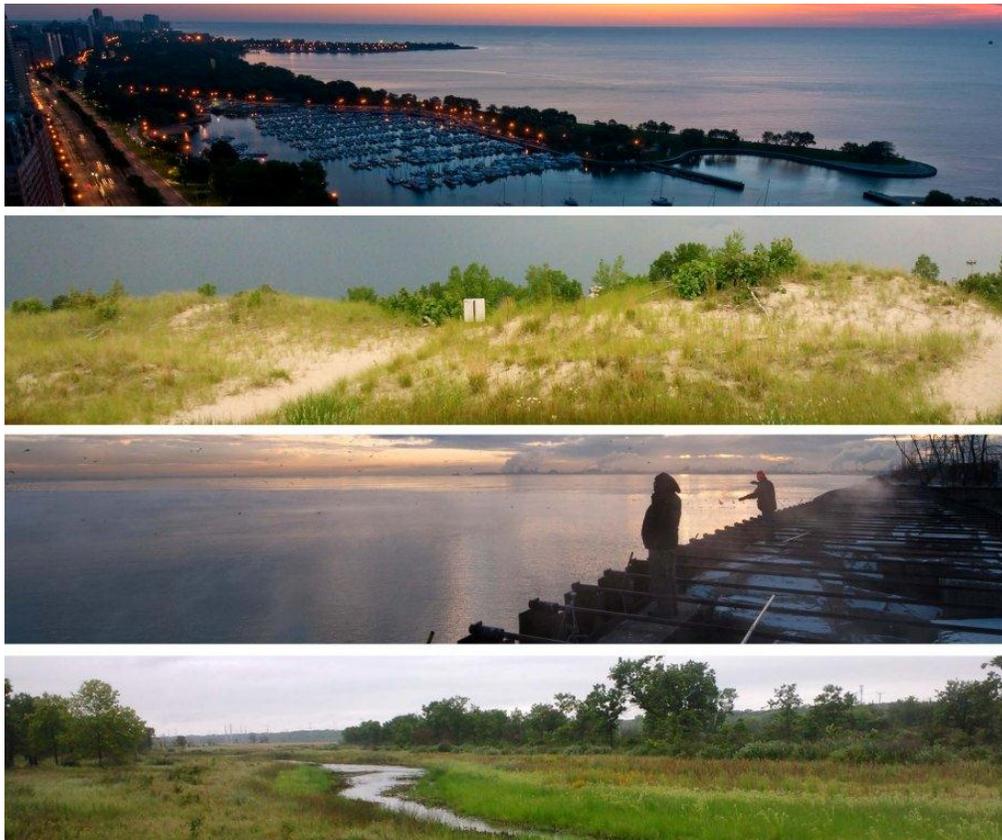


# Illinois Lake Michigan Implementation Plan

## Creating a Vision for the Illinois Coast



**Photo credits:** Lloyd DeGrane, Alliance for the Great Lakes and Duane Ambroz, IDNR

**Final December 2013**

*The Illinois Lake Michigan Implementation Plan (ILMIP) was developed by the Illinois Department of Natural Resources in partnership with the Alliance for the Great Lakes, Bluestem Communications (formerly Biodiversity Project), Chicago Wilderness, and Environmental Consulting & Technology, Inc.*



*Developed by the Illinois Coastal Management Program, a unit of the Illinois Department of Natural Resources and supported in part through the National Oceanic and Atmospheric Administration*



**Great Lakes  
RESTORATION**



*This project was funded through the U.S. EPA Great Lakes Restoration Initiative.*

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## I. Introduction

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The Illinois Lake Michigan Implementation Plan (ILMIP) is a product of an innovative effort to identify a manageable subset of program priorities for the new Illinois Coastal Management Program (ICMP). This project, funded by a grant from the U.S. Environmental Protection Agency (USEPA), used web-based technologies to gather broad stakeholder input through an open, outreach-driven process to identify program priorities. 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.

The basis for selecting program priorities originates from two main sources: The Program Document that established the ICMP and circumscribes its activities; and the Lake Michigan Lakewide Action and Management Plan (LAMP), in which the USEPA articulates its guidance for the entire Lake Michigan Basin. Many other regional resource documents and plans overlap with the two primary guiding documents and were used to support, reinforce, and refine the scope of program objectives. A full report of the ILMIP goals, methodologies, process, and complete results will be available in March 2014. This document summarizes the final results and describes how the information gathered will be used to help guide the course of the ICMP for a three to five year period for the benefit of Illinois' coast (Figure 1).

This document is an outline of planned program objectives and activities for the ICMP for 2013-2018. The plan includes two sections that present priorities from two separate, but related sources. The first section - Stakeholder-Identified Objectives - outlines broad objectives, by watershed, that were identified and prioritized through a multi-part stakeholder engagement process. The prioritization process identified a set of objectives with particular resonance for stakeholders within the Illinois Coastal Zone. ICMP plans to focus staff time and other resources on the top prioritized objectives for the respective watersheds and throughout the coastal zone.

The second section - Program-Directed Objectives/Priorities - outlines objectives and activities that are built into the ICMP through grant and program obligations; agency priorities; or critical needs that have been identified by program leadership. There is significant overlap between these two sets of priorities, but also some significant differences.

Additional priorities and opportunities may arise through the plan period. ICMP will be responsive, as appropriate, but will maintain significant focus on priorities and objectives outlined in ILMIP.



*Photo: Ania Ruszaj, IDNR*



*Figure 1. Illinois' Coastal Zone boundary, as approved by NOAA in 2012. Major communities partly or wholly within the Coastal Zone are listed.*

## II. Illinois Lake Michigan Watersheds

Illinois' Lake Michigan coast includes three distinct watersheds that differ substantially from one another in terms of their physiography, patterns of human use and conservation, and current coastal conservation issues. From north to south, they are the Pike-Root watershed, the Chicago River watershed, and the Little Calumet-Galien watershed (Figure 2). These watersheds were used as a basis for subdividing the Coastal Zone into three regions to consider local priorities (Figure 3).

The northern section of Illinois coast includes Pike-Root watershed which stretches from southeastern Wisconsin into Illinois. In this section of the Coastal Zone, the watershed covers over 105 square miles and contains 32 miles of Lake Michigan shoreline between Wisconsin border and Wilmette. The combined effects of the draining of the majority of the wetlands and stream channel manipulation have led to degraded water and habitat quality throughout the Pike-Root Basin. The watershed also includes Illinois' only Great Lakes Area of Concern (AOC) at Waukegan Harbor. Industrial contamination from polychlorinated biphenyls (PCBs) occurred there in the past and is currently being addressed. Despite these issues, the Pike-Root watershed includes a significant amount of high-quality natural habitat, anchored by 4,160-acres at Illinois Beach State Park. With 6.5 miles of natural shoreline, the park hosts a Nature Preserve, an extensive dune and swale system, and the Dead River, a higher-quality stream system. Numerous rare species and examples of high-quality natural communities occur here. South of Waukegan, the Lake Michigan shoreline of this watershed includes numerous ravines, some with significant natural areas supporting rare species. In ILMIP, we defined our northernmost region to include the Pike-Root watershed north of the North Shore Channel, which we called the Northern Region.

The central section of Illinois' coast includes the lakefront section of Pike-Root watershed and areas in the basin of the Chicago River, which once drained into Lake Michigan in downtown Chicago. The river was reversed with channels and control structures in the early 20<sup>th</sup> Century, and now Lake Michigan water flows through the Chicago River system into the Des Plaines River, a part of the Mississippi River basin. Because of this major change, the land area of the Coastal



**Figure 2.** The major watersheds of the Illinois Lake Michigan coast. By comparing this map to Figure 1, it is evident that only a small portion of the Chicago River watershed is included within the Coastal Zone boundary.

Zone here is limited to narrow sections bordering Lake Michigan, downstream segments of the Chicago River including parts of both North and South branches, and the North Shore Channel. The total area of this part of the Coastal Zone is 25 square miles with approximately 29 miles of Lake Michigan lakeshore. This area is 87% urban, and this stretch of coast receives the most intensive and diverse recreational uses. Despite urbanization and use, significant habitat remains along the lakeshore and provides important habitat for migratory songbirds. The Central Region of the Illinois coast for ILMIP was defined to include this southern coastal section of the Pike-Root watershed and the banks of the Chicago River and North Shore Channel.

