Chapter 2. Program Components

2.1. Coastal Nonpoint Program Boundary

As defined in the Illinois Coastal Management Program Document (Program Document), available at http://www.dnr.illinois.gov/cmp/Pages/documentation.aspx, the Illinois Coastal Zone Boundary was developed to apply to the Illinois CNPCP. As stated in the document:

> "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" (ICMP 2011).

The Program Document goes on to explain in detail how the boundary was defined based on these urban considerations. Parts of the original Lake Michigan watershed in Cook County that now drain to the Mississippi River Basin were therefore excluded from the Coastal Zone.

The Program Document defined two components of the Illinois Coastal Zone Boundary. The Lakeshore Boundary includes approximately 85 square miles of land "based on the Lake Michigan watershed as it has existed since the early 1900s" (ICMP 2011), and thus excluding "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 second component of the Illinois Coastal Zone Boundary is the Inland Waterways Boundary, including an addition of approximately 11.5 square miles of land along segments of the Chicago River, North Shore Channel, and Little Calumet and Grand Calumet Rivers. The Inland Waterways were considered part of the Coastal Zone for a range of reasons cited in the Program Document, including the fact that "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" (ICMP 2011).

The Program Document as approved by NOAA clearly states that the CNPCP will be bounded by the Coastal Zone Boundary it defines. However, it states that the program will be limited to the Lakeshore Boundary, excluding the inland waterways. As stated on p. 185, "The ICMP will only include the Lake Michigan watershed portion (approximately 85 square miles) in the Coastal NPS Control Program." H However, because of the previously-noted issues of discharge into Lake Michigan from these areas at times of heavy storm runoff, we have chosen to include the entire Coastal Zone Boundary to define the Illinois CNPCP. This is consistent with the intent of the Program Document and the rationale developed

there for a Coastal Zone Boundary useful for addressing NPS pollution. Therefore the entire Illinois Coastal Zone will also be Illinois' §6217 management area.

2.2. Coordination

Numerous mechanisms exist to ensure that the CNPCP is coordinated among State and local agencies. Some of these coordination mechanisms are established by Illinois statute. Others occur through regular, ongoing mechanisms among state and local partners. The CNPCP will also extend and enhance coordination as part of the program as it develops.

There are four main statutes that either permit or mandate coordination among State and Federal agencies and units of local government in relation to the CNPCP. The first is the Clean Water Act, by which IEPA is authorized to "engage in planning processes and activities and to develop plans in cooperation with units of local government, state agencies and officers, and other appropriate persons in connection with the jurisdiction or duties of each such unit, agency, officer or person" (415 ILCS 5/4(m)). Two units of IEPA's Watershed Management Section are responsible for carrying out these programs. The Planning Unit implements the TMDL Program. Section 319 is administered by the Nonpoint Source Unit as the Illinois Nonpoint Source Management Program (INSMP). The Section The entire Bureau of Water implements the Water Quality Management Program. The Household Hazardous Waste Collection Program and NPDES storm water program are also administered by IEPA.

The INSMP is a particularly crucial point of coordination for CNPCP. In September 2013 IEPA released their new program document (http://www.epa.state.il.us/water/watershed/publications/nps-management-program/index.pdf). Though the program covers the entire state, the INSMP document includes sections dealing specifically with Lake Michigan open waters and nearshore areas. The INSMP recently developed the TMDL for Lake Michigan beaches and provides the water quality data used elsewhere in this document. IEPA's manager for the Watershed Management Section covering Lake Michigan participated directly throughout the process of developing the CNPCP.

The second major statute is the RSLA, which has the "express intention" that close cooperation exists between IDNR, which has primary enforcement responsibility, IEPA and IPCB. 615 ILCS 5/14a (2012). This collaborative effort is to extend to the City of Chicago and other municipalities whose actions affect Lake Michigan water quality. They and IEPA "shall work in close cooperation" to abate pollution from vessels and domestic and industrial sources.

Thirdly, the Lake Michigan Shoreline Act enables the Office of Water Resources - Lake Michigan Programs Section (OWR) within IDNR to cooperate with appropriate federal, state, and local agencies to devise effective means or methods of preventing erosion of the shore of Lake Michigan. 615 ILCS 55/1 (2012). To that end, IDNR may 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. 615 ILCS 55/2 (2012). Among other things, the agreements 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. An analogous provision is found in the Flood Control Act of 1945. 615 ILCS 15/4 (2012). The OWR issues permits for work in and along the

Lake Michigan shore, waterways, and within floodplains and floodways. OWR is responsible for evaluating joint permitting applications and is aware of permitting decisions and any permitting issues from IEPA or USACE. OWR is also responsible for carrying out ICMP's program of reviewing projects for Federal Consistency in the Illinois Coastal Zone.

The permit processes noted above are particularly important areas of coordination. In Illinois, waterways, floodplains and wetlands construction projects often require both State and Federal authorization. The state has a joint permit application process designed to simplify the approval process for the applicant seeking project authorizations from the USACE, IDNR, the Office of Water Resources and IEPA. The joint permit review process allows these agencies to evaluate a range of issues related to nonpoint pollution, particularly in areas related to marinas and to channelization. For example, consideration of marina flushing in the siting and design of new and expanded marinas in the coastal zone is part of the joint agency review process.

Finally, the Interagency Wetland Policy Act of 1989 (20 ILCS 830/) mandates coordination among several state agencies in relation to preservation and enhancement of wetlands and avoiding adverse impacts to the state's remaining wetlands. This act creates an Interagency Wetlands Committee including IDNR, IEPA, Illinois Department of Agriculture, Illinois Department of Transportation, Illinois Historic Preservation Agency, Illinois Department of Commerce and Economic Opportunity, and the Capitol Development Board. The goal of the act is to ensure no net loss in wetlands due to state-supported activities, through the development of agency action plans and establishing a mitigation policy.

Various other avenues of coordination flow from the above statutes. As part of the Phase II stormwater permitting program, IEPA coordinates with ICMP and other partners to provide training opportunities that may include planning principles, erosion control, and stormwater quality measures that can be utilized to address issues associated with some of the Urban Management Measures, including the Watershed Protection Management Measure and the Pollution Prevention Management Measure.

Other less formal processes are also in place for coordination. ICMP collaborates with MWRD and LCSMC and municipal stakeholders to disseminate information on trainings and funding opportunities. ICMP has attended, participated in, and presented at public meetings and trainings regarding the Lake County Watershed Development Ordinance and the Cook County Watershed Management Ordinance and will continue coordination activities in the future.

ICMP's Program Document establishes two groups that ensure coordination with local governing bodies. The Technical Advisory Committee (TAC) provides oversight and technical recommendations on ICMP's grant program, reviewing all grants recommended for funding. The TAC also provides feedback on other technical aspects of ICMP, such as priorities for our requests-for-proposals and connections to coastal research. TAC members include leaders in several IDNR agencies (OWR, Office of Realty and Environmental Planning, Office of Resource Conservation, Office of Land Management) and the IEPA Water Bureau, among others. The ICMP Program Document also establishes the Citizens Advisory Committee (CAG), which meets at least annually to oversee program direction. This will include

developing the implementation plan for Illinois' CNPCP. CAG membership includes representatives of all municipalities in the Illinois Coastal Zone, MWRD, and LCSMD among others.

ICMP also coordinates through membership and active participation in the Waukegan Harbor Citizen's Advisory Committee, a group that leads the efforts of delisting the Waukegan Harbor Area of Concern. This organization also includes active involvement of USEPA and IEPA as well as other units if IDNR.

Finally, ICMP will be expanding coordination efforts in the future through ongoing engagement with our Advisory Panel, as described in Section 2.3.

