

Chapter 4. Urban Areas

4.1. Introduction

Illinois' 63-mile-long 61,769-acre coastal zone has undergone tremendous and permanent modifications, including:

- Over 310,000 residents in about 117,900 households
- Monumental hydrologic modifications
- Enormous industrial and commercial development
- Construction of a world-class transportation infrastructure
- Creation of some of the greatest skyscrapers in the world

Illinois' shoreline is highly urbanized and has been subject to considerable stress from intense land use and competition to serve the economic and workforce needs and demands of this densely populated area. Lake and Cook counties are currently home to 6 million people and are projected to be home to nearly 6.8 million people by 2030. More than 20 million people visit the Lake Michigan shoreline each year. Illinois Beach State Park alone has over 2 million visitors annually. Lake Michigan provides water to nearly 7 million Illinois residents (over half of the state's population) and the industries that support those 7 million people (Figure 4-1).

4.1.1. Stormwater Management Regulations in Urbanized Areas

In 1987, amendments to the Clean Water Act extended the National Pollutant Discharge Elimination System (NPDES) to stormwater in two phases. Phase I addressed the most significant sources of pollution in storm water runoff (large construction sites and cities over 100,000 in population). Phase II addresses other sources to protect water quality. Today, IEPA administers the stormwater NPDES program in Illinois and addresses and regulates stormwater runoff from construction sites, industrial properties and municipal separate storm sewer systems (MS4) communities. In addition, IEPA regulates traditional municipal wastewater treatment plants, combined sewer overflows and other point source discharges.

Certain stormwater management measures that are covered in the NPDES Stormwater Program (Phases I and II) are no longer subject to requirements of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) Section 6217 CNPCP. USEPA and NOAA have identified the following ten management measures specified in the 6217(g) guidance that overlap in part or in full with the NPDES storm water regulations:

- New Development (geographically limited)
- Construction Site Erosion and Sediment Control
- Construction Site Chemical Control
- Existing Development (geographically limited)
- Road, Highway and Bridge Construction Projects
- Road, Highway and Bridge Construction Site Chemical Control
- Road, Highway and Bridge Operation and Maintenance (geographically limited)

- Road, Highway and Bridge Runoff Systems (geographically limited)
- Hydromodification, Erosion and Sediment Control for Dams
- Hydromodification, Chemical and Pollutant Control for Dams

Figure 4-2 illustrates that essentially all of Illinois' coastal zone is considered an urbanized area and is governed by the NPDES stormwater regulations. The only portions not included in municipal-level permits are unincorporated sections of Lake County and the 4,160-acre Illinois Beach State Park near Zion, Illinois in Lake County. This state park represents about 6.7% of the coastal zone and is owned and managed by the IDNR, one of the state agencies responsible for the 6217 program. Both the unincorporated areas in Lake County and Illinois Beach State Park are covered by the Lake County MS4 Permit because it is a countywide permit.

4.2.Sources of Nonpoint Pollution in Urban Areas

This section discusses sources of nonpoint source pollution associated with urbanization and the effect of existing and new development on Lake Michigan and its tributaries. Ranges of stormwater pollutant concentrations and unit area loading rates are available for urbanized land (Lin 2004, Corsi et al. 1998). These concentrations and rates can be applied locally to estimate nonpoint source loads in the coastal zone. Land managers or regulators should use their own professional judgment as to the applicability of these values to their area of interest. A detailed discussion of the range of nonpoint sources and their effects on water quality and riparian habitats is provided in Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (USEPA 1993).

4.2.1. Runoff from Developed and Developing Areas

Stormwater runoff quantity and quality are significantly altered as watersheds are developed for industrial, commercial, residential and related uses. The hydrology and quality of runoff undergo significant changes when impervious surfaces like building rooftops and roadways replace natural landscapes. The effect of impervious surfaces is to reduce infiltration, increase runoff speed, and increase direct stormwater volume and storm-related pollutant loadings to streams. Consequently, stream channels in urbanized watersheds are typically eroded and have reduced biological integrity. To compensate for increased storm runoff from developed land, stormwater conveyance systems are built. Historically, these systems have been designed to convey runoff in an efficient manner without regard for their impacts on waterbodies to which they discharge and downstream ecosystems. While this design philosophy is beginning to change, these negative consequences will continue for decades.

Stormwater runoff from impervious surfaces is efficient at collecting and transporting pollutants downstream to receiving waterbodies. Pollutants associated with urban areas are specific to the type and intensity of the land use. Some examples of pollutants include sediments, various nutrients, oxygen demanding substances, road salt, heavy metals, oils, grease and hydrocarbons, and bacteria. Runoff from commercial lands such as shopping centers, business districts, and various roads and parking lots may contain high hydrocarbon loadings and metal concentrations from automobiles. Retail gasoline stations may generate high loads of heavy metals, hydrocarbons, and other automobile-related pollutants; these facilities regularly have fuel spills, even small ones, due to accidents and human error.

4.2.2. Runoff from Construction Sites

Sediment is the pollutant most associated with runoff from construction sites and is the pollutant primarily regulated at construction sites. There may be other pollutants, such as petroleum products, concrete wash water or other construction chemicals that may be associated with construction runoff. The pollutants associated with construction activities are dependent on the nature of the construction activity and the physical characteristics of the project site. And, the overall adversity of effects of construction site stormwater depends on the proximity to the receiving waters.

Construction activity that results in significant earthmoving has a higher potential for high sediment loss. Projects with heavy equipment and significant vehicle refueling, fuel storage, and equipment maintenance areas have higher potential for contamination of stormwater by lubricants, fuel, or other petroleum products.