The southernmost part of the Illinois Coastal Zone includes the Calumet River (part of the Little Calumet-Galien watershed) that was also heavily modified and reversed as part of the Chicago Area Waterway System in the early 20<sup>th</sup> Century. This watershed includes the modified remnants of two large natural lakes that once drained to Lake Michigan - Lake Calumet and Wolf Lake - and slightly more than two miles of Lake Michigan shoreline. Pre-industrial land cover included a system of low sand dunes separated by wetland swales, sheltering diverse plants and wildlife. This area was heavily industrialized, with much of the former industrial land now abandoned, leaving numerous brownfield sites. Large scale dumping of slag from the steel industry altered and destroyed many wetland areas and significantly altered local hydrology. However many important natural lands have survived, and others have been restored, providing regional biodiversity hotspots and important habitat for wetland species, particularly birds. Due to the original topography with extensive wetlands (5% of the land area) and subsequent changes, flooding and stormwater pollution are significant here. In ILMIP we referred to this section as the Southern Region.

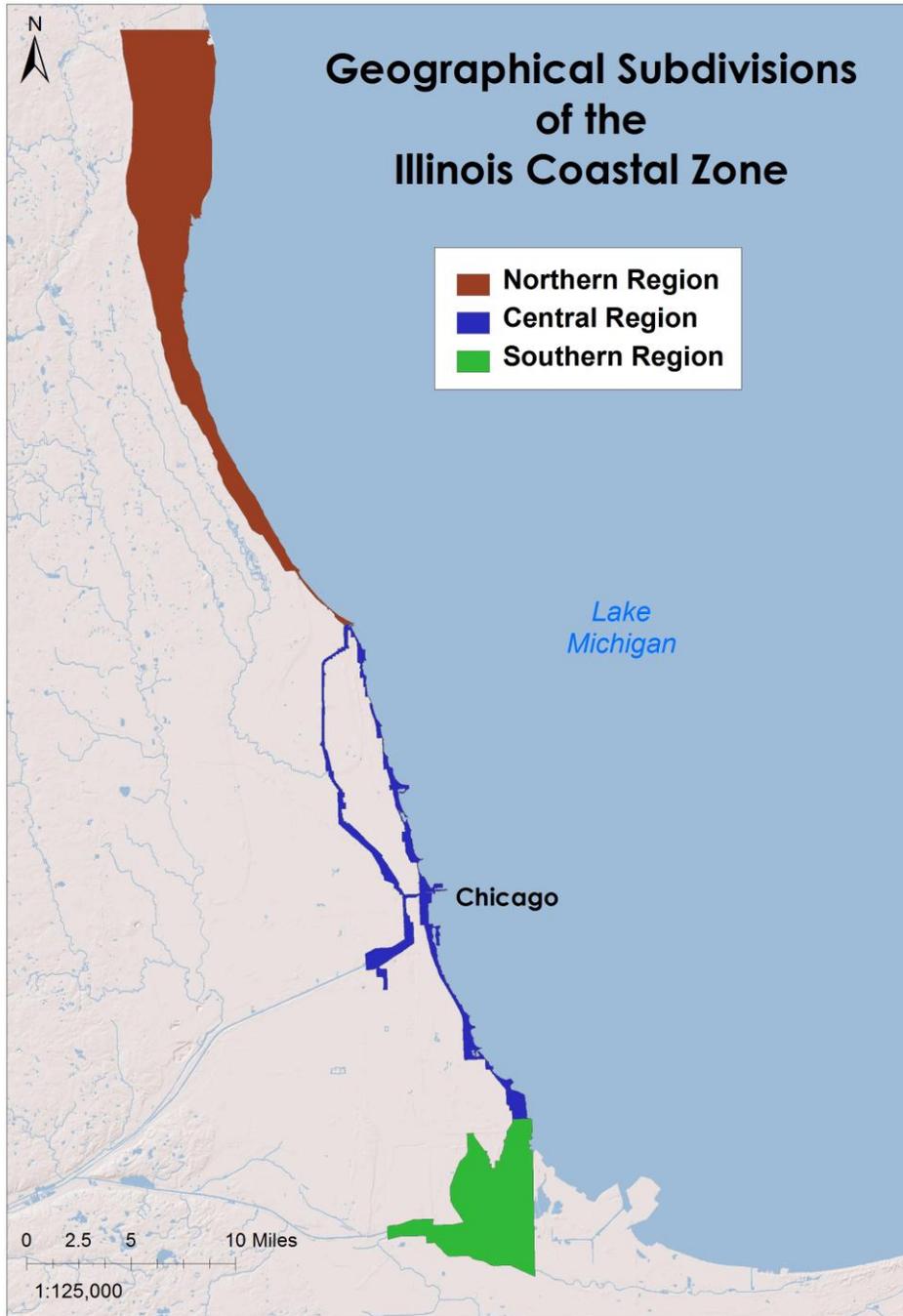
The differences among the three major sections of the Illinois Coastal Zone have led us to organize our planning around these geographic designations, in addition to considering issues at the level of the full Coastal Zone (Figure 3). This allows us to better target strategies, partnerships, and grants to the local priorities in each area. For example, while all three areas retain significant remnant coastal habitats, the types of habitats and their management needs are distinct. The Pike-Root area includes large, high-quality natural communities where management for diverse native vegetation is needed. In the central area of



*Hegewisch Marsh, Chicago*

**Photo:** IDNR

the Chicago coast, habitat areas are more modest and interspersed with non-native park plantings. Enhancing shoreline and riverfront parks for migratory birds will be a key focus. In the Calumet region, the focus will extend to wetland management techniques to improve hydrology at heavily modified sites to restore marsh types needed by breeding birds.



**Figure 3.** Geographic subdivisions of the Illinois Coastal Zone used in ILMIP.

### III. Foundations of ILMIP

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The Illinois Lake Michigan Implementation Plan is primarily based on two guiding documents: the Lake Michigan LAMP and the ICMP Program Document. The Lake Michigan LAMP is a vision and status report on the health of the lake developed by the USEPA. It was created and is regularly updated through a collaborative process, and has been organized into a series of goals which envision a healthier future for Lake Michigan. The ICMP Program Document established the ICMP and circumscribes its objectives and activities. LAMP goals were considered in developing the ICMP Program Document, and the ILMIP Issue Areas were created by merging the LAMP goals with the Issue Areas from the ICMP Program Document.

#### ILMIP Issue Areas

The ICMP Program Document identified ten main priority issue areas, which are the foundation for program implementation. Corresponding Lake Michigan LAMP goals are incorporated into the appropriate, related ICMP Issue Areas noted below.

**Area of Concern (AOC).** Waukegan Harbor is the only designated AOC in Illinois. Six “beneficial use impairments” were originally identified in the Waukegan Harbor Remedial Action Plan (RAP). The impairment designations for beach closings and loss of fish and wildlife habitat have been removed, leaving four impairments requiring additional action. These include restrictions on fish and wildlife consumption, benthos degradation, restrictions on dredging (removal request in process), and degradation of phytoplankton and zooplankton populations.

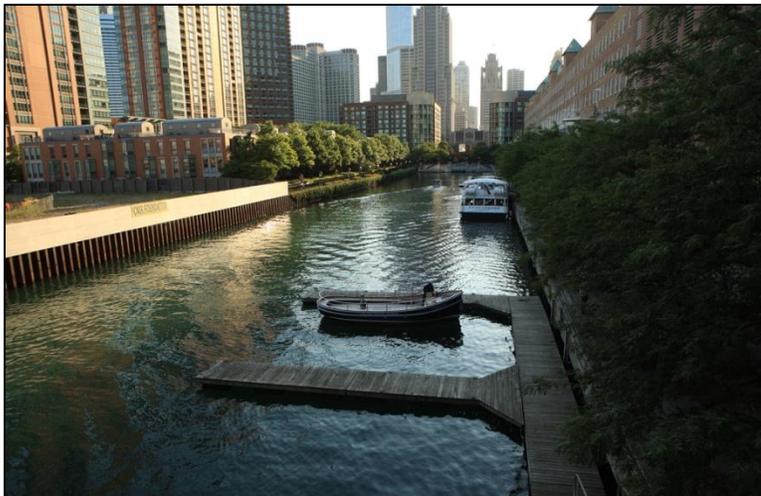
**Climate Change.** Climate change is related to and will likely influence all other issues. The focus is on helping human and natural communities reduce risks exacerbated by climate change, and to prepare for and adapt to anticipated changes. For that reason, climate change actions are embedded into other issue objectives. The LAMP recognizes the significant potential effects of climate change on Lake Michigan. Climate change has been the focus of recent LaMP updates and monitoring work.

**Economic Development.** Our coastal communities are essential components of a strong Illinois economy, and coastal resources support significant tourism and economic uses. Wise, appropriate, and sustainable use of coastal resources improves local and regional economies.