2.3. Public Participation

2.3.1 Illinois Lake Michigan Implementation Plan Public Participation

The Illinois Lake Michigan Implementation Plan (ILMIP) is a product of an innovative effort to identify a manageable subset of program priorities for ICMP. ILMIP was formed through a partnership between ICMP, Alliance for the Great Lakes, Chicago Wilderness, Biodiversity Project and Environmental Consulting & Technology Inc.; referred to henceforth as the Lead Partners. This project used web-based technologies to gather broad stakeholder input through an open, outreach-driven process to identify Coastal Management Program priorities. Nonpoint source pollution was one of ten focal areas in this planning process. Examples of other topics addressed in the plan include Habitat Restoration and Management, Persistent Bioaccumulative Toxins, and Public Access and Recreation. These ILMIP priorities will help guide program direction for three to five years and will be reflected in project selection for the Coastal Grants program.

From October 2011 through November 2013, stakeholders and the general public were invited to provide input through online tools and surveys, and in-person through workshops and training sessions and at public meetings. Early in the process, the Lead Partners identified a list of expert stakeholders from each Coastal Priority Issue to serve in an advisory capacity for the project, called the Advisory Working Group (AWG). The AWG participated in (NUMBER) workshops at various stages in the process, during which they were asked to provide feedback on priorities including coastal nonpoint source pollution priorities. The AWG was also asked to help identify additional stakeholders and conduct outreach to their contacts and networks using the outreach materials provided by the Lead Partners.

ILMIP on the Watershed Central Wiki

The Watershed Central Wiki[2] was one of the tools we used to allow stakeholder and public input in the ILMIP process. As of June 2014, although the implementation plan has been completed, it is still open for public input. We created an ILMIP wiki landing page was developed on Watershed Central to make general information available and provide a directory of the information contained within the ILMIP pages. All pages on the wiki allow the users to contribute text, maps, embedded links, pictures, etc. The structure of the Watershed Central wiki pages allows for pages to be categorized so users have the

[2] https://wiki.epa.gov/watershed2/index.php/Illinois_Lake_Michigan_Implementation_Plan

ability to search through a variety of navigation tools, such as; a list of related topics on the bottom of the page, a list of "most popular categories" on the page margins, an introduction wiki page that allows searches by location or topic, the search tool on the page margin, and so on. The structure went through several iterations through a working and development process on the wiki before a final structure was completed. All pages pertaining to the ILMIP have been categorized under "Illinois Lake Michigan Implementation Plan (ILMIP)". A table of contents is placed on the upper right hand corner every ILMIP page to allow the users easier navigation throughout the series of pages. The table of contents was developed to help users navigate either by geographic location or issue topic. Lead Partners developed and posted content on the ILMIP section of the Watershed Central Wiki and encouraged participation from stakeholders and AWG members. Wiki content includes pages on watersheds, issues, projects, tools, and partner organizations. The AWG participated in trainings on how to add content to the wiki. Illinois Coastal Grant applicants were also encouraged to utilize and contribute to the wiki.

Communications

Lead Partners developed and distributed regularly scheduled email updates about the wiki and online engagement forum to keep AWG and stakeholders up to date on the project and involved in the activities. Other communication channels included one-on-one conversations with experts, wiki trainings, AWG meetings, the stakeholder survey, and the online engagement forum.

Survey

Lead partners created and distributed a survey to collect information about projects on key coastal issues that are currently underway or recently completed within the Illinois Coastal Zone, and to encourage wiki participation and to act as an outreach tool to engage stakeholders and AWG members in the project.

Mindmixer

Stakeholders and the general public were encouraged to get involved in the ILMIP process through an online engagement forum called MindMixer. This online forum (www.mindmixer.com) became a central place for discussing and voting on coastal priorities. It was promoted to the general public through the Lead Partners' Facebook pages, email distribution lists and websites. Voting and discussions were divided up into four regions, throughout the coastal zone, northern region, central region and southern region (Figure 1-X). This allowed for better targeting of strategies, partnerships, and grants to the local priorities in each area. Each region had 63 ideas to vote on, nine of which were focused on nonpoint source pollution. Overall, there were 260 participants in ILMIP's MindMixer forum who left 65 comments in addition to their votes. The final rankings of the nonpoint source pollution ideas within each region are presented in Table 1-X.

Public Meetings

The Lead Partners hosted three public meetings to provide an opportunity for the general public, AWG members, and other stakeholders to review the final document and provide feedback. Meetings took place in Lake County, downtown Chicago, and south Chicago during the weeks of October 21 and October 28th, 2013. Two meetings were held in the evening to make them more accessible to the general public and one was held during the day to attract professionals from stake-holder organizations. The three meetings were attended by a total of 41 people. For anyone that was unable to attend a meeting, the plan was posted on ICMP's website and a link to a survey that was identical to the comment cards at the meetings was available to submit feedback. ICMP received a total of 85 comments from meeting attendees and online survey takers, 11 were specific to nonpoint source pollution.

Figure 2-1 Geographic subdivisions of the Illinois Coastal Zone used in ILMIP.

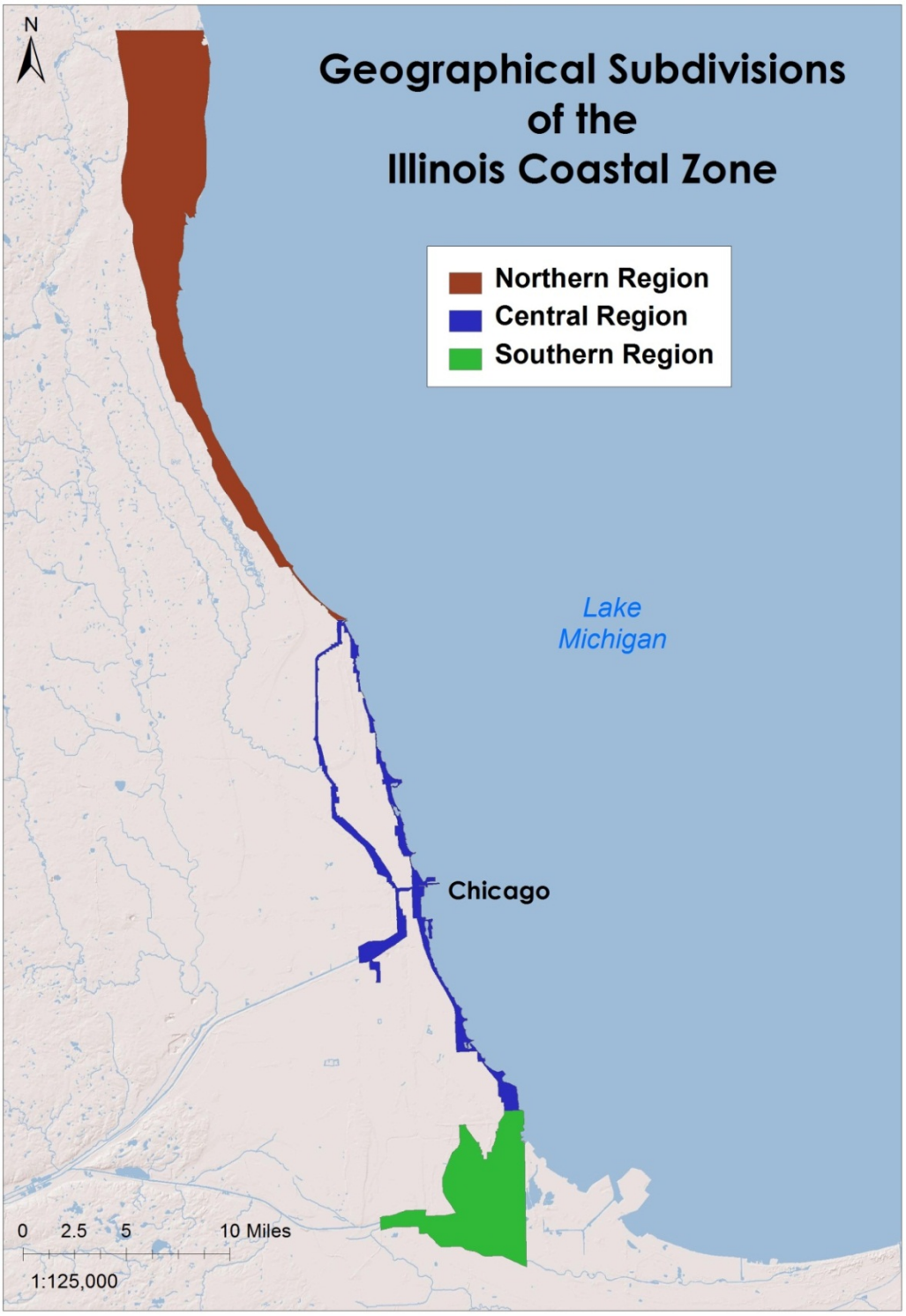

Table 2-1 MindMixer Rankings of Nonpoint Source Pollution Ideas in Each Region.

