these corridors on water access and their visual relationships in such a highly urbanized area.



1. IBSP North
2. IBSP South
3. Waukegan
4. Lake Forest
5. Glencoe
6. Evanston
7. Montrose
8. Chicago Loop
9. Jackson Park
10. Calumet
11. N Shore Chicago
12. North Branch
13. Main S Branch
14. Calumet Park
15. Grand Calumet





Illinois Coastal Management Program
Coastal Zone Boundary

MAP 1 of 15

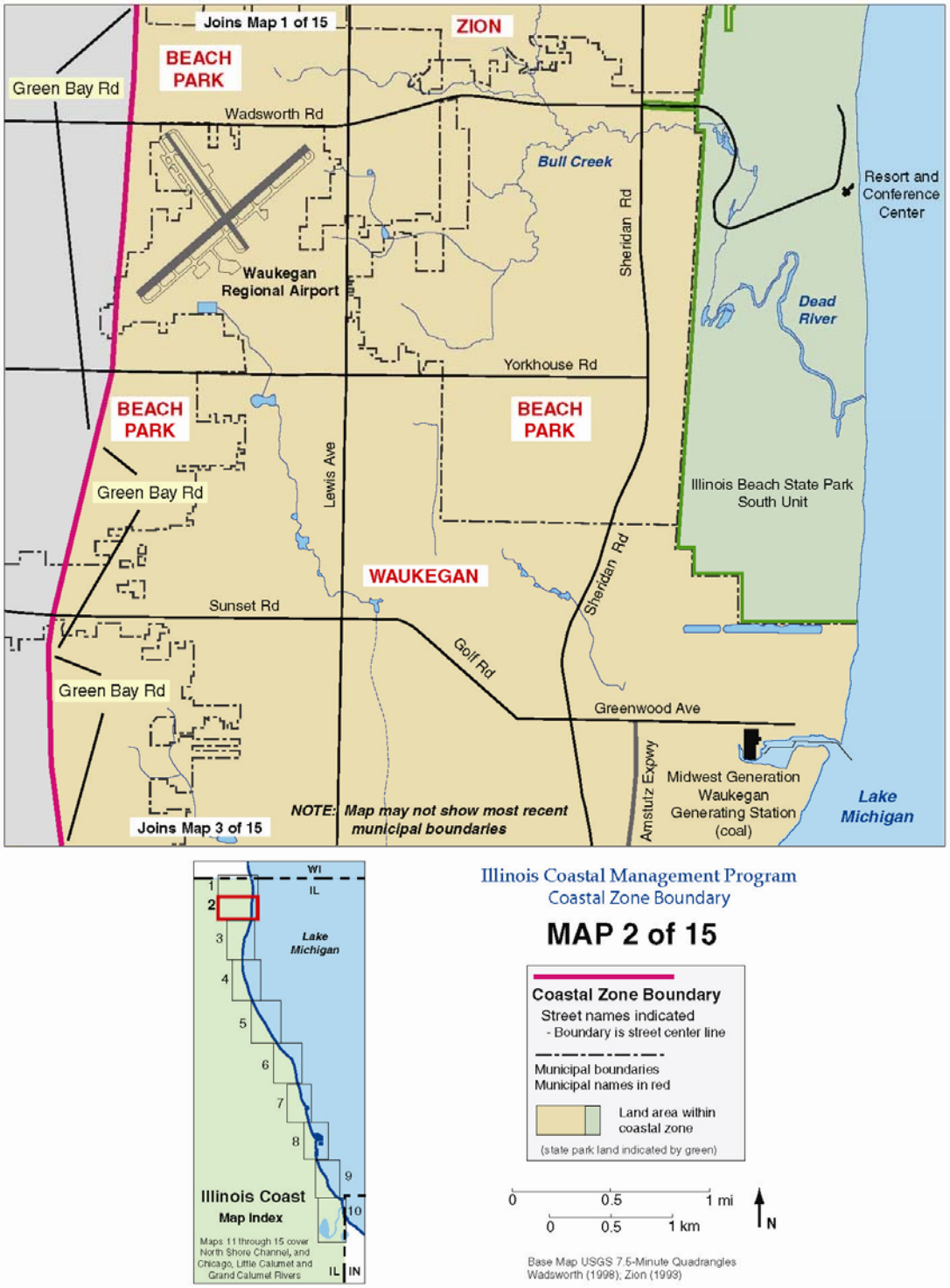
Coastal Zone Boundary
Street names indicated
- Boundary is street center line

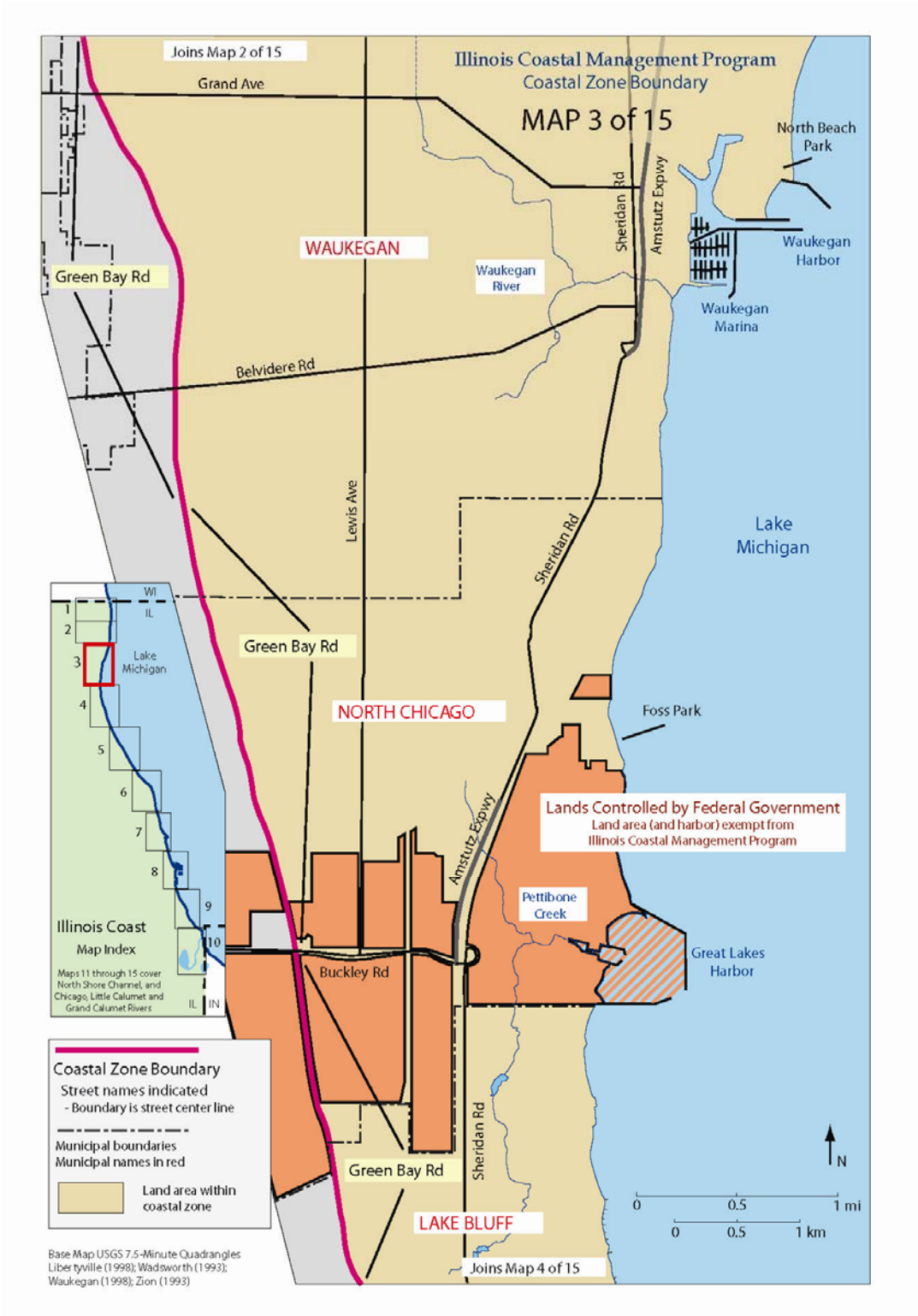
Municipal boundaries
Municipal names in red

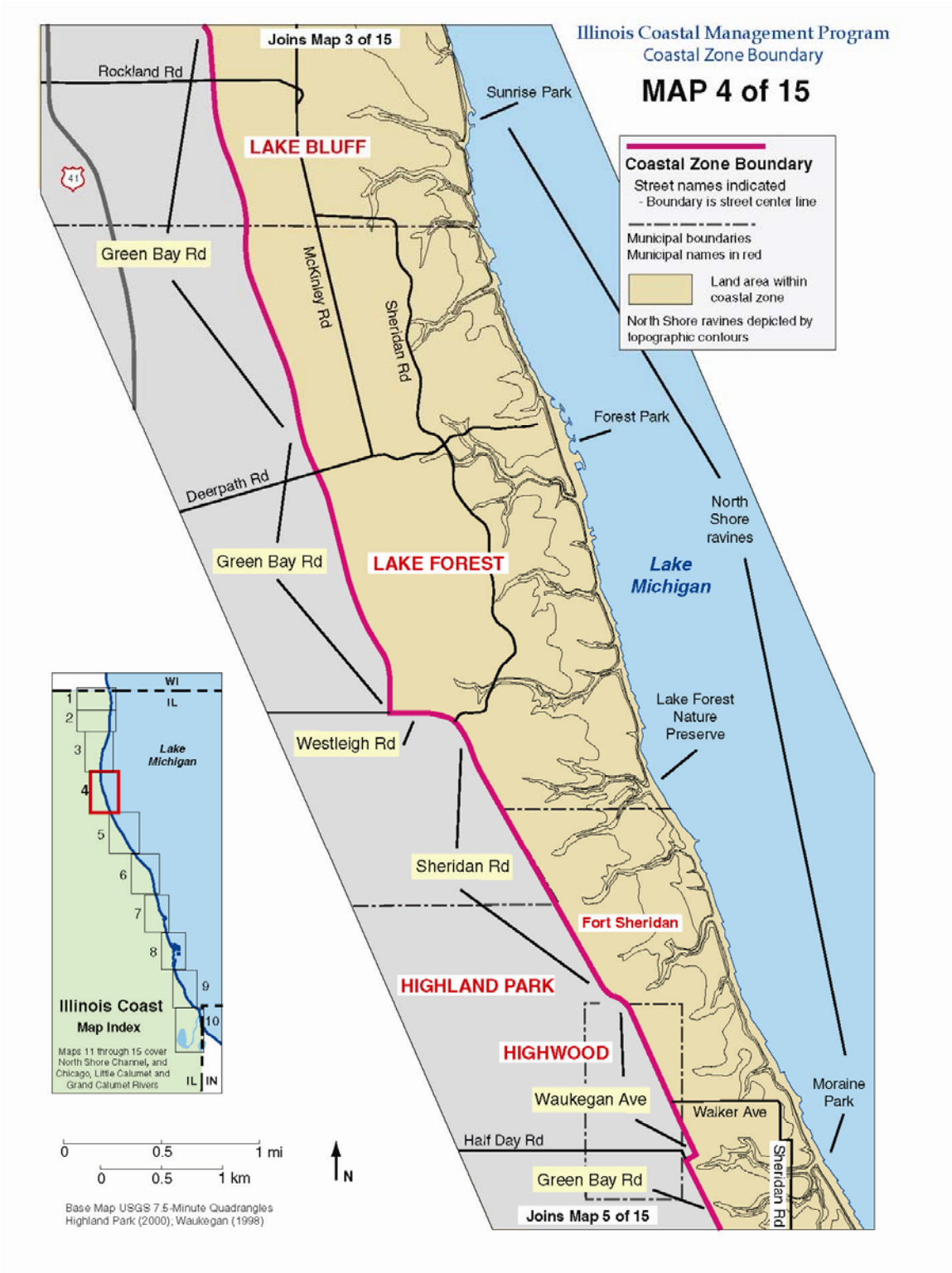
Land area within coastal zone
(state park land indicated by green)

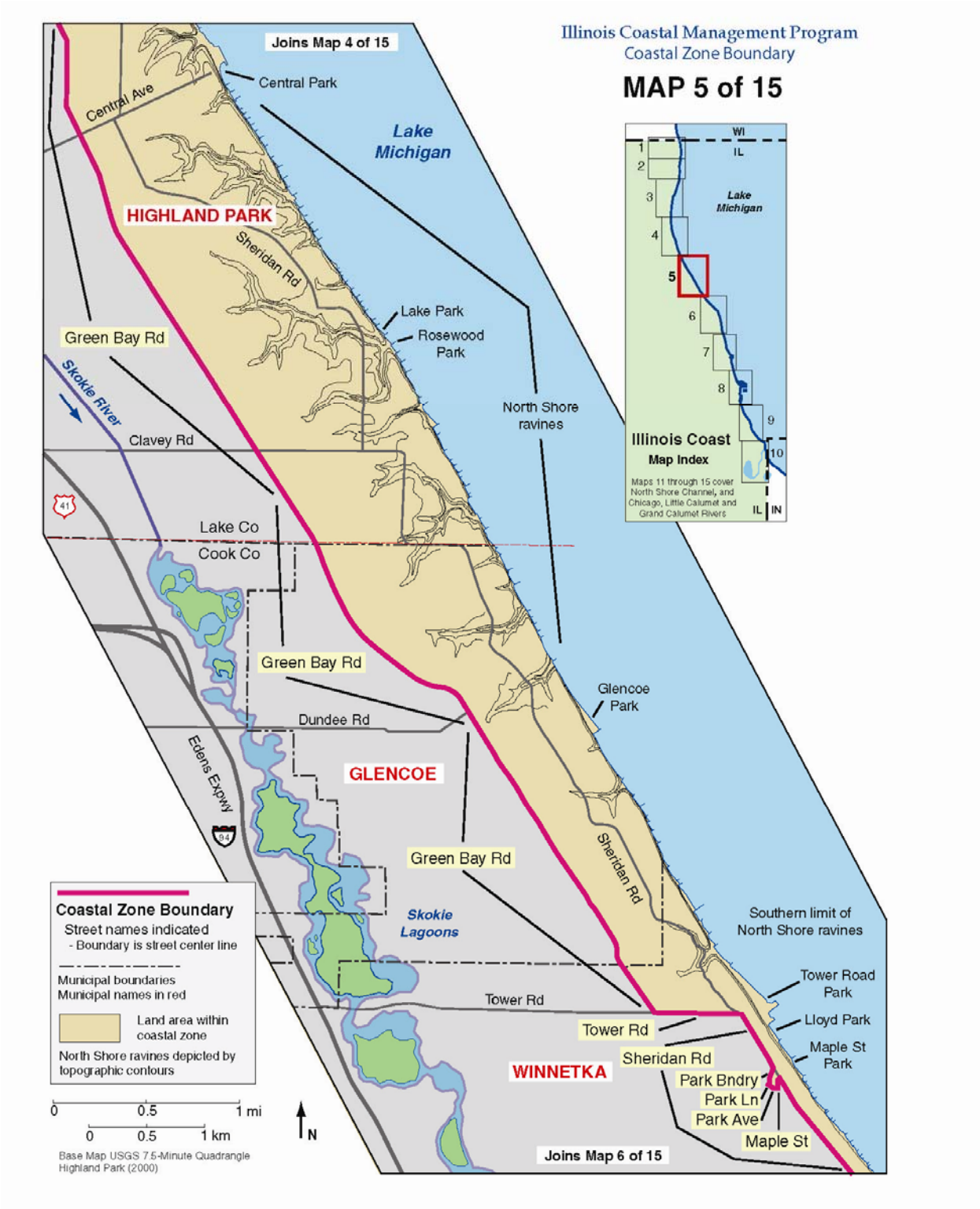
0 0.5 1 mi
0 0.5 1 km
N

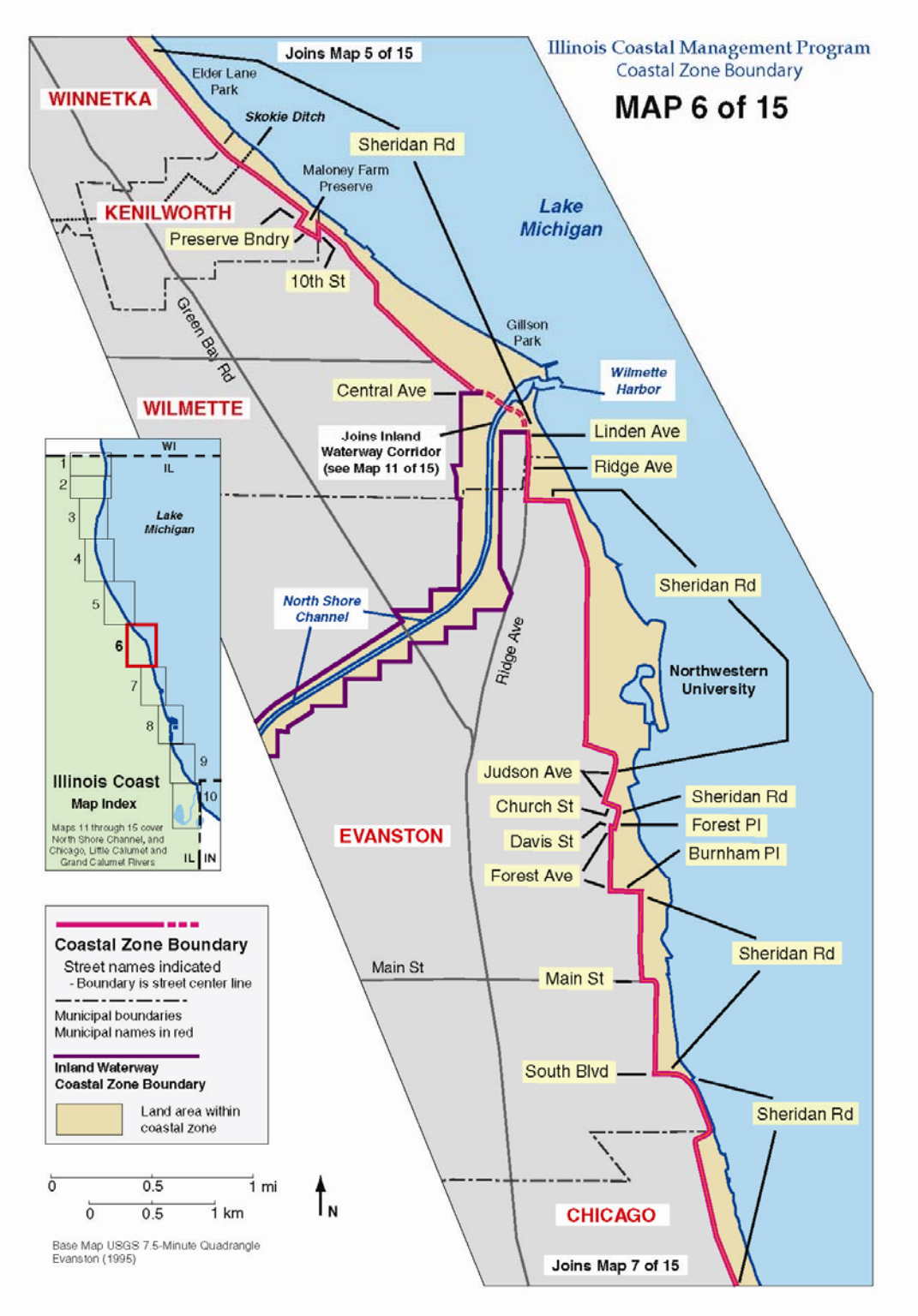
Base Map USGS 7.5-Minute Quadrangles
Wadsworth (1998); Zion (1993)


Joins Map 1 of 15
ZION
BEACH PARK
Green Bay Rd
Wadsworth Rd
Bull Creek
Resort and Conference Center
Sheridan Rd
Waukegan Regional Airport
Dead River
Yorkhouse Rd
BEACH PARK
BEACH PARK
Lewis Ave
Green Bay Rd
Illinois Beach State Park South Unit
WAUKEGAN
Sheridan Rd
Sunset Rd
Golf Rd
Green Bay Rd
Greenwood Ave
Amstutz Expwy
Midwest Generation Waukegan Generating Station (coal)
Lake Michigan
NOTE: Map may not show most recent municipal boundaries
Joins Map 3 of 15
WI
IL
Lake Michigan
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL IN
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 2 of 15
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Land area within coastal zone
(state park land indicated by green)
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangles
Wadsworth (1998); Zion (1993)

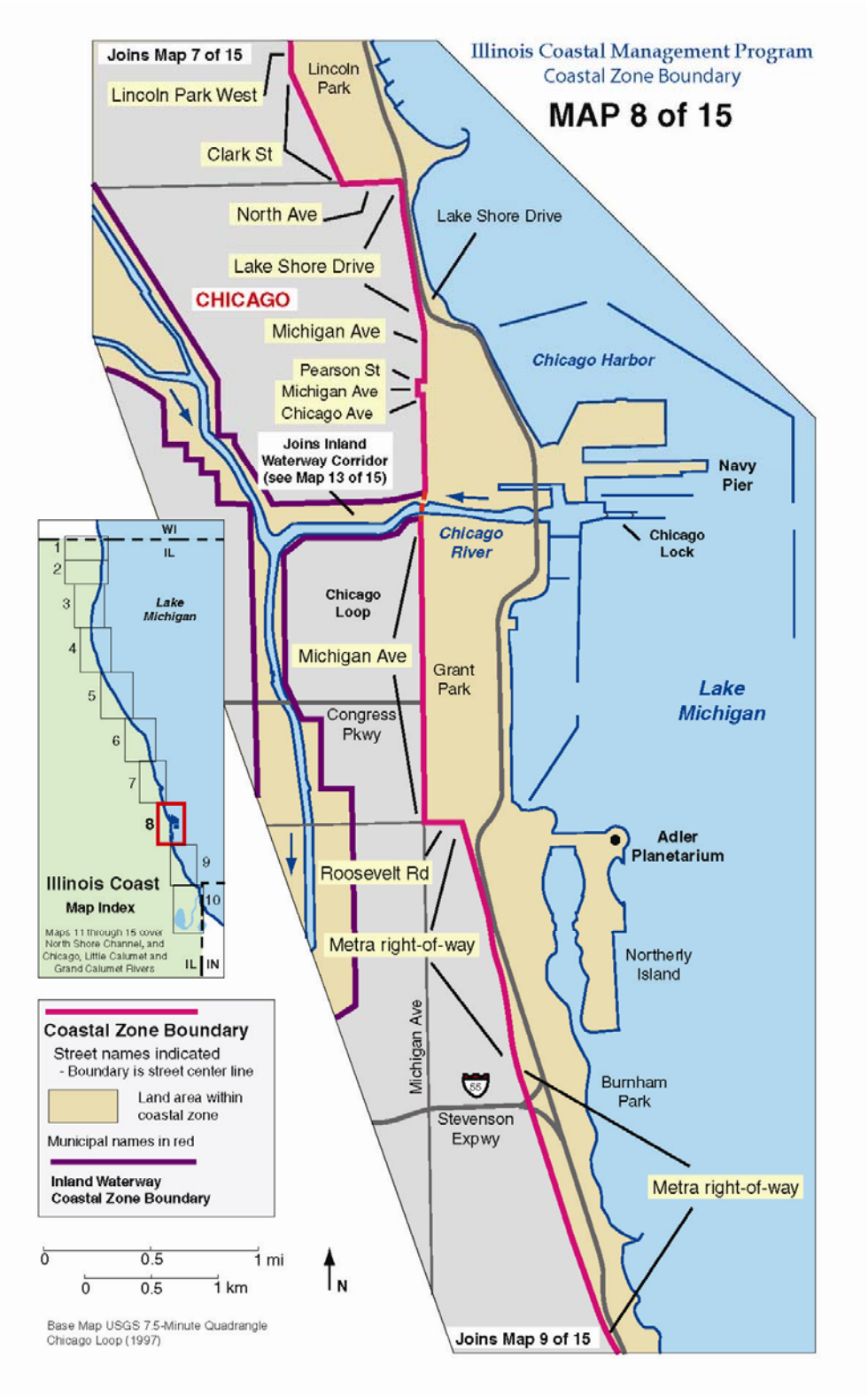

Joins Map 2 of 15
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 3 of 15
Grand Ave
North Beach Park
Sheridan Rd
Amstutz Expwy
Waukegan Harbor
WAUKEGAN
Waukegan River
Green Bay Rd
Waukegan Marina
Belvidere Rd
Lewis Ave
Sheridan Rd
Lake Michigan
WI
IL
Lake Michigan
Green Bay Rd
NORTH CHICAGO
Foss Park
Lands Controlled by Federal Government
Land area (and harbor) exempt from Illinois Coastal Management Program
Amstutz Expwy
Pettibone Creek
Great Lakes Harbor
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL
IN
Buckley Rd
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Land area within coastal zone
Green Bay Rd
Sheridan Rd
N
0
0.5
1 mi
0
0.5
1 km
LAKE BLUFF
Joins Map 4 of 15
Base Map USGS 7.5-Minute Quadrangles Libertyville (1998); Wadsworth (1993); Waukegan (1998); Zion (1993)

