

Chapter 8. Additional Management Measures

EPA and NOAA's Program Development and Approval Guidance for Coastal Nonpoint Pollution Control Programs outlines the requirements for implementation of Additional Management Measures under §6217. Additional management measures provide a "second tier of pollution control efforts" after implementation of the §6217(g) management measures.

The *Program Guidance* states,

If the general level of protection provided by the first management tier is insufficient to enable coastal waters to meet water quality standards and protect designated uses, then the state must implement the second tier which consists of additional management measures. The purpose of the second tier is to restore coastal waters and, in the case of critical areas, to protect against future pollution problems.

The additional measures are to apply both to existing land and water uses that are found to cause or contribute to water quality impairment and to new or substantially expanding land uses within critical coastal areas adjacent to impaired or threatened coastal waters.

NOAA's guidance states that for program approval, states will need to complete the following steps, discussed in the sections of this Chapter:

1. identify coastal waters that are not attaining or maintaining applicable water quality standards or protecting designated uses, or that are threatened by reasonably foreseeable increases in pollution loadings from new or expanding sources;
2. identify land uses that individually or cumulatively cause or threaten water quality impairments in those coastal waters;
3. identify critical coastal areas;
4. develop a process for determining whether additional measures are necessary to attain or maintain water quality standards in the waters identified above;
5. describe the additional management measures the state will apply to the identified land uses and critical coastal areas; and,
6. develop a program to ensure implementation of the additional management measures within the time frame described in section IV.D.

In keeping with NOAA and EPA's guidance, the State of Illinois will follow an iterative process for implementing (g) management measures, assessing their effectiveness in achieving water quality goals and determining the need for additional management measures. Our use of this iterative process will meet the requirements for implementing additional management measures, as described below. As described in the previous chapters, numerous programs and regulations have already been implemented in Illinois to manage nonpoint source pollution. Numerous monitoring programs, which include both data collection and data analysis, are already in place to determine the effectiveness of

management measures. As deficiencies are identified, the State of Illinois has robust mechanisms for determining additional steps which need to be taken to address shortcomings.

8.1. Threatened and Impaired Coastal Waters

States must identify coastal waters that are not attaining or maintaining applicable water quality standards or protecting designated uses—or that are threatened by reasonable foreseeable increases in pollution loadings from new or expanding sources—and the land uses that individually or cumulatively cause or threaten water quality impairments in those coastal waters. There are processes in place in Illinois to meet this goal; the most applicable is IEPA's implementation of Sections 303(d), 305(b) and 314 of the Clean Water Act. Section 303(d) of the 1972 Clean Water Act requires States to identify lakes and streams that do not support their designated use(s). IEPA assesses lakes and streams for their designated uses on a two year cycle and reports this information through the Illinois Integrated Water Quality Report. Designated uses are evaluated through an analysis of biological, physicochemical, physical habitat and toxicity data for these lakes and streams. Those waterbodies not supporting their designated use(s) are deemed to be impaired and are identified on a list, called the 303(d) list. The State of Illinois recently issued the 2014 303(d) list (IEPA 2014). (The list is available online at <http://www.epa.state.il.us/water/tmdl/303d-list.html>).

The IEPA report uses data collected in 2011 for sites in the rotating cycle from a range of monitoring programs, including the Ambient Water Quality Monitoring Network, Intensive Basin Surveys, Facility-Related Stream Surveys, the Fish Contaminant Monitoring Program, the Ambient Lake Monitoring Program, the Illinois Clean Lakes Monitoring Program, the Volunteer Lake Monitoring Program, the Lake Michigan Monitoring Program, TMDL monitoring and other outside sources. For sites not included in the current cycle the most recent available data was used, which can be up to 15 years old. According to the report, the following assessments were made:

- Assessments of indigenous aquatic life use in streams were updated in this cycle using water data through 2011 from various sources. Indigenous aquatic life use was not updated this cycle for Lake Calumet because no new data were available.
- Assessments of primary contact use and secondary contact use in streams were updated with Ambient Water Quality Monitoring Network data from 2007 through 2011. Because there were no new fecal coliform samples collected in lakes since the last report, no new assessments of primary contact use or secondary contact use were made for freshwater lakes.
- Assessments of fish consumption use were generally updated with Fish Contaminant Monitoring Program data from 2011. In some cases, older data may also have been used.
- Aquatic life use and aesthetic quality use in lakes were updated with Ambient Lake Monitoring Program and Illinois Clean Lakes Monitoring Program data from 2011