4.2.3 Runoff from Existing Development

Most existing development was constructed without consideration for water quality protection, with stormwater management systems designed solely to convey runoff efficiently off the site, without regard for downstream effects. This makes pollutant reduction in existing developments difficult. Retrofits, including gutter disconnection and green infrastructure such as permeable pavement, rain gardens, green roofs, and naturalized retention and detention basins are becoming increasingly popular, but are not poised to replace conventional systems in the near to medium term. The City of Chicago captures much of its stormwater during large events in the

4.2.4 On-site Sewage Disposal Systems (Request for Exclusion)

On-site sewage disposal systems typically consist of a septic tank and a dispersal field (network of trenches filled with pipe and gravel). On-site systems may also include aerobic treatment units with spray irrigation, aerobic treatment units with drip irrigation, low-pressure dosing systems, and lagoon systems. All are designed and installed for the purpose of wastewater treatment. Design and installation is site specific. On-site systems may require significant maintenance. Failure of on-site systems can often be attributed to incorrectly characterizing waste loads, limiting soil or geologic features, or improper depth to groundwater. An increase in water usage over a period of time can also exceed the design capability of a system and result in failure.

Illinois' coastal zone is essentially completely sewered. In Cook County, collection and treatment services are provided by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). In Lake County, collection and treatment is provided by the North Shore Sanitary District (NSSD) or local municipalities that collect wastewater for treatment by the NSSD (Figure 4-3). The NSSD does not serve the communities of Winthrop Harbor, Zion or Beach Park. These communities own and maintain their own sewage collection systems, and deliver their sewage to NSSD for treatment. We were unable to ascertain sewer hookup availability for approximately 400 households in unincorporated areas of Lake County, representing much less than one percent of the population within the Illinois Coastal Zone. Housing density suggests that most of these households are sewered.

The Illinois Beach State Park is a 4,160-acre park, physically encompassing two units: north and south. The north unit is not sewered by the NSSD. The park's northern unit is the site of Camp Logan, a prisoner of war camp during the American Civil War and subsequently a National Guard training facility. The northern unit includes the former Camp Logan site, IDNR offices, and the Lake Michigan Biological Station (LMBS) staffed by the Illinois Natural History Survey. There is one toilet and one shower in the permanent building (the shower is not generally used) and the trailers that are used as offices have two toilets. There are currently nine employees working at LMBS. All toilets and the shower of these are served by on-site treatment systems (rebuilt in 1996). The south unit, which includes the Illinois Beach Resort and Conference Center, is sewered. There are eight pit toilets in the camping and picnicking areas. The pit toilets are pumped out and checked for leaks annually. The pit toilets are scheduled to be replaced with new pit toilets in 2014.

Overall, on-site septic systems in Illinois' coastal zone will contribute negligible pollutant loads to Lake Michigan. Any further development in the future would involve connection to existing or new sewerage system.

There are point sources of pollutants in Illinois' coastal zone that are regulated under NPDES permits. The North Shore Channel, North Branch Chicago River, Chicago River, South Branch Chicago River, South Fork South Branch Chicago River and Calumet River all have combined sewer overflows (CSO) that only discharge during extreme storm events (Figure 4-4). During the majority of CSO discharge occurrences, the Chicago Area Waterway System (CAWS) continues to flow away from Lake Michigan. Only during the most extreme flood conditions does the MWRD open locks or sluice gates to allow discharge to Lake Michigan at one or more of three possible locations (Wilmette Pumping Station, Chicago River Controlling Works, or O'Brien Lock and Dam) to protect residences and businesses from flooding. Opening of the locks or sluice gates as flood protection is allowed by legislation and through agreements between the Army Corps of Engineers and MWRD. CSO discharges which enter Lake Michigan during these rare events are regulated under the Clean Water Act. MWRD is currently under a consent decree with the USEPA and the US Department of Justice to reduce untreated sewer discharges to safeguard water quality and protect human health. The Clean Water Act settlement was reached in December 2011 and requires the MWRD to complete its tunnel and reservoir plan to increase storage capacity for storm water, control trash and debris in overflows using skim boats, and implement a green infrastructure program to reduce stormwater runoff (United States Department of Justice 2011).

4.2.5 General Sources (Including Household, Commercial, and Landscaping)

General sources of pollutants are released through the routine activities of the public, government organizations, and private businesses. This category includes household activities, lawn and garden care, vehicle use and maintenance, illegal discharges, and pet and domesticated animal waste.

Household activities produce waste that can include paint, solvents, lawn and garden care products, detergents and other cleansers, and automotive products such as transmission fluid and oil. A household product that contains hazardous substances becomes household hazardous waste when the consumer opts to dispose of it; examples of household hazardous waste are batteries, fluorescent light

bulbs, and various consumer electronics. Household hazardous waste is not regulated as hazardous waste under federal or state laws.

Landscaping can contribute to the water pollution from the improper application or over-application of fertilizers and pesticides. Nutrients such as nitrogen and phosphorus can enter surface water by runoff or can leach to groundwater. Improper disposal of yard waste can also lead to nonpoint source pollution in runoff.

Litter can also contribute to the degradation of surface water. Smaller materials can be carried by runoff and deposited in surface waters. Larger solid waste items such as refrigerators or automobile tires can impair water quality through the release of fluids into surface or ground waters or habitat degradation. These items also degrade the aesthetic and recreational value of surface waters and may be a hazard to some species of wildlife and aquatic organisms.

The waste of pets and quasi-domesticated wildlife has been found to be an important cause of nonpoint source pollution, particularly in urban areas. This waste can elevate fecal coliform bacteria levels in receiving waters. Urban wildlife, particularly ducks, Canada geese and gulls, can be major contributors to the nonpoint source problem in areas where they congregate.

The contamination of surface and ground water can be reduced through the proper handling, disposal, and management of these general sources of pollutants.

4.2.6 Roads, Highways, and Bridges

Roads, highways, and bridges generate pollutants that can become nonpoint sources during construction and operation. Construction activities expose soil to erosional processes. There are also source areas like fuel storage and fueling stations, solid waste generation and handling areas, and chemicals used during construction or site stabilization and restoration. Pollutants associated with road operations include weed management chemicals, solid waste from littering, automobile use, and pollutants washed from the pavement (like deicing chemicals, oils and metals). County and state highway maintenance garages can also contribute to nonpoint pollutant loadings. Maintenance garages are typically used for refueling and storage of sand and salt materials. If not properly managed, these substances can become potential pollutants.