Overall Rankings are out of 63 ideas in each region.

Idea Title	Throughout Coastal Zone	Northern Region	Central Region	Southern Region
Choose the best mitigation or prevention strategy	50	63	27	48
Improve beach quality and protect the public from health risks	34	41	16	31
Increase use of green infrastructure for stormwater management	1	26	1	15
Promote regional cooperation on non-point source pollution	28	49	30	39
Reduce frequency of untreated sewage release	39	25	5	30
Reduce runoff volume	17	36	6	21
Reduce soil loss and sedimentation	48	43	38	32
Reduce the impacts of chloride (aka road salt) pollution	61	54	35	45
Reduce the impacts of nutrient pollution on coastal ecosystems	20	27	31	46

2.3.2 Presentations Given by ICMP Staff

As part of the public outreach for this plan, ICMP staff gave presentations to local government representatives, environmental professionals, and students. Two of these presentations focused on raising awareness and participation by local governments in the CNPCP program and its development. The third focused on networking and communicating green infrastructure success stories in the Calumet region. Projects highlighted at that talk included South Suburban College's rain garden and bioswale, an innovative project that ICMP provided technical assistance on and which is funded by an Illinois Green Infrastructure Grant.

LCSMC Municipal Advisory Committee Quarterly Meeting, December 11, 2013

This was an introduction to Illinois' Coastal Nonpoint Pollution Control Program development process. It focused on education to local governmental representatives from Lake County with technical knowledge on stormwater on resources available from the Coastal Management Program and CNPCP development. After the meeting, three members of the ICMP staff were available for questions and networking.

Chicago Wilderness Congress, April 3, 2014

This was part of an organized session on regional collaboration on Green Infrastructure implementation, which, in addition to an ICMP staff member, included representatives from two levels of government in Indiana and a local government representative from Blue Island, IL. This presentation focused on ongoing green infrastructure project implementation which is intended to mitigate nonpoint source pollution and reduce stormwater volume and was attended by environmental professionals, and students.

Lake Michigan League of Women Voters and Faith in Place Stormwater Workshop, June 18, 2014

As part of a stormwater workshop, development of the CNPCP was discussed, along with the public participation portion of the process. Other speakers included the director of MWRD, two staff members of IEPA, and the program manager for the Center for Neighborhood Technology. This meeting was attended by over 100 interested members of the general public.

MWRD Partners Meeting, September 23, 2013

A presentation was given to the MWRD Partners in efforts to recruit Advisory Panel members. This meeting was attended by local governmental representatives and organizations with technical knowledge on stormwater. Some attendees signed up to be on the Advisory Panel and others wanted to remain informed on the plan's progress.

2.3.3 CNPCP Advisory Panel

ICMP retained Bluestem Communications (Bluestem) to assist with facilitating an Advisory Panel of expert members of the public to provide input into the development of the Illinois Coastal Nonpoint Source Pollution Control Program (CNPCP).

Through the Advisory Panel, ICMP sought to identify the following:

- Input into the unfilled niche(s) that the new CNPCP could address
- How best the CNPCP could provide technical assistance to local governments and the public to implement management measures
- A blueprint for a continued process for CNPCP coordination with stakeholders into the future

Participants

Bluestem worked with staff from ICMP and IEPA to identify a panel of experts who work in the Illinois Coastal Zone on issues related to stormwater management or nonpoint source pollution. Invitations were extended to 22 professionals representing regulatory agencies, land management agencies, stormwater management agencies, municipal departments, municipal planning agencies and local nonprofit organizations working on these issues. The final Advisory Panel comprised the following group of volunteers as seen in Table 2-2.

Table 2-2 Advisory Panel Members

Name	Organization
Lyman Welch	Alliance for the Great Lakes
Richard Nichols	Association of Illinois Soil and Water Conservation Districts
Dan Cooper	Chicago Park District
John Quail	Friends of the Chicago River
Dan Injerd	Illinois Department of Natural Resources - Office of Water Resources
Amy Walkenbach	Illinois Environmental Protection Agency – Water Bureau
Ders Anderson	Openlands - Lake Calumet Watershed Group
Stacy Meyers	Openlands
Michael Adam	Lake County Health Department
Patty Werner	Lake County Stormwater Management District
Mike Prusila	Lake County Stormwater Management District
Abby Crisostomo	Metropolitan Planning Commission
John Murray	Metropolitan Water Reclamation District
Josh Lott	National Oceanic and Atmospheric Administration
Reggie Greenwood	South Suburban Mayors and Managers Association
Janette Marsh	U.S. Environmental Protection Agency - Region 5

Providing Input

The Advisory Panel met six times from January 2014 - June 2014 in a series of workshops designed to answer three specific questions:

- What gaps currently exist in our region's efforts to reduce nonpoint source pollution?
- How can the CNPCP best contribute to filling those gaps?
- How can the CNPCP best complement the efforts already being made to decrease nonpoint source pollution and improve Lake Michigan's water quality?

Appendix 2 includes the meeting agendas and notes from each of the Advisory Panel meetings. In addition to the questions above, the Panel assisted with the development of a survey sent to a broader group of stakeholders in the region, and identifying the most pressing needs (i.e., prioritization).

Survey

After several months of working to identify on-the-ground needs and potential solutions, the Advisory Panel assisted with the development of a survey sent to a group of regional stakeholders. The survey was designed to assist with prioritization of issues and solutions, and was geared toward municipal representatives, regulatory agency staff, public utility staff and local nonprofit partners. Results will be added to the report once they are all collected.

Addressing Source Categories and Management Measures

Each workshop began with an overview of the Management Measures identified by Source Category, the Advisory Panel first reviewed each Source Category, and how other State Coastal Programs have addressed those particular Management Measures. Then, Bluestem facilitated a discussion in which the Panel identified all of the on-the-ground gaps in nonpoint source pollution management within the Illinois Coastal Zone. Discussions focused on where current management needs exist, and to the extent possible, identifying potential solutions to address those gaps. Appendix 2 includes summary charts of the needs and solutions identified by the Advisory Panel, within each Source Category.