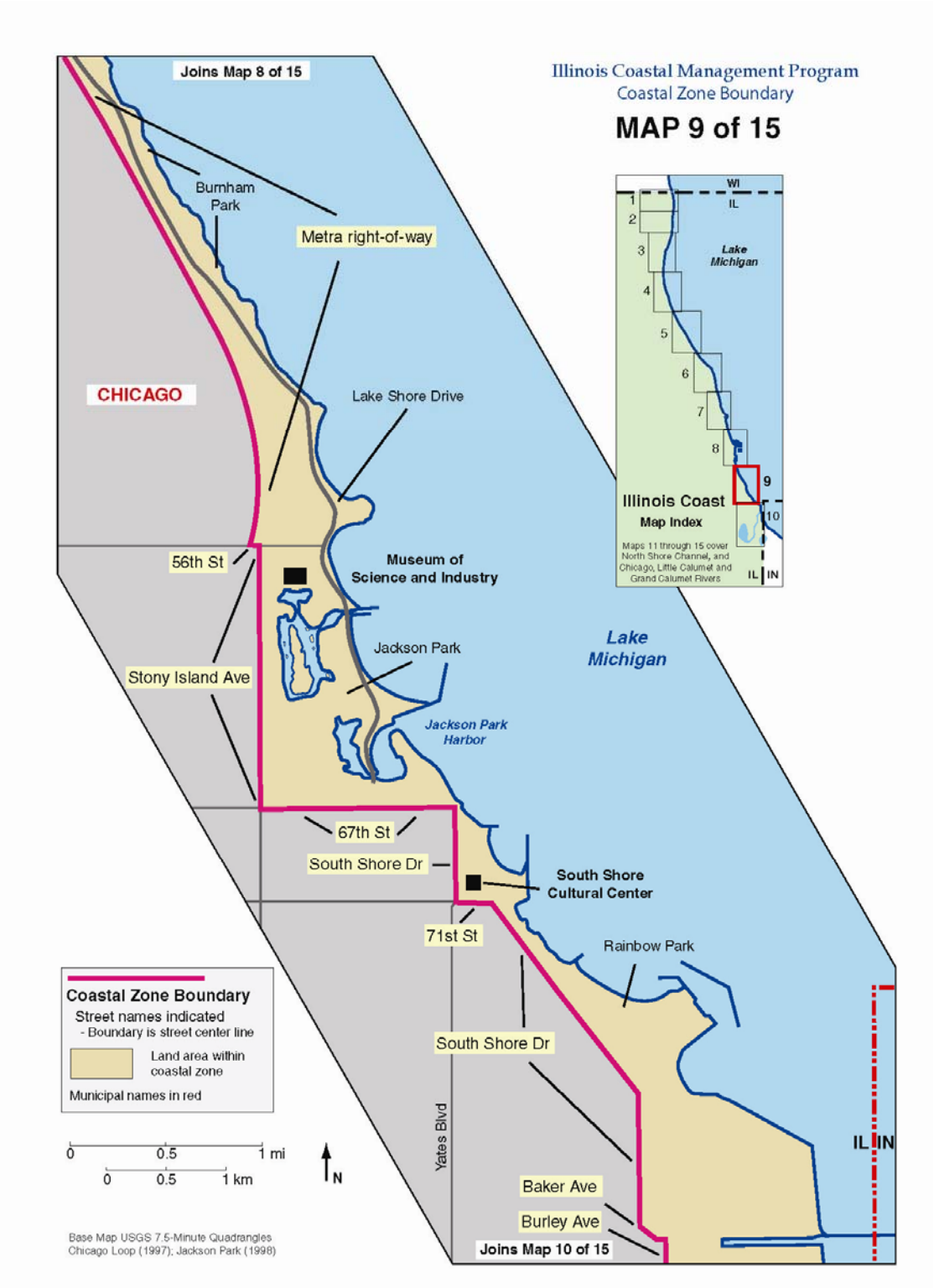

Illinois Coastal Management Program
Coastal Zone Boundary
MAP 4 of 15
Joins Map 3 of 15
Rockland Rd
Sunrise Park
LAKE BLUFF
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Land area within coastal zone
North Shore ravines depicted by topographic contours
Green Bay Rd
McKinley Rd
Sheridan Rd
Forest Park
Deerpath Rd
North Shore ravines
Green Bay Rd
LAKE FOREST
Lake Michigan
Lake Forest Nature Preserve
Westleigh Rd
Sheridan Rd
Fort Sheridan
HIGHLAND PARK
HIGHWOOD
Waukegan Ave
Walker Ave
Moraine Park
Half Day Rd
Green Bay Rd
Sheridan Rd
Joins Map 5 of 15
WI
IL
Lake Michigan
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL IN
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangles
Highland Park (2000), Waukegan (1998)

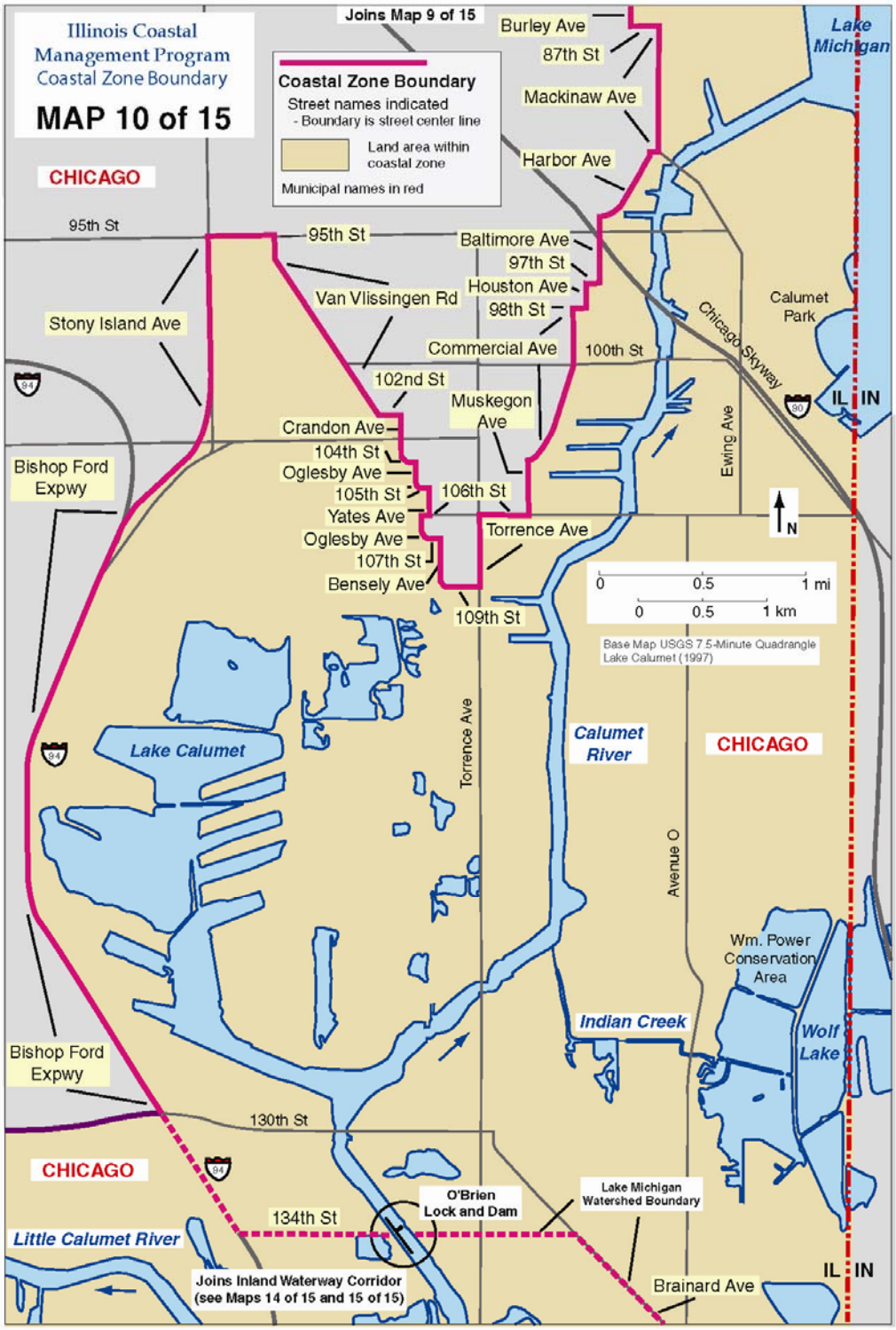

Illinois Coastal Management Program
Coastal Zone Boundary
MAP 5 of 15
Joins Map 4 of 15
Central Ave
Central Park
Lake Michigan
HIGHLAND PARK
Sheridan Rd
Lake Park
Rosewood Park
Green Bay Rd
Skokie River
Clavey Rd
North Shore ravines
Lake Co
Cook Co
Green Bay Rd
Glencoe Park
Dundee Rd
Edens Expwy
GLENCOE
Green Bay Rd
Sheridan Rd
Skokie Lagoons
Southern limit of North Shore ravines
Tower Road Park
Tower Rd
Lloyd Park
Tower Rd
Maple St Park
Sheridan Rd
WINNETKA
Park Bndry
Park Ln
Park Ave
Maple St
Joins Map 6 of 15
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Land area within coastal zone
North Shore ravines depicted by topographic contours
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangle Highland Park (2000)
WI
IL
Lake Michigan
1
2
3
4
5
6
7
8
9
10
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL IN

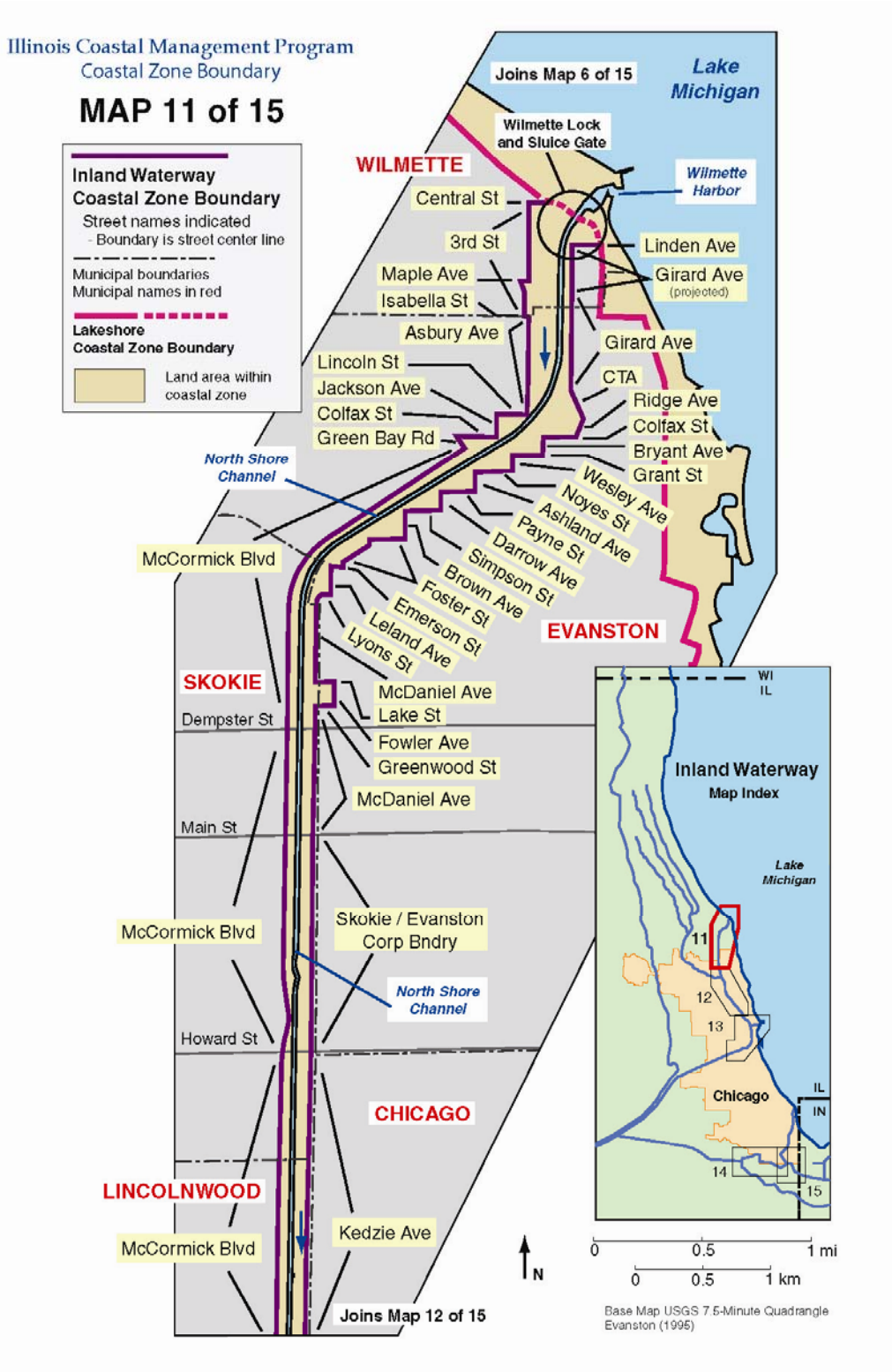

Illinois Coastal Management Program
Coastal Zone Boundary
MAP 6 of 15
Joins Map 5 of 15
Elder Lane Park
WINNETKA
Skokie Ditch
Sheridan Rd
Maloney Farm Preserve
KENILWORTH
Preserve Bndry
10th St
Lake Michigan
Green Bay Rd
Gillson Park
Wilmette Harbor
Central Ave
WILMETTE
Joins Inland Waterway Corridor (see Map 11 of 15)
Linden Ave
Ridge Ave
Sheridan Rd
North Shore Channel
Ridge Ave
Northwestern University
Judson Ave
Church St
Sheridan Rd
Forest Pl
Davis St
Burnham Pl
Forest Ave
EVANSTON
Sheridan Rd
Main St
Main St
South Blvd
Sheridan Rd
CHICAGO
Joins Map 7 of 15
WI
IL
Lake Michigan
1
2
3
4
5
6
7
8
9
10
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL
IN
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Inland Waterway Coastal Zone Boundary
Land area within coastal zone
0
0.5
1 mi
0
0.5
1 km
N
Base Map USGS 7.5-Minute Quadrangle Evanston (1995)

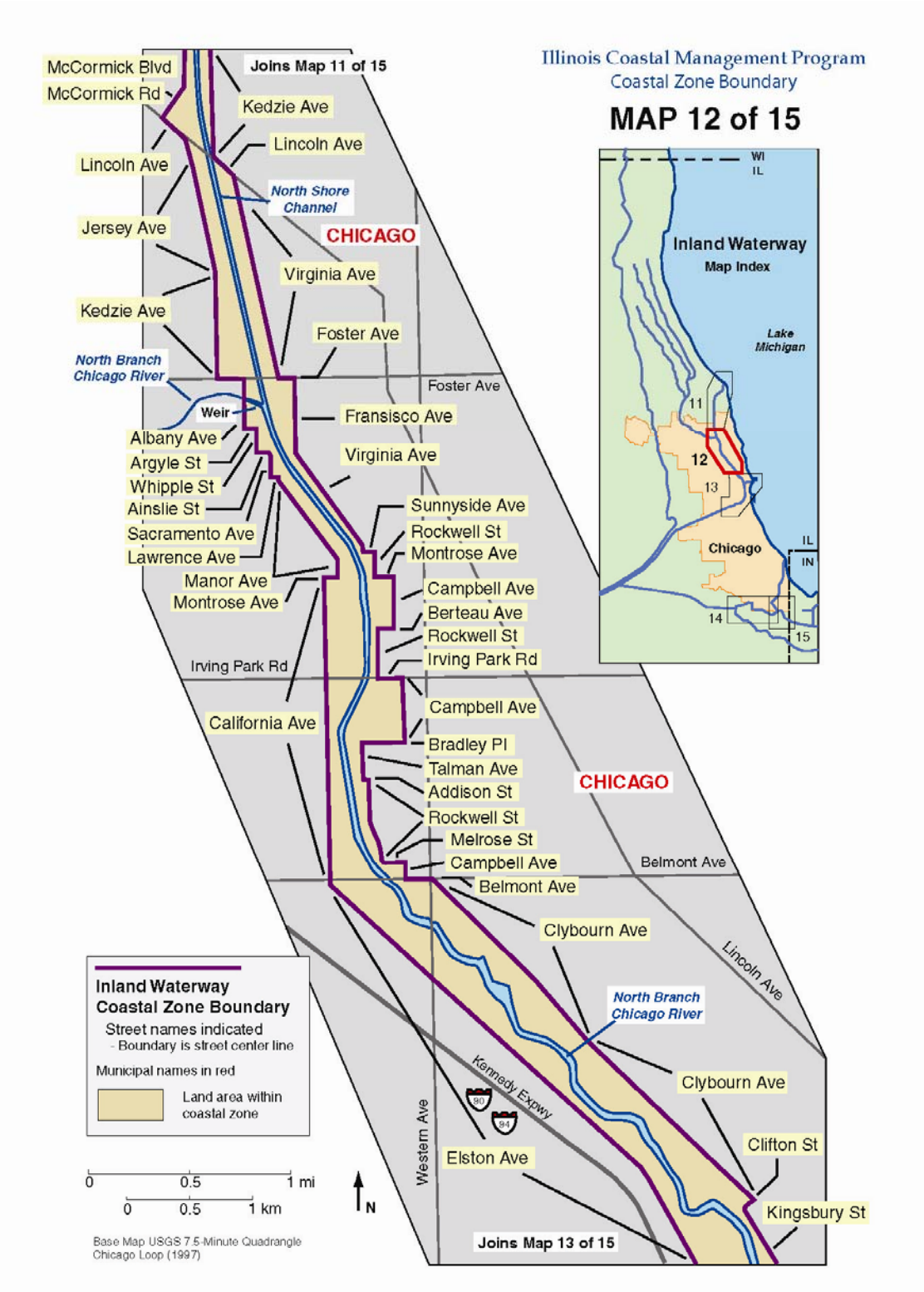
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 7 of 15
Joins Map 6 of 15
Joins Map 8 of 15
CHICAGO
Sheridan Rd
Clark St
Loyola University
Devon Ave
Sheridan Ave
Lincoln Park
Foster Ave
Marine Dr
Windsor Ave
Clarendon Ave
Agatite Ave
Montrose Harbor
Lake Michigan
Irving Park Rd
Belmont Harbor
Lake Shore Drive
Diversey Prkwy
Diversey Harbor
Lake View Ave
Fullerton Ave
Lincoln Park West
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Land area within coastal zone
Municipal names in red
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangles
Chicago Loop (1997); Evanston (1995)
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
WI
IL
IN

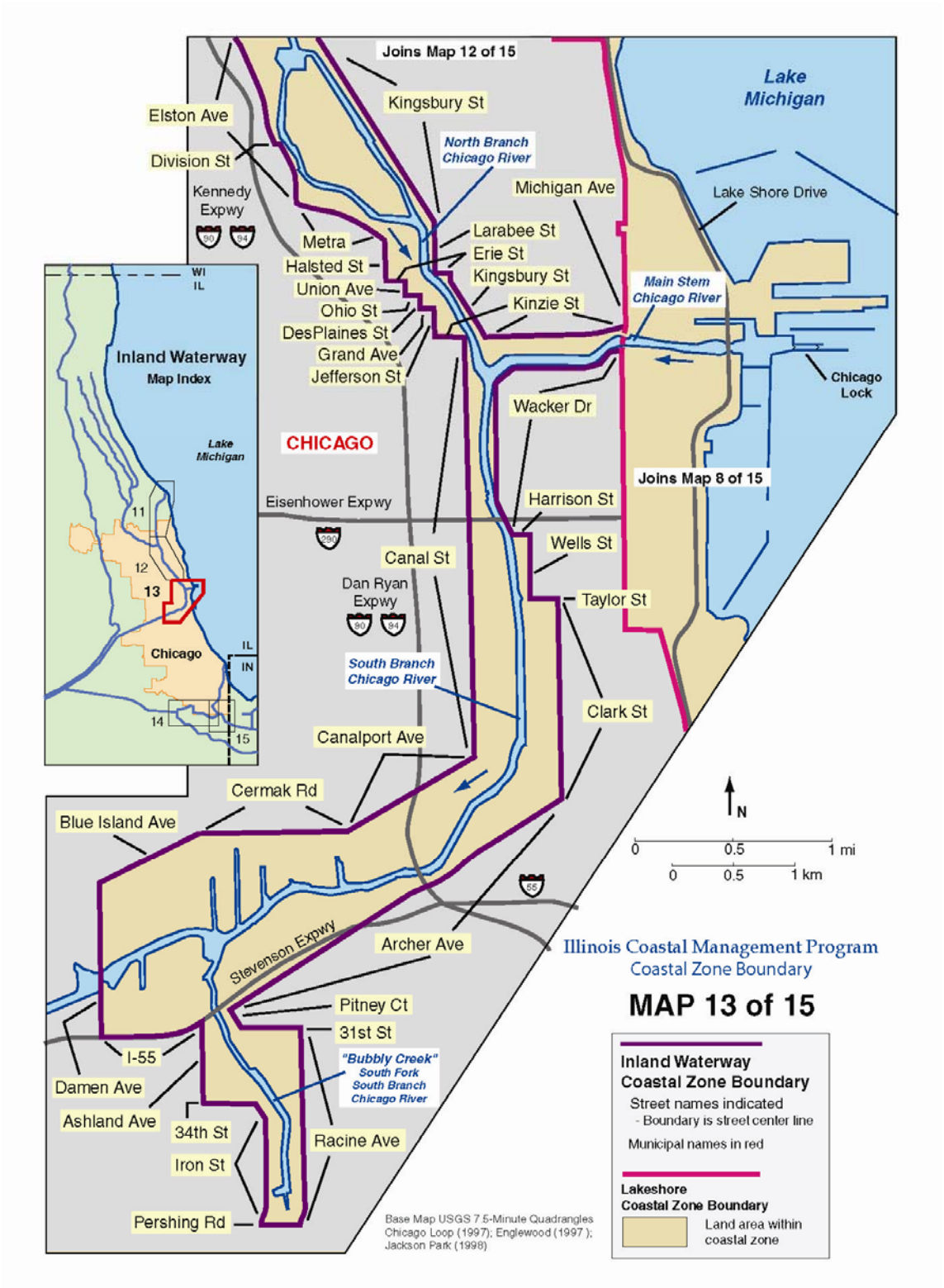

Illinois Coastal Management Program
Coastal Zone Boundary
MAP 8 of 15
Joins Map 7 of 15
Lincoln Park West
Lincoln Park
Clark St
North Ave
Lake Shore Drive
Lake Shore Drive
CHICAGO
Michigan Ave
Pearson St
Michigan Ave
Chicago Ave
Joins Inland Waterway Corridor (see Map 13 of 15)
Chicago Harbor
Navy Pier
Chicago Lock
Chicago River
Chicago Loop
Michigan Ave
Grant Park
Congress Pkwy
Lake Michigan
Adler Planetarium
Roosevelt Rd
Metra right-of-way
Northerly Island
Michigan Ave
Burnham Park
Stevenson Expwy
Metra right-of-way
Joins Map 9 of 15
WI
IL
Lake Michigan
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
IL
IN
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Land area within coastal zone
Municipal names in red
Inland Waterway Coastal Zone Boundary
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangle Chicago Loop (1997)