4.3 Management Measures for Urban Sources

This section addresses management measures for urban areas; management measures are economically achievable measures to control pollution of coastal waters, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives (USEPA 1993). This section includes 15 management measures and is organized in the manner presented in USEPA's guidance documents:

1. (4.3.1) Urban Runoff New Development Management Measure (Exclusion Requested)
2. (4.3.2) Watershed Protection Management Measure

3. (4.3.3) Site Development Management Measure
4. (4.3.4) Construction Site Erosion & Sediment Control Management Measure (Exclusion Requested)
5. (4.3.5) Construction Site Waste and Chemical Control Management Measure (Exclusion Requested)
6. (4.3.6) Existing Development Management Measure (Exclusion Requested)
7. (4.3.7) New On-Site Sewage Disposal Systems (Exclusion Requested)
8. (4.3.8) Operating Onsite Sewage Disposal Systems Management Measure (Exclusion Requested)
9. (4.3.9) Pollution Prevention Management Measure
10. (4.3.10) Management Measures for Planning, Siting and Developing Roads and Highways
11. (4.3.11) Management Measure for Bridges
12. (4.3.12) Management Measure for Road, Highway and Bridge Construction (Excluded)
13. (4.3.13) Management Measure for Road, Highway and Bridge Construction Site Waste and Chemical Control (Excluded)
14. (4.3.14) Management Measure for Road, Highway and Bridge Operation & Maintenance (Excluded)
15. (4.3.15) Management Measure for Road, Highway and Bridge Runoff Systems (Excluded)

4.3.1 Urban Runoff New Development Management Measure (Exclusion Requested)

This management measure is intended to decrease the erosion potential of increased runoff volumes and velocities associated with development-induced changes in hydrology and to remove suspended solids and associated pollutants entrained in urban runoff during and after development. In this way, this management measure strives to retain hydrological conditions that resemble those of the undeveloped condition and to preserve natural systems, including stream and wetland habitats.

During the development process, both the existing landscape and hydrology are altered, in the following ways:

- Compaction decreases soil porosity
- Paving and building construction increases impermeable surfaces area
- Storm sewers and ditches are constructed
- Earthmoving changes topography and removes vegetative cover
- Native vegetation is replaced with exotic species, lawns, and high maintenance landscapes

Such changes result in increased runoff volume and velocities and adversely affected aquatic habitats (USEPA 1993).

Federal guidelines for the Urban Runoff New Development Management Measure specify that practices should meet the following criteria:

- By design or performance
 - After construction has been completed and the site is permanently stabilized, reduce the average annual total suspended solid (TSS) loadings by 80 percent. For the purposes

of this measure, an 80 percent TSS reduction is to be determined on an average annual basis³, or

- Reduce the post-development loadings of TSS so that the average annual TSS loadings are no greater than predevelopment loadings, and
- To the extent practicable, maintain post-development peak runoff rate and average volume at levels that are similar to predevelopment levels

Sound watershed management requires that both structural and nonstructural measures be employed to mitigate the adverse impacts of storm water. Hence USEPA (1993) recommends that the New Development Management Measure be paired with the Watershed Protection Management Measure and Site Development Management Measure as a system to prevent and mitigate the problems associated with new urban development. In combination, these three management measures applied on-site and throughout watersheds can be used to provide watershed protection and prevent erosion, flooding, and increased pollutant loads that are associated with poorly planned development.

Structural practices to control urban runoff rely on three basic mechanisms to treat runoff: infiltration, filtration, and detention. USEPA (1993) provides lists specific urban runoff control practices that relate to these mechanisms, including information on advantages, disadvantages, and costs.

Applicability

State CNPCPs are not required to include the New Development Management Measure for any new development, redevelopment, and new and relocated roads, highways, and bridges occurring in urbanized areas subject to Phase I or Phase II MS4 permits. The expectation from USEPA is that these Stormwater Permit programs are appropriately stringent enough to ensure water quality protections from storm water impacts. All of the Illinois Coastal Zone is subject to a Phase I or Phase II MS4 Permit (See Section 4.11 and Figure 4-2). Consequently, the Illinois CNPCP is requesting a geographical exemption from this management measure.

4.3.2 Watershed Protection Management Measure

This management measure is applied to new development and any redevelopment that generates nonpoint source pollutants. The measure provides general goals for local governments to use in developing comprehensive programs for guiding development and land use activities in a manner that will prevent and mitigate the effects of nonpoint source pollution. This measure is effective in producing long-term water quality benefits and generally lacks the recurring costs associated with structural controls.

Federal criteria indicate that watershed protection management measures should:

³ Based on the average annual TSS loadings from all storms less than or equal to the 2-year/24hour storm. TSS loadings from storms greater than the 2-year/24-hour storm are not expected to be included in the calculation of the average annual TSS loadings. Methods are available to estimate the impacts of new development on runoff volumes, rates and quality (NRCS 2009).

- Avoid conversion, to the extent practicable, of areas that are highly susceptible to erosion and sediment loss
- Preserve areas that provide important water quality benefits or are necessary to maintain riparian and aquatic biota
- Locate development of roads, highways, and bridges to protect, to the extent practicable, the natural integrity of waterbodies and natural drainage systems

Applicability

The Illinois CNPCP addresses this management measure. This management measure, nationwide, applies to new development or redevelopment, including construction of roads, highways and bridges that generate nonpoint source pollutants. The Illinois CNPCP addresses this management measure. This management measure is intended to reduce nonpoint source pollution in all areas within the coastal management area through the long-term behavioral changes that reduce nonpoint source pollutant loading.

Existing Programs or Practices

Following is a list of programs, practices, and activities that are being implemented statewide or in Cook and Lake Counties applicable to this management measure. Details on each program which will be used to implement this measure are summarized in Table 4-1.