Top Issues Identified

Over the course of the months in which the Advisory Panel met, several issues received a lot of attention. While all of the gaps identified are very important, some of the issues already have agencies or organizations leading efforts to provide solutions, while others have no clear leaders yet identified and/or need additional support in the short term. Currently, the issues of greatest need for support (in no particular order) were identified as:

- Coordination among the many agencies working in the Illinois Coastal Zone
    - Need for more streamlined or integrated permitting processes
    - Wetlands data, for example, is often inconsistent among various agencies or organizations; need a consistent method or dataset for the Coastal Zone
- Water quality monitoring
    - Monitoring is extremely important to track progress, but continually underfunded
    - Monitoring results are not shared effectively, when available, and need better reporting standards
- Stormwater BMP maintenance
    - Many agencies and organizations are installing BMPs, but the long term maintenance and management is not monitored or enforced
    - Consistency in maintaining and monitoring installed BMPs also lacking; not all owners using the same methods or guidelines
    - Illinois Urban Manual is valuable, however it is dense and difficult to interpret; an easier guide could be beneficial
- Green infrastructure (GI) implementation
    - Good planning and siting of GI opportunities exists, but funding and political will to implement is limited
- Addressing the actual pollutants causing nonpoint source pollution
    - Cleaning up/capping brownfields – especially in the Calumet region – where pollutants are exposed and directly polluting the waterways. This may be a point source, but is nevertheless important to local stakeholders.
    - Regulating the chemicals in or use of asphalt sealants (i.e., parking lots at marinas, etc.)
    - Controlling the amount of road salt used in the Coastal Zone

To address the needs above, a preliminary implementation strategy has been developed (See Section 2.6). The Advisory Panel identified the above issues as having the most pressing needs over the next three to five years.

2.3.4 Moving Forward

The above information represents the current needs, as of the completion of the Advisory Panel workshop series in June 2014. The CNPCP will flourish beyond the short term view of three to five years in which these needs were identified. The Advisory Panel recommends that regular stakeholder engagement to track progress and needs should be built into the Program. This ensures real time evaluation and program revisions as may be needed. To accomplish this, the Advisory Panel devised the following strategy for future CNPCP engagement.

- Annual Stakeholder Survey
    - This process generated a list of stakeholders in the Illinois Coastal Zone; that list should be maintained and added to as staff in the region conduct projects or otherwise engage with practitioners in the field.
    - Advisory Panel members should be recruited to assist with survey development and distribution.
    - The survey should focus on key information needs about the CNPCP, such as: gauging how effectively stakeholders feel the Program has identified and addressed needs; polling for new or emerging trends or issues related to nonpoint source pollution; and assessing gaps or needs consistently not being met.
- Advisory Panel Annual Meeting
    - A group of engaged expert advisors has guided this process and their current level of commitment should be recognized as opportunity for support and coordination.
    - The CNPCP should convene the Advisory Panel on an annual basis to share best practices, discuss emerging trends and develop the broader stakeholder survey identified above.
- CNPCP Workshops
    - Workshops are a great way to engage stakeholders and practitioners in the region; to the extent the CNPCP will host technical assistance workshops, these should be considered excellent opportunities for engagement.
- Five Year Needs Assessment
    - After the fifth year of CNPCP implementation, ICMP should reconvene the Advisory Panel to evaluate the program's overall focus and effectiveness. At that point, ICMP should establish with the Advisory Panel a regular schedule for evaluation and assessment of the CNPCP and its focus.

2.4. Technical and Financial Assistance

As detailed under the descriptions of the Management Measures, the CNPCP can take advantage of numerous voluntary programs, technical assistance manuals and programs, and grant funding sources to support non-point source pollution control in Illinois' Coastal Zone. These can broadly be divided into programs that are sources of funding and those that provide other forms of technical assistance, including voluntary programs.

2.4.1. Financial Assistance

Many forms of financial assistance are available in Illinois to reduce nonpoint source pollution. One subset of these programs provides **direct grants** to qualifying local units of government and non-profit organizations.

2.4.1.1. Illinois' Green Infrastructure for Clean Water Act

The Illinois Green Infrastructure Grant Program (Public Act 96-26) allows the Illinois Clean Water Initiative (State Revolving Loan fund) to be used for nonpoint pollution control. Projects in the Coastal Zone are eligible for this funding. (http://www.epa.state.il.us/water/financial-assistance/igig.html)

2.4.1.2. Streambank Stabilization and Restoration Program

Sponsored by the Illinois Department of Agriculture (IDOA) and USDA NRCS, the program is designed to demonstrate effective, inexpensive vegetative and bio-engineering techniques for limiting streambank erosion. Program monies fund demonstration projects at suitable locations statewide and provide cost-share assistance to landowners with severely eroding streambanks. The IDOA, Illinois' soil and water conservation districts and the Natural Resources Conservation Service of the U.S. Department of Agriculture (NRCS) serve as partners in implementing the program. Urban streams, such as those within the Illinois Coastal Zone, are eligible for funding (http://dnr.state.il.us/OREP/pfc/Incentives.htm#SSRP).

2.4.1.3. Clean Vessel Act

The Act (50 CFR 85) provides grant funds to IDNR to distribute for the construction, renovation, operation, and maintenance of pumpout stations and waste reception facilities for recreational boaters and also for educational programs that inform boaters of the importance of proper disposal of their sewage. Under this act, marinas can receive funding to install a pump-out system. In exchange for grant funding, marina owners agree to maintain pump-out systems in good operating condition for a minimum of 10 years and not to charge more than $5 per pump-out. The pump-out system must be able to accept waste from portable toilets, as well as holding tanks, and must be available to the public during reasonable business hours.

2.4.1.4. State Programs under the Clean Water Act

IEPA is responsible for carrying out the financial and technical assistance sections of the Clean Water Act. Section 104(b)(3) of the CWA provides for financial assistance for training, surveys, studies, investigations, and demonstration projects to support water quality improvement, watershed planning and management, nonpoint source planning, wetlands protection, coastal and estuarine planning, treatment technologies, water efficiency, and environmental management systems. Through Section 319(h) of the CWA, IEPA provides grant funds for projects that prevent, eliminate, or reduce water

quality impairments caused by NPS pollution (http://www.epa.state.il.us/water/financial-assistance/non-point.html). Projects can be implementation of an approved watershed-based plan; development of a watershed based plan or total maximum daily load (TMDL) implementation plan; best management practice (BMP) implementation; information and outreach; monitoring development and implementation TMDLs and watershed implementation plans; technical assistance demonstration of new technology and education and outreach.

2.4.1.5. The Chi-Cal Rivers Fund

The Chi-Cal Rivers Fund is a program within the National Fish and Wildlife Foundation, new in 2013. The Fund is a private-public partnership which funds projects to enhance in stream habitat for aquatic life within the CAWS. IDNR and MWRD are two of the partners contributing to fund the program. Funded projects may include riverbank naturalization, bank stabilization, riparian buffer planting, in-stream structure installation, and restoration of wetlands, prairies, and forests adjacent to watercourses (www.nfwf.org/chi-cal).

2.4.1.6. Park and Recreational Facility Construction Grant Program

The Park and Recreational Facility Construction Grant Program (PARC), Public Act 096-0820, provides for grant funding to acquire land to protect floodplains, wetlands, natural areas, wildlife habitat, and unique geologic and biologic features (https://dnr.state.il.us/ocd/newparc1.htm).

2.4.1.7. Special Wildlife Funds Grant Program

The IDNR Office of Resource Conservation's Division of Wildlife Resources administers special grant programs that are funded by Illinois sportsmen through the purchase of Habitat Stamps and Migratory Waterfowl Stamps. For CNPCP, relevant programs include the Illinois Habitat Fund, the Migratory Waterfowl Stamp Fund, and the Illinois Wildlife Preservation Fund. Eligible projects include those seeking to preserve, protect, acquire or manage habitat (all wetlands, woodlands, grasslands, and agricultural lands, natural or altered) in Illinois that have the potential to support populations of wildlife in any or all phases of their life cycles (https://dnr.state.il.us/grants/special_funds/wildgrant.htm).