In total, the areas sampled include 19.7 miles of Lake Michigan shoreline, 58.8 miles of inland streams, 7 unique inland lakes, and 23 additional individual sampling locations (points along streams or the coast). Sampling dates range from 1997 through 2013, with nearly all of the data from 2008 or later. The IEPA collects chemical, physical, biological, habitat, and toxicity data, depending on the type of water body

and the 305(b) list is updated as conditions change. Waters may be added or removed in the future, based upon changing water quality, parameters, criteria, improved data, etc.

Overall, the vast majority of Illinois' Coastal Zone waters that have been sampled are considered impaired in at least one use based on the most recent data available for each sampling location. For inland lakes (Table 8-1), all lakes except for Powderhorn Lake suffer from some form of impairment. Sources of impairment include RCRA hazardous waste sites (for PCBs); atmospheric deposition of mercury; and the combination of runoff from parks, urban areas, and impacts from waterfowl leading to problems with algae, macrophytes, total phosphorus, and total suspended solids (TSS). In many cases the complete causes of impairment are not fully known.

Table 8-1 Impairment status of inland lakes in the Illinois Coastal Zone using most recent IEPA data

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|-----------------------------|----------------|-------------------|-----------------|----------------------------------|--|
| Lake Calumet | IL_RHO | Fish Consumption | Impaired | Polychlorinated biphenyls (PCBs) | RCRA Hazardous Waste Sites |
| Wolf Lake | IL_RHA | Fish Consumption | Impaired | Mercury | Atmospheric Deposition - Toxics |
| | | | | Polychlorinated biphenyls (PCBs) | Rcra Hazardous Waste Sites |
| Flatfoot Lake | IL_RHZJ | Fish Consumption | Impaired | Mercury | Atmospheric Deposition - Toxics |
| Powderhorn Lake | IL_RHG | Supports all uses | Good | N/A | N/A |
| Sand Pond | IL_QZV | Aesthetic Quality | Impaired | Aquatic Plants (Macrophytes) | Source Unknown |
| Lincoln Park - North Pond | IL_QZK | Aesthetic Quality | Impaired | Phosphorus, Total | Runoff from Parkland; Urban Runoff/Storm Sewers; Waterfowl |
| | | | | Total Suspended Solids (TSS) | Runoff from Parkland; Urban Runoff/Storm Sewers; Waterfowl |
| Jackson Park - South Lagoon | IL_QZM | Fish Consumption | Impaired | Mercury | Atmospheric Deposition - Toxics |
| | | | | Polychlorinated biphenyls (PCBs) | RCRA Hazardous Waste Sites |

* indicates that impairment not fully explained by indicated cause of impairment; unknown cause(s) also exist.

For rivers and streams in the Coastal Zone (Table 8-2), all segments are impaired. Sources of impairment fall into several major categories. Many segments have contaminated sediments impacted by persistent bioaccumulative toxins, including various metals, PCBs, and several types of pesticides. Segments are also frequently impacted by high nutrient inputs and related low levels of dissolved oxygen, stemming from a range of issues such as Combined Sewer Overflows (CSOs), urban runoff and storm sewers, municipal point source discharges, etc. A smaller number of sites are impacted by sediments and total suspended solids. Relatively few sites have impacts from atmospheric deposition of mercury, or from fecal coliform bacteria.

Table 8-2 Impairment status of river and stream segments in the Illinois Coastal Zone using most recent IEPA data.