Regulatory

Projects that are located in or near waterbodies and natural drainage systems that have the potential to discharge materials to waters of the United States trigger the “dredge and fill” permitting process (**Joint Permitting**). This nationwide regulation is implemented by the State of Illinois through environmental reviews and approvals that support the three above criteria for this management measure. Regulations for **401 Water Quality Certifications** by the IEPA are at **35 IAC 395**. The IEPA performs a water quality review that evaluates many factors, including potential violation of water quality standards, point and nonpoint source pollutant loading, and erosion potential and sediment loads. Their antidegradation review under **35 IAC 302.105** evaluates deterioration of water quality, water uses, and existing aquatic communities. The Agency is authorized to place conditions on its certification (or waiver of certification) of activities under the IAC rules. Such conditions relate to the characteristics of the specific site, the nature of the intended activities, and the resources requiring protection. The IDNR is involved in a parallel review under its authority (**17 IAC 3700 et seq.**) to protect threatened or endangered species or their critical habitat, natural areas, waterways, floodplains, and wetlands. The DNR’s approvals may also concern special provisions to protect natural resources.

The **Cook County Watershed Management Ordinance (55 ILCS §5/5-1062.1; 70 ILCS 2605/1 et. seq.)** is administered by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The purpose of the Cook County Watershed Management Ordinance is to abate the negative impacts of stormwater runoff (e.g. flooding, erosion, water quality impairments, etc.) from developments or redevelopments. Article 4 of the Ordinance mandates that new developments must meet certain erosion and sediment control requirements and references the Illinois Urban Manual as well as MWRD’s WMO Technical

Guidance Manual. The Ordinance mandates that all developments incorporate erosion and sediment control practices into their initial site plans, placing primary emphasis on erosion control practices as preventative source controls, while sediment control practices are secondary measures designed to contain eroded soil after it is in transport. Article 6 of the Ordinance mandates special protections for floodplains, wetlands, wetland buffers, and riparian areas. The Ordinance requires that development in floodplains cannot increase flood elevations or decrease conveyance capacity on other property. Developments also cannot increase flood velocity, impair hydrologic function, or degrade water quality. Article 6 has several elements that protect wetland and riparian areas, both of which attenuate the impacts of flooding and erosion. The Ordinance requires that developers must provide the District with the boundaries, extent, function, value, and quality of all wetlands on site. Development that impacts wetlands is discouraged by the WMO, but mitigation is allowed in some cases. The WMO encourages existing riparian functions to be protected. Mitigation practices such as streambank stabilization and native vegetation planting are required. The requirements mandated by Article 5 (erosion and sediment controls) and Article 6 (protection of floodplains, wetlands, wetland buffers, and riparian areas) meet the requirements of this management measure.

The Lake County Watershed Development Ordinance (55 ILCS §5.5-1062) is administered and enforced by the Lake County Stormwater Management Commission (SMC), as well as authorized communities in Lake County. The purposes of the Lake County Ordinance are, among others, to prevent flood damages to life and property, to assure that development does not increase flood and drainage hazards to others, or create unstable conditions susceptible to erosion, to conserve the natural hydrologic, hydraulic, water quality and other beneficial functions of flood-prone areas and wetlands in Lake County. This Ordinance generally requires a Watershed Development Permit for developments in floodplains, wetlands, or depressional storage areas. In fact, any development which hydrologically disturbs 5,000 square feet or more is required at a minimum to meet the soil erosion and sediment control performance standards of the Ordinance. Stormwater management systems and erosion and sediment control measures must be functional before building permits are issued or construction begins, again emphasizing the preventative nature of erosion controls. Section B of Article 4 of Lake County's Ordinance pertains to all Watershed Development Permits and includes mandates protecting stream channels, overland flows of stormwater, and water quality treatment areas. If natural channels are proposed for modification, a mitigation plan is required that demonstrates conservation of the physical characteristics of the existing channel, including length, cross-section, slope, sinuosity and carrying capacity. Revegetation is required using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard. Section C of Article 4 of the Ordinance regulates activities in floodplains by restricting modification and disturbance of natural riverine floodplains to protect existing hydrologic and environmental functions. It requires disturbances shall be minimized and negative impacts mitigated. No developments are permitted that alone or cumulatively create a damaging or potentially damaging increase in flood levels. Section E of Article 4 of the Ordinance regulates activities in jurisdictional and non-jurisdictional wetlands. Delineations, impact assessments, alternatives analyses, and mitigation plans are required. Further, mitigation is required to provide for replacement of lost wetland at rates proportional to the quality of the impacted wetlands, with 6-to-1 mitigation ratio required for impacting forested wetlands. Buffer areas for mitigation

wetlands are required, and, mitigation is not allowed within detention facilities. These and other requirements mandated by the Lake County Watershed Development Ordinance meet the requirements of this management measure.

IEPA also issues construction permits under the **NPDES Phase II Stormwater Program**. The construction permit requires development of a **Storm Water Pollution Prevention Plan (SWPPP)** to protect areas that are highly susceptible to erosion and sediment loss.

The Illinois Department of Agriculture (IDOA) is responsible for implementing the **Watershed Improvement Act (505 ILCS 140/1 (2012))**, which among other things is designed to “reduce[] the siltation of streams and lakes.” It accomplishes this objective by empowering the Department of Agriculture “to enter into agreements with any agency of the United States or with any local watershed organization or organizations as may be necessary to furnish surveys, engineering and assistance in planning for works of improvement in any approved watershed in this State and for maintaining watershed works of improvement which are constructed primarily for retaining surplus rainfall” **(505 ILCS 140/3 (2012))**.

The **Soil and Water Conservation Districts Act** regulations most relevant to Illinois’s mostly urban coastal zone are the soil loss standards for non-agricultural land and construction sites **(8 IAC 650.50)**. They require that during development the smallest practical area be exposed to stormwater, “[n]atural features which enhance erosion control such as trees, groves, waterways, and other similar resources...be preserved whenever possible,” and measures are taken to “effectively accommodate the increased runoff caused by changed soil and surface conditions,” both during and after development.