2.4.1.8. Illinois Coastal Management Grants Program

ICMP provides grant funding which can be used for qualified projects within the Illinois Coastal Zone. As of June 2014, sustainable coastal planning and environmental education and outreach projects that address wetland restoration, channelized streams improvements, pollution prevention, or watershed management, etc. are eligible. Additional funding categories, including wetland acquisition and green infrastructure implementation, may be added in the future.

2.4.1.9. Urban and Community Forestry Program

Through the Urban and Community Forestry Program, IDNR provides funding to local governments for urban and community forestry management. This may include the purchase and planting of trees to improve urban riparian corridors or wetlands. http://dnr.state.il.us/orc/Urbanforestry/financialasst.html

Other programs are in place that provide for **Public Investment** in lands or other projects that will reduce nonpoint pollution.

2.4.1.10. Local Land Purchase Funds

The Forest Preserve Districts of Cook and Lake Counties, as well as Park Districts and municipalities throughout the Illinois Coastal Zone have funding and authority for land acquisition, preservation, restoration, and management. These acquisitions may include special lands and waters that provide important water quality or biological functions in the coastal zone.

2.4.1.11. Chicago Green Stormwater Infrastructure Strategy

The City of Chicago has adopted a Green Stormwater Infrastructure Strategy (see http://www.cityofchicago.org/content/dam/city/progs/env/ChicagoGreenStormwaterInfrastructureStrategy.pdf). This sets forth an investment strategy and policy for stormwater infrastructure that will reduce the frequency, volume, and contaminant loads from combined sewer overflows (CSO) in the Chicago Area Waterway System.

2.4.1.12. Natural Areas Acquisition Fund

Authorized by the Illinois Natural Areas Preservation Act (525 ILCS 30/6.01), the Fund is, administered by the IDNR, provides funding for purchase, protection and stewardship of high quality natural areas including wetlands and riparian habitats.

2.4.2. Other Technical Assistance

Several opportunities fall under the category of "**Voluntary Programs"**, in which entities and individuals can access programs that help reduce nonpoint pollution.

2.4.2.1. Clean Marinas Program

This program is managed by ICMP. Clean Marinas is a voluntary, incentive-based program that encourages marina operators and recreational boaters to protect coastal water quality by engaging in environmentally sound operating and maintenance procedures. The Illinois Clean Marina Program offers information, guidance, and technical assistance to marina operators, local governments, and recreational boaters on Best Management Practices (BMPs) that can be used to prevent or reduce pollution. Marinas that participate in the Clean Marina Program are recognized for their environmental stewardship. The program has published the Illinois Clean Marina Program Guidebook, containing a number of water quality BMPs. (http://www.dnr.illinois.gov/cmp/pages/illinoiscleanmarina.aspx)

2.4.2.2. Household hazardous waste collection

Collection of household hazardous wastes is sponsored by the IEPA in partnership with local units of government. Household hazardous waste collections, funded by statewide fees on landfilled nonhazardous solid wastes, are free to the public. An Agency contractor assures that all wastes are properly containerized, manifested and safely transported to their ultimate destination. Acceptable wastes includes oil-based paints, household batteries, paint thinners, used motor oil, herbicides, drain cleaners, insecticides, lawn chemicals, pesticides, solvents, old gasoline, antifreeze, pool chemicals, hobby chemicals, cleaning products, aerosol paints, products containing mercury, fluorescent lamp bulbs, double bagged and wetted asbestos, old and outdated medicines and pharmaceuticals. For example, Chicago's program is online here:

http://www.cityofchicago.org/city/en/depts/cdph/supp_info/hccrf/household_chemicalscomputerrecyclingfacilityoverview.html

2.4.2.3. "Acres for Wildlife"

This is an IDNR Landowner Assistance Program. Through "Acres for Wildlife," landowners receive help in protecting, improving, or developing lasting wildlife habitat on their property. Key provisions include: the program is strictly voluntary, landowners retain complete property control (trespass for any reason is prohibited without landowner permission), there is no cost for IDNR services (or payments for participation). In return for IDNR assistance, landowners pledge their willingness to protect and improve habitat on their land as they are able. Protecting a minimum of one acre of habitat for at least one year is required. Landowners, including riparian land owners, will receive a management plan which may suggest changes to land management including the use of prescribed fire, the control of invasive species, etc. Free native plant seeds or plugs may be provided, and biologists advise land owners on available funding (https://dnr.state.il.us/orc/Wildliferesources/AFW/).

2.4.2.4. Conservation Easements

According to the Real Property Conservation Rights Act (765 ILCS 120/1 et. seq.), a landowner may grant a conservation easement to any agency of the state, a unit of local government, or a not-for-profit corporation or trust. The appraised value of an easement may qualify for a federal income tax deduction as a charitable contribution. Technical assistance is available from a range of sources including the Land Trust Alliance (http://www.landtrustalliance.org/). Many of the funding sources noted here require an easement for projects on private property, and private lands are crucial to nonpoint pollution strategies in various parts of the Coastal Zone such as the ravines.

2.4.2.5. Illinois Nature Preserves Commission

Established by the Illinois Natural Areas Preservation Act (525 ILCS 30/), the Illinois Nature Preserves Commission (INPC) promotes the preservation of significant lands and oversees their stewardship, management, and protection by offering various land protection options designed to assist landowners who wish to voluntarily preserve their land (http://dnr.state.il.us/inpc/Index.htm). Several programs are available for landowners with properties with high-quality natural communities or other significant natural and/or archeological features. The INPC operates within the IDNR.

Additional technical assistance is available in the form of **Resources** such as technical manuals and related information.

2.4.2.6. Watershed Management Technical Manuals

Technical manuals for implementing the Cook County Watershed Management Ordinance, Lake County Watershed Development Ordinance and the City of Chicago Stormwater Management Ordinance have been published by the lead agencies. These manuals provide guidance on meeting the non-point source pollution control measures required by the respective ordinances. For example, the Lake County manual is available here:

http://www.lakecountyil.gov/Stormwater/FloodplainStormwaterRegulations/WDOandTRM/Pages/TechnicalReferenceManual.aspx

2.4.2.7. Illinois Urban Manual

The Illinois Urban Manual (IUM, available at http://www.aiswcd.org/ium) is a technical resource containing a myriad of stormwater best management practices, ranging from planning guides to practice standards and design specifications, including soil erosion and control practices. This practice, and others in the IUM, is used statewide to mitigate effects of watershed development. It is regularly updated by the Illinois Association of Soil and Water Conservation Districts.

2.4.2.8. Floodplain Management in Illinois Quick Guide

This guide, published by the IDNR Office of Water Resources, was written to encourage "smart" development and to minimize flood damage. The intended audience is landowners and developers interested in completing projects within floodplains. The guidebook provides visual examples of the hazards of developing within floodplains, including flooding risk and the impacts of adding fill on the upper bank or within the floodplain. Although the main goal is preventing flood damage, several of best management practices within the guidebook reduce non-point pollution and protect riparian areas and streambanks. http://www.dnr.illinois.gov/waterresources/documents/resman_ilfpmquickguide.pdf

2.4.2.9. Extension Land Use Information

The University of Illinois Extension provides information on land use planning and riparian corridor and habitat management for local communities. They provide guidance on cost-sharing incentive programs available through federal, state, and some local governments help reduce the expenses of restoration or protection (http://urbanext.illinois.edu/lcr/environmental.cfm).

Outreach programs provide an additional mechanism for technical assistance in the CNPCP.

2.4.2.10. IEPA's Phase II MS4 Stormwater Program

The program requires permit holders to conduct public education and outreach on storm water impacts. This can include distributing educational materials and performing outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality. Permit holders are also required to provide opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel.