**Habitat, Ecosystems, and Natural Area Restoration.** The Illinois Coastal Zone contains a diverse collection of habitats with a wide range of restoration and management needs. Beaches, dune and swale communities, bluffs, ravines, forest fragments, wetlands, riparian corridors, and brownfields all present management challenges. Sites which were singled out for attention in the program document include the undeveloped portions of shoreline in Cook and Lake

counties immediately north of Chicago to the Wisconsin state line, the Chicago River system, Lake Calumet, the Little Calumet River, and nearby wetlands. The Lake Michigan LAMP includes the goal that all habitats are healthy, naturally diverse, and sufficient to sustain viable biological communities.

***Invasive Species.*** Long term sustainable solutions to terrestrial and aquatic invasive species are necessary to restore and maintain the health of coastal ecosystems. Prevention, monitoring, control, and impact mitigation are essential components of a multi-pronged approach to this challenging issue. The Lake Michigan LAMP has a related goal to prevent and control aquatic and terrestrial nuisance species.



*Ogden Slip, Chicago*  
**Photo:** IDNR

***Non-Point Source Pollution.*** Non-point source pollution in Illinois is primarily related to stormwater. Various regimes for managing stormwater are used within the coastal boundary, including direct discharge into Lake Michigan. This issue area is connected to two LAMP goals: 1. To protect Lake Michigan water quality; and 2. To ensure that Lake Michigan beaches are open at least 90% of the time.



*Canada Geese at industrial site.*  
**Photo:** IDNR

***Persistent Bio-Accumulative Toxins.***

Toxic issues in northeastern Illinois are generally legacies from the region's industrial past. Contaminated sites are mostly well-documented and tend to be concentrated in the river sediments, brownfields, and Superfund sites. The LAMP has two goals that relate to this issue area: 1. To ensure that sediment, air, water, and land sources or pathways are free of

contamination that would affect the integrity of ecosystems; and 2. To eliminate lakewide fish consumption advisories due to toxic contaminants.



*Rowing, North Shore Channel.*  
**Photo:** IDNR

***Priority Rivers, Lakes, and Harbors.*** The Coastal Zone boundary includes the North Shore Channel and parts of the Chicago River system and Calumet River. There are also inland lakes that are hydrologically linked to the Calumet River as well as many economically important harbors throughout the Coastal Zone. Public access, habitat connectivity, water quality, and rehabilitation of contamination at these sites are important components of the ICMP and LAMP.

***Public Access and Recreation.*** Illinois' shoreline is increasingly used for recreation at unprecedented levels. The extensive demands for public access to the lake and for recreation resources are expected to continue to grow. In the LAMP the recreational goal is that public access to open space, shoreline, and natural areas will be abundant and provide enhanced opportunities for human interaction with the Lake Michigan ecosystem.

***Sustainable Development.*** The Illinois coast is primarily urban, with the few exceptions mentioned previously. Sustainable development strategies can help mitigate and adapt to climate change and increase resilience of coastal communities, structures, and resources. The LAMP includes the related goal of ensuring that land use, recreation, and economic activities are sustainable and supportive of a healthy ecosystem.

## IV. Methodology

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### Overview

The process that led to the development of the ILMIP Priorities was a collaborative effort between ICMP and a range of partners and stakeholders. The partners used previously-developed plans for the coastal region to gather background information. That information was the basis for development of “Issue Papers” that detailed the potential outcomes and objectives for ICMP’s ten priority issue areas. These Issue Papers were reviewed by topic experts



*Photo: Diane Banta, National Park Service*

and then used for an extensive stakeholder prioritization process using an online engagement website called MindMixer. This online tool allowed a broad group of stakeholders to provide input and prioritize objectives specific to the distinct geographies of the Illinois Coastal Zone. The ILMIP team also used wiki technology to gather and store plan content, background information, and results of the process. The USEPA Watershed Central Wiki and the MindMixer technologies ensured that the prioritization and plan development processes remained open, democratic, and transparent.

### Project Development and Partnership Structure

The ILMIP project began in October 2011 with the first meeting of the Lead Partners group. This group consisted of the following organizations: ICMP, the Alliance for the Great Lakes (the Alliance), Biodiversity Project, Chicago Wilderness (CW) and Environmental Consulting & Technology Inc. (ECT). This group met monthly throughout the process to assign tasks, share work products, report back findings, and keep the project moving. The Lead Partners recruited an Advisory Working Group (AWG) of approximately 40 members from organizations working in the region, with three co-chairs of the group, one from each of the watersheds. The co-chairs were also invited to participate in Lead Partner meetings to provide geographic representation and guidance to assure that all watersheds would be adequately reflected in the plan development.

Lead Partners, with help from the AWG, endorsed the major issue areas that would be treated in the ILMIP and helped to identify specific needs in each area. As part of this task, we evaluated

11 resource plans and extracted recommendations related to coastal issues. We also invited stakeholders and AWG members to participate in a survey which focused on collecting project information and gauging opinions on the most pressing issues in the Coastal Zone. Survey results and resource plan findings were incorporated into issue papers, which became the foundation of the prioritization process, and were shared on the wiki.

## Issue Papers

Lead Partners used the information from planning documents, the wiki, and the survey to develop outcomes, objectives, and strategies for each of the ten Priority Issues (described earlier). For each Priority Issue, the desired outcomes were broad, overarching goals. Objectives were more narrowly defined to contribute to meeting the outcomes. Potential strategies were project-level actions which could be taken to achieve the objectives. Draft Issue Papers were reviewed by subject matter experts. Additional input was solicited from the AWG at a workshop. The Issue Papers were then further refined and revised to become the main contextual information for the ILMIP. The final Issue Papers are available on the wiki<sup>1</sup>.

## Prioritization

The Lead Partners decided that prioritization of the issues should occur at the level of Issue Paper objectives, and that prioritization should consider the different regions within the Coastal Zone. Prioritization of objectives was performed via the online engagement website powered by MindMixer at [www.IllinoisCoastalPriorities.org](http://www.IllinoisCoastalPriorities.org).

Four geography-based sections were set up on the site reflecting our regional subdivisions of the Illinois Coastal Zone (Figure 3). Each geographic section contained a list of all Coastal Zone Priority Issues. Selecting a Priority Issue brought the user to a list of objectives originally identified in the Issue Papers, and allowed stakeholders to vote on which objectives should be most important by assigning a point value to each objective (0 to 4 points; with 0 being neutral and 4 being the highest and therefore most important). Engagement with content from the ten Priority Issues was staggered over a three month period, and participants were sent emails when new opportunities were added to the website. Analysis of results included tallying vote sums for each Priority Issue in each geographic section to obtain a score for degree of support and also analyzing the results for interest level. A second round of MindMixer questions was deployed to further refine and confirm the initial results and to gather additional priority interests in particular focus areas.

The results were presented in a draft ILMIP made available for public comment in an online survey from October 15 – November 30, 2013. Public comments were also received in public meetings at Waukegan, the Loop in Chicago, and the Pullman neighborhood of South Chicago

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<sup>1</sup> [https://wiki.epa.gov/watershed2/index.php/Illinois\\_Lake\\_Michigan\\_Priority\\_Issues](https://wiki.epa.gov/watershed2/index.php/Illinois_Lake_Michigan_Priority_Issues)

(November 22-24, 2013). The comments from the survey are combined with those received in writing at the public meetings in Appendix I.

## V. Stakeholder-Identified Priorities by Geography

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For each geographic section of the Coastal Zone (Figure 3), the top ILMIP objectives from across the ten issue areas were ranked according to the vote scores of public participants. Similar, related objectives were combined or synthesized to develop a concise set of top objectives for each section. Based on natural breaks among the vote scores, a set of top priorities and slightly lower-scoring set of secondary priorities were designated.

### Throughout the Coastal Zone

#### Top Priorities

- Restore and improve riparian areas, lakes, and streams as habitat for birds and wildlife, including expanding protection and restoration of nearshore aquatic habitat.
- Use green infrastructure and other strategies to manage stormwater and reduce runoff.
- Improve and coordinate regional collaboration on invasive species management to control terrestrial and aquatic invasive species and improve ecological conditions.

#### Secondary Priorities

- Ensure habitat needs for safe passage of aerial migrants.
- Prevent bio-accumulative toxins from entering waterways, especially recreational areas.

### Northern Region: Lake County's Coast and the North Shore

#### Top Priorities

- Improve connectivity between core areas of natural lands.
- Increase recreational access to waterways and beaches.
- Link water and land-based trails and facilities.