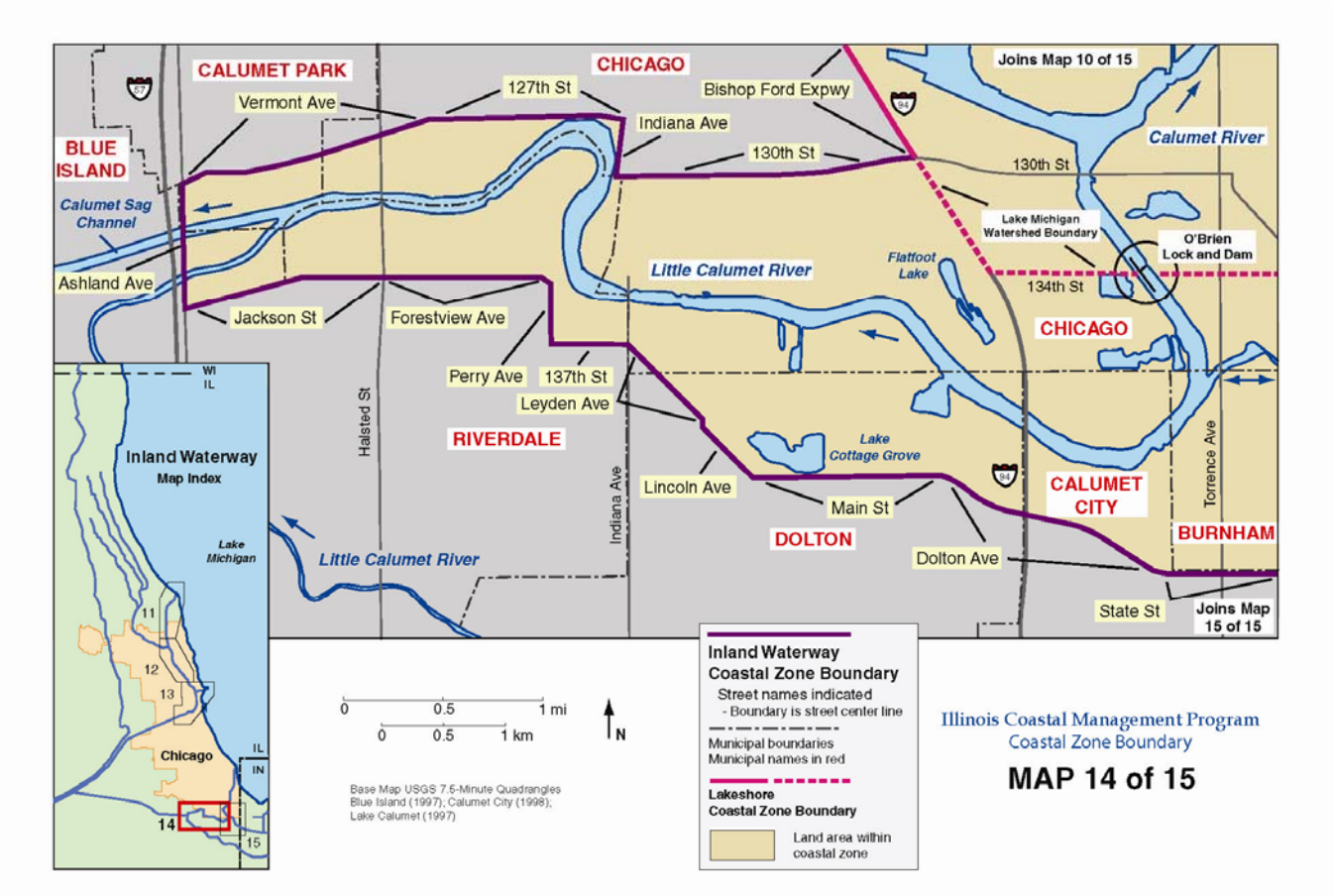

Joins Map 8 of 15
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 9 of 15
Burnham Park
Metra right-of-way
CHICAGO
Lake Shore Drive
56th St
Museum of Science and Industry
Jackson Park
Stony Island Ave
Lake Michigan
Jackson Park Harbor
67th St
South Shore Dr
South Shore Cultural Center
71st St
Rainbow Park
South Shore Dr
Yates Blvd
Baker Ave
Burley Ave
Joins Map 10 of 15
IL IN
WI
IL
Lake Michigan
Illinois Coast
Map Index
Maps 11 through 15 cover North Shore Channel, and Chicago, Little Calumet and Grand Calumet Rivers
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Land area within coastal zone
Municipal names in red
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangles
Chicago Loop (1997); Jackson Park (1998)

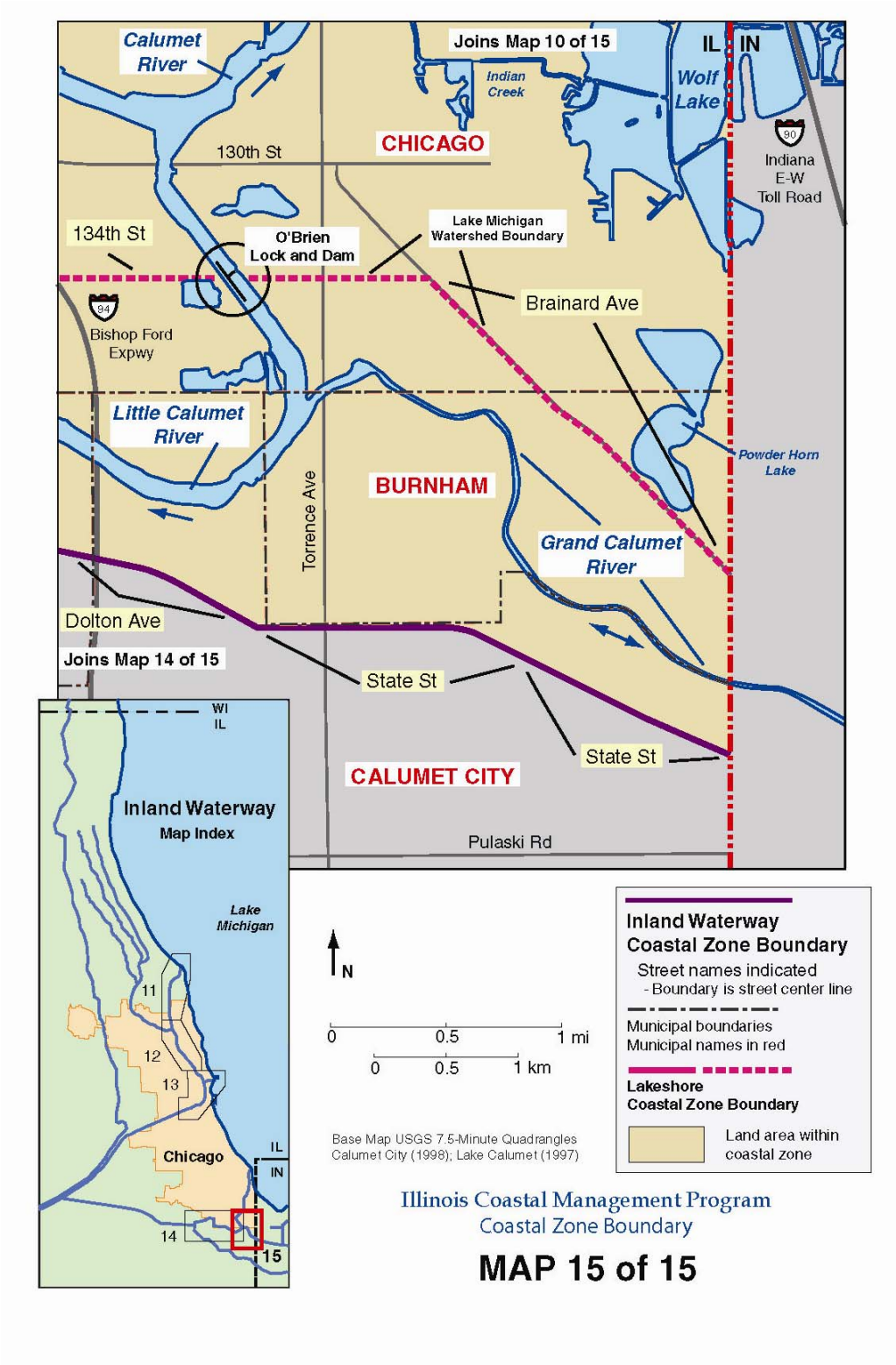

Illinois Coastal Management Program Coastal Zone Boundary
MAP 10 of 15
Joins Map 9 of 15
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Land area within coastal zone
Municipal names in red
CHICAGO
Burley Ave
87th St
Mackinaw Ave
Harbor Ave
Lake Michigan
95th St
95th St
Baltimore Ave
97th St
Houston Ave
98th St
Van Vlissingen Rd
Stony Island Ave
Commercial Ave
100th St
Chicago Skyway
Calumet Park
IL IN
102nd St
Muskegon Ave
Crandon Ave
104th St
Oglesby Ave
105th St
106th St
Yates Ave
Oglesby Ave
107th St
Bensely Ave
Torrence Ave
109th St
Bishop Ford Expwy
Ewing Ave
N
0 0.5 1 mi
0 0.5 1 km
Base Map USGS 7.5-Minute Quadrangle Lake Calumet (1997)
Lake Calumet
Torrence Ave
Calumet River
CHICAGO
Avenue O
Wm. Power Conservation Area
Indian Creek
Wolf Lake
Bishop Ford Expwy
130th St
CHICAGO
O'Brien Lock and Dam
Lake Michigan Watershed Boundary
134th St
Little Calumet River
Joins Inland Waterway Corridor (see Maps 14 of 15 and 15 of 15)
Brainard Ave
IL IN


Illinois Coastal Management Program
Coastal Zone Boundary
MAP 11 of 15
Inland Waterway
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Lakeshore
Coastal Zone Boundary
Land area within coastal zone
Joins Map 6 of 15
Lake Michigan
Wilmette Lock and Sluice Gate
Wilmette Harbor
WILMETTE
Central St
3rd St
Linden Ave
Girard Ave (projected)
Maple Ave
Isabella St
Asbury Ave
Girard Ave
Lincoln St
Jackson Ave
Colfax St
Green Bay Rd
CTA
Ridge Ave
Colfax St
Bryant Ave
Grant St
Wesley Ave
Noyes St
Ashland Ave
Payne St
Darrow Ave
Simpson St
Brown Ave
Foster St
Emerson St
Leland Ave
Lyons St
EVANSTON
North Shore Channel
McCormick Blvd
SKOKIE
McDaniel Ave
Lake St
Dempster St
Fowler Ave
Greenwood St
McDaniel Ave
Main St
McCormick Blvd
Skokie / Evanston Corp Bndry
North Shore Channel
Howard St
CHICAGO
LINCOLNWOOD
McCormick Blvd
Kedzie Ave
Joins Map 12 of 15
N
0 0.5 1 mi
0 0.5 1 km
Base Map USGS 7.5-Minute Quadrangle Evanston (1995)
WI
IL
Inland Waterway
Map Index
Lake Michigan
11
12
13
Chicago
IL
IN
14
15


Illinois Coastal Management Program
Coastal Zone Boundary
MAP 12 of 15
Joins Map 11 of 15
McCormick Blvd
McCormick Rd
Kedzie Ave
Lincoln Ave
Lincoln Ave
North Shore Channel
Jersey Ave
CHICAGO
Virginia Ave
Kedzie Ave
Foster Ave
North Branch Chicago River
Foster Ave
Weir
Fransisco Ave
Albany Ave
Argyle St
Virginia Ave
Whipple St
Ainslie St
Sunnyside Ave
Sacramento Ave
Rockwell St
Lawrence Ave
Montrose Ave
Manor Ave
Montrose Ave
Campbell Ave
Berteau Ave
Rockwell St
Irving Park Rd
Irving Park Rd
Campbell Ave
California Ave
Bradley Pl
Talman Ave
Addison St
CHICAGO
Rockwell St
Melrose St
Campbell Ave
Belmont Ave
Belmont Ave
Clybourn Ave
Lincoln Ave
North Branch Chicago River
Kennedy Expwy
Clybourn Ave
Western Ave
Elston Ave
Clifton St
Kingsbury St
Joins Map 13 of 15
Inland Waterway
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal names in red
Land area within coastal zone
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangle
Chicago Loop (1997)
WI
IL
Inland Waterway
Map Index
Lake Michigan
11
12
13
Chicago
IL
IN
14
15


Joins Map 12 of 15
Lake Michigan
Elston Ave
Kingsbury St
North Branch Chicago River
Division St
Kennedy Expwy
Michigan Ave
Lake Shore Drive
Metra
Larabee St
Erie St
Halsted St
Kingsbury St
Union Ave
Kinzie St
Main Stem Chicago River
Ohio St
DesPlaines St
Grand Ave
Jefferson St
Chicago Lock
Wacker Dr
Inland Waterway
Map Index
Lake Michigan
CHICAGO
Joins Map 8 of 15
Eisenhower Expwy
Harrison St
Wells St
Canal St
Dan Ryan Expwy
Taylor St
Chicago
South Branch Chicago River
Clark St
Canalport Ave
Cermak Rd
Blue Island Ave
N
0 0.5 1 mi
0 0.5 1 km
Stevenson Expwy
Archer Ave
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 13 of 15
Pitney Ct
31st St
I-55
"Bubbly Creek" South Fork South Branch Chicago River
Damen Ave
Ashland Ave
34th St
Racine Ave
Iron St
Pershing Rd
Inland Waterway Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal names in red
Lakeshore Coastal Zone Boundary
Land area within coastal zone
Base Map USGS 7.5-Minute Quadrangles Chicago Loop (1997); Englewood (1997); Jackson Park (1998)


CALUMET PARK
CHICAGO
Joins Map 10 of 15
Vermont Ave
127th St
Bishop Ford Expwy
Indiana Ave
130th St
Calumet River
BLUE ISLAND
Calumet Sag Channel
130th St
Lake Michigan Watershed Boundary
O'Brien Lock and Dam
Flatfoot Lake
Little Calumet River
Ashland Ave
134th St
Jackson St
Forestview Ave
CHICAGO
Perry Ave
137th St
Leyden Ave
Halsted St
RIVERDALE
Lake Cottage Grove
Indiana Ave
Lincoln Ave
Main St
CALUMET CITY
Torrence Ave
DOLTON
BURNHAM
Little Calumet River
Dolton Ave
State St
Joins Map 15 of 15
Inland Waterway Map Index
WI
IL
Lake Michigan
11
12
13
Chicago
IL
IN
14
15
0 0.5 1 mi
0 0.5 1 km
N
Base Map USGS 7.5-Minute Quadrangles Blue Island (1997); Calumet City (1998); Lake Calumet (1997)
Inland Waterway Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Lakeshore Coastal Zone Boundary
Land area within coastal zone
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 14 of 15


Calumet River
Joins Map 10 of 15
IL
IN
Indian Creek
Wolf Lake
130th St
CHICAGO
90
Indiana E-W Toll Road
134th St
O'Brien Lock and Dam
Lake Michigan Watershed Boundary
Brainard Ave
94
Bishop Ford Expwy
Little Calumet River
Powder Horn Lake
Torrence Ave
BURNHAM
Grand Calumet River
Dolton Ave
Joins Map 14 of 15
State St
State St
CALUMET CITY
Pulaski Rd
WI
IL
Inland Waterway
Map Index
Lake Michigan
11
12
13
Chicago
IL
IN
14
15
N
0
0.5
1 mi
0
0.5
1 km
Base Map USGS 7.5-Minute Quadrangles
Calumet City (1998); Lake Calumet (1997)
Inland Waterway
Coastal Zone Boundary
Street names indicated
- Boundary is street center line
Municipal boundaries
Municipal names in red
Lakeshore
Coastal Zone Boundary
Land area within coastal zone
Illinois Coastal Management Program
Coastal Zone Boundary
MAP 15 of 15

Appendix C
Executive Order and Letter of Support

STATE OF ILLINOIS
EXECUTIVE DEPARTMENT
SPRINGFIELD, ILLINOIS

EXECUTIVE ORDER FOR THE ESTABLISHMENT OF A COASTAL RESOURCES MANAGEMENT PROGRAM IN ILLINOS

WHEREAS, Illinois is dedicated to protecting and managing our natural and cultural resources along our magnificent 63 mile stretch of Lake Michigan shoreline;

WHEREAS, During the last two centuries, Illinois' coast has undergone nearly a complete metamorphosis with its monumental hydrologic modifications, enormous industrial impacts, building of an excellent transportation infrastructure, and creation of skyscrapers that grace our shoreline; and

WHEREAS, Our shoreline is highly urbanized and has been subject to considerable stress from intense land use and competition to serve the economic and workforce needs and demands of this densely populated area; and

WHEREAS, The environmental legacy of our industrial sites and the needs and demands of a growing and vibrant urban community create a complex set of issues to balance as we invest in programs that seek to restore our ecosystems and meet the increasing demands for open space, recreation, and public access.; and

THEREFORE, I, Pat Quinn, Governor of Illinois, pursuant to the authority vested in me by Article V of the Constitution of the State of Illinois, hereby order as follows:

I. Designated State Agency.

a) The Illinois Department of Natural Resources will be the lead state agency responsible for development and implementation of the Illinois Coastal Management Program. The mission of the IDNR is to manage, protect, and sustain Illinois'

natural and cultural resources, further the public's understanding and appreciation of those resources, and promote the education, science and public safety of our natural resources for present and future generations.

b) The Illinois Department of Natural Resources has the administrative capability to monitor and evaluate the management of the state's coastal resources by the various agencies having specified responsibilities, and report on the performance of all agencies in adhering to the Illinois Coastal Management Program. The organizational structure of the IDNR will provide for an effective means for continuing consultation and coordination between the state agencies.

II. Program Objectives.

a) Preserve, protect, restore, and where possible, enhance the coastal resources in Illinois for this and succeeding generations.

b) Focus on the development of strategies to mitigate and adapt to climate change, including reducing individual carbon footprints, and the expanding the use of our natural resources to act as natural carbon sinks.

c) Develop site specific strategies to address persistent Bio-accumulative toxins.

d) Investigate mitigation and long term sustainable solutions to terrestrial invasive species.

e) Non-point source pollution is primarily related to storm-water management which for the most part is managed, treated and ultimately discharged away from the Lake Michigan Basin. Facilitate an important discussion of expanding the use of green infrastructure to control storm-water, promote groundwater recharge and reduce flooding.

f) Provide technical and financial assistance to acquire new, add or improve public recreational sites and facilities, and to create new or improve public access sites.

g) Provide support to projects focused on adaptation to the effects of climate change in NE Illinois.

h) Provide assistance to improve management programs and support state and local government efforts to identify and designate areas especially suited for water-related economic development and in redeveloping port and waterfront areas.

III. Implementation

a) The Technical Advisory Committee (TAC) will provide the forum for state agency input, consistency review, and coordination with other state or local agencies on projects or issues that could have an effect on land and water resources within the coastal zone.

b) The Coastal Advisory Group (CAG) will provide recommendations on priority issues and emphasis areas with particular relevance to their defining role as being the forum for broad public input on regional issues and community involvement

c) The Office of Resource Conservation (ORC) will house the Illinois Coastal Management Program staff within IDNR offices in Chicago. The Illinois Coastal Management Program staff will be the central point of contact for program administration. The ORC Director will direct additional ORC support from Springfield or request assistance from other IDNR offices as needed.

d) The Illinois Environmental Protection Agency will be the lead supporting agency to the IDNR in administering the ICMP. The IEPA will provide full support to the IDNR in developing a Coastal NPS Control Program Development Plan for Illinois.

e) Illinois Coastal Management Program staff will be the primary point of contact for consistency determinations. This includes all actions made by the state or federal government. ICMP will consult with appropriate state authorities in making these determinations.

IV. Cooperation by State Agencies.

The legislative intent to provide for state agency coordination and state-local coordination is cited under existing statute **615 ILCS 5/14a**. This statute demonstrates the State's commitment to work cooperatively to implement existing laws and policies pertaining to the waters of Lake Michigan and thus requiring the IDNR, the IEPA and all state agencies to exercise their authorities in conformance with the policies of the Illinois Coastal Management Program.

SAVINGS CLAUSE

Nothing in this Executive Order shall be construed to contravene any State or Federal law.

EFFECTIVE DATE

This Order shall be in full force and effect upon its filing with the Secretary of State.

Pat Quinn

Pat Quinn
Governor

Issued by the Governor: December 10, 2010
Filed with the Secretary of State: December 10, 2010

STATE OF ILLINOIS
OFFICE OF THE GOVERNOR
SPRINGFIELD, ILLINOIS 62706

Pat Quinn
GOVERNOR

May 13, 2011

Dr. Jane Lubchenco
Under Secretary of Commerce for Oceans and Atmosphere and
NOAA Administrator
1401 Constitution Avenue,
NW Room 5128
Washington, DC 20230

Dear Dr. Lubchenco:

As you are aware, the State of Illinois wishes to join the National Coastal Zone Management Program (CZM). Illinois has seen significant improvements to its shoreline in the last 30 years, but our coast is showing signs of stress. I fully endorse this program because joining the National Coastal Zone Management Program will help us to protect and manage our natural and cultural resources for present and future generations.

In December of 2010, I signed Executive Order 14 to establish a Coastal Program in Illinois which detailed program objectives, identified steps to enhance state agency coordination, outlined a conflict resolution process, and described federal consistency. The State of Illinois has reviewed and approved as state policy, the management program, and any changes thereto, submitted for your approval.

Illinois has the authorities necessary to implement the management of the program, and is organized to implement the management of the program. I have designated the Department of Natural Resources to receive and administer implementation grants. The Illinois Environmental Protection Agency will also be assigned various tasks and responsibilities in accordance with their statutory authorities.

We have completed the public outreach requirement and have developed a program that meets the requirements of the Coastal Zone Management Act.

I am enthusiastic about our state's participation in the National CZM Program. We are committed to addressing the critical issues facing this world class coast, and we look forward to working in partnership with the National Oceanic and Atmospheric Administration to protect it.

Sincerely,

Pat Quinn

Pat Quinn
Governor

Cc: David Kennedy, Assistant Administrator, National Ocean Service
Donna Weiting, Acting Director, Office of Ocean and Coastal Resource Managemen

Appendix D
Comments Received on ICMP Document

Federal Comments Received on 2010 Draft ICMP Document

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological Services Field Office
1250 South Grove Avenue, Suite 103
Barrington, Illinois 60010
Phone: (847) 381-2253 Fax: (847) 381-2285

IN REPLY REFER TO:
FWS/AES-CIFO/

April 7, 2010

Mr. Todd Main
Illinois Department of Natural Resources
160 N. LaSalle St., Suite 700
Chicago, Illinois 60601

Dear Mr. Main:

This responds to your email (dated March 16, 2010) requesting review of the Illinois Department of Natural Resources' (IDNR) draft planning document for the establishment of the Illinois Coastal Management program (ICMP). The draft ICMP was developed in accordance to the Federal Coastal Zone Management Act (CZMA).

The draft ICMP defines the coastal zone boundary within Illinois. ICMP Goals include enhancing the state's role in supporting and coordinating partnerships among stakeholder agencies and organizations, facilitating a shared vision for enhancing the Illinois coastal zone among these stakeholders, and leveraging draft ICMP and other funds to maximize the impact of local projects. In doing so, the draft ICMP identifies several initial priorities. Our review of, and comments on, the draft ICMP focuses on areas of potential benefit to, and effects on, the Service's trust resources (interjurisdictional fishes and other aquatic resources, migratory birds, and federally endangered and threatened species), as well as related issues that have required our past/continued involvement in the coastal zone.