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|---------------------------|----------------|------------------|-----------------|--|---|
| Bull Creek | IL_QG | Aquatic Life | Impaired | Pesticides (Aldrin, Endrin); Dissolved Oxygen | Contaminated Sediments; Source unknown for Dissolved Oxygen |
| Kellogg Ravine | IL_QF | Aquatic Life | Impaired | Aldrin; Dissolved Oxygen | Contaminated Sediments; Source unknown for Dissolved Oxygen |
| Dead Dog Creek | IL_QE-01 | Aquatic Life | Impaired | Aldrin* | Contaminated Sediments * |
| Waukegan River | IL_QC-05 | Aquatic Life | Impaired | DDT; Polychlorinated biphenyls (PCBs) | Contaminated Sediments |
| Waukegan River | IL_QC-03 | Aquatic Life | Impaired | Pesticides (Aldrin, DDT, Hexachlorobenzene); PCBs; Dissolved Oxygen | Contaminated Sediments; Source unknown for Dissolved Oxygen |
| Pettibone Creek | IL_QA-C4 | Aquatic Life | Impaired | Mercury; Other Metals (Arsenic, Copper, Lead, Manganese, Nickel, Silver, Zinc); Pesticides (Alpha-BHC, Dieldrin, Endrin); PCBs | Contaminated Sediments |
| S. Branch Pettibone Creek | IL_QAA-D1 | Aquatic Life | Impaired | Pesticides (Alpha-BHC, Endrin, Heptachlor); PCBs | Contaminated Sediments |
| North Shore Channel | IL_HCCA-04 | Fish Consumption | Impaired | Mercury; PCBs | Atmospheric deposition* |

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|----------------------------|----------------|------------------|-----------------|---|---|
| North Shore Channel | IL_HCCA-02 | Aquatic Life | Impaired | Dissolved Oxygen; pH; Total Phosphorus | Combined Sewer Overflows; Upstream Impoundments; Municipal Point Source Discharges; Urban Runoff/Storm Sewers |
| N. Branch Chicago River | IL_HCC-08 | Fish Consumption | Impaired | Mercury; PCBs | Atmospheric deposition* |
| | | Aquatic Life | Impaired | Dissolved Oxygen; Iron; Total Phosphorus; Total Dissolved Solids | Combined Sewer Overflows (CSOs); Impacts from Hydrostructure Flow Regulation; Urban Runoff/Storm Sewers; Municipal Point Source Discharges |
| N. Branch Chicago River | IL_HCC-07 | Aquatic Life | Impaired | Pesticides (Aldrin, DDT, Hexachlorobenzen); Alteration in Streamside Vegetation Cover; Chloride; Dissolved Oxygen; Total Phosphorus; Total Suspended Solids | Channelization; CSOs; Contaminated Sediments; Highway/Road/Bridge Runoff (non-construction); Municipal Point Source Discharges; Streambank Modifications; Urban Runoff/Storm Sewers |
| | | Fish Consumption | Impaired | PCBs | Source Unknown |
| | | Primary Contact | Impaired | Fecal Coliform | CSOs; Urban Runoff/Storm Sewers |
| N. Branch Chicago River | IL_HCC-02 | Fish Consumption | Impaired | Mercury; PCBs | Atmospheric deposition* |
| South Branch Chicago River | IL_HC-01 | Fish Consumption | Impaired | PCBs | Source Unknown |
| | | Aquatic Life | Impaired | Dissolved Oxygen; Total Dissolved Solids; Total Phosphorus | CSOs; Urban Runoff/Storm Sewers |
| Little Calumet | IL_HB-01 | Primary Contact | Impaired | Fecal Coliform | CSOs; Urban Runoff/Storm Sewers |

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|----------------------------|----------------|------------------|-----------------|--|---|
| River South | | Aquatic Life | Impaired | Pesticides (Chlordane, Endrin, Hexachlorobenzene); Chloride; Dissolved Oxygen; Total Phosphorus; Sedimentation/Siltation | Contaminated Sediments; CSOs; Municipal Point Source Discharges; Urban Runoff/Storm Sewers |
| Grand Calumet River | IL_HAB-41 | Aquatic Life | Impaired | Metals (Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Nickel, Silver, Zinc); Ammonia; Dissolved Oxygen; DDT; PCBs; Total Phosphorus; Sedimentation/Siltation | Channelization; CSOs; Contaminated Sediments; Municipal Point Source Discharges; Urban Runoff/Storm Sewers |
| Calumet River | IL_HAA-01 | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric deposition* |
| | | Primary Contact | Impaired | Fecal Coliform | CSOs; Urban Runoff/Storm Sewers |
| Little Calumet River North | IL_HA-05 | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric deposition* |
| | | Aquatic Life | Impaired | Aldrin, Dissolved Oxygen, Total Phosphorus, Silver | Contaminated Sediments; CSOs; Channelization; Upstream Impoundments; Municipal Point Source Discharges; Urban Runoff/Storm Sewers |
| Little Calumet River North | IL_HA-04 | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric deposition* |
| | | Aquatic Life | Impaired | Dissolved Oxygen, Iron, Total Dissolved Solids | Contaminated Sediments; CSOs; Urban Runoff/Storm Sewers |
| Calumet-Sag Channel | IL_H-02 | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric deposition* |
| | | Aquatic Life | Impaired | Dissolved Oxygen, Iron, Total Dissolved Solids | Contaminated Sediments; CSOs; Urban Runoff/Storm Sewers |