2.4.1.11. IDNR Boating Education and Safety Program

This program provides a Boating Education Certificate of Competency to boaters that complete the course, either in person or online. This course is aimed at boaters under the age of 18, to prevent reckless driving of a motorized boat. Various course components relate to reducing nonpoint pollution, including fueling a boat and proper disposal of waste, oil, and trash.
(http://www.dnr.illinois.gov/safety/pages/boatingsafety.aspx)

2.5. Monitoring

Section 6217 of the CZARA of 1990 calls for a description of monitoring techniques that accompany the prescribed management measures in reducing pollution loads and improving water quality. By tracking the management measures and water quality over time, Illinois will continue to evaluate the performance and effectiveness of the management measures and determine if additional management measures are needed.

To evaluate the effectiveness of the CNPCP, Illinois will use existing monitoring and analysis efforts. Water quality monitoring activities in Illinois are designed to support and direct other program activities by providing information on the quality of water resources and to determine the effectiveness of water pollution control programs. This information is established through the collection and assessment of water and sediment chemistry, macroinvertebrates, fish population and species diversity, physical habitat, fish tissue residue, bioassay, and stream discharge data.

Both fixed station networks and bioassessment surveys (surface water only) are used to monitor water quality in Illinois. Fixed station networks are designed to provide background, current conditions, and long-term trend information from a broad geographic area. Bioassessment surveys are designed to provide more intensive, site-specific water resource information to accurately characterize the biological integrity of water resources and the identification of sources, both point and NPS. Monitoring efforts are conducted by the IEPA, IDNR, Illinois Department of Public Health (IDPH), Illinois Department of Agriculture (IDOA), the Prairie Research Institute and the U.S. Geological Survey. Interagency coordination reduces the duplication of monitoring, standardizes data units, and expands the research database. The participating agencies test different waterbody types for a variety of water quality parameters. Monitoring efforts include problem detection activities and long-term trend analysis.

Evaluation methods for each management measure are included in tables at the end of chapters four through seven. Management measure implementation success can be tracked through these evaluation methods in addition to water quality monitoring.

IEPA's Statewide Nonpoint Source Management Program is critical to this program. Monitoring and assessment efforts are an integral part of the IEPA program, which was finalized in September 2013. Illinois will use these efforts to implement the monitoring and tracking requirement of Section 6217 of the CZARA of 1990.

The goals of statewide monitoring closely align with CNPCP. These objectives include defining and designating priority areas in the state, monitoring implemented BMPs, evaluating NPS pollution reduction and watershed plan implementation effectiveness, and ultimately reducing NPS pollution in order to improve water quality in Illinois. An annotated list of current monitoring and assessment programs that are conducted in Illinois is included in Section 8.2.2.

IEPA has determined that additional monitoring locations, tools, and activities are needed to better define and address NPS pollution impairments in Illinois. To this end, the Illinois Water Monitoring Strategy 2007 – 2012 (Strategy) will be updated starting in the fall of 2013. IEPA uses the Strategy as a

foundation for prioritization and implementation of both the state-wide efforts and the watershed-scale management activities.

The following programs are in place to monitor water quality. This text is modified from the Illinois' Nonpoint Source Management Program document which was approved in September 2013. The applicability of each program to the Illinois Coastal Zone may vary.

Ambient Lake Monitoring Program (ALMP) IEPA conducts the ALMP at approximately 50 inland lakes annually, including sites within the Illinois Coastal Zone, to diagnose lake problems, encourage development of management plans, and to evaluate the effectiveness of programs implemented. ALMP monitoring involves the collection of physical data (e.g., temperature/dissolved oxygen profiles, water clarity, and water color), water and sediment chemical data, and field observations, including weather conditions and the presence of algae and macrophytes. Inland lakes monitoring as part of the ALMP are monitored five times; once during the spring runoff and turnover period (April or May), three times during the summer (June, July, August) and once during fall turnover (October). Monitoring of each lake occurs every 3 or 5 years depending upon the site. Data are routinely collected from three distinct lake stations, 1) deep lake, 2) mid-lake, and 3) headwater. Water quality parameters analyzed include suspended solids, nutrients, and chlorophyll. A sediment grab sample is collected at Stations 1 and 3 once during the sampling season and analyzed for organic and inorganic constitutes. Lakes that serve as source water for public waters supplies are also sampled for organic and inorganic compounds as part of the Source Water Protection Program. A more detailed description of the ALMP is available in Lake Notes brochure.

Ambient Water Quality Monitoring Network (AWQMN) Historically, stream water quality data in Illinois have been collected by several state and federal agencies including the Illinois State Water Survey (ISWS), the Illinois Department of Public Health (IDPH), IEPA, and the U.S. Geological Survey (USGS). This monitoring has resulted in a rich data set from streams ranging in size from small agricultural drainage ditches to the Mississippi River. This network currently includes 202 stations statewide. IEPA uses the AWQMN to (a) provide baseline water quality information; (b) characterize and define trends in the physical, chemical, and biological conditions of the Illinois' waters; (c) identify new or existing water quality problems; and (d) act as a triggering mechanism for special studies or other appropriate actions.

Illinois Clean Lakes Program (ICLP) The Illinois Clean Lakes Program is a financial assistance grant program that fosters lake owners' interest and commitment to long-term, comprehensive lake management. Generally three to five lakes statewide are sampled each year as part of this program.

Facility-Related Stream Surveys (FRSS) IEPA conducts Facility-Related Stream Surveys (FRSS) primarily on wadeable streams. These surveys involve the collection of macroinvertebrate, water chemistry, stream flow, and habitat data upstream, and incrementally downstream, from municipal and industrial wastewater treatment facility discharges. The FRSS information is used to evaluate water quality impacts and the need for additional wastewater treatment controls. Data are also used to (a) characterize the existing and potential aquatic resource of each receiving stream; (b) determine whether there is a significant biological impact to the receiving stream; and (c) support BOW's NPDES permit

reissuance activities. Depending on staff resources, 10 to 30 surveys may be conducted annually statewide, usually during July through September.

Fish Contaminant Monitoring Program (FCMP) IEPA participates in the FCMP in accordance with a memorandum of agreement with IDNR, IDPH, and IDOA. Fish samples area analyzed for approximately 28 parameters. The statewide monitoring network consists of the following components:

- Intensive Basin Survey Samples
- Follow-up Samples
- Lower Priority Samples
- Lake Michigan Samples
- Special Samples.

Intensive Basin Surveys (IBS) Surveys are conducted in selected basins each year by IEPA Bureau of Water in cooperation with the Illinois Department of Natural Resources (IDNR). An IBS is designed to meet several objectives, some of which apply only to one of the two cooperating entities. Basins are selected each year so that statewide coverage is achieved once every five years. Each year, more than 100 stations are monitoring for biological, chemical, and physical indicators of aquatic resource condition. Intensive Basin Surveys are a major source of information for assessing attainment of aquatic life use in Illinois streams. At each IBS station, fish and macroinvertebrate assemblages, physical habitat (including stream discharge), and water chemistry are measured or otherwise characterized to determine resource conditions. Sampling for fish-tissue contaminants and sediment chemistry also is conducted to screen for the accumulation of toxic substances.