Definition of Coastal Zone Boundaries. The ICMP's proposed Coastal Zone Boundaries are comprehensive in addressing issues in both the immediate/near-shore coastal zone, as well as more inland factors (e.g., urbanization, ravine/stream degradation) that may affect the Lake Michigan basin.

The CZMA requires that federal facilities and lands held by the federal government be excluded from the boundaries of the ICMP. This does not preclude the state from partnering with such facilities on projects that may be beneficial to the coastal zone, though federal funding to the state for coastal projects may not be spent on federal facilities. The largest single federal facility within the proposed Illinois Coastal Zone boundary is the nearly 1600 acre Naval Training Center, Great Lakes (NTCGL). In the past, IDNR and the Service have been involved in regular reviews of NTCGL's Integrated Natural Resource Planning Process, as required by the Sikes Act. NTCGL includes some coastal fish and wildlife habitat of interest to both IDNR and the Service, including dune and swale nesting habitat for colonial waterbirds, and coastal ravines. In addition, the GLNTC harbor is known to have unresolved environmental contaminants issues that may be affecting colonial waterbirds and other aquatic resources. The exclusion of federal facilities from the proposed Coastal Zone boundaries may render these issues beyond the scope of the ICMP. Nevertheless, we note that these issues are still clearly tied to the greater Illinois coastal zone, and we thus urge IDNR to continue to work with the Service and the Navy through the Sikes Act process to more aggressively identify and implement measures to improve habitat and environmental conditions for fish, wildlife, and aquatic resources within the boundaries of NTCGL.

Coastal Erosion Assessment and Planning. The ICMP identifies the control of coastal erosion as a major priority. As you know, past attempts to reverse the effects of beach erosion along the Illinois coastline has been controversial due to ongoing concerns about asbestos and other contaminants raised by citizens groups. The Lake Michigan Coastal Zone includes habitat for several federally threatened or endangered species, including the Great Lakes piping plover (*Charadrius melodus*), Pitcher's thistle (*Cirsium pitcheri*), and eastern prairie fringed orchid (*Platanthera leucophaea*). Continuing erosion and loss of coastal habitat, especially at Illinois Beach State Park, will lead to further uncertainty about the future of these species in Illinois. We support any future planning efforts to halt and reverse the losses of coastal habitat thus far. However, we also recognize that doing so will require the input of multiple State and Federal agencies, as well as citizen stakeholder groups. Adoption of the ICMP may be one more step to ensure that such efforts continue.

Stream Connectivity and Fisheries. Many of Illinois streams that are within the Lake Michigan Drainage are either impaired due to pollution, erosion, and altered hydrology, or now include impediments to inland passage by fish coming from Lake Michigan. We support IDNR's efforts to work with other stakeholder agencies (e.g., municipalities and federal agencies such as the US Army corps of Engineers) to improve stream function and water quality within the Lake Michigan Drainage, and believe that the ICMP will further facilitate such initiatives.

Threatened & Endangered Species and Migratory Birds. As noted above portions of the Illinois Coastline provide habitat for several threatened or endangered species. Within protected habitat (e.g., Illinois beach State Park), these species will likely benefit most from continued management of occupied habitat and efforts to halt or reverse the effects of costal erosion.

In some cases additional steps to protect listed species should also be considered. Of particular concern is the recent (in 2009) nesting of a pair of Great Lakes piping plovers in

Illinois, the first such nest in over 30 years. The nest was located on private land just south of Illinois Beach State Park, and within federally Designated Critical Habitat (DCH) for the species. The Illinois Unit of plover DCH includes roughly 1500 acres of coastal habitat, most of which is within Illinois Beach State Park. One of the key requirements needed by piping plovers in order to nest is beach habitat that is free of disturbance from humans or their dogs using the beaches. However, much of the beach front within plover DCH in Illinois is open to public recreation. This includes sections that are otherwise owned by private interests (e.g., Johns Manville Corp., or Midwest Generation in Waukegan), but where the public has unrestricted beach access up to the high water mark. In some cases, unrestricted public access to beaches in the coastal zone can cause resource related, and other conflicts. For example, the Service has (for several years) discussed with Midwest Generation whether they could take steps to extend protection (e.g., through fencing) into potential plover DCH along their section of beach. While they have expressed interest in this (due in part to unrelated security concerns resulting from public access so near a major power generating plant), Midwest Generation staff have stated that the biggest limiting factor to them protecting beach habitat is that the beach is considered public. Nevertheless, the draft ICMP states (Chapter 5, p. 2) that even beaches in the public domain do not necessarily require unrestricted public access. We suggest that implementation of the ICMP should consider whether there are sections of beach within the DCH where additional protection could be extended to include times when plovers are likely to be present or nesting (April thorugh August).

In addition to piping plovers, Illinois' section of Lake Michigan Coastline is an important flyway for migratory birds. As the coastal zone is increasingly considered for new development (e.g., wind power), we urge IDNR to use components of the ICMP to consider migratory birds to the extent possible in future planning, and to also encourage bird-friendly practices along the coast in general.

Bi-State Conservation in Two Resource-Rich Coastal Areas. Along Illinois' coastal zone, there are two areas with high concentrations of resource-rich natural areas that stand out from the rest. These include: A) Illinois Beach, Spring Bluff Nature Preserve, and other coastal natural areas north of Waukegan in northern Lake County, and B) The Wolf Lake, Lake Calumet, Burhman Prairie, and Powderhorn Lake complex in southeast Cook County. Both of these complexes include adjacent open space and shared resource issues just over the state lines in Wisconsin and Indiana. For example, along the Illinois-Wisconsin State Line, wetland hydrology of Chiwaukee Prairie (Wisconsin) is shared by the adjacent Spring Bluff Nature Preserve (Illinois). The Service has in the past been involved in efforts to plan bi-state approaches to addressing threats common to both sides of the state line. Nevertheless, it has been difficult at times to facilitate close working relationships between counterparts in the two states, even when Federal funding sources (which would not be restricted to being spent in only one of the two states) were available to assist. Once finalized, we encourage IDNR to use the ICMP to facilitate greater bi-state cooperation whenever there are shared resource interests with other states, whether at adjacent sites or common to Lake Michigan itself.

Environmental Contaminants. As the draft ICMP notes there are a number of sites along the Lake Michigan Coastline that are known to have high concentrations of environmental

Mr. Todd Main 4

contaminants. We support the ICMP's "site-specific approach" to cleaning up areas with high concentrations of environmental contaminants, as well as its extensive planning for addressing non-point sources of pollution.

Thank you for the opportunity to comment on the Draft ICMP. If you have questions regarding our comments, my statff contact for the ICMP is Mr. Mike Redmer (Phone: 847/381-2253 ext. 16; Email: Mike_Redmer@fws.gov).

Sincerely,

Cathy Pollack
acting

Janice C. Engle
Field Supervisor

U.S. Department of Homeland Security
United States Coast Guard

COMMANDANT
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593
Staff Symbol: CG-0942
Phone: (202) 372-3800
Fax: (202)372-3966

April 16, 2008

Dear Coastal Program Manager:

The US Coast Guard is committed to cooperating with your office, other states, and the NOAA/OCRM to maintain the long-term vitality of our coastlines. Your office has developed comprehensive programs to manage impacts to coastal resources, and the Coast Guard strives to ensure that activities it oversees are consistent to the maximum extent practicable with the enforceable policies of your federally approved program.

The Coast Guard promulgates hundreds of routine and frequent maritime regulations all across the US. These include:

1. Regattas and Marine Parades - organized water events of limited duration that are conducted according to a prearranged schedule under 33 C.F.R. § 100. These regulations help ensure safe navigation.

2. Anchorages - areas defined by geographic coordinates expressed in degrees of latitude and longitude under 33 C.F.R. § 110. These areas help ensure safe navigation.

3. Regulated Navigation Areas - water areas within a defined boundary for which vessel navigation regulations have been established under 33 C.F.R. § 165. These areas help ensure safe navigation by alerting mariners to hazardous areas.

4. Drawbridge Operation Regulations - operation of drawbridges across the navigable waters under 33 C.F.R. § 117. These regulations describe safe bridge operation and vessel navigation and also determine drawbridge operations during periods of maintenance repair.

5. Limited Access Areas - areas which may be either safety zones or security zones under 33 C.F.R. § 165. They may be a water area and/or shore area where access is limited to authorized persons, vehicles, or vessels. A safety zone may be stationary and described by fixed limits or it may be described as a zone around a vessel in motion.

6. Security Zones - areas of land and/or water designated by a Captain of the Port or District Commander to prevent damage or injury to any vessel or facility or water of the US.

Following a thorough review, my office believes that these routine and frequent regulations are consistent with the enforceable policies of existing state coastal zone management plans. The Coast Guard seeks a General National Consistency Determination (GCD) for these actions under 15 C.F.R. §§ 930.36(c) and (e). These qualify as either repetitive actions that may have incremental cumulative effects, but do not have coastal effects when performed separately or

they qualify as *de minimis*. A GCD is the most efficient way to address CZMA consistency for the activities described above.

At this time the Coast Guard requests that you provide the following:

1. A description of coastal effects these activities will cause in your state;
2. A list of the specific enforceable policies that apply to these coastal effects;
3. A description of any thresholds you might consider to allow a GCD if the activity falls below such thresholds; and
4. Any questions, concerns, comments that you may have on this proposal.

LT Frank Nolan from my office will be the point of contact for this project; he can be reached at frank.g.nolan@uscg.mil or (202) 372-3800. The Coast Guard looks forward to working with you to improve the efficiency of the CZMA compliance system.

Sincerely,

THOMAS M. HAYES, III
Chief, Office of Environmental and Real Property Law
U.S. Coast Guard

2

U.S. Department of Homeland Security
United States Coast Guard

Commander
Ninth Coast Guard District (dl)

1240 East Ninth Street
Cleveland, OH 44199-2060
Staff Symbol: dl
Phone: 216-902-6010
Fax: 216-902-6055
Email: Michael.c.petta@uscg.mil

5090
April 8, 2010

Illinois Department of Natural Resources
Attn: Mr. Todd Main, ICMP Program Manager
160 North Lasalle Street, Suite 700
Chicago, IL 60601

Dear Mr. Main:

On behalf of the United States Coast Guard's (USCG) Ninth District legal office and the Environmental Compliance Section of the USCG's Civil Engineering Unit (CEU) Cleveland, this letter is offered in response to your request for comments regarding the prospective Illinois Coastal Management Program (ICMP).

Enclosure (1) addresses three of the lists contained in chapter 11 of the ICMP Program Document (PD). First, enclosure (1) touches on the general list of federal activities that Illinois proposes are in the national interest. Second, it discusses the list of federal agency activities that Illinois proposes to be subject to a consistency determination under the Coastal Zone Management Act (CZMA). Finally, enclosure (1) takes up the list of federal licensed and permitted activities that Illinois proposes to begin reviewing.

Please, feel free to contact me or Mr. Frank Blaha, frank.a.blaha@uscg.mil, if you want to discuss further.

Sincerely,

MICHAEL C. PETTA
Lieutenant, U.S. Coast Guard
Judge Advocate
Ninth Coast Guard District

Enclosure: (1) USCG Comments on Illinois' Proposed Coastal Management Program

Copy: Commandant (CG-0942)
CG CEU Cleveland

COMMENTS ON ILLINOIS' PROPOSED COASTAL MANAGEMENT PROGRAM

Submitted by the USCG's Ninth District Legal Office and the Environmental Compliance Section of the USCG's Civil Engineering Unit Cleveland

1) Federal Activities with a National Interest

In the Illinois Coastal Management Program (ICMP) Program Document (PD), you requested our input regarding the list of federal activities that are in the national interest. The PD asks whether there are any additional *general areas* and whether there are any *specific sites or issues* to be included on the list. As it now stands, the list is quite broad and encompasses the vast majority, if not the entirety, of USCG general mission areas. Thus, we see no need to add any general areas. As for specific sites or issues, federal efforts to keep Asian carp from Lake Michigan or to refine ballast water discharge regulations certainly are activities of current and significant national interest. Both seem to be covered, however, under your list's topic heading "invasive species." Thus, we see no reason to explicitly mention either of those specific issues or any others for that matter.

2) Federal Activities Subject to Consistency Determinations

Also in the PD, you asked for input on the list USCG activities subject to a consistency determination. Below, we offer comments in two areas: (1) regulated navigation areas, safety zones, and security zones and (2) hazardous substance and material pollution response and planning.

Regulated Navigation Areas, Safety Zones, and Security Zones

Currently, your PD states that a federal consistency determination is required for each regulated navigation area (RNA), safety zone, or security zone that the USCG establishes. Doing so would likely prove burdensome for us and for Illinois because the USCG establishes many RNAs, safety zones, and security zones within or near your coastal zone. Last year, for example, we put 55 safety zones in place just around fireworks displays at the Chicago Navy Pier. To avoid the potential burden of having to go through the consultation process for each and every RNA, safety zone, and security zone, we recommend two changes to your ICMP.

One way that we can prevent burdening either of our agencies is to categorize certain RNAs, safety zones, and security zones as *de minimis* activities under 15 CFR § 930.33. Categorizing an activity as *de minimis* means that activity is not subject to the consistency review process. According to 15 CFR § 930.33(a)(3)(ii), a *de minimis* activity is one "expected to have insignificant direct or indirect (cumulative and secondary) coastal effects…" We expect that any RNA, safety zone, or security zone lasting one week or less in duration will have such insignificant effects and thus, seek your concurrence that these particular activities are indeed *de minimis*.

A second change we recommend is removing RNAs, safety zones, and security zones completely from your list of activities subject to consistency determinations. As you know, this will not relieve the USCG from its responsibilities under the CZMA. Instead, it will allow the USCG to determine for each RNA, safety zone, and security zone whether we

should submit to Illinois a negative determination under 15 CFR § 930.35 or a consistency determination under 15 CFR § 930.36. While this change will not necessarily reduce the burden on our agencies, it will allow us on a case by case basis to decide which regulatory process is the most appropriate for any particular situation.

In sum, we recommend two changes regarding RNAs, safety zones, and security zones. First, categorize those RNAs, safety zones, and security zones of one week or less as *de minimis*. Second, do not list RNAs, safety zones, and security zones on your list of activities subject to consistency determinations. If you implement these two changes, the practical effect will be that the USCG will provide a negative determination or a consistency determination to Illinois for any RNA, safety zone, or security zone that we establish for more than one week. We estimate that these changes will avoid unnecessary review for both our agencies and focus our efforts in those cases where review is appropriate.

Hazardous Substance and Material Pollution Response and Planning

Currently, your PD states that a federal consistency determination is required for any USCG planning for or response to the release of oil or some other hazardous substance or material under CWA, OPA, or CERCLA. While we do not disagree that such USCG *response* actions might require a consistency determination under the CZMA, it is not clear to us for what specific *planning* activities would require a consistency determination. Consequently, we recommend leaving pollution *response* actions on the list but removing pollution response *planning*. Making this change simply means that USCG pollution response will almost always be subject to a consistency determination but pollution response planning will be assessed on a case by case basis.

Although USCG pollution *response* might generally be subject to consistency determinations, we draw your attention to the very real possibility that in some response cases the USCG might "deviate from full consistency when such deviation is justified because of an emergency or other similar unforeseen circumstance ('exigent circumstance')." See 15 CFR § 930.32(b). In such cases, we will consult with Illinois to the extent that the exigent circumstances allow.

3) Federal Licenses or Permits Subject to Consistency Certification

Along with the national interest list, and the federal activities list, the ICMP PD lists USCG marine event permits as a type of permit subject to state review. In our opinion, including *all* marine event permits on this list will create an unnecessary burden on the USCG and Illinois. This is because the USCG receives dozens of marine event permits each year, many of which are for relatively minor activities. In 2009, we received nearly 100 marine event permits just for the Chicago area. Conducting the review process contained in 15 CFR §§ 930.56 through 930.60 for each and every marine permit will likely create excessive and unnecessary work. Therefore, we recommend categorizing any marine event of one week or less in duration as a "minor activity" in accordance with 15 CFR § 930.53(b). As with our *de minimis* recommendation discussed above, we estimate that treating marine events of one week or less in duration as a "minor activity" will avoid unnecessary review for both our agencies.

Response to Public Comments Received at February 2011 ICMP Public Hearing

What is the deadline for public comments?

-We will be accepting comments through the end of the month.

What kind of outreach is being done to municipalities on the coastline in request for support?

-The CAG has regional representation by all the municipalities within the coastal zone. Regional representation may be from a department, park district, commission, or the community, subject to approval of the municipalities.

What amount of funding was included in the President's FY 2012 budget for coastal funding for NOAA?

-66 million dollars, 2 million less than FY 11

Any idea how funding for local projects will break down within the program?

-A vast majority will be going into grants. Proposals will first go to the CAG, then on to the TAC, then to the Director of IDNR for final approval.

Would state projects compete with these local projects?

-We don't anticipate state competition with local projects rather a cooperative relationship where the state likely partners with local groups.

Have we already established the CAG?

-Yes. If you are interested in participating on the CAG, let us know.

Will there be more than one CAG?

-There is one Citizens Advisory Group.

Can you tell us more on how the CAG will interface with the TAC?

-The Coastal Advisory Group (CAG) will be the forum for broad public input. The CAG will form topic specific sub committees, to meet on a monthly basis or as necessary. The CAG makes recommendations which will provide better direction and implementation of the ICMP. The Technical Advisory Committee (TAC) will review, and provide comment on the project recommendations received from the CAG.

Additionally, how will they communicate ideas to one another?

-The CMP staff will facilitate the discussions between the groups.

I am assuming local communities will need to have match. What will the process be for assisting communities in coming up with match?

-We have IDNR staff who are very experienced with developing match, and will help communities.

Has there been any consideration in acquiring the land being decommissioned currently separating the North and South Units of the Illinois Beach State Park?

-IDNR has no plan to take on the land separating the north and south units of Illinois Beach State Park. There are many questions about the future risk/liability (environmental, financial and other) of decommissioning. Illinois Beach State Park currently routinely deals with previous land uses surrounding the site.

Does the CAG have its own website?

-No. However, a list of participants and functions can be found in chapter 7 of our program document.

Is there a specific reference number to a specific grant under which IDNR is making to NOAA?

-No this is a program approval process and will go through public hearings etc.

You all mentioned the NEPA process, an Environmental Assessment, and an Environmental Impact Statement. Can you explain which comes first and what is the timeline for completion of the EIS?

-Environmental Assessment comes first. Environmental Impact Statements evaluate the environmental impacts of appropriate Federal actions. A Draft EIS fully evaluates the impacts of the action and reasonable alternatives. Once the Draft is completed, it must be filed with the Environmental Protection Agency and be circulated for public comment for 45 days. A Final EIS responds to comments, including any project changes. The Final EIS must be filed with the EPA and be circulated for comment for 30 days. We hope to get the draft EIS as soon as possible.

Comment: The Illinois Coastal Management Program has been a long time coming and I could not be more excited to be here today and witness this momentous occasion. It is certainly a victory.

The presentation mentioned grant opportunities for wetland protection, but not habitat restoration and other opportunities. Please elaborate.

-Habitat restoration would certainly qualify for funding.

Comment: I would like to issue my congratulations to the Illinois Coastal Management Program, and raise a new issue. Our mission is to protect the lakes and develop policies to protect equality. That being said, have we looked at the combined disposal facility at Iroquois Landing? I think it is important that we draw all parties together for discussion as the IEPA permit is up this fall. We need to work together and look for the best solution.

Comment: Back in the 70s, there was an issue when it came to getting agencies together to permit, I would be interested in seeing how we can streamline this process.

> *-One of the priorities for the program is to help streamline the processes where appropriate and provide efficiencies.*

Comment: In regards to the permit process, the joint permit between the USACE and the State has its pluses and minuses. It takes longer to process permits and the entire process gets bogged down and politicized. NOAA needs to come up with a plan to ameliorate.

Comment: In regards to the decommissioned land, the Zion Nuclear Power Plant, I know a portion of the property will be given up. I would like to see the process of bringing that land back to Illinois Beach State Park and reconnecting that land.

Comment: I would just like to say that I appreciate the technology and the efforts of this group, this has been a new way to participate in the public hearing, despite any technology issues.

Written Comments Received at 2011 ICMP Public Hearing

February 15, 2011

Dear Mr. Main,

I am submitting the comments of the United States Nuclear Regulatory Commission (NRC) staff on the draft State of Illinois Coastal Management Program document:

1. We recommend several revisions to the Zion nuclear power plant excerpt on pages 142-143 (Chapter 10). Please see the attached Word document; I used the track changes feature of Word to highlight our revisions.

2. The NRC is a Federal regulatory agency. The NRC issues licenses for the construction and operation of nuclear power plants and other related facilities (e.g., uranium enrichment facilities, uranium mining facilities, etc.), but does not itself construct, own or operate nuclear power plants and other related facilities. As such, I recommend that you delete the entry for the NRC under "Federal Agency Activities" on page 164 (Chapter 11).

3. With respect to the NRC entry for "Federal license or permit activities" on page 166 (Chapter 11), please add a reference to the Nuclear Waste Policy Act of 1982, 42 U.S.C. 10101 *et seq.* (I would also add the phrase "*et seq.*" after the citations to the Atomic Energy Act and the Energy Reorganization Act of 1974). In addition, please delete the reference to National Environmental Policy Act (NEPA). NEPA is a procedural, environmental planning statute applicable to all Federal agencies; it provides no specific, substantive authority to the NRC. The NRC's authority to license nuclear generating stations, fuel storage and processing centers is derived from the Atomic Energy Act, the Energy Reorganization Act of 1974, and the Nuclear Waste Policy Act of 1982.

If you have any questions, please contact me.

Andrew S. Pessin
Nuclear Regulatory Commission
OGC/RMR
(301) 415-1062
(301) 415-3725 (Fax)
Rm. O-14E16
Mail Stop: O-15D21

April 22, 2011

Dear Mr. Main:

As a follow up to our phone call last week, the Navy understands the Coastal Management Zone Act excludes federally-owned land from the statutory definition of a "coastal zone" that may be included in a state program, such as the Illinois Coastal Management Plan currently in development. As such, and to refine documents already published by the Illinois Coastal Management Program, NAVFAC Midwest (representing Naval Station Great Lakes) offers the following comments:

1) Our legal department wishes to change all published map verbiage from the current "Great Lakes Naval Training Center" to "Lands Controlled by the Federal Government," as we have multiple tenants, the Veterans Administration, and FBI located in the vicinity. Re-labeling the entire area as federal lands will still be accurate, but will avoid the need to separately designate each parcel.

2) We request that the language on the front page of the state website under their "Priorities" section and the "New Coast Guard" part on future CMZ brochures delete references to Great Lakes when discussing habitat, ecosystems and natural area restoration. However we would welcome notation that the Naval Station Great Lakes is actively partnering with state, local and federal stakeholders to improve habitat on federal lands consistent with their Navy functionality.

3) We propose the harbor area also be indicated as orange on Map 3 of 15 of the Coastal Zone Boundary maps (included within the lands controlled by the federal government) as shown on the attachment in yellow shading. The harbor was initially constructed by the Navy Circa 1905, and the federal government actively manages and controls this area as part of their training mission.

4) Illinois Coastal Management Program Coastal Zone Boundary Map 3 of 15 identifies "Downey Road" as crossing federal lands. This should be re-titled "Buckley Road". We recognize this may be a carry-over of an error on older FEMA maps published for Lake County.

We hope these comments are helpful to implementation of the Illinois Coastal Management Program.

Please call if I can be of assistance in any way. The Navy hopes to and intends to continue to actively participate in the formation of the CMZ and welcome opportunities to participate as they arise.

Thanks for the opportunity to participate.

Bruce G. Mack
Environmental Quality & Services Manager (EV-1) NAVFAC Midwest
February 18, 2011

Todd Main
ICMP Program Manager
One Natural Resources Way
Springfield, IL 62702

Dear Mr. Main:

Friends of the Chicago River congratulates the Illinois Coastal Management Program team on the development of this important program and for putting together a process to organize and energize this effort.

The waterways that are the focus of this effort have made tremendous gains over the last three decades, but opportunities abound to improve water quality, provide habitat for our native plants and animals, and to provide opportunities for the people that live in, and visit, this region to recreate and interact with a magnificent natural resource.