Education, Public Outreach and Technical and Financial Assistance

The **Illinois Urban Manual** (IUM, available at <http://www.aiswcd.org/ium>) is a technical resource containing a myriad of stormwater best management practices, ranging from planning guides to practice standards and design specifications, including soil erosion and control practices. Appendix B is Urban Technical Note No. 1, Erosion and Sedimentation on Construction Sites. This practice, and others in the IUM, is used statewide to mitigate effects of watershed development. It is regularly updated by the Illinois Association of Soil and Water Conservation Districts.

Illinois’ Green Infrastructure for Clean Water Act, Public Act 96-26 funds the Illinois Green Infrastructure Grant Program and allows the Illinois Clean Water Initiative (State Revolving Loan fund) to be used for nonpoint pollution control.

The Green Infrastructure for Clean Water Act requires the IEPA to assess and evaluate using green infrastructure to help manage stormwater in Illinois. The State has established financial and technical programs to support green infrastructure programs that mitigate nonpoint source pollution from stormwater.

The LCSMC has a **Technical Reference Manual (TRM)** for use by the public to meet the objectives of their Watershed Development Ordinance. The TRM contains guidance on preservation of natural

resources and drainageways (Sections 3.4A, 3.4B), maintaining the water quality benefits of streams and channels (Sections 3.7B), and design performance of soil erosion and sediment controls (Section 3.10).

Several State and local agencies have programs that fund land acquisition and preservation that support the implementation of this management measure. The Illinois Department of Natural Resources land acquisition grant programs including OSLAD and PARC, and Illinois Coastal Grants. Open space preservation and management is performed by the DNR, local park districts, Cook and Lake County Forest Preserve Districts, City of Chicago, and private conservation organizations that also serve to preserve areas that provide important water quality or aquatic ecology benefits.

Enforcement Mechanisms

The IEPA is responsible for the review of Joint Permit applications and issuance of 401 Water Quality Certifications, as appropriate. If the IEPA determines that a discharge subject to a 401 Water Quality Certification will affect the quality of its waters so as to violate any water quality standards in Illinois, the IEPA has the authority to impose conditions or refuse to issue a license or permit. The IEPA, through the 401 Water Quality Certification process, has the authority to file lawsuits against violators of the Rivers and Harbors Act of 1899. IEPA has the authority to assess civil penalties for violations of NPDES requirements and performance standards and for ensuring compliance of MS4 permit holders with their general permit. IEPA is also responsible for the enforcement of NPDES stormwater rules for construction activities (regulated under 40 CFR 122.26). Section 31 of Illinois' Environmental Protection Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). IEPA can assess civil penalties for violations of NPDES requirements or state water quality standards. In addition, IEPA has the authority to issue citations or initiate enforcement actions for documented violations of the State Water Quality Standards (35 IAC 302).

The Rivers, Lakes, and Streams Act and Illinois Rivers and Harbors Act gives the IDNR jurisdiction over all waterbodies in the State, navigable and non-navigable and authorizes the Agency to ascertain to what extent, if at all, these waters and shorelines have been or are proposed to be encroached upon by private interests or individuals. The Act gives IDNR authority to either recover full compensation for wrongful encroachment, or to recover the use of the same. The IDNR OWR is responsible for the review of Joint Permit applications and has enforcement authorities. Under the Rivers, Lakes, and Streams Act, illegal discharge is punishable as a Class A misdemeanor (615 ILCS §5/18). OWR has the authority to issue permits for construction in floodplains and floodways and has related enforcement authority.

MWRD has the authority and the responsibility for administering the Cook County Watershed Management Ordinance. This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. They also have technical experience in water quality monitoring and modeling.

LCSMC has the authority and the responsibility for administering the Lake County Watershed Development Ordinance (WDO). This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. Legal action may be taken and a notice of the violation may be recorded to the title to the property. LCSMC is available to meet with communities to provide

technical assistance on WDO related issues at any time. LCSMC also has delegated authority from the OWR for enforcement of Part 3708 of the Rivers, Lakes and Streams Act (17 IAC 3708).

All programs used to implement this measure are listed in Table 4-1. This table summarizes the programs; authorizing legislation; program authority; lead agency enforcement mechanisms; and evaluation methods.

4.3.3 Site Development Management Measure

The Site Development Management Measure addresses the reduction of nonpoint source pollution from all site development, including planning and construction of roads, highways, and bridges. The impacts of impervious surfaces and pollutants associated with site development should be addressed during the planning phase of projects, as well as development phases. The Site Development Management Measure differs from the New Development Management Measure, which only applies to post development runoff. Activities associated with the Site Development Management Measure should plan, design, and develop sites to:

- Protect areas that provide important water quality benefits and/or are particularly susceptible to erosion and sediment loss
- Limit increases in impervious area, except where necessary
- Limit land disturbance activities, such as clearing and grading, and cut and fill, to reduce erosion and sediment loss
- Limit disturbance of natural drainage features and vegetation

Applicability

The Illinois CNPCP addresses this management measure. This management measure applies to all site development activities, including those associated with roads, highways and bridges.

Existing Programs or Practices

Following is a list of programs and activities that are being implemented statewide or in Cook and Lake Counties and their applicability to this management measure. Each program which will be used to implement this measure is summarized in Table 4-1.

Regulatory

Projects that are located in or near waterbodies and natural drainage systems that have the potential to discharge materials to waters of the United States trigger the “dredge and fill” permitting process (**Joint Permitting**). This nationwide regulation is implemented by the State of Illinois through environmental reviews and approvals that support the three above criteria for this management measure. Regulations for **401 Water Quality Certifications** by the IEPA are at **35 IAC 395**. The IEPA performs a water quality review that evaluates many factors, including potential violation of water quality standards, point and nonpoint source pollutant loading, and erosion potential and sediment loads. Their antidegradation review under **35 IAC 302.105** evaluates deterioration of water quality, water uses, and existing aquatic communities. The Agency is authorized to place conditions on its certification (or waiver of certification) of activities under the IAC rules. Such conditions relate to the characteristics of the specific site, the

nature of the intended activities, and the resources requiring protection. The IDNR is involved in a parallel review under its authority (**17 IAC 3700 et seq.**) to protect threatened or endangered species or their critical habitat, natural areas, waterways, floodplains, and wetlands. The DNR's approvals may also concern special provisions to protect natural resources and limit the area of disturbance.