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|-------------------------------|----------------|------------------|-----------------|------------------------------------|---|
| Chicago Sanitary & Ship Canal | IL_GI-03 | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric deposition* |
| | | Aquatic Life | Impaired | Dissolved Oxygen, Total Phosphorus | Channelization, CSOs, Impacts From Hydrostructure Flow Regulation; Municipal Point Source Discharges; Urban Runoff/Storm Sewers |

* indicates that impairment not fully explained by indicated cause of impairment; unknown cause(s) also exist.

IEPA considers the waters of Lake Michigan in several categories. For harbors (Table 8-3), all harbor units are considered impaired for fish consumption due to PCBs and atmospheric deposition of mercury. Waukegan Harbor is also listed as impaired for aquatic life due to a combination of contaminated sediments, industrial point source discharges, and urban runoff/storm sewers. However, recent dredging of Waukegan Harbor sediments associated with a Remedial Action Plan should result in the removal of this impairment in the next round of monitoring. For the Lake Michigan shoreline, all 63 miles of Illinois' Lake Michigan shoreline are considered impaired for fish consumption and for primary contact, including all 51 Lake Michigan beaches. The fish consumption impairment is caused by atmospheric deposition of mercury and by PCBs. Primary contact issues are due to *Escherichia coli* contamination due in one case to CSOs and urban runoff/storm sewers, but in most cases sources are not known. A TMDL has been completed and approved for all Lake Michigan beaches.

Table 8-3 Impairment status of Lake Michigan harbors in the Illinois Coastal Zone using most recent IEPA data.

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|---------------------------|----------------|------------------|-----------------|---|---|
| North Point Marina Harbor | IL_QH | Fish Consumption | Impaired | Mercury, Polychlorinated biphenyls (PCBs) | Atmospheric Deposition - Toxics * |
| Waukegan Harbor | IL_QZO | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric Deposition - Toxics, Contaminated Sediments * |

| Name | Waterbody Code | Designated Use | Status | Cause of Impairment | Probable Source(s) |
|-----------------|----------------|------------------|-----------------|--|--|
| | | Aquatic Life | Impaired | Mercury, PCBs, Metals (Arsenic, Cadmium, Chromium, Copper, Lead, Zinc), Total Phosphorus | Atmospheric Deposition - Toxics, Contaminated Sediments, Industrial Point Discharge, Urban Runoff/Storm Sewers * |
| Diversey Harbor | IL_QZI | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric Deposition - Toxics * |
| Calumet Harbor | IL_3S | Fish Consumption | Impaired | Mercury, PCBs | Atmospheric Deposition - Toxics * |

* indicates that impairment not fully explained by indicated cause of impairment; unknown cause(s) also exist.

8.2. Land Uses Contributing to Degradation of Coastal Waters

According to the §6217(g) guidance, states must identify those land uses that individually or cumulatively cause or contribute to coastal water quality impairments. The land uses should include the general nonpoint sources categories and subcategories described in the guidance and other land uses not mentioned in the guidance that are or may be sources of runoff and infiltration to coastal waters. As noted in Table 1-1, the Illinois Coastal Zone has largely been converted to urban land uses, at just over 60% of the area. Of the remaining amount, 32% is in categories of open space that are mostly types of recreational or unforested conservation land, or in forested and wetland areas also under some form of conservation. Another 5% is water.

Given these statistics, it is clear that the impairments of Illinois coastal waters due to land use result from the combined, cumulative effects of extensive urban land cover. The guidance asks us to consider whether current or future uses are likely to result in additional water quality impairments. However, the land use of the Illinois Coastal Zone is highly unlikely to change in any substantial way that would increase impairments. Currently most land that can be converted to urban uses either already has been converted or it has been protected as conservation or recreational land (Figure 8-1).