Friends is excited to be a partner in the Illinois Coastal Management Program and we recognize the work of the program staff and the Alliance for the Great Lakes to undertake this effort. Friends is proud to be a part of such a diverse group of partners that is ready to utilize this effort to develop a shared vision for the protection, restoration and enhancement of our coastal resources. Friends, like our partners in this process, is eager to begin identifying sustainable innovative solutions that will ultimately realize the potential of these important waterways.

Sincerely,

John Quail

Director of Watershed Planning
Friends of the Chicago River

Alliance for the Great Lakes Comments
Angela Larsen, Coastal Project Manager

The purpose of my comments today are to briefly highlight the importance of the Coastal Management Program to the people, wildlife, and communities that live, work, and play on Illinois' coasts, and to focus attention on priority restoration activities and the positive impacts this will have on vital habitats and coastal communities.

Lake Michigan is a tremendous resource - it not only supplies 7 million people with drinking water but more than 20 million people depend on it for recreation, economy, and quality of life. It is no surprise that people, as well as wildlife, flourish on its shores. The variety of habitats within the Lake Michigan coastal area is greater than any other area of the state. Almost three-fourth of Illinois' threatened and endangered bird species are found here, and the coastal area contains the only high-quality beach habitat, and more than half the remaining high-quality prairie. There are many plant species, and entire plant communities, that exist only in this area.

However, our shoreline is also heavily urbanized and Illinois' remnant natural resources are under considerable stress. With an expected 20% increase in population by 2030 – the demand on Lake Michigan and its coasts will only increase, and those on the front line are Illinois' coastal communities. Local communities are close to their citizenry and vested with the responsibility to manage the land – they provide local expertise and context vital to any implementation effort. The Coastal Management Program provides a collaborative process and tools – in terms of technical support and funding – for coastal communities to balance ecosystem needs with the growing needs for recreation, public access, and appropriate waterfront development.

The Alliance for the Great Lakes is in a unique position to bridge the gap between "top-down" planning and on-the-ground and in-the-water habitat restoration and infrastructure projects. The Alliance's work is rooted in collaboration and engagement with our partners who range from individual volunteers, to local and county governments and civic groups, to regional, state and federal agencies. It is through these partnerships that the Alliance coordinates the Lake Michigan Watershed Ecosystem Partnership, a program originally organized and funded by IDNR. Through the Partnership, we support development of multi-jurisdictional projects and programs for land managers and owners in the Illinois Lake Michigan watershed that empower them to develop and implement restoration projects, and deliver measurable water quality, habitat, hydrologic and economic benefits for their communities, the Illinois Lake Michigan watershed, and ultimately Lake Michigan and the Great Lakes.

The Partnership's goals align with several Coastal Management Programs goals, specifically those related to the resource areas that merit special attention including: ravine restoration, improved recreational water quality impairments (aka beach closings), and control of nonpoint source pollution.

The Partnership, through its data collection efforts, prioritized the ravines as targets where restoration actions, such as stormwater detention, streambank stabilization and habitat improvement, should be concentrated. The ravines are a priority because: 1) they are unique, fragile and vulnerable natural habitats, and 2) once restored they could provide multiple benefits - including improved water quality,

reduction in nonpoint source pollution and enhanced species diversity. Many ravine mouths open onto recreational beaches and transport non-point source pollutants, such as sediments, nutrients and bacteria that impact the heath of public swimming beaches and near-shore fisheries. Reducing urban runoff and non-point source pollution flowing through the ravines to Lake Michigan will result in positive environmental and economic effects, and we look forward to focus on these improvements in partnership with the CMP.

With the intense demand for water recreation, water quality and public health issues remain significant concerns in Illinois. Not only are beaches used for swimming, but the inland coastal waterways are increasingly used for boating, kayaking, and fishing. The Lake County Health Department and the Chicago Park District currently monitor for E. coli and other various air and water quality conditions in order to predict public health threats.

The Alliance, through our Adopt-a-Beach program, mobilizes more than 10,000 volunteers throughout the Great Lakes to collect data on pollution sources. We currently use this information to assist Illinois EPA to advice a TMDL for bacteria in Lake Michigan. In addition, we partner directly with local agencies like the Chicago Park District to enhance pathogen control efforts and encourage IDNR to make elimination of sources of beach pollution a priority under the CMP.

Even before the Coastal Management Program comes online, IDNR should be working with communities to identify potential sources for match. There are existing on-the-ground projects and funding proposal moving forward, but with little to no guidance on how these projects fit into or relate to the CMP funding priorities. We urge IDNR to begin an outreach effort that engages communities and partners throughout the CMP boundaries and provides direction for ongoing projects that can be used as CMP match – ideally the result will be a streamlined CMP application process.

As we plan for the future, the Alliance and the Ecosystem Partnership will look to the Coastal NPS program for technical assistance and funding to collect data and develop source reduction strategies. We agree that the focus, when appropriate, should be on incentives rather than mandates and regulations - technical assistance - related to local land use and zoning ordinances, management strategies, demonstration projects, and financial incentives - should be developed and coordinated with local communities and regional planning agencies.

Other future opportunities provided by the CMP include land acquisition and easements. The Open Space and Land Acquisition and Development Program and the Land and Conservation Fund are similar programs with similar objectives (natural resource conservation is a priority for both); both of these programs are managed through IDRN, and provide funding assistance for local government to acquire land, and develop outdoor recreation facilities. Another source of funding that will open up for state and local governments, is the Coastal and Estuarine Land Conservation Program (CELCP), it provides matching funds to purchase land, or conservation easements on such lands, from willing sellers. We ask that as IDNR develops and coordinates this program they continue to engage the Alliance and the Lake Michigan Watershed Ecosystem Partnership.

The Alliance and our partners look forward to the CMP program, and the tools and resources it will bring to assist with ravine restoration, water quality improvement, reduction of non-point source pollution and funding for land acquisition and easement opportunities. We look forward to our continued work with IDNR, the CMP program and Illinois' coastal communities.

PART III

ENVIRONMENTAL IMPACT STATEMENT

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LIST OF ACRONYMS

APC	Areas of Particular Concern
APR	Areas for Preservation or Restoration
CAG	Coastal Advisory Group
CERP	Comprehensive Environmental Review Process
cfs	cubic feet per second
CMP	Coastal Management Program
CZMA	Coastal Zone Management Act
EIS	Environmental Impact Statement
ICMP	Illinois Coastal Management Program
IDNR	Illinois Department of Natural Resources
IGLD	International Great Lakes Datum
IHPA	Illinois Historic Preservation Agency
IPCC	Intergovernmental Panel on Climate Change
IWPA	Illinois Wetlands Protection Act
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
PM 10	Particulate Matter
TAC	Technical Advisory Committee
T/E	Threatened/Endangered (species)

EXECUTIVE SUMMARY

The State of Illinois has submitted a coastal management program for the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM) approval pursuant to Section 306 of the federal Coastal Zone Management Act (CZMA) of 1972 as amended, 16 U.S.C. 1451. Illinois is the last of 35 coastal states to enter the federal Coastal Zone Management Program, and will include the most highly populated portion of the State. Geographically, the coastal program will cover a 63-mile portion of Lake Michigan's shoreline. Illinois Coastal Management Program (ICMP) goals include preserving, protecting, restoring, and where possible, enhancing coastal resources through coordination among local, state and federal agencies and organizations, and leveraging ICMP resources and other funds to maximize the impact of local projects. ICMP priority program areas will include invasive species; habitat, ecosystems, and natural area restoration; projects in the Waukegan Area of Concern; bio-accumulative toxin strategies; sustainable development; nonpoint source pollution; climate change; public access and recreation, and economic development.

The proposed Federal action is OCRM's approval of the ICMP. In accordance with the National Environmental Policy Act (NEPA) of 1969, NOAA must assess the environmental impacts of OCRM's approval of the proposed ICMP. There are three alternatives for consideration. First, OCRM can approve the ICMP (the preferred alternative). Second, there is the "no action" alternative, where OCRM takes no action, or denies approval of the ICMP based on a finding that the ICMP does not meet all requirements of the CZMA and/or other federal statutes. Third, OCRM could delay Federal approval of the ICMP if any element of the ICMP necessary for program approval does not meet approval requirements and requires some modification. There are no significant impacts associated with the preferred alternative.

Based on a review of the affected environment and possible impacts to the human environment, OCRM has determined that approval of the ICMP is likely to result in neutral effects to the physical and socio-economic environment. The primary result of approval of the ICMP is that federal funds will be provided to Illinois to implement its coastal program, and the State will be able to apply consistency requirements to all federal actions in or affecting its coastal resources. Consequently, the additional resources made available to the State to address priority coastal issues, and improved coordination between state, federal and local agencies will likely result in positive environmental impacts. Additionally, the State will take into consideration the national interest in planning and siting of facilities of greater than local importance.

1. INTRODUCTION

1.1 The Federal Coastal Zone Management Program

In 1972, Congress passed the Coastal Zone Management Act (CZMA) "to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations" (16 U.S.C. 1454). Because both the Nation as a whole and the individual states and territories have substantial interests in the resources and uses of the coastal zone, Congress decided that management of the coastal zone would be best accomplished

through a state-federal partnership. The incentives Congress offered the states to participate in the CZMA were: (1) funding for the development and implementation of coastal management programs (CMPs) approved by the U.S. Department of Commerce/National Oceanic and Atmospheric Administration (NOAA) as meeting the requirements of the CZMA; and (2) the requirement that federal agency activities and any activities requiring a federal license or permit be consistent with states' CMP enforceable policies (referred to as "federal consistency") (16 U.S.C. 1455 and 1456).

The CZMA provides guidelines for the development of state CMPs. The implementing federal regulations at 15 CFR Part 923, subparts B-G (as revised and published June 28, 1996 in the Federal Register), outline the requirements for state program development and approval. In summary, the requirements for program approval are that a state develop a coastal program that:

- Identifies and evaluates those coastal resources recognized in the Act that requirement management or protection by the state.
- Reexamines existing policies or develops new policies to manage these resources. These policies must be specific, comprehensive and enforceable, and must provide an adequate degree of predictability as to how coastal resources will be managed;
- Determines specific uses and special geographic areas that are to be subject to the coastal program, based on the nature of identified coastal concerns. The basis for managing uses, or their impacts, and areas, should be based on resource capability and suitability analyses, socio-economic considerations and public preferences;
- Identifies the inland and seaward areas subject to the coastal program;
- Provides for the consideration of the national interest in the planning for siting of facilities that meet more than local requirements; and
- Includes sufficient legal authorities and organizational structure to implement the program and to ensure conformance to it.

1.2 Development of the Illinois Coastal Management Program

On November 4, 2004, Illinois' Governor announced would be seeking application into the National Coastal Zone Management Program. The Illinois Department of Natural Resources (IDNR) was designated the lead agency for developing a Lake Michigan Coastal Management Program for Illinois (ICMP). Many federal, state, and local agencies manage resources in the coastal region of Illinois. The way the program was designed, this will not change; the fundamental roles of the agencies will remain the same. The ICMP will encourage coordination of agency efforts in the coastal region and will provide opportunities for federal, state, and local stakeholders to cooperatively identify priorities for the coastal region and to implement projects that address those priorities.

Over the course of several years, IDNR worked closely with state agencies, federal agencies, stakeholders, and NOAA to develop an acceptable program that met the CZMA approvability criteria. As part of developing the program; the State created Technical Advisory Groups that

developed supporting issue papers for various priority coastal issues to provide suggestions and guidance for future program focus. These included issue papers on shoreline erosion; habitat, ecosystem and natural area restoration; ravine systems; public access and recreational resources; historic and cultural feature preservation; and education and public awareness; as well as several Geographic Areas Meriting Special Attention. These white papers are not intended to be considered IDNR policy, but rather, advisory papers.

1.3 Nature of the Federal Action

The proposed federal action is OCRM's approval of the ICMP into the Federal Coastal Zone Management Program pursuant to CZMA requirements (15 C.F.R. Parts 923 and 930). When a state coastal program is submitted, OCRM must review the program to determine if it meets the requirements of the CZMA (see Section 1.1). OCRM's Findings of Approvability will be developed as part of the Final EIS process and included as an Appendix at that time. These Findings will provide a detailed analysis of approvability of the program. Accordingly, reviewers should note that this Environmental Impact Statement (EIS) does not focus on approvability issues, but rather, on the environmental impacts associated with OCRM's approval of the program itself.

In accordance with the approval process, NOAA must assess the environmental impacts of approval of the program in order to satisfy the requirements of the National Environmental Policy Act (NEPA). Because NEPA and the CZMA have similar goals, the information used in the NEPA process will also be used to help make a final determination whether the ICMP will constitute an approvable state coastal program under the CZMA.

This EIS addresses the NEPA requirements under the guidelines established by NOAA (NOAA Administrative Order 216-6, "Environmental Review Procedures for Implementing the National Environmental Policy Act," May 20, 1999). This EIS analyzes the potential environmental impacts of OCRM's approval of the ICMP to the human environment, as described in Section 6.

1.4 Notice of Intent and Scoping Process

On April 17, 2007, OCRM published a Notice of Intent to prepare an EIS evaluating the potential environmental impacts associated with approving the ICMP. The public comment period was open until June 29, 2007. OCRM solicited public comments on the scope of content of the proposed Environmental Impact Statement (EIS), extent of the action, range of alternatives, and types of impacts associated with the proposed alternatives. OCRM did not identify any scoping meetings, as many meetings and workshops had already been held for federal, state, and local agencies as well as the public in Illinois, and more were planned by the state agency OCRM was working with on developing the EIS.

Initial meetings were held for municipal and government officials on January 25, 2005 in the Village of Wilmette. A questionnaire was distributed at the meeting requesting input on general resource areas, and specific geographic areas meriting special attention in developing and implementing a coastal management program. The questionnaire also requested input regarding

establishment of the coastal boundary, the need for increased public access, and to identify potential projects or needs eligible for ICMP grant funding. The questionnaire was also sent to a broad list of interest groups in April 2005.

In May and June of 2005, the Illinois Department of Natural Resources (IDNR) met individually with the 15 shoreline municipalities and the villages of Skokie and Lincolnwood to discuss ICMP preliminary plans and goals. In July 2005, a meeting was held with the South Suburban Mayors and Managers Association representing the communities along the Little Calumet and Grant Calumet Rivers to solicit input on the coastal boundary, roads, and areas meriting special program attention. ICMP opens houses were held during July 2005 in Waukegan, Highland Park, and at Loyola University-Chicago Lake Shore campus. These were repeated in November 2005. A final public meeting was held February 18, 2011 to receive public input on the completed State program document prior to its submission to NOAA for formal approval.

OCRM did not receive any comments directly on its Federal Register Notice of Intent published on April 17, 2007. The latest set of public comments focused on questions regarding the types of local and State projects that will be eligible for funding once the ICMP is approved; intergovernmental coordination on permits involving coastal resources, and identifying high priority coastal issues that the program should address, including nonpoint source pollution, sensitive areas for restoration, open space land acquisition, and public access.

OCRM considered all comments received as part of the public participation process and used them as key environmental issues to be addressed.

2. PURPOSE AND NEED

2.1 Purpose

OCRM is responsible for approving state and territory coastal management programs submitted under 15 C.F.R. Part 923 of the CZMA. States with federally-approved programs are required to meet federal thresholds that address coastal management issues such as public access, habitat, wetlands, coastal hazards, and consideration of the national interest in energy and government facility siting. On May 13, 2011, Illinois submitted the Illinois Coastal Management Program to OCRM for review and approval. The purpose of OCRM's approval of the ICMP would be to allow the State to (1) receive federal funds under the CZMA of to implement its federally-approved program; and (2) conduct federal consistency reviews based on its federally-approved State enforceable policies.

2.2 Need

The 63 miles of Lake Michigan proposed as the coastal boundary for Illinois is home to a population of approximately 6 million people (estimated to grow to 6.8 million by 2030). Massive changes to the local hydrology and an infrastructure that supports a world class industrial and transportation structure competes with the State's need to restore ecosystems and address increasing demands for open space, recreation, public access and upcoming issues such

as climate change. By participating in the Federal coastal management program, Illinois will receive funding, national guidance, and the ability to apply federal consistency to address priority issues such as improved intergovernmental coordination; protection, restoration and enhancement of its coastal resources; sustainable development; nonpoint source pollution; and economic development. The State would also be able to develop plans and apply for other grant programs only available to states with federally-approved coastal management programs, such as the Coastal Estuarine Land Conservation Program, the Coastal Nonpoint Source Program, and technical assistance grants such as Ocean and Great Lakes Management Plan funds.

3. ALTERNATIVES

3.1 Introduction

Given the nature of the proposed federal action, approval, denial, and delay of the ICMP are all alternatives available to OCRM. In approving a coastal program (the preferred alternative), the Assistant Administrator for Ocean Services and Coastal Zone Management must find that a state has met the federal approval requirements of the CZMA at 15 C.FR.R. Part 923. Denial or delay of program approval could be based on failure of the ICMP to meet any of the requirements of the CZMA, as amended.

3.2 Alternative 1: Federal Approval of the ICMP

Approval of the ICMP would be based on an affirmative finding that the program meets all requirements of the CZMA and its regulations. The benefits of ICMP implementation would include improved regulation and enforcement; balanced coastal community development; improved economic development for water dependent uses; better natural resource and hazardous areas management; improved intergovernmental coordination and greater public awareness of coastal management issues. NOAA's approval of the ICMP will make the state eligible to receive federal funding under the CZMA. The ICMP may provide funds to coastal communities for a number of priority activities, including planning for balanced growth and sustainability; watershed management to address coastal nonpoint pollution; adopting comprehensive plans to protect coastal resources; addressing hazard mitigation; natural resource protection or restoration; encouraging economic viability; projects which enhance public access; research and data collection; and education or public awareness. Additional benefits are the review by Illinois of federal and federally permitted and funded projects for consistency with its enforceable coastal policies and consideration of the national interest in State decision-making.

This is the preferred alternative.

3.3 Alternative 2: Deny Federal Approval of the ICMP

OCRM could deny approval (no action alternative) if the program is found to not meet all requirements. With respect to the "no action" alternative, OCRM considers federal denial or state withdrawal from the program and "no action" as synonymous. State participation under the CZMA is voluntary. When a state participates in program development, it determines whether or

not program approval and implementation is in its best interest. The general impacts of "no action" are described below:

A. Loss of federal funds to administer the program. Under section 306 of the CZMA, as of 2011, Illinois would receive approximately $2 million annually to administer its coastal program.

B. Loss of consistency review of federal actions. This means that federal actions would not be reviewed by Illinois for consistency with the ICMP as required by section 307 of the CZMA.

C. Loss of adequate consideration of the national interest in the siting of facilities which are other than local in nature as required by section 306(d)(8) of the CZMA. By denying program approval, the State of Indiana and local governments would be under no obligation to give adequate consideration to coastal facilities that are of national interest. This could result in loss of public benefit that the use of such facilities provides.

Without approval of the ICMP, Illinois would continue enforcing its existing regulatory planning, and research programs in the coastal zone. For example, the Rivers, Lakes and Streams Act (615 ILCS 5) requires IDNR to issue a permit for construction along the shoreline or in the waters of Lake Michigan. Similar authorities exist for water quality, habitat protection, erosion and flooding, and other priority ICMP issues. These statutes would continue to be enforced without approval of the ICMP. In addition, Illinois would continue to participate in the Great Lakes Compact, Great Lakes Regional Collaboration Strategy, and other regional initiatives.

3.4 Alternative 3: Delay Federal Approval of the ICMP

OCRM could delay approval if any element of the ICMP necessary for program approval does not meet approval requirements and requires some modification.

Before taking final action approving the ICMP, OCRM will review the complete record of comments and responses.

4. AFFECTED ENVIRONMENT

For purposes of organization, this chapter concerning the affected environment is described under the broad categories of Physical Environment, Natural Resources, Socio-Economic Characteristics, and Environmental Quality. More information is provided in the ICMP document on many of the topics covered here.

4.1 Physical Environment

4.1.1 Illinois' Lake Michigan Coastal Zone Boundary

According to the CZMA, 16 U.S.C. §1453.304 (1) the term "coastal waters" in the Great Lakes means "the waters within the territorial jurisdiction of the United States consisting of the Great

Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows and marshes. The coastal waters in Illinois, therefore, consist of those waters of Lake Michigan within the territorial jurisdiction of Illinois. The ICMP's lakeward coastal boundary is the jurisdiction border that Illinois shares with Wisconsin to the north, Michigan to the east, and Indiana to the south. The Illinois area of Lake Michigan covers 1,564 square miles.

The inland boundary was defined by the primary features of streets, roads, and highways for the lakeshore component and the inland waterways component. In some areas, alternates are used, such as railroad right-of-ways, projections of road alignments beyond the termination of the road, a municipal boundary, and the platted boundaries between parkland and adjacent private property. Illinois' has a two-component inland boundary: the Lakeshore Boundary, which defines the landward limit of the coastal zone inland and is generally parallel to the Lake Michigan shoreline. This is based on the Lake Michigan watershed as it has existed since the early 1900s, after its hydrological flow was dramatically revised due to urbanization, paving, and directing of storm-water sewers away from Lake Michigan. The second component is the Inland Waterway Boundary, which consists of a coastal zone corridor (the waterway and the designated land area to either side of the waterway) that extends along the near-lake segments of the river systems that historically flowed to Lake Michigan but are now engineered to flow away from the lake.

4.1.2 Water Level Fluctuation and Erosion

Fluctuations in water levels of Lake Michigan have occurred continually since the lake was formed at the end of the last Ice Age. The level of each of the Great Lakes, including Lake Michigan, depends on the balance between the quantities of water received and the quantities of water removed. Changes in lake levels affect the extent of flooding, shoreline erosion and property damage, wetland acreage, depths of navigation channels, and hydroelectric power output. Up to 5,500 years ago, Lake Michigan was 23 feet higher than today. Lake level records have been kept for Lake Michigan since 1860 at Harbor Beach, Michigan.

During the 10-year period between 1964 and 1974, there was a six-foot rise in water level. During periods of high lake levels, storms cause considerable flooding and shoreline erosion, which often results in property damage. The highest monthly average lake level recorded, 581.94 feet (IGLD 1955) occurred in June 1886. The lowest monthly average lake level recorded, 575.35 feet (IGLD 1955) occurred in March 1964. This is a difference of 6.59 feet in water level since records have been kept.

The intensity of storms on Lake Michigan plays a primary role in determining the amount of erosion that occurs in any given year. Without storms there would be no waves or currents to move large quantities of sand along the beach and lake bottom. In general, times with high lake levels and severe storms usually result in perceived high erosion rates along unprotected portions of Lake Michigan's shoreline. Times of low lake levels and mild storms usually result in low erosion rates along the unprotected portions, although the focus of the erosion simply shifts lakeward and impacts the nearshore lake bottom. Also, erosion due to ice formation scouring the shoreline during the winter can be a major concern.

Natural erosion along the Illinois coastal zone area shoreline is complicated by the extensive amount of coastal engineering that has taken place, which as in some cases eliminated erosion trends such as bluff recession along the North Shore and long-term shoreline recession along nearly the entire Illinois coast except at Illinois Beach State Park. Because of the natural erosion trends along the Illinois coast, this coast will be perpetually dependent on coastal structures and/or other artificial beach nourishment. A white paper was completed during the ICMP development that focuses specifically on coastal erosion along the Illinois coastal zone, and contains extensive, detailed information on this topic. The purpose of the paper was to provide background information and management recommendations and funding priorities. In essence, the recommendations focus on maintaining the shore protection structures that help control erosion, while not contributing further to detrimental impacts.