The **Cook County Watershed Management Ordinance** is intended to abate the negative impacts of stormwater runoff (e.g. flooding, erosion, water quality impairments, etc.) from developments or redevelopments. Article 4 of this Ordinance mandates that new developments must meet certain erosion and sediment control requirements and references the Illinois Urban Manual as well as MWRD's WMO Technical Guidance Manual. The Ordinance mandates that all developments incorporate erosion and sediment control practices into their initial site plans, placing primary emphasis on erosion control practices as preventative source controls, while sediment control practices are secondary measures designed to contain eroded soil after it is in transport. Article 6 of the Ordinance mandates special protections for floodplains, wetlands, wetland buffers, and riparian areas, which indicates further authority for implementation of this management measure. Further, Article 6 has several elements that protect wetland and riparian areas, both of which attenuate the impacts of flooding and erosion. The Ordinance requires that developers must provide the District with the boundaries, extent, function, value, and quality of all wetlands on site. Development that impacts wetlands is discouraged by the WMO, but mitigation is allowed in some cases. The WMO encourages existing riparian functions to be protected. Mitigation practices such as streambank stabilization and native vegetation planting are required. The requirements mandated by Article 5 (erosion and sediment controls) and Article 6 (protection of floodplains, wetlands, wetland buffers, and riparian areas) meet the requirements of this management measure.

Similarly, the **Lake County Watershed Development Ordinance** is intended to limit the creation of unstable conditions susceptible to erosion, to conserve the natural hydrologic, hydraulic, water quality and other beneficial functions of flood-prone areas and wetlands in Lake County. The Lake County Watershed Development Ordinance generally requires a Watershed Development Permit for developments in floodplains, wetlands, or depressional storage areas. In fact, any development which hydrologically disturbs 5,000 square feet or more is required at a minimum to meet the soil erosion and sediment control performance standards of the Ordinance. Stormwater management systems and erosion and sediment control measures must be functional before building permits are issued or construction begins, again emphasizing the preventative nature of erosion controls, and, directly implementing the federal criteria for this management measure. Section B of Article 4 of Lake County's Ordinance pertains to all Watershed Development Permits and includes mandates protecting stream channels, overland flows of stormwater, and water quality treatment areas. If natural channels are proposed for modification, a mitigation plan is required that demonstrates conservation of the physical characteristics of the existing channel, including length, cross-section, slope, sinuosity and carrying capacity. Revegetation is required using the native plants. Section C of Article 4 of the Ordinance regulates activities in floodplains by restricting modification and disturbance of natural riverine floodplains to protect existing hydrologic and environmental functions. It requires disturbances shall be minimized and negative impacts mitigated. No developments are permitted that alone or cumulatively

create a damaging or potentially damaging increase in flood levels. Section E of Article 4 of the Ordinance regulates activities in jurisdictional and non-jurisdictional wetlands. Delineations, impact assessments, alternatives analyses, and mitigation plans are required. Further, mitigation is required to provide for replacement of lost wetland at rates proportional to the quality of the impacted wetlands, with 6-to-1 mitigation ratio required for impacting forested wetlands. Buffer areas for mitigation wetlands are required, and, mitigation is not allowed within detention facilities. These and other requirements mandated by the Lake County Watershed Development Ordinance are suitable activities to implement this management measure.

The IEPA also issues construction permits under the **NPDES Phase II Stormwater Program**. The construction permit requires development of a Storm Water Pollution Prevention Plan (SWPPP) to protect areas that are highly susceptible to erosion and sediment loss.

Education, Public Outreach and Technical and Financial Assistance

The **Illinois Urban Manual** (IUM, available at <http://www.aiswcd.org/ium>) is a technical resource containing a myriad of stormwater best management practices, ranging from planning guides to practice standards and design specifications, including soil erosion and control practices. BMPs in the IUM are used statewide to mitigate effects of watershed development.

The **Cook County Technical Guidance Manual** is available to help assistance with interpreting the regulations and proper planning and installation of construction BMPs. The LCSMC also has a **Technical Reference Manual (TRM)** for use by the public to meet the objectives of their Watershed Development Ordinance.

Illinois' Green Infrastructure for Clean Water Act, Public Act 96-26 funds the Illinois Green Infrastructure Grant Program and allows the Illinois Clean Water Initiative (State Revolving Loan fund) to be used for nonpoint pollution control. Public Act 96-26, the Green Infrastructure for Clean Water Act, requires the IEPA to assess and evaluate using green infrastructure to help manage stormwater in Illinois. The State has established financial and technical programs to support green infrastructure programs that mitigate nonpoint source pollution from stormwater.

Enforcement Mechanisms

The IEPA is responsible for the review of Joint Permit applications and issuance of 401 Water Quality Certifications, as appropriate. If the IEPA determines that a discharge subject to a 401 Water Quality Certification will affect the quality of its waters so as to violate any water quality standards in Illinois, the IEPA has the authority to impose conditions or refuse to issue a license or permit. The IEPA, through the 401 Water Quality Certification process, has the authority to file lawsuits against violators of the Rivers and Harbors Act of 1899. IEPA has the authority to assess civil penalties for violations of NPDES requirements and performance standards and for ensuring compliance of MS4 permit holders with their general permit. IEPA is also responsible for the enforcement of NPDES stormwater rules for construction activities (regulated under 40 CFR 122.26). Section 31 of Illinois' Environmental Protection Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). IEPA can assess civil penalties for violations of NPDES requirements or state water quality standards. In addition,

IEPA has the authority to issue citations or initiate enforcement actions for documented violations of the State Water Quality Standards (35 IAC 302).