Lake Michigan Monitoring Program (LMMP) Recognizing the great importance of Lake Michigan as a natural asset, the 75th Illinois General Assembly authorized IEPA through 615 ILCS 5/14a to "regularly conduct water quality and lake bed surveys to evaluate the ecology and quality of water in Lake Michigan." Since 1977, the Illinois/Indiana portion of Lake Michigan has been monitored under the terms of a cooperative agreement between the City of Chicago and IEPA. The current Lake Michigan Monitoring Program, as conducted by the City of Chicago's Water Quality Surveillance Section, consists of 80 stations on five separate surveys:

- 14 Open Water stations (6 – 18 miles offshore)
- 23 Jardine Water Purification Plant Radial stations
- 22 South Water Purification Plant Radial stations
- 10 North Shore stations (1-4 miles offshore)
- 11 South Shore stations (<1-6 miles offshore)

Radial surveys are designed to collect samples within a ten-mile radius of the water purifications plants. An ideal monitoring season would consist of 22 surveys; four open water surveys, six radial surveys, and twelve shore surveys. Water quality parameters routinely collected by the city include water temperature, nutrients, solids, chloride, sulfate, bacteria, and plankton. Shore surveys are conducted more often than radial and open water surveys. Generally six north shore and six south shore surveys are run each year. As a result, IEPA attempts to accompany the City of Chicago on these shore surveys

in order to collect additional information not routinely collected by the city including: metals, cyanide, pesticides, phenols, and field measurements of pH, dissolved oxygen, conductivity, and turbidity. The Lake Michigan Monitoring Program is utilized by IEPA to provide ongoing water quality information to define trends in chemical and biological conditions of the state's portion of Lake Michigan, to identify new or existing water quality problems, and to review existing water quality standards. Because of the size of Lake Michigan and the availability of the city of Chicago's tugboat, as well as weather related problems, significant IEPA staff resources are required to conduct these annual surveys.

Large Rivers Subnetwork Program (LRSP) IEPA participates in various efforts to monitor the environmental conditions of large rivers, including US EPA's "Survey of the Nation's Rivers' project and ongoing large-river sampling and biological assessment studies by the Midwest Biodiversity Institute and US EPA Region 5.

Source Water Assessment and Protection Program (SWAP) The IEPA is implementing a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies. The 1996 amendments to the federal Safe Drinking Water Act established several programs that will help water suppliers continue to provide safe, adequate, and affordable water to their customers. As required by these amendments, the IEPA, in cooperation with water utilities and other stakeholder, has developed and the USEPA has approved, Illinois' SWAP. The purpose of SWAP is to:

- Identify areas that supply drinking water to the public
- Inventory potential sources of contamination
- Determine the susceptibility of the source water to contamination
- Information the public of the assessment results

Assessments will be conducted for all public water supplies in Illinois, including approximately 1,800 community water supplies. In addition, more than 4,100 non-community water supplies will be assessed. The Source Water Assessment Program will help communities make important decisions about how to protect their drinking water. By working to ensure safe drinking water supplies, the health and economy of the community, as well as the preservation of natural resources, will be greatly improved.

Volunteer Lake Monitoring Program (VLMP) The Volunteer Lake Monitoring Program (VLMP) serves as an educational program that teaches Illinois citizens about lake ecosystems, contributing to an understanding of lake/watershed relationships and promoting informed decision-making. It also provides a cost-effective method of gathering fundamental information about inland lakes. About 175 lakes statewide participate annual in the VLMP. Each VLMP lake generally has three stations: Station 1 is the deep station; Station 2 is at mid-lake and generally mid-depth; and Station 3 is located in the headwater area or opposite of Station 2. Volunteers are requested to monitor each station twice a month from May through October. Volunteers collect Secchi transparency, total depth, and various field observations at each station. Additionally, volunteers collect water quality samples on a monthly basis at a little over half of the sites. These samples are filtered and sent to the laboratory for analysis for nutrients, suspended solids, chlorophyll and other parameters to assess each lake's condition.

Watershed-Based Monitoring (e.g., Nonpoint Source/BMP, TMDL) When monitoring data from various surface water programs are available and relevant to specific CWA Section 319 projects, IEPA uses these data to "evaluate… to the extent that appropriate information is available, reductions in NPS pollutant loading and improvements in water quality…resulting from implementation of the management program," in accordance with CWA Section 319(h)(11). When monitoring data from various Agency surface water programs or contractual efforts are available and relevant to specific watershed or TMDL plans, IEPA uses these data to plan, track its success, and adapt it accordingly.

Lake Michigan Nearshore Bacterial Monitoring Lake Michigan beaches and their coastal waters are a highly valued societal and ecological resource. These beaches are widely popular, highly used, and frequently monitored by stakeholders and local government to ensure that water quality conditions support safe and healthy recreation. There are 51 segments along the shoreline listed as impaired on Illinois' 303(d) list. The segments are not synonymous with "beaches" because not all 51 segments are considered beaches as defined by the local management agencies and are therefore not regularly monitored. However, all Lake Michigan nearshore waters have a designated use for primary contact recreation (77 Ill. Adm. Code 820.400); therefore, IEPA assesses any shoreline segment with available monitoring data at the time of the assessment to determine if they are supporting its designated use. Segments without swimming access are not monitored regularly, but historical data indicate whether each segment supports its designated use. Lake County beaches are monitored by the Lake County Health Department. The beaches within Cook County are monitored by municipal agencies, including: Glencoe Park District, Winnetka Park District, Kenilworth Public Works Department, Wilmette Park District, Evanston Health Department, and Chicago Park District. Analysis includes daily assessment of health risk, long term trend analysis, and Total Maximum Daily Load development and implementation.

Wetland Monitoring Wetland monitoring in Illinois is primarily conducted through the Critical Trends Assessment Program (CTAP) run by the Illinois Natural History Survey. This program, started in 1997, randomly selects 150 wetland sites for sampling statewide and samples plants, birds, and arthropods to monitor ecological conditions over time. This monitoring would be expected to demonstrate trends caused by to nonpoint source pollution. Currently, IEPA neither monitors environmental conditions nor assesses attainment of uses in wetlands. Recently, IEPA coordinated the creation of an Illinois Wetland Technical Working Group that comprises natural resource professionals and stakeholders with diverse public and private interests. This wetland work group will address (a) how to define the beneficial uses of Illinois wetlands; (b) how to monitor wetland resources to assess if such uses are being attained; (c) how to identify causes of non-attainment; and (d) how to track wetland resource conditions through time.

2.6. Implementation Focus, Framework and Schedule

2.6.1. Implementation Framework

The Illinois CNPCP is a direct outgrowth of the State's ongoing implementation of programs that are designed to control nonpoint source pollution, improve and preserve water quality, and protect and enhance coastal natural resources including wetlands and riparian corridors. Implementation will be conducted through a number of existing state programs, including the following:

- Illinois Department of Natural Resources' Coastal Management Program
- Illinois Environmental Protection Agency's Nonpoint Source Management Program
- Illinois Department of Natural Resources' Office of Water Resources permitting programs

In addition, the two counties which make up the Illinois Coastal Zone, Cook and Lake Counties, have robust ordinances in place which establish uniform stormwater management requirements and provide significant technical assistance on best management practices which reduce nonpoint source pollution. These requirements supplement the state programs and are managed by MWRD and LCSMC respectively, both of which are well-resourced and technically adept regional governmental entities.

The CNPCP relies on a mix of voluntary and regulatory approaches for controlling nonpoint source pollution. For example, the Clean Marinas Program is a voluntary certification program which recognizes and encourages best management practices for sources of nonpoint pollution originating from marinas.

2.6.2. Implementation Focus and Schedule

During development of the CNPCP, ICMP and IEPA have worked with an Advisory Panel made up of expert members of the public to identify implementation activities which will be key priorities. Our expert panel identified over forty opportunities for augmenting current aspects of the existing nonpoint source framework within the Illinois Coastal Zone (See Appendix 2.2). The plurality (15) related to urban sources of nonpoint pollution (Table 2-3). The urban areas gaps were generally bigger and more pressing issues in our regions such as implementing green infrastructure practices, retrofits and protecting sensitive ecological areas. In comparison, typical gaps identified for marinas included a need for outreach and education on topics such as the Clean Marinas program, bilge disposal laws, etc..