The most severe shoreline recession along the Illinois coast occurs in the North Unit of Illinois Beach State Park. The South Unit of the State park has the potential of comparable severe erosion if it does not receive a supply of littoral sand from the north. The Issue Paper recommends making erosion management at the park one of the highest priorities for the ICMP, and retaining it as a high priority as long as it is desirable to maintain a shore with minimal or no shore-protection structures. As the South Unit is the last remaining natural and near-natural coastal landscape along the Illinois coastline, the recommendation is that it be preserved for the benefit of future generations. (ICMP Coastal Issue Paper: Coastal Erosion Along the Illinois Coastal Zone, 2011)

4.1.3 Geology

The upper Illinois River Basin lies within the Central Lowland Province and includes the Great Lakes and the Till Plains sections. Landforms in these physiographic sections are the result of glaciations and typically have less than 300 feet of relief. In the coastal zone area, surface elevations range from 590 feet about sea level along Lake Michigan's shore to 885 feet above sea level just south of Grayslake in Lake County. The Great Lakes section is further subdivided into the Chicago Lake Plain and Wheaton Morainal subsections, and the Till Plains section is further subdivided into the Kankakee Plain and Bloomington Ridged Plain subsections. The most recent glaciation event was the Wisconsin period. The last glacial ice began receding from the Illinois coastal area about 14,000 years ago.

The Wisconsin Episode of glaciations left broken up rock of all sizes (drift) more than 50 feet thick everywhere but the southern third of the area, where it thins to less than 25 feet. In some parts of the area, drift lies as much as 200 feet thick above the old bedrock. Lake Bluff Woods, a natural area in Lake County, includes a cliff where this glacial drift is exposed. A large part of metropolitan Chicago is within the Chicago Lake Plain subsection; the northern three-quarters of the area. Surface drainage in this area is toward the middle third of the Des Plaines River and the Chicago Sanitary and Ship Canal. (http://il.water.usgs.gov/pubs/fs072_98.pdf) The warming climate 14,000 years ago drove the ice sheets away, in places piling up debris forming north-south ridges that parallel the present day shoreline of Lake Michigan. The piles of rocky debris are known as moraines, and northern Cook and Lake Counties are covered by them. A detailed description of the geological history of the area and shoreline formation and changes due to human intervention in hydrology is provided in Chapter 2 of the ICMP Document.

4.1.4 Soils

The soils in the coastal area fall into two taxonomic soil categories: mollisols and alfisols. Mollisols are organic rich soils, while alfisols are a clay rich brown to gray-brown soils. Compressed clays, undisturbed by activity, exhibit good engineering properties. Beach sediments along the Illinois coast are a mix of sand and gravel. The primary source was coastal bluff erosion. Due to a lack of significant sediment supply, many of the beaches along the Chicago lakeshore are constructed beaches, built with placed sand, mined from the lake bottom off the western Indiana coast. Beach renourishment continues in such areas as Illinois Beach State Park with the import of sand from inland sand pits in western Lake County.

4.1.5 Wetlands

Wetlands provide valuable habitat for 40 percent of the State's threatened and endangered species, as well as benefits such as flood storage, water quality improvement and groundwater recharge. Demands for improved public health and safety and pressures of agriculture and economic development continue to threaten modification, degradation, and conversion of the remaining wetlands. Illinois once contained more than eight million acres of wetlands. The onset of development of the land for agricultural purposes and community development required the conversion of vast wetland areas to well-drained, functional open lands. Alteration methods include dredging, filling, bridge construction, draining, flooding, and construction of dikes and levees. Besides these human activities, drought, sedimentation, overgrazing by wildlife, and other natural impacts can reduce a wetlands ability to function. (IL 2010 Section 305 Report) Illinois ranks sixth in overall percentage of wetland loss, behind California, Indiana, Iowa, Missouri, and Ohio. In terms of acres of wetland loss, Illinois ranks fifth. Only Florida, Texas, Louisiana, and Arizona have lost more acres (http://www.dnr.State.il.us/wetlands/ch3c.htm).

Currently, Illinois still has approximately 920,000 of natural wetland acres remaining. Three types of wetlands systems are found in Illinois: palustrine, lacustrine, and riverine. Of the three types, palustrine wetlands are the most abundant, occupying just under 93.7 percent of the total wetland acres in the State. Lacustrine wetlands are the next most abundant (about 4 percent of the overall wetland acres). Finally, riverine wetlands are the most rare, due to the amount of alteration to rivers and streams in the State for human use. They make up only 2.3 percent of the wetlands in Illinois. Most of the wetlands in the Chicago area have been drained. However, compared to the rest of the State, a greater percentage is of higher ecological quality; about 33 percent. Below is a chart that breaks down the type of wetlands systems found in Cook and Lake Counties.

Table 1: ACRES OF WETLANDS IN COOK AND LAKE COUNTIES

County	Total Acres	Palustrine	Lacustrine	Riverine	Natural	Manmade
Cook	18,966	18,383	573	7	15,200	3,767
Lake	33,087	27,099	5,986	2	30,492	2,595

Source: Wetlands Resources of Illinois, Suloway and Hubbell, 1994

The Illinois Wetlands Protection Act (IWPA) established State policy and procedures that minimize the destruction of existing wetlands in Illinois as a result of State and State-supported

activities. The IWPA, however, provides for those instances when adverse impacts to wetlands are unavoidable by requiring coordination with the Illinois Department of Natural Resources (IDNR) and mitigation of the unavoidable losses.

4.1.6 Climate

In Illinois, climate is determined not only by its location in the middle of a large continent, but also by conditions in and over, for example, the Atlantic and Pacific Oceans. Most precipitation in Illinois comes from moisture that is transported northward from the Gulf of Mexico. Precipitation and temperature in Illinois also are influenced, for example, by El Niño and La Niña conditions in the equatorial Pacific Ocean and the North Atlantic Oscillation. Illinois climate variations and change are due to conditions in these regions as well as conditions over North America.

The coastal climate of Illinois is classified as continental and is characterized by cold winters, warm summers, and frequent short fluctuations in temperature, humidity, cloudiness and wind direction. Weather statistics for the Chicago area show normal monthly mean temperatures of between 18 and 32 degrees in January and 66 and 84 degrees in July, and an annual precipitation of 48 inches. Regional variations in temperature and precipitation in the coastal area are a result of proximity to Lake Michigan and Chicago. Chicago tends to be warmer by two degrees F, on average, especially at night. Urban areas also enhance summertime precipitation downwind of the city and cause changes in humidity, cloudiness, wind speeds and directions. Lake Michigan influences the climate of northeastern Illinois, especially Chicago (sometimes referred to as a “microclimate”). The large thermal mass of the lake tends to moderate temperatures, causing coolers summers and warmer winters. The lake also tends to increase cloudiness in the area and suppress summer precipitation. Winter precipitation is enhanced by lake-effect snows that occur when winds blow from the north or northeast. (Illinois State Water Survey, Jim Angel)

4.1.6.1 Climate Change in Illinois

Climate change is any systematic and statistically significant change in the long-term statistics of climate elements, such as precipitation, temperature, pressure, or winds, sustained over several decades or longer. Thus, climate change can be an expression of changes in long-term average precipitation or temperature, and/or changes in the frequency of extreme climate events. A wet or warm 10-year period would not be sufficient to be classified as climate change. Climate change may be due to natural external factors, such as changes in the emission of solar radiation or slow changes in the Earth's orbital elements, natural internal processes of the Earth’s climate system, anthropogenic forcing, such as an increase in the concentration of greenhouse gases, or combinations of these factors.

Climate change (changes in temperature) plays a major role in the water supply to the Great Lakes and ground water supply, and an increased level of storm activities. It influences changes in evapotranspiration, precipitation, and runoff. Temperature affects the water budget by its influence on the physical phase of water, evapotranspiration, and moisture content of the atmosphere. Precipitation is more sensitive to temperature changes than either evapotranspiration or runoff.

The mean annual temperature averaged over the whole Earth has increased significantly during the past century. In Illinois and in much of the east-central U.S., however, the mean annual temperature is cooler than it was in the 1930s, even though the concentration of greenhouse gasses in the atmosphere has increased by about 50%. However, as all the components of the water cycle are linked closely, it is not surprising to find that fluctuations in precipitation, stream flow, and shallow groundwater level are highly correlated. In Illinois and across most of the USA, precipitation increased about 10-15 percent over the last century. The Intergovernmental Panel on Climate Change (IPCC) related the increase in precipitation in mid-latitudes to an increase in the intensity of the water cycle associated with an enhanced greenhouse effect and global warming (Solomon et al., 2007). However, there is some question as to whether this is a correct interpretation of the data for the Midwest. In the Midwest, it appears that higher precipitation, a greater frequency of heavy precipitation events, and higher stream flow occurred in the nineteenth century with an intensified water cycle. From historical records it can be concluded that intensification of the water cycle is not necessarily caused by enhanced greenhouse effects and warmer temperatures. The IPCC did not produce reconstructions of precipitation and stream flow in the nineteenth century and, hence, did not have the advantage of evaluating twentieth century climate changes in the context of longer-term natural changes in climate.

The 2005 drought in Northern Illinois and the current near-record low level of Lake Michigan (http://www.lre.usace.army.mil/_kd/Items/actions.cfm?action=Show&item_id=3887&destination=ShowItem) raise the question of whether the 160-year oscillation is again on the downturn. Annual precipitation in Northeastern Illinois peaked in the 1990s and has since declined, although summer precipitation still shows an upward trend, as evident in the heavy precipitation and floods of 2007 (Figures 11 and 12, respectively). At this point, it is impossible to determine whether historical trends will continue or be reversed, or whether natural variability or global warming, or a combination of the two, is the cause of precipitation changes in Illinois. (http://www.isws.illinois.edu/iswsdocs/wsp/climate_impacts_012808.pdf)

4.1.7 Natural Areas

Cook and Lake County contains only one State park, however, it is an important one. Illinois State Beach Park is located along 6.5 miles of lakefront in northern Lake County. The site has an incredible number of natural features, from dunes and swales to marshes. The dunes area is home to more than 650 species of plants and 260 bird species have been identified in the park since 1980. The park is an important nature refuge, and parts of it have been protected for that purpose.

The Cook County Forest Preserve System was established in 1914. Within the Calumet area there are now about 8,000 acres of Forest Preserve land. These include the 1,700 acre Calumet Preserve, a long narrow preserve along the lower Little Calumet River, and the 5,655-acre Tinley Creek Preserve which protects a large part of the Tinley Creek watershed. A small portion of the Palos and Sag Preserve is located on the far western edge of the area and protects the Calumet Sag Channel corridor. Other Cook County Forest Preserves are concentrated in northern Cook County along the North Branch and Skokie rivers. The picnic areas, two golf courses, and swimming pool that make up this part of the system are accessible by public transportation and

helps make it the busiest in the Cook County system. These preserves are now refuges for many species of plants and animals whose habitat has been lost elsewhere in the region. Together, Cook and Lake Counties have 16 forest preserves that cover nearly 8,500 acres. The Lake County Forest Preserve District owns a handful of properties along the Chicago River and near the Lake Michigan shore that it maintains for picnickers and hikers, such as Greenbelt and Lyons Woods, or for golfers, such as Fort Sheridan and Thunderhawk. A four mile gravel trail for hiking, biking, and cross-country skiing recently opened at Middlefork Savannah.

In addition, 11 State of Illinois nature preserves cover another 1,900 acres in the coastal region. In 1963, the Illinois legislature established the Illinois Nature Preserves System. In order to become a dedicated nature preserve, a parcel of land must still maintain a high degree of its presettlement character, or have significant geological, ecological, or archaeological features. Most of the preserves are open to the public for activities like bird watching and nature photography, some of them provide interpretive programs, and a few are open only by permission because of their fragile nature. Within the Calumet region there are seven dedicated nature preserves. Although they comprise very few total acres, they are remarkably rich and varied in plant and animal life because of the great variety of soil types and available water. The Sand Ridge Nature Preserve was dedicated in 1965 as the ninth Illinois Nature Preserve and the first in the Calumet area. It is located on Cook County Forest Preserve land and is a 70-acre remnant of the dunes that occurred on the shores of Lake Chicago. The tops of the dunes are covered with prairie grasses and scattered black oak trees. There are examples of wetland communities in the swales that range from wet prairies to sedge meadows to marshes, depending on the amount of water available in each area. (The Calumet Area: An Inventory of the Region’s Resources) The 1,087-acre Illinois Beach Nature Preserve is one of the richest, most biologically diverse areas in Illinois, supporting more than 500 plant species. In 1964 it was the first preserve to be dedicated in Illinois, and was designated as a National Natural Landmark in 1980. (The Chicago River/Lakeshore: An Inventory, 2004)

4.1.7.1 Natural Area Land Acquisition and Protection Programs

Illinois has programs designed to acquire lands important because of their diversity and wildlife values. The acquisition of these areas is funded by the dedication of 15 percent of a real estate transfer tax to the Natural Areas Acquisition Fund and has generated $4.5 million per year for the past three years. The Illinois Conservation Enhancement Act has two programs funded by general obligation bonds, supported by a Critical Habitat Private Sector Matching Fund. The Habitat Endowment Act uses private donations and other funds to acquire high quality habitat for wildlife. Finally, the Illinois Nongame Wildlife Protection Act generates funds for the protection of nongame wildlife habitat, and is funded by a State income tax check-off. Illinois has numerous programs and incentives to protect land for wildlife. Some examples include the Stewardship Initiative Plan, which assists private landowners to more actively manage their forest and related resources. The Forest Management Assistance Program protects private and public rural and urban forests to improve their quality and quantity. The Natural Heritage Landmarks program recognizes landowners who voluntarily preserve their land. The Private Land Wildlife Habitat Program's objective is to protect wildlife habitat on private land. The State's Nature Preserves Commission has a landowner program that contacts owners of land with

Statewide significance to protect their property. Types of protection offered include dedication as a nature preserve, with property taxes reduced to $1 per acre. (http://wildlifelaw.unm.edu/statbio/illinois.html)

4.2 Natural Resources

Few places in Illinois offer the rich variety of habitats and thus of living things that are found in and around Chicago. In the mid-1970s, experts compiled a catalog of significant living communities and other natural features and found that Cook and Lake Counties contain by far the richest concentration of such resources in Illinois.

Several changes now imperil surviving natural communities in the Chicago River/Lake Shore area. Among the more significant are the interruption of natural fires, the fragmentation of habitats, the physical alteration of habitats, competition from invasive species introduced by humans, and pollution.

4.2.1 Fish and Aquatic Habitat

Lake and Cook counties have at least 77 species of fish, 16 bivalves, and 12 large crustaceans. Stocked gamefish in the Chicago area include largemouth bass, brown trout, rainbow trout, bluegill, bullhead catfish, northern pike, walleye, crappie, and channel catfish. However, many aquatic species have disappeared altogether from the area in recent decades, due to polluted water, development, competition from aggressive non-natives, and other factors. The Iowa darter, which inhabits vegetated lakes and pools of quiet streams, still dwells in the Lake Michigan basin. However, the species was once widespread across the northern half of Illinois, but now is found only in extreme northern Illinois and in one location in central Illinois.

Addressing exotic aquatic species has been identified as a priority issue by the ICMP. Examples include the white perch, which is native to eastern North America, but has recently invaded Lake Michigan. It was first recorded in Illinois in 1988 and is now found in several locations in the Calumet area, including Lake Michigan as well as the Illinois and Mississippi Rivers. It competes with native white and yellow bass. Coho and Chinook salmon, western fish introduced into Lake Michigan in 1967 as sport fishes (and to control the runaway population of alewifes, another introduced species), may be competing with the native lake trout. Asian carp have been found in the Illinois River, which connects the Mississippi River to Lake Michigan. Due to their large size and rapid rate of reproduction, these fish could pose a significant risk to the Great Lakes Ecosystem. History demonstrates that many such exotic fishing have already disturbed the Lake's ecosystem, leading to unstable fish stocks with fluctuating population densities. Navigation channels have allowed Atlantic Ocean species such as the alewife and the parasitic sea lamprey to migrate into lake waters, where they either competed with natives for food or fed on them. In other cases, many of Lake Michigan's fish species were introduced to provide sport fishing. Another invasive species, Zebra mussels, were first brought into the Great Lakes from Europe in the ballast water of intercontinental ships. It has been found in the Chicago Sanitary and Ship Canal, as well as in Lake Michigan. It might have been confined there but for the man-made connections to the Illinois River. It is now found in the waterways of much of Illinois and in

neighboring states. Native mussels are particularly vulnerable to this invasion because zebra mussels are not just competitors. They directly kill native mussels by attaching to them in such numbers that the native mussels can no longer open their shells to obtain food and oxygen.

4.2.2 Wildlife and Terrestrial Habitat

4.2.2.1 Flora and Fauna

Animal life is considerably varied, and includes at least 288 of the 300 species of birds that regularly occur in Illinois and 44 mammals. Coopers hawks, recently removed from the State's list of Threatened and Endangered (T/E) species has already become relatively common locally as a nesting species due to rich picking at backyard bird feeders in the northern suburban areas. The efforts of the Chicago Peregrine Release and Restoration Project have resulted in the State-endangered peregrine falcon becoming a regular breeding bird in the region. Eastern bluebirds, killdeer, nighthawks, red-bellied woodpecker, Baltimore oriole, warbling vireo, black-capped chickadee, and eastern wood-peewee all survive in the urban forest of street trees and parks. Among the amphibians, the American toad, western chorus frog, and bullfrog can be found in local crop fields, pasture, successional fields, and developed land and tree plantations; just about anywhere that ditches, flooded fields, stock tanks and remnant marshes are available for breeding sites. Among the reptiles, the plains garter snake, common garter snake, brown snake, and northern water snake are common in cultural habitats throughout the drainage. (The Chicago River/Lakeshore: An Inventory, 2004)

The majority of mammal species have been noted to occur in the forest preserve holdings, but they are indicative of the types of mammals that inhabit the counties as a whole. All of the mammal species listed are terrestrial, with the exception of beaver and muskrat. Mink, which is both aquatic and terrestrial, is also known to occur. The list of species includes eight species of bats, two species of fox, five species of squirrels, and two species of weasels. Most Illinois furbearers have been reported, along with 21 rodent species. White-tailed deer and coyote are the only large mammals known to occur.

Concentrations of wetland habitats occur mostly in the eastern Lake Plain section between Lake Calumet and Lake Michigan. About 19 percent of the original wetland area still remains; this small amount of wetland shelters 26 threatened and endangered birds, more than any other place in the State. The best place to see the State endangered black-crowned night heron is in the marshes on the east side of Lake Calumet, where one of the largest populations in the Midwest now resides. Area wetlands are also home to State endangered yellow-crowned night herons, American bitterns, little blue herons, northern harriers, king rails and yellow-headed blackbirds. State threatened species include least bitterns, piedbilled grebes, red-shouldered hawks, and common moorhens. The wetlands are also heavily used by migrating songbirds, waterfowl, shorebirds, rails and long legged waders. Summer residents include swallows, wrens, purple martins, yellowthroats, and red-winged blackbirds.

Wetlands are also home to amphibians. Almost all frogs, toads and salamanders require aquatic habitats for breeding, so preservation of wetlands is necessary for their continued survival. At

least 14 species are known or likely to occur in the Calumet area including northern leopard frogs, American toads and spotted salamanders. Wetlands are also home to numerous reptiles. The painted turtle and common garter snake are typical wetland species. Two State threatened reptiles are present in the area: Blanding's turtle lives in shallow open water areas with mud bottoms and aquatic vegetation. It has most recently been seen in Powderhorn Lake. Kirtland's snake is a rare semi-aquatic animal that prefers seasonally flooded wet prairies. The most recent sightings were in Tinley Creek Park and Palos Hills.

Historically, the wetlands were rich in fur-bearing mammals — beaver, muskrat, mink, raccoon. As habitat was destroyed, the numbers of mammals living in the region declined. Of the 59 mammals that currently occur in Illinois, 42 (71.2 percent) are still known or likely to occur in the Calumet area. The ones that have remained tend to be habitat generalists that are not restricted to one particular lifestyle. As the human population increased, these mammals adapted to the human presence. Even in urban areas coyote, opossums, rabbits, and squirrels are commonly seen. Nocturnal mammals like raccoons and skunks are frequent, and several species of bats commonly roost in buildings. Two introduced species have long been associated with humans—the house mouse and the Norway rat. (The Calumet Area: An Inventory of the Region's Resources)

4.2.2.2 Threatened and Endangered Species

In some cases, local species have either been extirpated, or nearly so due to habitat loss. The shrike is one of several bird species that were once regularly present and in some cases nested in large numbers. Others include the bald eagle, osprey, swallow-tailed kite, ruffed grouse, sharp-tailed grouse, greater prairie-chicken, wild turkey, northern bobwhite, yellow rail, black rail, piping plover, long-billed curlew, black tern, barn owl, common raven, lark sparrow, and Bachman's sparrow. Fifty-six plant species found in the Cook and Lake County Shoreline area are listed by the Illinois Endangered Species Board as threatened or endangered. Two of these listed species, prairie white-fringed orchid and Pitcher's (dune) thistle are also listed by the U.S. Fish and Wildlife Service as federally threatened. Almost three-quarters of the State's T/E bird species are also found here, as well as 13.3 percent of the State T/E reptiles, 12.9 percent of the fish, 7.4 percent of the fish, and 8.3 percent of the insects. (The Chicago River/Lakeshore: An Inventory, 2004) Chapter 6, pages 82—84 of the ICMP Document list all of the State T/E species located in the Illinois coastal zone area.

Mammal species considered to be rare in the coastal counties include Pygmy shrew, Franklin's ground squirrel, prairie vole, woodland vole, and the badger. The gray fox is the only species considered uncommon. The species that are considered rare or uncommon generally prefer larger, relatively undisturbed areas for habitat. Seventeen percent of mammal species are considered rare, with 80 percent considered abundant or common.

4.2.2.3 Invasive Species

More nonnative species can be found in northeastern Illinois than in any other region of the State. They can be beautiful, and may sometimes be helpful to other forms of life, but they can also be

so aggressive that they crowd out native species and, in the long run, destroy the original ecosystem. In the Calumet area the list of exotic species is long and growing. It includes more than 125 species of plants (14 percent of the flora), eight birds, nine fish, two mammals, two mussels, one crayfish and assorted small aquatic and semi-aquatic species. Some of the plants and animals were intentionally introduced because of their beauty or usefulness: carp, as a familiar food for Eastern European immigrants; chicory as a coffee extender or substitute; Kentucky bluegrass for its ability to green up early in the spring; multiflora rose for impenetrable hedges. Most domestic animals and farm crops — honey bees, cattle, wheat, apples — were brought by settlers who wanted familiar things from home. Others were unintentional: foxtail grass seed arrived mixed with grain, and mosquitoes from Asia hid in shipments of used tires. Not all introduced plants and animals became pests, but some of them found conditions so favorable due to lack of predators, that their populations exploded. Familiar wild flowers are also invaders, such as yarrow and crown vetch.

Wetlands have fewer exotics than uplands, but the few species that do invade become serious pests. Purple loosestrife and reed canary grass quickly out-compete other plants, and create monocultures which are of little value to wildlife. The original forests of the Calumet area were located in agricultural areas and were often grazed by cattle; now they are heavily grazed by deer. Grazing has eliminated species of plants that are palatable and encouraged the spread of those that are thorny or unpalatable because the grazers avoid them. This includes native plants such as hawthorn and blackberry, but also non-native species such as buckthorn, multiflora rose and garlic mustard that in some places have taken over large patches of woods. These exotic species are also common in area forests that are relatively young, especially where former prairie has not been burned and woody vegetation has become established. Native forest birds have difficulty finding suitable nest sites in degraded forests, and where there are suitable sites, they must compete with European starlings for scarce nesting cavities. (The Calumet Area: An Inventory of the Region’s Resources)

4.3 Socio-Economic Characteristics

4.3.1 Demographics

4.3.1.1 Racial, Ethnic, and Special Groups

Cook and Lake Counties encompass only 2.5 percent of Illinois’ land area, but account for 50 percent of its population. In 2005-2009 Cook County had a total population of 5.3 million—2.7 million (51) percent females and 2.6 (49 percent) males. The median age was 34.7 years, with 25 percent of the population under 18 years and 12 percent 65 years and older. For people reporting one race alone, 54 percent were White; 26 percent were Black or African American; less than 0.5 percent was American Indian and Alaska Native; 6 percent were Asian; less than 0.5 percent was Native Hawaiian and other Pacific Islander; and 13 percent were Some other race. Two percent reported one or more races. Twenty two percent of the people in Cook County were Hispanic, and 45 percent were White non-Hispanic. For the same period, Lake County had a total population of 703,000—350,000 (50 percent) females and 353,000 (50 percent) males. The median age was 35.9 years. Twenty-eight percent of the population was under 18 years and 10

percent was 65 years and older. For people reporting one race alone, 78 percent were White, 7 percent were Black or African American; less than 0.5 percent was American Indian and Alaska Native; 6 percent were Asian; less than 0.5 percent was Native Hawaiian and Other Pacific Islander; and 8 percent were Some other race. Two percent reported Two or more races. Sixty-eight percent of the people in Lake County were White non-Hispanic.
The combined total for Cook and Lake Counties populations is 5,839,031 people. Cook County alone is the second most populous county in the United States, following only Los Angeles County. Population density for Cook County is 5,686 people per square mile. The figure for Lake County is 1,440 people per square mile. Even with these numbers, the ICMP is predicting an estimated increase of approximately 0.8 million people by 2030.