The Rivers, Lakes, and Streams Act and Illinois Rivers and Harbors Act gives the IDNR jurisdiction over all waterbodies in the State, navigable and non-navigable and authorizes the Agency to ascertain to what extent, if at all, these waters and shorelines have been or are proposed to be encroached upon by private interests or individuals. The Act gives IDNR authority to either recover full compensation for wrongful encroachment, or to recover the use of the same. The IDNR OWR is responsible for the review of Joint Permit applications and has enforcement authorities. Under the Rivers, Lakes, and Streams Act, illegal discharge is punishable as a Class A misdemeanor (615 ILCS §5/18). OWR has the authority to issue permits for construction in floodplains and floodways and has related enforcement authority.

MWRD has the authority and the responsibility for administering the Cook County Watershed Management Ordinance. This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. They also have technical experience in water quality monitoring and modeling.

LCSMC has the authority and the responsibility for administering the Lake County Watershed Development Ordinance (WDO). This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. Legal action may be taken and a notice of the violation may be recorded to the title to the property. LCSMC is available to meet with communities to provide technical assistance on WDO related issues at any time. LCSMC also has delegated authority from the OWR for enforcement of Part 3708 of the Rivers, Lakes and Streams Act (17 IAC 3708).

All programs used to implement this measure are listed in Table 4-1. This table summarizes the programs; authorizing legislation; program authority; lead agency enforcement mechanisms; and evaluation methods.

4.3.4 Site Construction Site Erosion & Sediment Control Management Measure **(Exclusion Requested)**

The goal of the Construction Site Erosion & Sediment Control Management Measure is to reduce the sediment loadings from construction sites in coastal areas that enter surface waters. This measure generally requires that coastal States establish new or enhance existing erosion and sediment control (ESC) programs and/or require ESC programs at the local level. This management measure is intended to be part of a comprehensive land use or watershed management program.

Applicability

State coastal nonpoint control programs are not required to include the Construction Site Erosion & Sediment Control Management Measure for any new development, redevelopment, and new and relocated roads, highways, and bridges occurring in urbanized areas subject to Phase I or Phase II MS4 permits. The expectation from USEPA is that these Storm water Permit programs are appropriately stringent enough to ensure water quality protections from storm water impacts. All of the Illinois Coastal Zone is subject to a Phase I or Phase II MS4 Permit (See Section 4.11 and Figure 4-2).

Consequently, the Illinois CNPCP is requesting a geographical exemption from this management measure.

4.3.5 Construction Site Waste and Chemical Control Management Measure (Exclusion Requested)

The Construction Site Waste and Chemical Control Management Measure is meant to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of these contaminants from the construction site.

Applicability

State CNPCPs are not required to include the Construction Site Waste and Chemical Control Management Measure for any new development, redevelopment, and new and relocated roads, highways, and bridges occurring in urbanized areas subject to Phase I or Phase II MS4 permits. The expectation from USEPA is that these Storm water Permit programs are appropriately stringent enough to ensure water quality protections from storm water impacts. All of the Illinois Coastal Zone is subject to a Phase I or Phase II MS4 Permit (See Section 4.11 and Figure 4-2). Consequently, the Illinois CNPCP is requesting a geographical exemption from this management measure.

4.3.6 Existing Development Management Measure (Exclusion Requested)

The purpose of this management measure is to protect or improve surface water quality by the development and implementation of watershed management programs that pursue the following objectives:

1. Reduce surface water runoff pollution loadings from areas where development has already occurred;
2. Limit surface water runoff volumes in order to minimize sediment loadings resulting from the erosion of streambanks and other natural conveyance systems; and
3. Preserve, enhance, or establish buffers that provide water quality benefits along waterbodies and their tributaries.

Applicability

State CNPCPs are not required to include the New Development Management Measure for any new development, redevelopment, and new and relocated roads, highways, and bridges occurring in urbanized areas subject to Phase I or Phase II MS4 permits. The expectation from USEPA is that these Storm water Permit programs are appropriately stringent enough to ensure water quality protections from storm water impacts. All of the Illinois Coastal Zone is subject to a Phase I or Phase II MS4 Permit (See Section 4.11 and Figure 4-2). Consequently, the Illinois CNPCP is requesting a geographical exemption from this management measure.

4.3.7 New On-Site Sewage Disposal Systems Management Measure (Exclusion Requested)

The purpose of this management measure is to protect the 6217 management area from pollutants discharged by On-Site Disposal Systems (OSDS). The measure requires that OSDS be sited, designed, and installed so that impacts to waterbodies will be reduced, to the extent practicable. Factors such as soil type, soil depth, depth to water table, rate of sea level rise, and topography must be considered in siting and installing conventional OSDS.

The objective of the management measure is to prevent the installation of conventional OSDS in areas where soil absorption systems will not provide adequate treatment of effluents containing solids, phosphorus, pathogens, nitrogen, and nonconventional pollutants prior to entry into surface waters and ground water (e.g., highly permeable soils, areas with shallow water tables or confining layers, or poorly drained soils).

Applicability

This management measure is intended to be applied by States to all new OSDS including package plants and small-scale or regional treatment facilities not covered by NPDES regulations in order to manage the siting, design, installation, and operation and maintenance of all such OSDS.

Any new development in the coastal zone in Cook or Lake Counties would include connection to existing or new sewerage. This source is requested to be excluded. See Section 4.2.5 for more details.

4.3.8 Operating Onsite Sewage Disposal Systems Management Measure (Exclusion Requested)

The purpose of this management measure is to minimize pollutant loadings from operating OSDS. This management measure requires that OSDS be modified, operated, repaired, and maintained to reduce nutrient and pathogen loadings in order to protect and enhance surface waters. In the past, it has been a common practice to site conventional OSDS in coastal areas that have inadequate separation distances to ground water, fractured bedrock, sandy soils, or other conditions that prevent or do not allow adequate treatment of OSDS-generated pollutants. Eutrophication in surface waters has also been attributed to the low nitrogen reductions provided by conventional OSDS designs.

Applicability

This management measure is intended to be applied by States to all operating OSDS. Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal NPS programs in conformity with this management measure and will have flexibility in doing so. This management measure does not apply to existing conventional OSDS that meet all of the following criteria: (1) treat wastewater from a single family home; (2) are sited where OSDS density is less than or equal to one OSDS per 20 acres; and (3) the OSDS is sited at least 1,250 feet away from surface waters. All Illinois coastal municipalities are served by municipal wastewater collection systems. We are requesting that operating onsite sewage systems be excluded as a nonpoint source of pollution in Illinois' coastal zone. See Section 4.2.5 for more details.