Water quality impairments in Illinois coastal waters are caused by a wide range of sources, many of which are unrelated to land use. Sources of impairment noted above are summarized in Table 8-4 and include a significant proportion of waters impacted by atmospheric deposition of toxins such as mercury; existing contaminated sediments; and industrial and municipal point discharges. None of these sources are the result of land use practices.

In addition, a large number of impairments (>40%, Table 8-4) are the result of sources that have not been identified. Figure 8-2 identifies those waterways where additional research is needed to confirm sources of impairment. Nearly all of these are associated with impairments due to mercury; polychlorinated biphenyls; dissolved oxygen; and *Escherichia coli*.

Some land uses are associated with impairments in Illinois coastal waters, however. By far the greatest of these is urban landcover, the predominant land use in the Coastal Zone. Urban runoff particularly from stormwater is associated with a range of impairments, particularly heavy metals.

Runoff associated with parklands is also associated with some Coastal Zone impairments, in relation to macrophytes and algal growth. Parklands can also be associated with excess waterfowl numbers, resulting in impairments related to nutrients.

Table 8-4 Sources of impairments in Illinois Coastal Zone 305(d) Impaired Waters

| Source | % of 305(d) Impaired Segments Impacted |
|--|--|
| Atmospheric Deposition - Toxics | 14.93% |
| Contaminated Sediments | 14.25% |
| Combined Sewer Overflows | 8.14% |
| Urban Runoff/Storm Sewers | 7.47% |
| Industrial Point Source Discharge | 2.71% |
| Channelization | 2.26% |
| Impacts from Hydrostructure Flow Regulation/Modification | 2.26% |
| Upstream Impoundments | 1.58% |
| Sediment Resuspension (Contaminated Sediment) | 0.90% |
| Runoff from Forest/Grassland/Parkland | 0.68% |
| Waterfowl | 0.68% |
| RCRA Hazardous Waste Sites | 0.45% |
| Highway/Road/Bridge Runoff (Non-construction Related) | 0.23% |
| Streambank Modifications/Destabilization | 0.23% |
| <i>Source Unknown</i> | 43.21% |

8.3. Critical Coastal Areas (Adjacent to Threatened and Impaired Coastal Waters)

The §6217(g) guidance asks for the identification of “critical coastal areas” that are associated with or adjacent to threatened and impaired coastal waters. The Illinois Coastal Zone is unusual compared to many states in its highly urbanized nature. Resulting in part from intensive urban land use, nearly all of the waters of the Coastal Zone are impaired in some manner. Therefore, it is difficult to identify particular areas that would stand out as critical over other areas.

According to the guidance, states may identify a critical coastal area based on applying a buffer strip along the shoreline adjacent to impaired coastal waters. ICMP considers this a reasonable approach for Illinois, and as such we consider the entire 63 mile length of our Lake Michigan coast to be a 'critical coastal area'. We recommend a buffer length of 0.25 mile, which in many places will include the full width of the Coastal Zone.

8.4. Other Efforts Dealing with Impaired Coastal Waters [LaMP, RAP, TMDLs]

As an outcome of the 1987 amendments to the Great Lakes Water Quality Agreement (originally signed by the United States and Canada in 1972), each lake including Lake Michigan has a Lakewide Management Plan (LAMP). The LAMPs focus on the open waters of the lakes and are intended "to identify critical pollutants that affect beneficial uses of the lakes and to present strategies, recommendations and policy options to restore those beneficial uses." They are updated every two years. The Lake Michigan LAMP includes strategies addressing a range of issues related to coastal nonpoint pollution including inputs of mercury, CSOs, and other the development of TMDLs.

Information on the Lake Michigan LAMP is available here:

<http://epa.gov/greatlakes/lakemich/index.html>

Remedial Action Plans (RAPs) are developed for specific nearshore sites with severe pollution issues, termed Great Lakes Areas of Concern (AOCs). The Waukegan Harbor is the only AOC in the Illinois Coastal Zone, and steady progress at delisting the AOC has been made under the leadership of the Waukegan Harbor Citizens Advisory Group (CAG). Most recently the CAG has overseen dredging of contaminated sediments in the harbor and applied for removal of the associated Dredging Beneficial Use Impairment (BUI).