#### Secondary Priorities

- Coordinate management of natural lands, using targeted restoration to improve ecological conditions.
- Restore and improve riparian areas, lakes, and streams as habitat for birds and wildlife, including expanding protection and restoration of nearshore aquatic habitat.
- Ensure habitat needs for safe passage of aerial migrants.
- Promote and improve diverse recreational opportunities.

## Waukegan AOC

The Waukegan AOC includes a limited area within the “Lake County and North Shore” region of the coast. Because of high interest in the AOC and very specific issues there, we looked at priorities for the AOC separately from the rest of the northern region.

### Top Priorities

- Maintain and improve terrestrial habitat for native plants and animals.
- Improve beach health and reduce beach closures.
- Reduce impacts of contaminants to humans and wildlife.

## Ravines

The North Shore area includes extensive ravine systems, an unusual and sensitive resource. Because the ravines are a focus for biodiversity conservation and runoff management in this area, we also considered priorities relevant to the ravine systems. Respondents showed an interest in all aspects of restoration planning and implementation but with some preference for the following topics.

### Top Priorities

- Assess vulnerability of ravine systems in relation to coastal hazards.
- Help communities create watershed and green infrastructure plans for ravines.
- Provide education and technical assistance to ravine landowners.

## Central Region: Chicago and Evanston’s Lakefront and Waterways

### Top Priorities

- Improve habitat value of urbanized areas including neighborhoods.
- Restore and improve riparian areas, lakes, and streams as habitat for birds and wildlife, including expanding protection and restoration of nearshore aquatic habitat.
- Use green infrastructure and other strategies to:
  - a. manage stormwater
  - b. reduce runoff volumes
  - c. reduce frequency of untreated sewage release

### Secondary Priorities

- Improve and coordinate regional collaboration on invasive species management to control terrestrial and aquatic invasive species and improve ecological conditions.
- Help make beach and water conditions safe for recreational use.
- Ensure that waterways are not dispersal pathways for aquatic invasive species – including supporting development of environmentally responsible shipping.

## Southern Region: South Chicago and the Calumet

### Top Priorities

- Improve hydrologic regimes to more natural conditions.
- Restore and improve riparian areas, lakes, and streams as habitat for birds and wildlife, including expanding protection and restoration of nearshore aquatic habitat.
- Protect and increase interconnected open space, especially along priority waterways.
- Support rehabilitation and redevelopment of brownfield and old industrial sites.

### Secondary Priorities

- Improve and coordinate regional collaboration on invasive species management to control terrestrial and aquatic invasive species and improve ecological conditions.
- Ensure habitat needs for safe passage of aerial migrants.
- Support recreational use of waterways and increase number of public access points.
- Make water conditions safe for recreational use.

## VI. Program-Directed Priorities

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The following priorities are on-going, fundamental parts of the overall Coastal Management Program. Many of these activities are components required by our funding sources. Several are IDNR agency priorities or regional program needs. These activities represent fundamental parts of the ICMP, but were not specifically prioritized by stakeholders during the ILMIP process. However, as critical components of the ICMP, we have included these in our Implementation Plan. It is important to note that there is significant overlap in the stakeholder-identified priorities and the program-directed priorities. One significant difference is that the program-directed priorities listed here will be addressed primarily through staff time and contractual work, whereas the stakeholder-identified priorities will directly affect the ranking of applications to the Coastal Grant Program.

***Clean Marinas Program*** – ICMP will offer 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. We will recognize marinas that participate in the Clean Marina Program for their environmental stewardship.

***Coastal Coordination*** – ICMP will coordinate among federal, state, and local governments and agencies, non-profits, and other coastal regional stakeholders to improve economic, ecological, and community conditions in the coastal region of Illinois.

Project:

- Outreach to coastal communities about ICMP

***Coastal Grants*** – ICMP will provide a portion of NOAA federal funding for a grant program to further coastal priorities through grant making to eligible entities. Grant program administration includes development of Requests for Proposals; grant application forms and guidance; proposal processing and ranking; and awarding grants, grant reporting, and processing grant payments.

***Coastal Interpretive Program*** (as part of coastal resilience) – ICMP will lead and participate in educational and interpretive efforts to raise awareness, interest, and knowledge of coastal resources and issues. This may include developing/improving/staffing interpretive centers at Illinois Beach State Park, William Powers State Recreation Area, and other key coastal locations.

Projects:

- Developing new displays for Coastal Interpretive Centers
- Develop new/updated coastal interpretive material for key sites

- Support partner organizations with interpretation and volunteer recruitment.
- Coastal downtown walking tour smart phone application (App)

**Coastal Resilience** – ICMP will work to identify coastal community needs to increase resilience in the face of changing climate, conditions, lake levels, and urbanization. This will include a strong emphasis on the following:

Green Infrastructure and stormwater management

Sustainable development and informed coastal planning

Providing support to communities for tools and strategies as needed and requested

**Federal Consistency** – ICMP will review federal agency projects and other federally-funded projects for consistency with the ICMP to assure adequate oversight and coordination for projects that could affect the Illinois coast.

**Habitat Protection, Management and Enhancement** – ICMP will fund and support work to improve and enhance both terrestrial and aquatic habitats, including Lake Michigan nearshore and tributaries, for fish and wildlife in the Coastal Zone. Focus areas include Illinois Beach State Park, Calumet area, river corridors, and other areas of high biological importance for regional biodiversity.

Projects:

- Develop database and strategy for priority land acquisition/protection
- Targeted habitat restoration projects at Illinois Beach State Park, William Powers State Recreation Area, and the Waukegan area.

**Lake Michigan Lakewide Action and Management Plan** – ICMP provides support, participation, and coordination to implement the LAMP, including key provisions of the 2012 amended Great Lakes Water Quality Agreement. ICMP will also participate in LAMP updates, Technical Coordinating Committee, and Lake Michigan Monitoring Committee activities.

Project:

- Regional Sand Management – ICMP will support and facilitate efforts to develop a sustainable regional sand management plan that will reduce the negative consequences of shoreline erosion and sand accretion, as feasible.

**Millennium Reserve** – ICMP will support this partnership to improve economic, environmental, and community conditions in the Calumet region. This entails providing support for targeted projects such as port revitalization, trail connections and development, coordinated habitat

management, and promoting tourism. We will also pursue improved governmental coordination to address regional needs such as brownfield redevelopment, workforce development, community access to resources, stormwater management, etc. ICMP will also promote and assist the development of community building projects such as urban farming and gardens, local energy production, and innovative business ventures.

Projects:

- Strategic land acquisition plan
- Strategic communication plan
- Coordinate State Agency Task Force
- Regional Guide
- Support to coordinated stewardship and urban agriculture programs
- Develop and coordinate implementation of a conservation compact for Illinois Natural Area Inventory sites

***Non-Point Source Pollution Program*** – ICMP will develop and implement a non-point source (NPS) pollution program in coordination with Illinois Environmental Protection Agency (IEPA) and other stormwater management entities to reduce the negative effects of polluted runoff into the Lake Michigan watershed. The program will complement and add value to current non-point source pollution programs, and will pursue implementation of the Total Maximum Daily Load rules/guidelines that IEPA recently approved for beaches. The program is currently in development and ICMP plans to work with local experts and practitioners in its development and then present the draft program for public comment and input. (This program includes LAMP goals for nearshore health and non-point source pollution).

***Program Administration*** – ICMP will administer the program in the Chicago region, including all grant and program planning, budgeting, reporting, procurements, personnel issues, office and equipment maintenance, communication, coordination with other agency staff, and all necessary IDNR administration and reporting.

***Program Participation and Connection*** - ICMP will participate in USEPA Great Lakes, Lake Michigan and NOAA Coastal Program meetings, conferences, and events to promote coordination, cooperation, and sharing of information and opportunities.

***Recreation and Access*** – ICMP will support, fund, and coordinate efforts to improve access to Lake Michigan and its coastal and riparian areas. This includes improving, expanding, and promoting trails, identifying, developing, and promoting fishing access point, and providing access to information about recreational areas and opportunities. This also includes improving safety and reducing public exposure to coastal hazards such as dangerous rip currents.

Projects:

- Promotion of underwater recreational resources
- Lake Michigan Water Trail
- Millennium Reserve trails
- Multi-state Lake Michigan partnership on dangerous current outreach

***Waukegan Area of Concern*** – ICMP will take a primary role in supporting and advancing the delisting of the Waukegan AOC, including support and coordination with the Waukegan Harbor Citizens Advisory Group as part of the Remedial Action Plan process. Our role also includes activities as needed in the Extended Area of Concern.