Table 2-3 Number of Gaps per Source Category Identified by the Advisory Panel

Source Category	Number of Gaps Identified by Panel
Urban Areas	15
Wetlands	10
Marinas	9
Hydromodification	8

We have summarized the results of the advisory panel process into the following priorities. These focus areas are organized approximately in order from the highest to lowest priority, based upon the needs of

our Coastal Zone, stakeholder input, and ICMP priorities. We have no focus areas identified for Agriculture or Forestry because we are requesting exemption from these nonpoint source categories.

Focus Areas:

1) Clean Marinas Program (Marinas and Recreational Boating)
2) Implement, maintain, and monitor green infrastructure and other sustainability and best management practices (Urban Areas)
3) Wetland protection and restoration (Wetlands)
4) Ravine, riparian, and stream protection and restoration (Wetlands)
5) Sand management (Hydromodification)
6) Snow management and road salt control (Urban Areas)
7) Seawall repair, removal and replacement (Hydromodification)
8) Develop, adopt, implement, and monitor watershed plans (Urban Areas)
9) Water quality monitoring (Urban Areas, Marinas, Hydromodification, and Wetlands)
10) Other issues including commercial marinas, asphalt sealants, gull/wildlife control (primarily Urban Areas, Marinas)

Under each focus area, we have identified goals along with potential activities that the CNPCP may implement. Our main strategies for program implementation include education and outreach, training, promotion of existing tools and resources, coordination, and funding.

Our draft workplan (Table 2-4) includes activities that we expect will be undertaken by CNPCP staff, activities which can potentially be funded through IDNR or IEPA, and opportunities for CNPCP to partner with other local and regional entities. In compliance with the federal guidelines, our timeline following program approval is five years for program implementation and evidence of progress. We recognize that implementation of the CNPCP is a long-term commitment and have worked with the advisory panel to identify realistic roles for our program in the next five years.

Table 2-4 Five Year Implementation Goals for the CNPCP

Goals	Potential Role of CNPCP	Source Category
1) Clean Marinas Program		
Increase number of certified Clean Marinas	Outreach to marina operators on the Clean Marinas program	Marinas
Decrease gull problems caused by fish waste and solid waste	Enforce fish waste regulations; Outreach and education to all marinas on best practices; Certify more Clean Marinas	Marinas, Urban Areas
Increase awareness of regulations and best practices among out-of-state and resident boaters who don't have dock slips at Clean Marinas	Support work of Clean Boats Program to reach boat-ramp users; Coordinate with Great Lakes Clean Marina program to provide information to visiting out-of-state boaters	Marinas
Increase compliance with boat sewage discharge laws	Outreach on laws to boaters; Workshops for Marina management	Marinas
Reduce nonpoint source pollution from boat maintenance facilities	Increase number of certified Clean Marinas; Outreach to independent facilities on best practices	Marinas
2) Implement, maintain, and monitor green infrastructure and other sustainability and best management practices		
Increase implementation of green infrastructure practices and sustainable design	Support green infrastructure planning and/or implementation; Work with partners to provide training opportunities and materials	Urban Areas, Wetlands
Improve monitoring and maintenance of green infrastructure and BMPs	Promote operations/maintenance resources such as the Illinois Urban Manual; Coordinate with partners including MWRD and LCSMC to provide training	Urban Areas
Increase daylighting of storm sewers	Partner with local project leads to set priorities and assess next steps; Help identify and pursue funding opportunities	Hydromodification
3) Wetland protection and restoration		
Implement wetland restoration projects in a regionally-collaborative manner	Coordinate with local and regional public landowners and planning entities on prioritizing wetlands for restoration, using latest mapping tools where needed; Support restoration planning and implementation	Wetlands
Prioritize restoration and acquisition opportunities	Support mapping and data collection; Create inventory of restoration opportunities; Use existing 319 watershed plans as a resource	Wetlands
Increase restoration of privately-owned wetlands	Create data inventory on wetland ownership; Provide outreach on conservation easements and funding opportunities; Outreach and education on restoration aimed at private owners	Wetlands

3) Wetland protection and restoration, cont.		
Improve and connect hydrology in wetland areas	Help prioritize restoration projects with technical tools; Support inventories and prioritization of sensitive areas and restoration planning	Hydromodification
4) Ravine, riparian, and stream protection and restoration		
Increase implementation of BMPs on both public and private properties with ravines	Provide outreach on conservation easements and funding opportunities; Connect landowners with existing information and resources; Build partnerships to prioritize restoration projects with technical tools	Hydromodification
Improve riparian land management through coordination between riparian landowners	Create and/or promote coordination mechanisms such as working groups, forums, symposia, etc.	Wetlands
Improve the quality of ravine restoration projects	Outreach and education about existing programs and resources to communities and municipalities	Hydromodification
Protection and management of riparian lands	Support restoration and land acquisition projects; Outreach and education to riparian landowners on conservation easements and funding opportunities	Wetlands
Regulation of stormwater discharges into ravine systems	Outreach and education to municipalities; Support sustainable coastal planning	Urban Areas
5) Sand Management and shoreline protection and restoration		
Balance sand management and erosion control	Coordinate local, federal and state interests; Work with local communities to provide more info about state and federal programs; Outreach to local communities	Hydromodification
Reduce the impacts of new structural shoreline projects	Outreach and education about existing programs and resources to communities and municipalities	Hydromodification
6) Snow management and road salt control		
Improve the management of snow	Outreach and education to municipalities and private commercial enterprises on existing regulations	Urban Areas
Decrease impacts of salt (roads, sidewalks, parking lots)	Investigate the creation of a salt applicator licensing program (EX: Minnesota)	Urban Areas
7) Seawall repair, removal, and replacement		
Naturalize channelized streams and reduce risks related to failing sea walls	Work with partners to prioritize seawalls for repair, removal, or replacement, with a focus on reducing risks to people and the environment such as persistent toxins; Work with municipalities and land owners to identify next steps	Hydromodification

7) Seawall repair, removal, and replacement, cont.		
Repair and maintenance of new or existing structures (seawalls, piers)	Promote operation and maintenance technical resources; Provide information on available funding	Hydromodification
8) Develop, adopt, implement, and monitor watershed plans		
Monitoring/follow up on implementation of watershed plans	319 program staff	Urban Areas
Increase comprehensive planning at watershed scale through the development, adoption, and implementation of 319 plans	Funding is available for 319 plans; Outreach and education to local government and stakeholders; Support partnerships to complete 319 plans for additional watersheds	Urban Areas
Protect sensitive ecological areas	Ensure that sensitive ecological areas are included in 319 plans; Participate in regional planning initiatives such as the Chicago Wilderness Green Infrastructure Task Force; Provide information on available funding	Urban Areas
9) Water quality monitoring		
Improve water quality monitoring	Organize a consortium to bring together agencies conducting monitoring; Advocate for the implementation of additional water quality monitoring with strategic placement of monitors	Urban Areas
10) Other issues including commercial marinas, asphalt sealants, gull/wildlife control.		
Reduce nonpoint source pollution originating from commercial marinas	Outreach to commercial marinas on best practices and existing legislation	Marinas
Asphalt sealants	Support outreach projects such as point of purchase education on sealants	Urban Areas, Marinas
Urban wildlife and nuisance control (gulls, pets)	Education and outreach to park districts and other land owners about management tactics	Urban Areas

Progress on many of these goals will be captured in the ICMP performance measures and grant reports issued to NOAA. Many of the presentations, trainings, and coordination meetings undertaken as part of CNPCP implementation, either through CNPCP staff time or ICMP grants, will be included when ICMP reports performance measures. Other measures of progress will be captured in biannual grant reports to NOAA, regarding the Coastal Management Program Funding, and to USEPA in grant reports for the Lake Michigan Lakewide Management Plan funding ICMP receives and 319 funds. As described in the tables at the end of Chapters 4 through 7 and in the water quality monitoring section in Chapter 8, a variety of other evaluation methods are available to track progress in addition to performance measures.