4.3.1.2 Income Characteristics

For the 2005-2009 Census period, median household income in Cook County was slightly higher than the United States overall ($53,903, compared to $51,425). Per capita income was $29,021, also above the U.S. average of $27,041. Poverty levels were slightly higher at 11.8 and 15.1 percent, respectively for families and individuals. The U.S. average for the same time frame was 9.9 and 13.5 percent for families and individuals, respectively. In Lake County, median household income was much higher at $78,423. The median per capita income was $37,970. Families and individuals below the poverty level were at 4.5 and 6.7 percent, respectively; again, much lower than Cook County rates.

4.3.1.3 Housing Figures

In terms of housing statistics, in 2005-2009, Cook County had a total of 2.2 million housing units, 11 percent of which were vacant. Of the total housing units, 45 percent were in single-unit structures, 54 percent were in multi-unit structures, and 1 percent were in mobile homes. Twelve percent of the housing units were built since 1990. The percentage of housing units per square mile is 2,216. For the same period, Lake County had a total of 252,000 housing units, 7 percent of which were vacant. Of the total housing units, 79 percent were single-unit structures, 19 percent were in multi-unit structures, and 2 percent were mobile homes. Thirty three percent of the housing units were built since 1990. The percentage of housing units per square mile is 505. (U.S. Census Bureau, 2009 Data Profiles)

4.3.2 Commerce and Industry

In 2007, the leading industries in Cook County were education services, health care and social assistance (21 percent); and professional, scientific, and management, and administrative and waste management services (13 percent). Secondary industries were manufacturing (11 percent); retail trade (10 percent); and arts, entertainment and recreation, and accommodation and food services (9 percent). For Lake County in the same period, the leading industries were educational services, health care, and social assistance (18 percent); manufacturing (17 percent). Professional, scientific, and management, and administrative and waste management services (13 percent); and retail trade (12 percent) were secondary industries. Below is a further breakdown of industries and economic data. (U.S. Census Bureau, 2009 Data Profiles)

TABLE 2: 2007 ECONOMIC SECTORS FOR LAKE COUNTY

Industry	**Number of Establishments**	**Sales, Shipments, Receipts ($1,000)**	**Annual Payroll ($1,000)**	**Number of Employees**
Manufacturing	922	16,381,499	3,717,772	49,414
Retail Trade	2,530	20,336,251	1,407,057	44,334
Information	291	N	293,751	5,248
Real Estate and Rental Leasing	846	1,082,168	213,031	3,956
Professional, scientific, and technical Services	3,027	D	D	j
Admin and Support and Waste Mgmt and Remediation Services	1,424	1,990,474	901,795	30,783
Educational Services	215	D	D	g
Health Care and Social Assistance	1,818	3,380,307	1,372,613	30,953
Arts, Entertainment and Recreation	331	820,402	300,381	5,771
Accommodation and Food Services	1,492	1,299,296	365,782	24,968
Other Services (except Public Admin)	1,246	787,714	365,782	8,449

Source: U.S. Census, 2005-2009 Data
D: Withheld to avoid disclosing data for individual companies; data are included in higher level totals.; N: Not available or not comparable.; g: 1,000 to 2,499 employees ; j: 10,000 to 24,999 employees

TABLE 3: 2007 ECONOMIC SECTORS FOR COOK COUNTY

Industry	**Number of Establishments**	**Sales, Shipments, Receipts ($1,000)**	**Annual Payroll ($1,000)**	**Number of Employees**
Manufacturing	6,0187	77,932,858	11,039,202	236,509
Retail Trade	16,288	60,585,557	5,793,757	241,745
Information	2,555	N	5,626,985	77,184
Real Estate and Rental Leasing	6,626	13,137,307	2,511,256	47,857
Professional, scientific, and technical Services	18,892	41,127175	516,146,658	219,358
Admin and Support and Waste Mgmt and Remediation Services	6,672	15,287,716	167,057,133	229,903
Educational Services	1,113	897,194	299,844	11,211
Health Care and Social Assistance	13,580	34,227,700	13,682,581	325,243
Arts, Entertainment and Recreation	1,746	3,646,476	1,292,352	35,464
Accommodation and Food Services	10,887	13,094,372	3,525,568	201,766
Other Services (except Public Admin)	9,784	11,900,178	2,789,182	79,024

Source: U.S. Census, 2005-2009 Data
N: Not available or not comparable.

4.3.3 Water Usage

Abundant water resources have been an important part of the economic development of the Chicago area for more than a century. The city of Chicago and other lakefront towns have used Lake Michigan as a water supply. Where water from Lake Michigan was not available or a need

for supplement water supplies was present, deep wells (generally greater than 700 feet) provided a clean, reliable and abundant water supply from the Cambrian-Ordovician aquifer. There has been a reversal in the trend of declining ground-water levels in the Cambrian-Ordovician aquifer in the Chicago area as public water supplies have converted from the withdrawal of ground water from wells to the withdrawal of surface water from Lake Michigan. This was in part in response to water level decline; the increasing cost of accessing water from the aquifer, and a Supreme Court Decree (Wisconsin versus Illinois, 499 U.S. 48 (1980)). The 1980 modification of the U.S. Supreme Court degree regulating the use of water from the Great Lakes in Illinois allows priority for new allocations of water from Lake Michigan to be given to domestic water uses; with the intent of reducing withdrawals from the Cambrian-Ordovician aquifer. (Reversal of Declining Ground Water Levels in the Chicago Area, USGS).

The Illinois diversion of Lake Michigan water is governed by a U.S. Supreme Court Consent Decree. The Illinois diversion is limited to 3,200 cubic feet/second (cfs) as measured over a 40 year accounting period. This amount is roughly equivalent to 2.1 billion gallons of water per day. Half or more of this amount is typically used for public drinking water supplies where Lake Michigan is the source of water for approximately 77 percent of the planning region's population. The balance of the diversion is allocated to stormwater runoff, lockage, leakage, navigation makeup water, and discretionary diversion to maintain the Chicago Sanitary and Ship Canal in a "reasonably satisfactory condition." This latter component is managed by the Metropolitan Water Reclamation District of Greater Chicago at a current allocation of 270 cfs until Water Year 2015 at which time it will be reduced to 101 cfs thereafter. Otherwise, the permit system and allocation of Lake Michigan water is administered by the IDNR, with certain conservation measures required as a condition of permit. It has been estimated that Lake Michigan water availability is adequate to the year 2030 with some additional potential (50 to 75 million gallons/day) to serve new communities that currently use groundwater. (Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan, 2010)

With respect to ground water, geological processes created bedrock in the coastal area that provides groundwater. Layers of porous rock trap water and form aquifers. The very deep sandstone aquifers, although not the most permeable in Illinois, are of great value to the region because of their widespread occurrence and considerable thickness. The two best known, the St. Peter and the Ironton-Galesville, provided much of the groundwater used by industries and communities during most of the 20th century. The first deep bedrock well in Chicago was drilled in 1864 and, like many of the early wells, it had such high artesian pressure that it flowed freely. Another source of groundwater is the upper bedrock, where groundwater flows along cracks and crevices in the weathered rock that lies just below the glacial drift.

While the cracked and weathered dolomite near the land surface is a good source of clean water, at greater depths, where the rock is fresh and sound, the dolomite is a good place to store dirty water. During heavy rainstorms, the sewage treatment plants throughout the metropolitan region often are unable to handle the combined wastewater and stormwater that flows into them. In the past, the overflow was dumped untreated into local waterways, causing serious pollution. The Deep Tunnel and Reservoir Project was chosen as the solution to this problem. Huge tunnels bored into the solid dolomite now act as storage reservoirs during storms. Overflows are diverted

to the tunnels and later pumped back into the sewage treatment plants when they are able to handle the load. This strategy has reduced the number of times that untreated sewage is released to regional waterways, resulting in an overall improvement in water quality. The Calumet plant of the Metropolitan Water Reclamation District of Greater Chicago is the oldest of the system's seven treatment plants. (The Calumet Area: An Inventory of the Region's Resources)

4.3.4 Mineral Extraction

Illinois is home to 339 mining operations, and ranked fifteenth nationally in total nonfuel mineral production value and ninth in the production of coal in 2004. The value of nonfuel minerals in 2004 was $1.05 billion. The State produced 3,853,000 short tons of coal in 2004. The mining industry provided direct employment to 10,700 people and another 4,410 people indirectly from mining activity occurring both in and outside the State for a total of 52,110 jobs statewide. Average annual income for mining is $59,095. Illinois' combined direct and indirect economic output gain from the mining industry was $7.3 billion. (http://www.nma.org/pdf/States/il2004.pdf)

The 1997 Directory of Mineral Producers provides a list of all companies (other than oil and gas producers) involved in mining, processing, and manufacturing mineral products in Illinois. A breakdown of companies by County, type of mineral product and number of companies is provided in the chart below. Actual mineral extraction in Lake and Cook Counties is limited to sand and gravel, peat, and limestone/dolomite.

TABLE 4: MINERAL ACTIVITY IN COOK AND LAKE COUNTIES

Type of Mineral	**Number of Companies**	
	Cook County	**Lake County**
Clay Products (brick, tiles, other)	3	
Coke	2	
Fly Ash	1	1
Glass Products	4	
Gypsum		1
Iron and Raw Steel	4	
Lime	2	
Peat		2
Perlite, expanded		1
Petroleum Refineries	2	
Sand and Gravel	3	4
Slag	1	2
Stone	2 (one has 3 quarries)	
Zinc	1	

Source: 1997 Directory of Mineral Producers and Map of Extraction Sites, 1997, Masters, et.al.

4.3.5 Agriculture

Agricultural statistics are available on a county basis, and thus include areas lying outside the coastal program area. However, the data provided for Cook and Lake Counties, lying partially within the coastal program area, provides a general overview of agricultural "land use."

As recently as 1925, agricultural crops covered 35 percent of the Cook and Lake County area. Now only in northern Lake County are there still expanses of undeveloped land. Roughly the same amount is urbanized (about 80 percent) that is farmed in Illinois as a whole. (The Chicago River/Lakeshore: An Inventory of the Region's Resources, 2004). Table 5, taken from the County Summary Highlights for the 2007 Census of Agriculture provides some interesting information on the level of agriculture in the two coastal counties. Lake County experiences more agricultural activities, with double the number of farms, and four times the number of acres of land in agricultural use.

TABLE 5: AGRICULTURAL STATISTICS FOR COOK AND LAKE COUNTIES

County:	Cook	Lake
Number of Farms	184	396
Land in Farms (acres)	8,198	34,525
Value of Crops Sold (dollars thousands)	14,513	23,909
Market Value of Ag Products (dollars thousands)	15,270	30,824
Farm Operators Reporting Principal Occupation as Farming	84	188
Number of Cattle	34	1,609

Source: 2007 Census of Agriculture, USDA

4.3.6 Recreation and Tourism

No recreational resource is used more than the public venues within the Illinois coastal zone. This includes the open-water area of Lake Michigan, the network of lakeshore parks and open space that extend along the Illinois coast, the museums and public gathering areas that are a prominent part of the Chicago lakefront, the tour boats and pleasure craft that use the Inland Waterways, and the boaters and fishing enthusiasts that frequent the many small-boat harbors and marinas. Maintaining, improving and expanding public access and recreational resources along the Illinois coastal zone are critical for the quality of life in the Chicago/Lakefront area. The Illinois coastal zone includes the Illinois portion of the open waters of Lake Michigan, the lakeshore, coastal bluffs and ravines, and the Inland Waterways (Chicago, Little and Grand Calumet Rivers). The public access to these coastal areas not only serves the local municipal

residents, but also has the potential of serving visitors from across the broader metropolis as well as tourists. The ICMP offers the opportunity for grant monies to aid the efforts in planning and implementing public access and recreational resources throughout the Illinois coastal zone.

The ICMP has already provided extensive information both in the Program Document and in an attached issue paper on public access and recreational resources available in the ICMP coastal area boundary (*see* Chapter 5, Shore Access and Recreation, and appended Issue Paper: "Public Access and Recreational Resources"), therefore, additional detail will not be provided here.

4.3.7 Archaeological and Historical Resources

The information for this section covers all of Lake and Cook Counties, even though the study area is limited to the ICMP boundary. Western and central Lake County is a kame and kettle environment. Recent studies indicate that this environment may contain some of the oldest evidence of human occupation in the Upper Midwest and North America. The associated stone tool producing industry represents a unique and important development in populating the New World. Large game animals predominated the resources sought by small, mobile hunting parties. In addition, small camps with few artifacts suggest short term encampments and a mobile lifestyle. Pottery, invented about 3,000 years ago near the beginning of the Woodland Period, helps to identify and date early sites. The oldest forms of pottery are thick and poorly fired, but as technology improved finely made and distinctively decorated pots became typical. Most of the Woodland sites found here are located near the Little Calumet and Grand Calumet Rivers. Areas containing high probability for archaeological finds include elevated topography near large bodies of water, beach terraces surrounding relict and existing lakes, terraces along the major river ways, uplands at the heads of tributaries, and along old Native American trails or plank roads.

The people who lived in the area about 1,000 years ago are called the Mississippian and they also lived along the Little Calumet and Grand Calumet rivers. In addition to native aquatic and terrestrial resources, Mississippian people cultivated crops such as corn and beans. At an Oak Forest site, the remains of eight oval houses have been unearthed, suggesting that the people living here settled in villages.

Although Native Americans were present when the first Europeans arrived in the area, archaeologists have not found their villages. Urban expansion has made some of the locations inaccessible, but the remains of ancient villages may yet be found on Forest Preserve lands. Historical records indicate that early French fur traders lived fairly peacefully with the Potawatomi who inhabited northeastern Illinois. The extensive marshlands were a ready source of animals whose furs were traded by Native Americans at trading posts in nearby Chicago. Trading involved not only the negotiations, but much gift giving and celebration. The Europeans and Native Americans were friendly with one another, married into each other's families, and produced dual heritage children who often grew up to be key members of the community.

The situation changed in the early 1800s, and after Illinois became a state in 1818, Native Americans were confronted with a government busily surveying land. Even though they did not

believe land could be bought or sold, the last Native Americans living in the area, the Potawatomi, signed a series of treaties that turned over more and more of their property. They unwillingly sold their last parcel in 1833 and were forced to leave the State. That same year, the European population doubled as veterans of the Black Hawk war settled in the area. They sent word back East that land was available and it was not long before easterners outnumbered the French. Within a few decades, easterners in turn were outnumbered by northern and eastern European immigrants who came to work in area factories. After the Civil War, African-Americans from the South also came North to work for local industries. And in the 20th century, immigrants from Central and South America began arriving. (The Calumet Area: An Inventory of the Region's Resources)

In addition to land-based archaeological sites, there are estimates that the number of shipwrecks in the Great Lakes ranges from 6,000 to 10,000. Several hundred of these wrecks lie in the Lake Michigan waters within the jurisdictional boundaries of Illinois. The State also has a number of other waterways (rivers and canals) that contain assorted ships and related resources, such as objects lost overboard or jettisoned, floating or sunken vessels, and wharves and piers. (Illinois Shipwrecks: The Past, The Present, The Future, Yoder)

Several State and Federal laws exist to protect Illinois archaeological and historic properties. These include The Archaeological and Paleontological Resources Protection, 1989, which applies to all public lands in Illinois and applies criminal sanctions to anyone disturbing burial mounds, human remains, shipwrecks, or other archaeological resources and fossils on public lands. The Human Grave Protection Act, 1989, forbids disturbance of human skeletal remains and grave markers in unregistered cemeteries including isolated graves and burial mounds that are at least 100 years old. The Illinois State Agency Historic Resources Preservation Act, 1990, requires Illinois government agencies to notify the Illinois Historic Preservation Agency (IHPA) of any undertaking that may adversely affect an archaeological property (historic or prehistoric). The IHPA may require survey and testing of resource areas. At the federal level, the National Historic Preservation Act of 1966, as amended, authorizes the National Register of Historic Places, establishes the Advisory Council on Historic Preservation, and under Section 106, the Council's powers to review Federal undertakings that affect historic properties.

In addition, the IDRN owns and manages thousands of archaeological sites on land it oversees. The Archaeological and Paleontological Resource Protection Act protects these sites and the artifacts contained within them from looting and vandalism. It is illegal for anyone to either collect or engage in digging into an archaeological site on public lands. Protecting historic, architectural, and archaeological sites as part the public planning process is one of the IDNR Division of Resource Review and Coordination's primary responsibilities. IDNR has listed historic preservation as a priority area for funding under its proposed coastal grants program to local governments and other eligible entities.

4.4 Environmental Quality

4.4.1 Air Quality

Overall, air quality has improved for the Illinois coastal zone area since in the 1970s. Air quality is an important environmental concern in the coastal region. It not only affects environmental and human health, but also affects the type of economic development that can meet strict air quality standards. The Illinois air monitoring network is composed of instrumentation owned and operated by both the Illinois Environmental Protection Agency and by cooperating local agencies. The network is designed to measure ambient air quality levels in the various Illinois Air Quality Control Regions. Lake and Cook counties are located in Region 67, or the Metropolitan Chicago Interstate Region, and the largest number of air quality monitoring stations is located in that region. Stations monitor for ozone, sulfur dioxide, carbon monoxide, particulate matter (PM 10), and volatile organic materials. Based on the Illinois 2009 Air Quality Report, in 2009, there were very few days (on average less than two) when air quality standards were exceeded for any of the sources of concern.

Statewide, the industries that produce the largest amounts of air pollutants overall are electric generation (external fuel combustion), primary metal production, mineral products, the petroleum industry, and food/agriculture. These industries are responsible for the largest annual tonnage production of carbon monoxide, nitrogen oxide, PM 10, and sulfur dioxide. The industries that produce the most volatile organic material are chemical manufacturing, food/agriculture, surface coating operations (organic solvent emissions), and printing/publishing. Cook County as a whole emits more air pollutants than any other Illinois county. For estimated County stationary point sources of emissions (tons/year), Cook County ranks as follows: carbon monoxide (2nd); nitrogen oxide (5th); PM 10 (1st); sulfur dioxide (8th); and volatile organic material (1st). Lake County is respectively 10th, 11th, 8th, 13th, and 19th. (Illinois Annual Air Quality Report 2009). Overall, all source categories for air pollution are continuing to trend downwards.

4.4.2 Water Quality

The Illinois coastal zone land area is highly urbanized and developed, and densely populated. With few exceptions, urban or suburban land cover dominates. Consequently water quality impacts are associated with the area's history of industrialization and urbanization in Cook and Lake Counties. These include water quality impairments from industrial runoff from storm sewers; contaminated sediments; municipal point source discharges; channelization; hydrostructure flow; and atmospheric deposition. In addition, other nonpoint sources of impairment include impoundments and land use changes such as development and redevelopment. Table 1 below provides a breakdown of sources of pollution by stream/river waterbody in the coastal area.

TABLE 6: WATER QUALITY IMPAIRMENTS FOR IEPA AREA 1

NAME OF WATERBODY	CODE # OF IMPAIRMENT FOR CITED WATERBODY	CODE FOR IMPAIRMENTS
Calumet River	23, 62, 177, 10, 140	10: Atmospheric Deposition
Calumet Union Drain		20: Channelization
Chicago San and Ship Channel	140, 23, 177, 58, 85	23: Combined Sewer Overflow
Deer Creek	20, 58, 85, 177, 140	28: Contaminated Sediments
Grand Calumet River	85, 28, 23, 177, 20	45: Gold Courses
Kellogg Ravine	N/A	49: Highways/Roads/Bridges (non-construction related)
Little Calumet River North	10, 140, 28, 23, 85, 177, 58, 20, 132	58: Hydrostructure Flow
Little Calumet River South	20, 28, 23, 85, 177	62: Industrial Point Source Discharge
Lucas Ditch	N/A	72: Loss of Riparian Habitat
Mid Fork N Br Chicago River	20, 28, 85, 177, 140, 45, 181, 95	85: Municipal Point Source Discharge
Mosquito Creek	N/A	95: Other Recreational Sources of Pollution
N Br Chicago River	10, 23, 58, 28, 20, 125, 49, 85, 177, 140	122: Site Clearance/Land Development/Redevelopment
N Shore Channel	20, 23, 58, 132, 85, 177, 10, 140	125: Streambank Modification
Navajo Creek	N/A	132: Upstream Impoundments
North Creek	28, 58, 177, 181	140: Uknown Source
Pettibone Creek	28	142: Dam or Impoundment
Plum Creek	N/A	177: Industrial Runoff Storm Sewers
S Br Pettibone Creek	28	181: Runoff from Forest/ Grasslands/Parks
S B Waukeegan River	28, 132, 177	
S Fork S Br Chicago River	23	
Skokie River	20, 28, 85, 177, 58, 132, 142, 23	
Third Creek	N/A	

Thorn Creek	28, 29, 58, 125, 132, 85, 177	
Tinley Creek	177	
W Fork N Br Chicago River	28, 20, 72, 122, 49, 85, 177, 140	
Waukeegan River	28	

Source: 2010 Illinois Integrated Water Quality Report and Section 303(d) List, Appendix B-2, Specific Assessment Information for Streams

For Lake Michigan, the U.S. Environmental Protection Agency assessed about ten percent of the 63 miles of shoreline and 1,526 square miles of open water. At least one use was assessed in 151 square miles of Lake Michigan. The following uses were rated as Fully Supporting: aquatic life use, primary contact (swimming) use, secondary contact use, and public and food processing water supply use. However, fish consumption use in the Illinois portion of Lake Michigan was assessed as Not Supporting (Poor) due to contamination from polychlorinated biphenyls (PCBs) and mercury. In addition, all Lake Michigan beaches in Illinois were assessed as Not Supporting (poor) for primary contact use due to bacterial contamination from *Escherichia coli* bacteria. The primary contaminant for Lake Michigan is atmospheric deposition toxins. (2010 Illinois Integrated Water Quality Report and Section 303(d) List)

4.4.3 Land Use and Quality Issues

Land use in Cook and Lake Counties is highly urbanized and suburbanized, with many of the accompanying issues related to intensive land use. The following chart provides a breakdown of County land use by acre:

TABLE 7: STATISTICAL DATA OF LAND COVER IN LAKE AND COOK COUNTIES

LAND COVER CATEGORY	**LAKE COUNTY**		**COOK COUNTY**	
	Acres	**Percentage of County**	**Acres**	**Percentage of County**
AGRICULTURAL LAND	55,265	5.6	21,891	3.6
FORESTED LAND	68,960	22.9	78,166	12.8
Upland	43,763	14.5	54,778	8.9
Partial Forest/Savanna Upland	25,152	8.4	23,385	3.8
Coniferous	44	<0.1	3	<0.1
URBAN AND BUILT-UP LAND	145,468	48.3	489,084	79.9
High Density	14,258	4.7	120,422	19.7
Low/Medium Density	63,894	21.2	262,989	42.9

Urban Open Space	67,316	22.4	105,673	17.3
WETLAND	13,035	4.3	8,684	1.4
Shallow Marsh/Wet Meadow	6,222	2.1	4,714	0.8
Deep Marsh	5,584	8.7	1,291	0.2
Seasonally/Temporarily Flooded	<1	<0.1	<1	<0.1
Floodplain Forest	1,185	1.9	2,104	0.3
Swamp	<1	<0.1	<1	<0.1
Shallow Water	43	0.1	665	0.1
OTHER	18,388	6.1	14,530	2.4
Surface Water	17,562	5.8	12,813	2.1
Barren and Exposed Land	826	0.3	1,716	0.3
TOTALS	301,116	100	612,355	100

Source: Land Cover of Illinois Statistical Summary, 1999-2000

Area forests and grasslands have been reduced to small isolated areas, and birds that require large stands of trees or wide expanses of grassland generally do not nest successfully because of the nest parasites and predators that live around the margins of fields or forests. Although it will be impossible to restore very large areas in the highly urbanized coastal area, restoring feeding and resting areas for migrating birds would likely have beneficial results. Protecting remaining wetlands will also help birds as well as amphibians and reptiles. Small habitat size, fragmentation, and isolation incurs significant ecological stress for both fauna and flora. Because of its industrial history, environmental contaminants are common. Twelve towns are listed as Historical Hazard Towns, meaning that they historically contained one or more industrial facilities which might have been a source of pollutants. There are 60 impoundments where liquids or liquids mixed with solids are stored, usually uncovered, and 71 facilities, including 25 chemical companies, that are listed on the Toxics Release Inventory. Many of the 139 landfills are unpermitted and three of them are listed as Superfund Sites. In addition there are 26 other Superfund sites in the area, although none are on the National Priority List. (The Calumet Area: An Inventory of the Region's Resources)

5. ENVIRONMENTAL EFFECTS

In enacting the CZMA, Congress declared that "it is national policy to preserve, protect, develop, and where possible, restore or enhance the resources of the Nation's coastal zone for this and succeeding generations." States are to achieve these potentially conflicting goals by improving governmental coordination, incorporating consideration of long-term implications of development decisions, and instituting a more rational decision-making process that conforms to CZMA policies. Such actions have the potential to substantially affect future coastal area activity and have a significant positive environmental impact. The CZMA requires giving full

consideration to ecological, cultural, historic and aesthetic values as well as to the need for economic development when considering various development proposals.