Projects:

- Develop documentation to request removal of Beneficial Use Impairments
- Implement Waukegan Harbor AOC Habitat Management Plan
- Coordinate with City of Waukegan to support sustainable management and uses of the AOC

## VII. Conclusions and Next Steps

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The ILMIP planning process has provided ICMP with a detailed, comprehensive set of geographically-based objectives for improving and maintaining the Illinois coast of Lake Michigan. The stakeholder-driven planning process has met our goal for identifying a set of objectives that correspond to the different watersheds and issues at different scales in the Illinois Coastal Zone. It has also helped partners and stakeholders in our region understand the development of the plan. Development of the program-driven priorities has solidified our focus and identified additional program activities to our broader audience. The combination of these two sets of priorities revealed both areas of overlap and opportunities for current projects to expand into broader, related work areas.

### Putting the Results to Work

The results of the ILMIP process will fundamentally affect the way that ICMP allocates our resources through deployment of personnel and funding over the next five years. All of the topics identified by experts and described in our Issue Papers are relevant to ICMP's goals and mission, and the program may invest resources in any of these areas as opportunities and needs arise. However, the prioritization process identified issues with particular resonance for stakeholders within the Illinois Coastal Zone. ICMP plans to focus staff time and other resources on the top prioritized objectives for the respective watersheds and throughout the Coastal Zone. We will seek ways to actively pursue these issues in our annual work plans and look for opportunities to leverage our resources in these areas. Resource allocation will depend on many factors, including ILMIP priorities, and input from ICMP's Technical Advisory Group and Citizens Advisory Group.

In addition, stakeholder-identified priorities will directly contribute to the ranking of applications submitted to the Coastal Grant Program. Project proposals that meet the ILMIP priority objectives for specific watersheds or the entire Coastal Zone will be given additional points in the grant selection process. ICMP will also pursue other additional funding and resource opportunities that will help achieve those objectives, including grants from USEPA, U.S. Fish & Wildlife Service, and other sources.

Expert recommendations, professional judgment, and emerging needs and opportunities – in addition to the stakeholder input we received through the ILMIP process – will also play a role in both resource and staff time allocations. Some coastal issues ranked poorly but are known to be extremely important for improving coastal natural resources. For example, non-point source pollution topics did not score well for the South Chicago area of the Coastal Zone compared to other topic areas. However, stormwater and associated flooding issues are a major problem in this region, and ICMP is well-positioned to assist in efforts to expand and promote the use of

Green Infrastructure to reduce runoff and flooding problems. ICMP will continue to focus time and attention on this issue and others of similar local significance.

The ILMIP priorities are necessarily broad, by design. Some stakeholders commented that they would prefer to see specific measurable outcomes associated with the priorities. At this early stage in our program, our intent was for ILMIP to provide broad guidance for how our program initially invests staff and funding resources. We may add some measurable goals to ILMIP in the course of the coming years of implementation or in future revisions. In addition, our program's accomplishments will be tracked through the standard measures and specific metrics that are required by NOAA in conjunction with its funding (see Appendix II).

### ICMP Grant Program

One of the major activities of ICMP will be the administration of an annual grant program to allocate NOAA funding for Illinois Coastal Zone priorities. While all issues identified in ILMIP will be potential targets for funding, ICMP will focus a portion of grant funds on the priorities identified here through our scoring system and by listing priorities in the requests for proposals.

As part of the ILMIP process, ICMP will also track the amount of funding we award to various ILMIP priority issues and objectives as a means of monitoring the balance of grants among the range of issues identified. This will be one aspect of tracking program effectiveness and will feed into annual development of the requests for proposals as well as work plans.

### Future Revisions

The ICMP will be responsible for continuing to update and improve the ILMIP in order to tailor the Coastal Program to future needs. Updating will occur on a five-year cycle to revisit the range of issues; reassess coastal resources and needs; identify what significant progress has been made; and determine what issues may need increased focus. Based on our positive experience with MindMixer, it is likely that we will return to that online application as a fundamental tool for the next revision. ICMP will also assess what other types of public participation tools may have become available in the interim to improve our assessment, outreach, and prioritization



*Powderhorn Lake.*  
**Photo:** IDNR

become available in the interim to improve our assessment, outreach, and prioritization

process. In addition, the ICMP will regularly assess new or emerging issues and identify new partners and opportunities for collaboration.

Over the next few years, ICMP may also delve more deeply into some of the higher-priority areas identified by stakeholders in this plan. Habitat issues were particularly important to our stakeholders, and one of the major habitat issues in our area is the loss of wetlands. Examining wetland restoration, preservation, and management opportunities may require additional analysis before the next five-year update. Other issues that may require additional assessment include coastal hazards such as flooding and runoff issues and associated sedimentation, as well as issues related to coastal access.

As noted in the “Program-Directed Priorities” section, ICMP will invest in a range of outreach and communication approaches regarding coastal issues in general and specifically keep stakeholders and the public informed about our progress in implementing ILMIP. Regular outreach to coastal communities along the Lake Michigan shoreline will help to ensure that the program efficiently and effectively focuses staff and funding resources on local and regional needs. ICMP staff will also continue to consult with the broader scientific and conservation community to provide a firm scientific grounding for the program. Through these mechanisms and ongoing periodic revisions, ILMIP will continue as a relevant, responsive, evolving framework for improving Lake Michigan coastal conditions in Illinois. In the complex landscape of municipalities, resources, organizations, and issues, ICMP will seek out opportunities to bring coordination, strategic thinking, added value, and useful tools and knowledge to the range of coastal issues and challenges that face the region. ICMP provides the stakeholder-driven basis for building a program that will best suit the needs of the communities and resources along the magnificent 63 miles of Illinois Coast.

## Appendix I. Public Comments on the ILMIP Draft

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Public comments on the ILMIP draft were collected in an online survey from October 15 – November 30, 2013. Public meeting attendees also were able to provide written comments in three meetings held at Waukegan, the Loop in Chicago, and the Pullman neighborhood of South Chicago (November 22-24, 2013). Both the online survey and the public meeting written comment form asked for responses to a set of four questions. The comments from both the online and written sources are provided below.

### **1. *After reading and/or hearing about the Illinois Lake Michigan Implementation Plan what comments, questions or feedback do you have for the Illinois Department of Natural Resources and the team that prepared the Plan?***

- Please underscore the importance of regional collaboration for stormwater management--suggest adding language about planning for best stormwater management practices.
- Just a note on the PCB contamination at Waukegan Harbor - The PCB dredge was completed July 2013. Great Job!
- Will provide comments/feedback separately.
- We need to provide funds for developing the land acquisition plan. Funds should be focused on ravines
- Please review other regional plans to check for common goals and objectives.
- I am very happy to see the emphasis on habitat restoration across geographic areas. Protecting and improving natural areas is critical to maintaining our coastal areas. Monitoring will be an important part of tracking this progress and I was glad to see that mentioned in your wiki. I hope it can be considered a strategy for reaching goals on habitat restoration.
- We need to convene lakefront municipalities with ravines and MS4 permits to talk about Ravines/Lake Ecosystems to support near shore health and fish diversity.
- Considering who the audience is for this document, I understand that it may primarily be used by IDNR and ICMP staff for grant priorities, the public would benefit from specific project info in one centralized location. It may allow a private owner required to undertake some mitigation to readily identify an area in need (restoration) or a particular project (access enhancement--trails). Otherwise, this is a great plan and exciting to see this come together. Thank you for allowing me to participate.
- I would like to see you involved in potential planning for a bike trail connecting Winthrop Harbor and Waukegan including providing access to Illinois Beach.
- Mindmixer is a great tool. I applaud your finding and using it. Getting so much public input prior to drafting the plan is great
- Very much like the 10 list of priority issues, esp. the habitat, invasive species control, and public access. Climate change is important to be considered as well
- I am pleased that the Illinois Lake Michigan Implementation Plan ("Plan") relied on the Lake Michigan LaMP in developing its priorities and hope that Illinois will go further to strengthen the Plan before it is finalized. First, while the priorities identified in the Plan

are a good start, in order to properly evaluate progress and ensure accountability in implementation, the Plan must include clear objectives with measurable endpoints and a timeline and benchmarks to evaluate progress towards achieving them. Second, the Plan should incorporate necessary steps to achieve the long-term objective of restoring the natural divide between the Mississippi River basin and Lake Michigan as a key priority. Third, going forward the Plan must ensure consistency with Annex 2 of the new Great Lakes Water Quality Agreement of 2012.