Information on cleanup of the Waukegan Harbor AOC is available here:

<http://www.epa.gov/greatlakes/aoc/waukegan/index.html#restoration>

Section 303(d) of the Clean Water Act and EPA's Water Quality Planning and Management Regulations (40 CFR Part 130) require states to develop Total Maximum Daily Loads (TMDLs) for pollutants identified as causing impairments to water bodies that are not meeting designated uses under technology-based controls (such as secondary treatment). The TMDL process establishes the allowable loading of pollutants or other quantifiable parameters for a water body based on the relationship between pollution sources and instream conditions. This allowable loading represents the maximum quantity of the pollutant that the waterbody can receive without exceeding water quality standards. The TMDL also takes into account a margin of safety, which accounts for scientific uncertainty, as well as the effects of seasonal variation. Once the reduction required is established, that number is further divided up into the Waste Load Allocation (point sources) and Load Allocation (nonpoint sources and background sources). Each point source is given a specific allocation. By following the TMDL process, States can

establish water quality-based controls to reduce pollution from both point and nonpoint sources, and restore and maintain the quality of their water resources (USEPA, 1991).

The Illinois coastal zone has numerous impaired waterbodies as noted above. There are two TMDLs prepared by to date for sections of the Illinois Coastal Zone. One covers the 51 Lake Michigan beaches (RTI 2013a, RTI 2013b, RTI 2013c) focusing on E. coli (coliform bacteria) loads. This TMDL has been fully approved. The second TMDL covers several segments of the North Branch of the Chicago River, including one segment in the Coastal Zone (ID code IL_HCC-07). The TMDL covers chloride, fecal coliform, and dissolved oxygen. This TMDL is in Stage 3 of the approval process.

8.5. Process for Selecting and Implementing Additional Management Measures

As noted above, the vast majority of water bodies and shoreline segments in the Illinois Coastal Zone suffer from some form of impairment. Nevertheless, most of the land area in the Coastal Zone has already been converted to urban land cover, with most of the remaining consisting of recreational or unforested conservation land, or forested and wetland areas also under some form of conservation. There is little reason to anticipate the need for additional management measures based on new types of land use; much of the impacts on coastal water quality appear to stem from the cumulative impacts of urban land cover.

Many of the impairments suffered by coastal water bodies are the result of processes operating well beyond the boundaries of the Coastal Zone or even the state of Illinois (Table 8-4). A large number of the impairments stem from atmospheric deposition (particularly fish consumption impairments resulting from atmospheric deposition of mercury and/or PCBs), which operate on a large geographic scale. Many impairments to aquatic life stem from existing contaminated sediments which are also beyond the scope of what ICMP has the ability to manage. In addition, over 40% of the waterways suffer an impairment whose source is at least partially unidentified. It is unreasonable for ICMP to propose new Management Measures for many of these impairments.

In addition to the existing Management Measures, ICMP will be implementing additional strategies to address coastal nonpoint source pollution based on the recommendations of our stakeholders and experts on our Advisory Panel (see section 2.6). We anticipate seeing benefits from these actions. Through our coordination with IEPA and their existing water monitoring programs, ICMP will track coastal water quality trends in the future and on a regular, periodic basis to assess whether trends indicate the need to identify additional management measures.

Our process for selecting and implementing any additional management measures will involve the following:

- Annual tracking of water quality monitoring data (see section 2.5, Water Quality Monitoring and Tracking Techniques).

- Every five years, consulting on whether trends warrant identification of additional management measures with (1) representatives of the experts on our Advisory Panel for the Coastal Nonpoint Program (see Appendix 2), and (2) the Illinois Coastal Management Program Technical Advisory Committee.
- Conduct outreach to various stakeholders including representatives of federal, state and local government that manage land uses in the Illinois Coastal Zone for input on any proposed additional management measures. In addition, any discussions about possible additional management measures will include interested members of the public.

Once Illinois receives full or conditional approval from NOAA and EPA of the Coastal Nonpoint Program, the state will submit a 15-year program strategy for achieving full implementation of the §6217(g) management measures. Nested within the 15-year strategy will be a more specific 5-year implementation plan. These plans will include the process for monitoring and evaluating the success of management measures in conformity with the guidance as well as the time frame for implementation of additional management measures if such measures are needed.