Thus many factors and diverse, often conflicting values, between resource protection and development must be weighed. The CZMA requires that a balance be achieved which allows or plans for development, while still protecting unique and critical resources.

It is the intent of the ICMP to carry out these legislative mandates of the CZMA. Therefore, the environmental, institutional and socio-economic effects are expected to be primarily beneficial. The ICMP will provide more coordinated inter-governmental decision-making with a greater focus on critical coastal issues such as invasive species, habitat and natural area restoration, sustainable development, nonpoint source pollution, and climate change.

5.1 Alternative 1: Effects of Federal Approval of the ICMP (Preferred Alternative)

5.1.1 Direct Effects and Cumulative Impacts

5.1.1.1 Funding

Federal approval of the ICMP will enhance the State of Illinois' financial ability to carry out its various coastal management efforts in accordance with ICMP policies. In part, the State will rely on the annual program funding made available in annual grants under Section 306 of the CZMA, both for program administration and for coastal grants to coastal communities to plan for balanced growth and sustainability, and for watershed management to address coastal nonpoint pollution. Program administration funding will provide additional resources to enhance implementation of core ICMP laws. A broad range of entities will be eligible to receive sub-awards from the IDNR, including units of local government (e.g., municipalities, townships, counties, villages, and water reclamation districts); area wide agencies, such as county and regional planning agencies; other State agencies; park districts, conservancy districts, school districts and port authorities; Basin commissions; and nonprofit organizations. Section 306 (and potentially 306A funds, which are used for low-impact construction projects for public access and land conservation activities) will be used for environmentally and socio-economically beneficial efforts, such as the following:

- Coastal hazard mitigation
- Public access
- Nonpoint source pollution control
- Coastal wetland protection
- Government coordination and decision making
- Historic preservation
- Coastal resource research and data collection
- Community planning

- Education and public awareness
- Habitat restoration
- Land acquisition

In addition, in the future, Illinois may become eligible to receive other CZMA-related grants available to states with federally-approved CMPs such as the CZMA Section 309 funds, the Coastal Estuarine Land Conservation Program, Coastal Nonpoint Pollution Control Program funds, and various other technical assistance awards for such activities as data collection and technology improvement. These grants programs can provide considerably more funding for such important activities as priority changes to the State's coastal program, acquisition of critical coastal habitat for preservation in perpetuity, and improvements to the State's ability to acquire and collect data to address such issues as climate change and coastal hazards.

Funding for such efforts is expected to have direct beneficial impacts on the natural and socio-economic environment of the coastal region, through protection of natural areas and other sensitive resources, waterfront revitalization, comprehensive planning, streamlining of permits and monitoring their effects, and conflict resolution. The integrated management approach of a coordinated ICMP is expected to result in direct benefits to the environment through a heightened proactive focus on coastal resource management. The ICMP provides the framework for a partnership among State and local agencies and other entities, public and private, to cooperate to preserve, protect, develop and restore the region's critical coastal resources.

5.1.1.2 Federal Consistency Review

Federal approval and implementation of the ICMP will have effects on federal agency actions. OCRM's approval will activate the federal consistency review provisions of Section 307 of the CZMA. The ICMP federal consistency process and relevant provisions of 15 C.F.R. Part 930 are described in detail in Chapter 11. Because federal consistency requires early coordination and closer cooperation in planning between federal agencies and the State, as well as the State's added review of Federal project proposals, it is presumed that federal consistency will provide another means to minimize the potential for adverse environmental impacts. This is considered to be a desirable impact and one of the main purposes and benefits of the CZMA.

The ICMP has been developed with the input of numerous federal agencies with responsibility for activities in or affecting coastal areas. Therefore, conflicts between the ICMP's enforceable policies and federally permitted, funded, or conducted activities should be minimal. Federal activities are not excluded, but are rather required to be consistent to the maximum extent practicable with the ICMP's policies.

5.1.1.3 National Interest

Chapters 9 and 11 of the ICMP describe land and water uses of regional benefit, coordination with federal agencies, and consideration of national interest that are integrated into the program. Land and water uses of regional benefit include transportation facilities; recreation facilities; public water supply and wastewater treatment; waste disposal; energy generation, transmission or

distribution; public facilities such as hospitals and universities; and housing development and community growth. Consideration of the national interest includes ports and navigable waterways; highway, air, and rail transportation; national defense; energy and government facility siting; protection of federally threatened and endangered species; recreational uses and areas; Superfund activities and other Hazardous Waste Management; controlling the spread of invasive species; and Homeland Security. As the ICMP includes formal procedures for considering regional and national interests in comprehensive planning and decision making for the coastal area, the potential for conflicts between State, regional and national goals is reduced. In implementing the ICMP, Illinois will provide such avenues for considering the national interest in program decisions.

5.1.2 Indirect Effects and Cumulative Impacts

5.1.2.1 Government Coordination and Streamlining

The Illinois Department of Natural Resources (DNR) is designated as the lead agency for development and implementation of the ICMP. The functions and authorities of the DNR with respect to administration of the ICMP are described in detail in Chapter 7. The ICMP will provide a cohesive framework for improved and integrated decision-making regarding coastal issues. Executive Order 10-14, The Rivers Lakes and Streams Act, Illinois Groundwater Protection Act, and Interagency Wetland Policy Act of 1989, as well as State consistency review by DNR through the Comprehensive Environmental Review Process (CERP) will further foster unified coordination. Decisions and activities of federal, state, and local agencies as well as those within DNR will be monitored, coordinated and mediated by the ICMP to assure consistency with the ICMP. Greater consistency and streamlining of the decision-making process is expected to improve the predictability of that process and bring about beneficial environmental and institutional impacts.

Assuring state agency consistency with the ICMP will help maintain program strength. As with federal consistency provisions and mechanisms, the impacts are expected to be positive. The state has developed the ICMP Technical Advisory Committee (TAC) made up of representatives from state agencies familiar with the coastal zone’s land and water uses, and areas of particular concern, for preservation or restoration, or meriting special attention. The TAC provides the forum for state agency input, consistency review, and coordination with other state agencies on projects or issues that could have an effect on land and water resources within the coastal zone. One of its primary functions will be to review and comment on all projects proposed for funding. It will also serve as the central mechanism for ensuring that all state agencies exercising their authorities within the coastal zone adhere to the ICMP policies and management techniques. Improved coordination and cooperation throughout project planning and review will serve to minimize adverse impacts and to enhance predictability of decision-making regarding state projects that may affect coastal resources. The ICMP structure and the methods to assure state consistency are described in Chapter 7.

The recent past has seen several large-scale construction and other infrastructure projects in the Illinois coastal zone. The major projects have been centered in the City of Chicago, other than the

de-commissioning of the Zion Nuclear Station. The major projects listed below are focused largely on water use, navigation and public recreation improvements along the Lake Michigan waterfront in Chicago. They point out the mixed use nature of the Illinois coastal zone, where multiple agencies and other stakeholder groups collaborate to meet multiple goals in planning and execution of large-scale projects. This process will be improved by approval of the ICMP, because it will result in better intergovernmental coordination and more efficient government processes. The major projects include:

- Chicago Shoreline Reconstruction – This federal/state/local funded project involved the reconstruction of approximately 9 miles of degraded step-stone revetments along the Chicago shoreline.
- Chicago Inner Harbor Turning Basin Wall – This state project included the construction of a new east-west breakwater, new sluice gates and a pumping station in the Chicago River Turning basin. This project reduced leakage of Lake Michigan water into the Chicago River, part of a suite of activities Illinois agreed to undertake as part of the state's efforts to reduce its diversion of Lake Michigan water.
- Chicago Controlling House Replacement – This federally funded project replaced the old control house at the Chicago lock with a new, larger facility.
- 31st St. Beach Project – This Chicago Park District Project involved the creation of a new recreational beach and associated pier and other amenities in an underserved area of the Chicago lakefront.
- 31st St. Harbor/Marina – This Chicago Park District Project was started in 2010, is still ongoing, and will create 830 new recreational boat slips.
- Millennium Park Harbor – This Chicago Park District Project took advantage of the new Turning Basin Wall project to construct a new 300 slip marina in what was the original Chicago River turning basin.
- Renovation of the Chicago Harbor Coast Guard Station – A joint project between the Coast Guard, the IDNR Conservation Police and the Chicago Police and Fire Department to renovate the old Coast Guard station located adjacent to the Chicago Harbor lock.
- Zion Nuclear Station de-commissioning/cleanup – This project, which is ongoing, will restore the area formally occupied by the Zion Nuclear Station, in the north shore city of Zion.
- Great Lakes Naval Training Center Harbor dredging – This project of the U.S. Navy involves the dredging/restoration of Great Lakes Harbor, which has not been dredged for many years. This is an ongoing project.
- Millennium Park – This City of Chicago/Chicago Park District project created a state-of-the art urban park that also links the city to the lakefront.
- Wacker Drive Reconstruction/Chicago Riverwalk Development – As part of the reconstruction of Wacker Drive, the City of Chicago and Chicago Park District are creating a new riverwalk along the south bank of the Chicago River for approximately 1 mile.

Additional projects are planned, and approval of the ICMP will help collaboration among relevant agencies and stakeholders to ensure the projects are done in accordance with ICMP goals, priorities, and policies. Among the reasonably foreseeable future projects are:

- Navy Pier/Gateway Marina – This Chicago Park District Project will create a new marina on the south side of Navy Pier, with a capacity for 240 boat slips.
- Waukegan Harbor dredging – This will be a U.S. EPA superfund project to fully restore Waukegan Harbor, and remove all remaining PCB contaminated sediments.
- Redevelopment of Northerly Island – The Chicago Park District recently released a new concept plan for the redevelopment of Northerly Island, including the construction of offshore islands.
- Coal Gasification Plant on the Calumet River – Governor Quinn recently signed legislation creating incentives for this facility, which is proposed for an industrial site along the Calumet River.
- Redevelopment of U.S. Steel South Works Site – This 500+ acre site, which borders the lakefront and the Calumet River at the southern end of the Chicago lakefront, has been approved for mixed use redevelopment, including new housing for up to 150,000 people.

In addition to these construction projects, several current conservation initiatives will benefit by approval of the ICMP, and provide cumulative beneficial impacts to the Illinois coastal zone. USEPA has developed the Lake Michigan Lakewide Management Plan to assess, restore, protect and monitor the ecosystem health of this Great Lake. It is used to coordinate the work of all the government, tribal, and non-government partners working to improve the Lake ecosystem. The City of Chicago developed the Calumet Area Land Use Plan to capture the opportunities for both industrial revitalization and for protection of important open space in the study area, and to determine appropriate land uses. The Plan is a building block for the future development of the Millennium Reserve, which will create an open space reserve system in the Calumet area, including the preservation of approximately 4,000 acres of land and waters that support large populations of herons, egrets and other water birds. Marshes and open lands will eventually be interconnected by hiking and biking trails.

5.1.2.2 Improved Coordination and Partnerships with Local Government Agencies

The ICMP will establish partnerships and shared priorities with local government agencies as well as local stakeholders through its implementation. The primary method will be through the Coastal Advisory Group, (CAG) which includes regional representatives from the various coastal segments and inland waterways, as well as several district agencies and interest groups. The purpose of the CAG is to provide recommendations on priority issues and emphasis areas; in particular providing a forum for public input on regional issues and community involvement. The CAG will identify emerging coastal issues; policy assistance needs on management issues and long terms goals; and assist in addressing conflict resolution. Another way the ICMP will improve partnerships and coordination with local governments is through the proposed Coastal

Grants Program. By identifying priorities and supporting local projects, the ICMP will be able to work closely with local governments to address common goals.

ICMP approval will provide better linkages and collaborations among the many local and intergovernmental coastal protection initiatives currently underway. For example, Chicago Wilderness, a consortium of 98 organizations, developed a Biodiversity Recovery Plan which identified the ecological communities of the greater Chicago region, assessed their condition, identified the major factors affecting them, and provides recommendations for actions needed to restore and protect and sustain them well into the future. Also, the Chicago Metropolitan Agency for Planning, a regional organization, developed GO TO 2040 as a comprehensive regional plan to help seven counties and 284 communities plan together for sustainable prosperity through mid-century and beyond. These are the types of regional initiatives that will be helped by the CAG, and could be eligible to apply for ICMP funding.

5.2 Alternative 2: Effects of Denying Federal Approval of the ICMP (No Action Alternative)

Several environmental, economic and social impacts could result if OCRM decided to deny approval of the ICMP. The first most immediate direct impact would be the loss of federal funds to administer the Program. Under Section 306 of the CZMA, Illinois is eligible to receive approximately $2 million annually to implement its coastal program. In the future, the State would also not be eligible to receive additional grant funds that are available under the CZMA and other federal programs for states with approved coastal management programs. This could mean economic and environmental losses such as millions of dollars to purchase environmentally sensitive lands that are in danger of being converted for development purposes, or funding to address coastal nonpoint source pollution. The second direct impact is that Illinois would lose the opportunity to ensure consistency of federal activities in or affecting its coastal areas, as required by Section 307 of the CZMA. This could be of increasing importance for reviewing federally-permitted and funded activities such as alternative energy, which may have significant environmental impacts.

An additional impact is the loss of state consideration of the national interest in siting facilities of national interest, which Illinois would agree to as part of its participation in the federal CMP. This is required under section 306(d)(8) of the CZMA, and could result in negative cumulative impacts to public use of those facilities. Further, an indirect effect would be the continued status quo regarding protection and use of Illinois' coastal zone. The State may lack the incentive (funds to provide grants to local and regional agencies and federal consistency) to implement a coastal management program, and maintain the TAC and CAG which will review projects for consistency with State coastal policies and identify priority coastal issues. Another indirect effect would be that technical assistance available to Illinois from OCRM would be lost without federal approval of the ICMP. These direct and indirect effects would result in cumulative negative impacts to the environment, including water quality, wetlands management, waterfront revitalization, coastal hazards, public access, habitat restoration, invasive species control, and government coordination and streamlining in Illinois' coastal region.

5.3 Alternative 3: Effects of Delaying Federal Approval of the ICMP

The direct, indirect, and cumulative effects of delaying OCRM approval of the ICMP would be the same as Alternative 2 (Denying Federal Approval of the ICMP) until approval is granted. Once the delay period elapsed and OCRM approved the ICMP, the effects would be similar to those of Alternative 1 (Federal Approval of the ICMP), with the caveat that some of the projects listed in Sections 5.1.2.1 and 5.1.2.2 would not gain the benefit of funding, coordination, streamlining, and improved partnerships with local governments if they were completed before ICMP approval. Furthermore, continued delay would make it less likely that Illinois would enter the federal program in the future due to resource limitations and other factors.

5.4 Unavoidable Adverse Environmental Effects

As discussed above, effects of ICMP implementation will be overall environmentally positive. With or without the ICMP, the intensely developed and populated Illinois coastal region would likely continue to be affected by additional development, including the siting of major facilities for defense, transportation and energy requirements in which both the State and federal governments have an interest. It is important to note, however, that under the Coastal Zone Management Program and other federal laws, such projects will have to be evaluated with respect to their impacts on the natural coastal environment. That is, studies will be conducted, alternatives considered, etc. For example, future coastal projects funded partially or fully under the ICMP would receive separate NEPA analysis. OCRM would determine the proper level of NEPA analysis once sufficient details of the particular project are known. The ICMP includes provisions for consideration of the national interest in the siting of these facilities.

Future environmental issues associated with energy generation in the Illinois coastal area are most likely to be associated with future wind energy projects, as the State moves towards reducing greenhouse emissions and towards alternative energy production. The Illinois Power Act includes an increasing minimum percentage of utilities' total energy be generated from cost-effective renewable energy resources, to at least 25 percent by 2025; 75 percent from wind generation.

5.5 Relationship Between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

While approval of the ICMP may limit some local, short-term uses of the environment, it will also provide long-term assurance that the natural resources and benefits provided by the Illinois coast will be available for future use and enjoyment by more effectively administering existing resource protection laws.

Regarding the long-term use of the environment, the ICMP recognizes the coastal zone as a zone of intense mixed use, with an important role for restoring and maintain the remaining natural habitats and ecosystem. The program has established a process of balanced management of coastal resources, allowing growth to continue while protecting key resources through its identification of Areas for Preservation or Restoration (APR) and Areas of Particular Concern (APC). These designations provide a framework for protections resources of regional, State, and

national interest by assuring the maintenance of the long-term productivity and economic vitality of coastal resources necessary for the well-being of the public. Planning and coordination leading to improvements will likely promote avoidance of long-term costs to the public and a diminished quality of life resulting from the misuse of coastal resources.

5.6 Irreversible and Irretrievable Commitments of Resources

The only irretrievable or irreversible commitment of resources that will result directly from the approval of the ICMP is the commitment of State and federal funds and personnel for the purpose of achieving the goals and objectives of the program. Indirectly, there are likely to be some irretrievable and irreversible commitments of economic and environmental resources associated with implementation of the ICMP. The program is designed to balance the need for development with the need for protection and enhancement of coastal environmental resources by avoiding, minimizing, and mitigating the consequences of coastal development on resources such as wetlands and shallow water habitats.

The program ensures that any proposed State or federal activities that commit coastal resources are subjected to comprehensive review, both individually and cumulatively. Such review will ensure that those irretrievable and irreversible commitments of resources that are undertaken under the ICMP are made with full awareness of the consequences of those commitments.

5.7 Environmental Justice

The NEPA evaluation process consideration of environmental justice to ensure that low-income and minority households and minority business enterprises do not suffer a disproportionate share of
adverse effects resulting from federal actions. Executive Order 12898 requires federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects, including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations.

OCRM’s approval of the ICMP will result in improvements to the coastal area for all citizens of the coastal area, and will not target one specific group disproportionately. Improvements in water quality and public access which may result from better coordination and targeted priority funding for these types of projects, particularly in areas with higher minority and low income communities would be beneficial.

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Also: See List Provided in ICMP Document, Acknowledgments

7. AGENCIES AND ORGANIZATIONS CONSULTED

This DEIS is a consolidated document, accomplished as part of the overall Program Document completed for approval of the ICMP. Please see the discussions of program development, public participation, and federal agency consultation in the ICMP Document, Chapters 1 (ICMP Overview), Chapter 6 (Special Management Areas), and Chapter 11 (Federal Consistency and the National Interest) for a discussion of agencies and organizations consulted during the ICMP/NEPA process.

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PART IV

LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING COPIES OF DEIS

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(Interested parties either receiving printed documents or Compact Disks, or obtaining the DEIS from the Office of Ocean and Coastal Resource Management or Illinois Department of Natural Resources (IDNR) website. Notification has been made through mailing lists/electronic mail, press release, notice in the Federal Register, or in person.)

FEDERAL AGENCIES

Council on Environmental Quality

Department of Commerce

National Marine Fisheries Service, NOAA

Economic Development Administration

Department of Defense

Air Force

Army Corps of Engineers

- Headquarters
- District Office

Marine Corps

Navy

Department of Energy

Department of Housing and Urban Development

Department of the Interior

Fish and Wildlife Service

U.S. Geological Survey

National Biological Service

National Park Service

Department of Transportation

Federal Aviation Administration

Federal Highway Administration

Maritime Administration

U.S. Coast Guard

Environmental Protection Agency

Office of Federal Activities,

Assessment and Watershed Protection Division,

Office of Wetlands, Oceans and Watersheds

Nonpoint Source Coordinator, Region V

Federal Emergency Management Agency

Federal Energy Regulatory Commission

Federal Maritime Commission

General Services Administration

Interstate Commerce Commission

National Aeronautics and Space Administration

Nuclear Regulatory Commission

STATE AND REGIONAL AGENCIES

Illinois Department of Natural Resources

- Division Chiefs

Illinois Environmental Protection Agency

Illinois Department of Public Health

Illinois Department of Transportation

Illinois Department of Agriculture

Illinois Emergency Management Agency

Illinois Department of Nuclear Safety

Illinois Department of Commerce and Economic Opportunity

Illinois-Indiana Sea Grant Program

Prairie Research Institute - (Illinois State Geological Survey, Illinois Natural History Survey, Illinois State Water Survey)

LOCAL GOVERNMENT

Lake County Forest Preserve District

Forest Preserve District of Cook County

Metropolitan Water Reclamation District of Greater Chicago

Lake County Stormwater Management Commission

Far North Coast (sand plain): Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago

Central Coast (bluff coast): Lake Bluff, Lake Forest, Highwood, Highland Park, Glencoe, Winnetka, Kenilworth, and Wilmette

South Coast (lake plain): Chicago, Evanston, Chicago River and North Shore Channel Corridors (Inland Waterway): Chicago, Evanston, Lincolnwood, Skokie, and Wilmette

Little Calumet and Grand Calumet River Corridors (Inland Waterway): Blue Island, Burnham, Calumet City, Calumet Park, Chicago, Dolton, and Riverdale

[All counties and cities/villages are included.]

ORGANIZATIONS

Chicago Metropolitan Agency for Planning

Alliance for the Great Lakes

Chicago Wilderness

Lake Michigan Watershed Ecosystem Partnership

Lake Calumet Ecosystem Partnership

Friends of the Chicago River

Illinois International Port District

Waukegan Harbor Citizens Advisory Group

[Note: In addition, the IDNR has mailed copies to its congressional delegation, Illinois coastal area legislators, individuals, groups and organizations on their respective mailing lists.]

NATIONAL INTEREST GROUPS

American Association of Port Authorities

American Bureau of Shipping

American Farm Bureau Federation

American Institute of Planners

American Petroleum Institute

American Planning Association

American Sport Fishing Association

Association of State Floodplain Managers

Boat U.S.

Boating Industry Association

Center for Marine Conservation

Chambers of Commerce of the U.S.

Clean Water Network

Coast Alliance

Coastal States Organization

Conservation Fund

Environmental Defense Fund, Inc.

Environmental Law Institute

Environmental Policy Center

Friends of the Coast

Friends of the Earth

Isaak Walton League of America

Lake Carriers Association

League of Women Voters of the U.S.

National Association of Conservation Districts

National Association of Counties

National Association of Home Builders of the U.S.

National Association of Realtors

National Audubon Society

National Fisheries Institute

National League of Cities

National Parks and Conservation Association