- Overall - great commitment to engaging stakeholders and the public developing a vision for Illinois' coast. Congratulations on a job well done!
- It is a very good plan. The process was very inclusive. The descriptions of the three areas are excellent and the priorities for the three areas are overall appropriate. It helps to have the three watersheds so well defined! The plan is at a very general level, but provides a good conceptual structure, and it is likely that the issue papers go into more detail and that the projects that will be proposed under the priorities will be quite specific.
- This is a thoughtful document, well researched, and well written. I liked the multi-view approach that included the entire area, but also focused on discrete sub-regions with different needs.
- You mention Waukegan Harbor at length but there's not a word about the Great Lakes marina where many of the same problems exist.
- Are the proposed coastal "restoration" initiatives based on what "was" pre-industrial/pre-European settlement? I ask because, could an initiative include school rain gardens even though that site may have been woodland, for example? Northwestern U in Evanston recently replaced coastal bird habitat with a large structure. Not only is the habitat gone, but the building is on a migratory pathway. It seems like more clear and tougher restrictions on building would be an obvious starting point. If you are hoping to restore habitat at the same time it's being destroyed seems like treading water.
- We support the need for a comprehensive coastal management plan for the state that finds an appropriate balance between use and conservation.
- For the North Shore section, I think invasive species should be up there with the top priorities. Also, there should be some specific mention of infrastructure repairs/monitoring as this is likely the source of pollution in some older neighborhoods that drain into the lake. Lastly we should not ignore sanitary sewer overflows. They do occur along this portion of the shoreline.
- The overall plan looks great. Would love to see more specifics about how each priority will be addressed. Also, the ICMP grant supports education and outreach, but that is not really mentioned in the list of priorities (in particular, it might be good to add outreach to the invasive species control and management section).
- Applaud the ILMIP team's efforts to bring the needs of diverse communities--ecological and human/social--together. The geographic framework for the plan is reasonable. Regarding the coastal zone overall priorities, feel that the same regional collaboration mentioned for invasives control management should be applied to the promotion of green infrastructure and other stormwater management strategies. This is particularly important in that portion of the Lake County LM watershed where ravine environments are overwhelmed by stormwater inputs. Most agencies with ownership of this infra-

structure are municipalities with varying degrees of interest in sustainability issues. We need support for subwatershed level planning with the involvement of these agencies leading to more sustainable –yet practical—solutions to stormwater management. These might include feasible ways to disconnect or divert stormwater systems from tributary streams and work with private citizens on initiatives to reduce stormwater inputs to achieve flooding and runoff reduction. Also collaboration is critical to funding and permitting such projects. I think improving connectivity among core areas of natural lands is going to be challenging in the southern portion of the Lake County shoreline, as is linkage of trails and facilities, due to the geological features of the land (narrow shoreline edged by bluffs) as well as the expense and availability of land. However, certainly support the concept and of course the management and restoration of natural lands as expressed in the secondary priorities.

- I do not understand the ILMIP Issue identified on page 7 of the report which states: "Non-point source pollution in Illinois is primarily related to stormwater, which is managed, treated, and ultimately discharged away from the Lake Michigan Basin" It is completely unrealistic for anyone to think that it is remotely possible to treat and then discharge all stormwater runoff that currently flows into Lake Michigan away from Lake Michigan. Redirecting even more than 1% is probably not achievable. The top priorities for the Lake County and North Shore are very disappointing. These goals will do very little if anything to enhance the water quality and overall health of Lake Michigan Coastal Zone, although certainly great for general recreational purposes. The top goals in the "Lake County and the North Shore" area look like they belong to the IDNR Trails Grant Program.
- I would like to support and applaud your top priorities for the Illinois Coast and the North Shore Communities.

**2. Do the objectives in the Plan seem reasonable, prudent, and strategic for the next 3 to 5 years? (Optional)**

- Subwatershed (municipal) level. Promote creative partnerships for strategic planning at the subwatershed level to fund and implement innovative practices in stormwater management.
- Yes, although I'm sure there won't be nearly enough funding for grant demand.
- Yes.
- Yes.
- They cover a lot of ground, but all seem like important goals.
- Yes - and also flexible enough to deal with new challenges.
- Yes, however, additional input on climate change (anticipated risk, etc.) seems appropriate. Perhaps additional strategies can be added as more information and hazard mitigation strategies are identified.
- Yes, we highly support the top priorities for the entire coastal zone and hope that they will be emphasized in all of the watersheds, in addition to the watershed priorities
- Yes
- First, the final Plan must clearly define and articulate well-defined scientifically sound measurable objectives, a timeline and benchmarks so progress can be measured. Se-

cond, the importance of addressing impaired Lake Michigan beaches demands that the top priorities throughout the coastal zone include a top priority for implementation of the Total Maximum Daily Load (TMDLs) for Illinois' Lake Michigan Beaches. Third, the Chicago and Evanston area secondary priority for supporting environmentally responsible shipping must be clarified to ensure that such shipping will be consistent with the long-term objective of restoring the natural divide between the Mississippi River basin and Lake Michigan.

- Yes. The broadness of the objectives makes it easy for many different actions to be counted towards implementation. While at the same time the objectives are not so broad, that you can't still see some differences between the objectives. One trade-off / challenge that come with broad objectives is being able to define success. At the end of the 3-5 years, how will you be able to evaluate and communicate which objectives were successfully implemented? Going down to a tactical level provides the opportunity for actions to be completed and success to be declared and celebrated. However, with that said, what you lose at the tactical level is a broad, all-inclusive vision, which was clearly the priority.
- Yes, overall - It is a very good plan. The process was very inclusive. The descriptions of the three areas are excellent and the priorities for the three areas are overall appropriate. It helps to have the three watersheds so well defined! The plan is at a very general level, but provides a good conceptual structure, and it is likely that the issue papers go into more detail and that the projects that will be proposed under the priorities will be quite specific.
- Yes.
- They seem too general right now, but I think that if much local work was done to get projects going in the next 3-5 years (assuming those projects will have a longer life) then yes.
- As outlined in the plan, yes.
- Yes.
- Objectives are reasonable.
- Yes, I wish there was more money available to actually resolve these issues.
- Applaud the ILMIP team's efforts to bring the needs of diverse communities--ecological and human/social--together. The geographic framework for the plan is reasonable. Regarding the coastal zone overall priorities, feel that the same regional collaboration mentioned for invasives control management should be applied to the promotion of green infrastructure and other stormwater management strategies. This is particularly important in that portion of the Lake County LM watershed where ravine environments are overwhelmed by stormwater inputs. Most agencies with ownership of this infrastructure are municipalities with varying degrees of interest in sustainability issues. We need support for subwatershed level planning with the involvement of these agencies leading to more sustainable --yet practical--solutions to stormwater management. These might include feasible ways to disconnect or divert stormwater systems from tributary streams and work with private citizens on initiatives to reduce stormwater inputs to achieve flooding and runoff reduction. Also collaboration is critical to funding and permitting such projects. I think improving connectivity among core areas of natural lands

is going to be challenging in the southern portion of the Lake County shoreline, as is linkage of trails and facilities, due to the geological features of the land (narrow shoreline edged by bluffs) as well as the expense and availability of land. However, certainly support the concept and of course the management and restoration of natural lands as expressed in the secondary priorities.

- I do not understand the ILMIP Issue identified on page 7 of the report which states: "Non-point source pollution in Illinois is primarily related to stormwater, which is managed, treated, and ultimately discharged away from the Lake Michigan Basin" It is completely unrealistic for anyone to think that it is remotely possible to treat and then discharge all stormwater runoff that currently flows into Lake Michigan away from Lake Michigan. Redirecting even more than 1% is probably not achievable. The top priorities for the Lake County and North Shore are very disappointing. These goals will do very little if anything to enhance the water quality and overall health of Lake Michigan Coastal Zone, although certainly great for general recreational purposes. The top goals in the "Lake County and the North Shore" area look like they belong to the IDNR Trails Grant Program.
- Yes.

**3. *Is there anything that you would have liked to see in the Plan which is missing? (Optional)***

- Nothing that you probably haven't addressed but more outreach along the board - schools, harbors, concerned citizens. Love that you are using social media.
- Special attention to ravines/watersheds (individual watersheds, not the 3 major "planning" watersheds but rather watersheds of individual ravines or streams).
- Land acquisition plans for NOAA funding, more focus on ravine protection and restoration.
- Where appropriate emphasize local cooperation
- Mind mixer sounds like a great tool that I would be interested in trying.
- 1, we need to write a stronger MS4 NPDES general stormwater permit in IL. 2, we need to write a new general I-LM permit regarding private landowner "shore protection". It is out of date and hurts the lake. Last revised in 1999.
- Maybe more on climate change hazard mitigation strategies. Such as, planned retreat, etc.
- I did not like Mindmixer. It was hard to see what the results were especially as topics would close. I would have preferred some linkage to Google Earth to have better seen the coastal zone.
- Explanation of why Evanston is grouped with Chicago (residents feel like they are North Shore).
- Supporting existing volunteer efforts that deal with the 10 priority issues.
- First, the Plan is missing clarity on how progress to achieving objectives will be measured, including a timeline and benchmarks. Second, while the top priority for green infrastructure is helpful, the Plan should incorporate objectives for improving stormwater runoff control, upgrades to sewage treatment and flood control required to achieve long-term separation between Lake Michigan and the Mississippi basin. Third, the plan

should better explain how the plan's priorities will contribute to the United States' development of an integrated nearshore framework for Lake Michigan, respond to updates to the Lake Michigan LAMP, and evaluate and report on progress.

- Along the north shore (both Lake and part of Cook County) the ravines are an important habitat that have been prioritized by local stakeholders and the Illinois Lake Michigan Watershed Ecosystem Partnership. There was round of voting via Mindmixer dedicated to the ravines. However, the ravines were not mentioned in the Implementation Plan, and this seems like a missed opportunity.
- From my perspective as the manager of Plants of Concern (rare plant monitoring within a management context), I would have liked to see monitoring identified as an essential piece of each "project" listed, as a means of tracking or evaluating the success of any given project. The type of monitoring would depend on the project, but should be built into any RFP. This would require partnerships between agencies doing the on-the-ground projects and the agencies/individuals able to conduct the scientific monitoring to follow. (Some contractors have those people on staff, but not all.)
- The issue of public access could be more direct. There is an excellent discussion of access in the supporting documents, but beach/shore access issues might be discussed in greater detail in the primary plan. Consider adding that section with special emphasis on the southern region. That region in particular has few access points and most require a car to get there because shorelines are separated from residents by rail crossings and highways. Jeorse Park is a good example of this. And someone needs to think about fishing access as well as beach visitation. Each region should inventory fishing access sites. Again, this is an issue in the southern region; I am not sure about other areas.
- I think its super inspiring! Great work. I am sorry I had to miss the live meetings.
- We believe the plan might be more readily accepted by the residents of the coastal communities, and of the state as a whole, if it depicted a balance between use and conservation. This can now be shown by implementing those parts of the plan that support more public access.
- The overall plan looks great. Would love to see more specifics about how each priority will be addressed. Also, the ICMP grant supports education and outreach, but that is not really mentioned in the list of priorities (in particular, it might be good to add outreach to the invasive species control and management section).
- The plan could use the review of a writer. There are many run-on sentences, inconsistent use of the Oxford comma, etc. It detracts from the legitimacy of what is being presented.
- Applaud the ILMIP team's efforts to bring the needs of diverse communities--ecological and human/social--together. The geographic framework for the plan is reasonable. Regarding the coastal zone overall priorities, feel that the same regional collaboration mentioned for invasives control management should be applied to the promotion of green infrastructure and other stormwater management strategies. This is particularly important in that portion of the Lake County LM watershed where ravine environments are overwhelmed by stormwater inputs. Most agencies with ownership of this infrastructure are municipalities with varying degrees of interest in sustainability issues. We need support for subwatershed level planning with the involvement of these agencies

leading to more sustainable –yet practical—solutions to stormwater management. These might include feasible ways to disconnect or divert stormwater systems from tributary streams and work with private citizens on initiatives to reduce stormwater inputs to achieve flooding and runoff reduction. Also collaboration is critical to funding and permitting such projects. I think improving connectivity among core areas of natural lands is going to be challenging in the southern portion of the Lake County shoreline, as is linkage of trails and facilities, due to the geological features of the land (narrow shoreline edged by bluffs) as well as the expense and availability of land. However, certainly support the concept and of course the management and restoration of natural lands as expressed in the secondary priorities.

- I am disappointed that at least for the Pike Root area there is not more an emphasis on the problem of stormwater runoff into the Lake. I do not recall seeing much mentioned on the issue of sanitary sewer (and combined sewer) overflows which certainly still exist in Chicago and in other isolated areas. This is very detrimental to water quality.
- You have made Lake Water quality a priority. I would like to see a stronger connection made between the Skokie River wetland restoration and preserving Lake Michigan water quality. In the narrowest areas of the Pike-Root zone, degraded or destroyed wetlands in the Skokie/North Branch watershed are 1 mile from the Lake Michigan shoreline. These areas, now developed, are prone to residential flooding. Municipal flood control projects are poised to pipe polluted storm water across the watershed divide, into Lake Michigan. More study is needed of the flood control benefits of wetland reconstruction on a large scale, in order to make sure our watershed remain separate and intact.

#### **4. How can we keep stakeholders involved and informed into the future?**

- Email list/social media.
- By emails.
- I felt Mindmixer was a great tool.
- Keep Mindmixer. I'm not great at the wiki
- I think you've done a great job to date. Continue use of public meetings and online resources.
- Have annual meetings of the Advisory Group; go to CAG, use mailing list from Mindmixer.
- Future public engagement on the Plan should be coordinated with the process for updating the Lake Michigan LaMP under Annex 2 of the new Great Lakes Water Quality Agreement of 2012. The Plan should require an annual report on progress achieving its objectives and a clear process for public engagement and feedback, including posting progress reports on a website, sending email updates to the public and providing transparency in reporting on projects funded under the Plan.
- There are several ways you could keep stakeholders informed about progress being made on the Implementation Plan, and continue to solicit feedback. My first suggestion would be to use the IL CMP's Coastal Advisory Group. It could be part of the CAG's role to advise on the implementation of the Implementation Plan. My second suggestion would be to provide updates to your existing network of stakeholders (folks who partici-

pated in the ILMIP process and others) on progress being made, and ask them to submit actions they are taking to help implement the Plan.

- Keep your list serve and email list up to date and report, perhaps on an annual basis, to that group on the progress (grants awarded, results, shifts in objectives, etc.). I suggest at least an annual update once the programs are underway to keep people in the loop and aware of the program.
- I would use social media entirely to convey accomplishments.
- Continuing communication.
- I heard of this through a daily great lakes mail server (Daily Echo) but am on all kinds of local environmental list-serves and heard nothing of this. If you are serious about wanting our input, you should send invitations to neighborhood green groups. I bet they are all over the City. Keep me in the loop and I will connect with Evanston.
- Implementation progress could be recapped periodically via an e-newsletter and/or the wiki page.
- Public forums, social media, watershed/municipal groups.
- Annual updates on progress made and postings on the wiki.
- Would like to see how ILMIP is directly used in future granting. Newsletter that people can subscribe to with updates?
- Doing good job with WIKI and electronic communications.
- There is good communication. Sorry I don't have the time to provide more constructive and positive feedback and be more involved in this important issue.
- You're doing a good job communicating right now. Please continue what you're doing!
- Thank you for the grant to the League of Women Voters. We have local leagues in many coastal communities and we do talk to each other. So, we can maybe help in regional or multi-community communications. I've included a list of the Northern groups on the back--I don't know that Calumet-area leagues off the top of my head. (Lake Forest/Lake Bluff, Highland Park/Highwood, Deerfield Area, Evanston, Wilmette, Winnetka-Kenilworth-Northfield, Glencoe, Chicago, Lake County, Cook County, also one in every Lake Michigan state and some outside of coastal zone that are active in water issues: Glenview, Arlington Heights, Palatine, Mount Prospect, etc.)

## Appendix II. ICMP Measures and Metrics

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### Performance Measures

NOAA requires all state Coastal Management Programs (CMPs) to track their performance by reporting annually on a set of 17 performance measures. CMPs must report every five years on a set of five additional measures that provide context for the conditions of their state's Coastal Zone. ICMP will provide this data to NOAA as an ongoing measure of our performance in improving conditions of the Illinois Coastal Zone.

#### ***Government Coordination & Decision Making (reported annually)***

1. Percent of federal consistency projects reviewed where the project was modified due to consultation with the applicant to meet State CZM policies, by category<sup>2</sup>.
2. Number of acres of a) permit-estimated loss and b) required gain or mitigation due to activities subject to CZM regulatory programs, by category<sup>3</sup>
3. Number of coordination events offered by the CZM Program and number of stakeholder groups participating, by category<sup>4</sup>.
4. Number of a) education activities related to government coordination offered by the CZM Program and number of participants and b) training events related to government coordination offered by the CZM Program and number of participants.

#### ***Public Access (reported annually)***

5. Number of public access sites a) created through acquisition or easement and b) enhanced with assistance from CZM funding or staff.
6. Number of public access sites a) created and b) enhanced through CZM regulatory requirements.
7. Number of a) education activities related to public access offered by the CZM Program and number of participants and b) training events related to public access offered by the CZM Program and number of participants.

#### ***Coastal Habitat (reported annually)***

8. a) Number of acres of coastal habitat protected by acquisition or easement and b) number of acres and/or meters of coastal habitat under restoration with assistance from CZM funding or staff, by category<sup>5</sup>.

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<sup>2</sup> Categories include Federal Agency Activity; Federal License or Permit; Outer Continental Shelf; and Federal Financial Assistance

<sup>3</sup> Categories include Tidal (Great Lake) Wetlands; Beach and Dune; Near-shore Habitat; and Other Habitat Types

<sup>4</sup> Categories include Government Coordination; Public Access; Coastal Habitat; Coastal Hazards; and Coastal Dependent Uses & Community Development.

<sup>5</sup> Categories include Tidal (Great Lake) Wetlands; Beach and Dune; Near-shore Habitat; and Other Habitat Types

9. Number of a) marine debris removal activities completed with assistance from CZM funding or staff and b) pounds of marine debris removed during those activities.
10. Number of a) education activities related to coastal habitat offered by the CZM Program and number of participants and b) training events related to coastal habitat offered by the CZM Program and number of participants.

***Coastal Hazards (reported annually)***

11. Number of communities in the coastal zone that completed projects to a) reduce future damage from hazards and b) increase public awareness of hazards with assistance from CZM funding or staff.
12. Number of a) education activities related to coastal hazards offered by the CZM Program and number of participants and b) training events related to coastal hazards offered by the CZM Program and number of participants related to coastal hazards.

***Coastal Dependent Uses & Community Development (reported annually)***

13. Number of coastal communities that a) developed or updated sustainable development ordinances, policies, and plans; b) completed a project to implement a sustainable development plan; c) developed or updated port or waterfront redevelopment ordinances, policies, and plans; and d) completed a project to implement a port or waterfront redevelopment plan with assistance from CZM funding or staff.
14. Number of coastal communities a) that developed or updated polluted runoff management ordinances, policies, and plans and b) completed projects to implement polluted runoff management plans with assistance from CZM funding or staff.
15. Number of a) education activities related to coastal dependent uses and community development offered by the CZM Program and number of participants and b) training events related to coastal dependent uses and community development offered by the CZM Program and number of participants.

***Financial Measures (reported annually)***

16. Number of a) CZM federal and matching dollars spent and b) dollars leveraged by CZM funds, by category<sup>6</sup>.
17. Number of CZM federal and matching dollars a) spent on technical assistance and b) provided as financial assistance to local governments.

***Public Access Contextual Measures (reported every 5 years)***

18. Number of acres in the coastal zone that are available for public access.

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<sup>6</sup> Reporting categories for financial measures: a) Government Coordination; b) Public Access; c) Coastal Habitat; d) Coastal Hazards; and e) Coastal Dependent Uses and Community Development

19. Miles of shoreline available for public access.

***Coastal Habitat Contextual Measures (reported every 5 years)***

20. Number of coastal and Great Lake water bodies where water quality or habitat was monitored with assistance from CZM funding or staff.

***Coastal Hazards Contextual Measures (reported every 5 years)***

21. Number of communities in the coastal zone that use setbacks, buffers, or land use policies to direct development away from areas vulnerable to coastal hazards.

***Coastal Dependent Uses & Community Development Contextual Measures (reported every 5 years)***

22. Number of marinas in the coastal zone a) pledged to and b) designated by a Clean Marina Program.

## **Section 312 Evaluation Metrics**

Section 312 of the federal Coastal Zone Management Act requires each state Coastal Management Program to establish three metrics for evaluating performance. The metrics are intended to complement the performance measures by evaluating issues of particular relevance to an individual state and its Coastal Zone. In 2013 ICMP proposed the following metrics, which were accepted by NOAA.

### ***METRIC 1***

**Name:** Green Infrastructure for Storm Water Management

**Goal:** Increase the effective use of Green Infrastructure to reduce stormwater impacts throughout the Illinois Coastal Zone.

**Objectives:** By prioritizing and pursuing green infrastructure projects with local partners, we will see an increase in groundwater recharge, decrease in local flooding, improvement in water quality, and an overall increase in coastal resilience throughout the Illinois Coastal Management Zone.

**Strategy:** Storm water management is a major concern along the Illinois Lake Michigan shoreline. As storms become larger and more erratic due to climate change, storm water management is projected to become an even greater problem. Reducing storm water discharge and enabling precipitation to infiltrate where it falls through the use of natural and engineered systems has the potential to improve water quality, reduce local flooding, and increase groundwater recharge. Green infrastructure installations for storm water management include everything from bioswales to green roofs and from rain gardens to permeable pavement. The Illinois Coastal Management Program intends to promote, provide technical assistance, and fund the installation of green infrastructure.

The approach for meeting this goal includes collaboration with governmental partners, nonprofits and stakeholders to identify priority locations for green infrastructure installations;

and leveraging multiple funding sources to install top priority projects with maximum coastal benefit.

The number of green infrastructure projects in the Coastal Zone designed to infiltrate, filter, or mitigate storm water will be tracked. This will include both projects directly supported by ICMP as well as other projects prioritized and promoted with ICMP's help but implemented/funded by other partners.

**Performance Measure:** Number of green infrastructure projects completed with funding and/or technical assistance from ICMP.

**Numerical Target:** Between 2013 and 2017, 10 green infrastructure projects completed with funding and or technical assistance from ICMP.

## ***METRIC 2***

**Name:** Terrestrial Invasive Species Management and Habitat Restoration

**Goal:** Support the integrity of biological communities by preventing and controlling invasive species throughout the Illinois Coastal Zone, and increasing the resilience of local habitats through restoration activities to strengthen native natural communities.

**Objectives:** Existing populations of major invasive plants will be reduced on priority conservation lands; new infestations will be caught and controlled or eliminated before they can become permanently established; overall habitat quality will improve in Coastal Zone natural habitats, leading to greater resilience in populations of native species.

**Strategy:** Invasive species threaten the health and ecological integrity of biotic communities throughout the Illinois Coastal Zone, which suffers from a relatively small remaining proportion of natural habitat. Reduced biodiversity due to invasive species decreases ecosystem resilience. Threatened and endangered species are particularly vulnerable. A comprehensive program of invasive species control and prevention has the potential to significantly improve the quality of aquatic habitats and open space within our region.

ICMP will partner with local coalitions representing major managers of conservation lands, particularly the regional Cooperative Weed Management Area, to identify priority projects that will reduce the impact and spread of invasive species across the Coastal Zone. We will work collaboratively to support and/or establish projects that advance a region-wide strategy for habitat restoration. Effective restoration may at times require multiple treatments of the same acreage, for example removal of invasive plants followed by prescribed burning. Therefore, some acreage may be counted more than once due to multiple treatments over the evaluation period.

**Performance Measure:** The number of acres of Coastal Zone natural habitats on which restoration and invasive species prevention and removal projects have occurred as a result of ICMP funding and/or staff resources.

**Numerical Target:** Between 2013 and 2017, 180 acres of Coastal Zone natural habitats on which restoration and invasive species prevention and removal projects have occurred as a result of ICMP funding and/or technical assistance.

## ***METRIC 3***

**Name:** Lake Michigan Coastal Interpretive Program

Raise awareness among the public in Illinois Coastal Zone communities about the value of coastal resources, the problems and challenges they face, and actions that individuals and groups can take to improve the coast.

**Objectives:** Through both CZM funding and direct involvement of ICMP staff, we will lead, fund and promote a range of activities including hikes, public and classroom presentations, events, and the creation of materials including publications, interpretive displays, mobile phone apps, posters, and curricula materials. All materials and activities will be linked to the Illinois Lake Michigan Implementation Plan (ILMIP) and the ICMP wiki.

**Strategy:** Coastal resilience and sustainability is only possible when communities and individuals understand the value of coastal resources and the problems and challenges to maintaining these resources for the full complement of basic uses and needs. The interpretive program will raise awareness among the public of these valuable resources, issues and potential solutions.

Public outreach will involve a multi-tactic approach including staffed interpretive centers, published materials, presentations, and partnerships with other content providers including non-profits and other divisions of state and local government.

**Performance Measure:** Number of individuals reached by ICMP through visitation to staffed interpretive centers and attendance at presentations or events on coastal management issues supported by ICMP staff and/or funds.

**Numerical Target:** Between 2013 and 2017, 5,000 individuals reached by ICMP through visitation to staffed interpretive centers and attendance at presentations or events on coastal management issues supported by ICMP staff and/or funds.