4.3.9 Pollution Prevention Management Measure

This management measure prevents or reduces nonpoint source loadings generated from a myriad of urban and suburban activities. Major sources include improper disposal of household hazardous wastes, lawn and garden wastes, operation and maintenance of motor vehicles, pet and urban wildlife wastes, and other activities. Reducing pollutant generation will benefit water quality, and in fact, some practices reduce the volume or rate of storm runoff.

The practices in this management measure are nonstructural, and are often referred to as source reduction practices. The costs of source control practices are generally associated with programmatic expenses such as signage and informational materials, workshops, and development and enforcement of ordinances.

Federal guidelines specify that pollution prevention and education programs reduce nonpoint source pollutants generated from the following activities, where applicable:

1. The improper storage, use, and disposal of household hazardous chemicals, including automobiles fluids, pesticides, paints, solvents, etc.
2. Lawn and garden activities, including the application and disposal of lawn and garden care products, and the improper disposal of leaves and yard trimmings
3. Turf management on golf courses, parks, and recreational areas
4. Improper operation and maintenance of onsite sewage treatment and disposal systems
5. Discharge of pollutants into storm drains including floatables, waste oil, and litter
6. Commercial activities including parking lots, gas stations and other facilities not under NPDES purview; and
7. Improper disposal of pet wastes.

Applicability

The Illinois CNPCP addresses this management measure. This management measure is intended to reduce the generation of nonpoint source pollution in all areas within the Lake Michigan Coastal Management area. Adoption of the Pollution Prevention Management Measure does not exclude applicability of other management measures associated with the pollutant sources listed above.

Existing Programs or Practices

Programs and activities that are being implemented statewide or in Cook and Lake Counties for this management measure are listed below. Details on each program which will be used to implement this measure are summarized in Table 4-3.

Regulatory

Discharge of any pollutant, including household hazardous chemicals, lawn and garden wastes, onsite sewage treatment systems, hydrocarbons, and other waste materials mentioned in the federal guidelines above, are prohibited by the **Illinois Environmental Protection Act Pollution Control Board (35 IAC 301)**. This Act establishes pollution control standards for land, water and air contamination.

The IEPA also implements the **NPDES Stormwater Program**, which supports proper operation and maintenance of onsite sewage treatment with disposal systems linked to waters of the US as well as the discharge of pollutants into storm drains (including floatables, waste oil, and litter). The IEPA's General NPDES Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s, available at <http://www.epa.state.il.us/water/permits/storm-water/general-ms4-permit.pdf>) includes requirements for pollution prevention for municipal operations. MS4s are required to train staff on ways to protect stormwater, particularly when maintaining MS4 infrastructure and performing daily municipal activities, such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. This requirement primarily includes:

- Developing inspection and maintenance procedures and schedules for stormwater BMPs,
- Implementing BMPs to treat pollutants from parks, golf courses, and other open space management areas, transportation infrastructure, maintenance areas, storage yards, sand and salt storage areas, and waste transfer stations,
- Establishing procedures for properly disposing of pollutants removed from the MS4, and
- Identifying ways to incorporate water quality controls into new and existing flood management projects.

The **MS4 General Permit** also includes a requirement for municipalities to develop and implement a program for minimizing the pollutants leaving private property and entering the MS4. Such programs are to identify those sources of pollutants and to implement controls. This requirement would apply to parking lots, gas stations and other facilities.

These pollution prevention requirements are imposed on the entire Phase II permit area (Figure 4-2).

The **City of Chicago's Stormwater Ordinance** requires food serving establishments and multiple dwelling buildings to have grease basins. All waste from sinks, garbage grinders, dishwashers, discharge from kitchens and all process waste must be intercepted before reaching the combined sewer system. Further, lint basins are required when washing machines are used commercially or in multi-residential buildings with more than 15 commercial washing units in a dedicated area. Such clauses are intended to reduce lint, oil and grease in released in CSOs in Chicago. Chicago's Stormwater Management Ordinance also recognizes the important of green infrastructure, and, Section 4.2 provides minimum design requirements for bioinfiltration systems, drainage swales, green roofs, permeable paving, stormwater trees, rain barrels and cisterns, vegetated filter strips, and natural landscaping. These BMPs reduce nonpoint loadings from the watershed and support this management measure.

Removal of pet excrement is required under local ordinances. For example, the **City of Chicago Ordinance (7-12-420 - Removal of excrement)** states that no person shall fail to remove any excrement deposited by their pet. Similarly, the City of Evanston's ordinance requiring removal of pet excrement is in their ordinance at **9-4-12 – Control of Defecation**. The Village of Winnetka's similar requirement is encoded at **Section 6.08.020 - Responsibilities of dog owner**, and, the City of Waukegan's is found at **Section 4-48 Proper Cleanup**.

The **Illinois Pesticide Act (415 ILCS 60)** requires that all pesticide dealers and applicators obtain a license with the Illinois Department of Agriculture. An exam is required for each license, which includes questions on proper use, storage, and disposal of pesticides. The statute also makes it unlawful to use, dispose of, discard or store pesticides in a manner that endangers public health, the environment, or pollutes water supplies. Violations are subject to criminal or administrative penalties. Fees collected from this fund are required by statutes to be used for the purposes of conducting public educational programs on the proper use of pesticide and for other activities related to the enforcement of this act and related legislation. <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1596&ChapterID=36>

Education, Public Outreach and Technical and Financial Assistance

IEPA has developed pollution prevention strategies for its programs. The Agency distributes numerous publications to inform and educate citizens regarding pollution prevention strategies, programs, and practices. Pollution prevention educational publications and programs designed to reduce nonpoint pollutants are also integrated into NPDES Phase 2 stormwater management, solid water management and other environmental programs throughout the state.

Since 1989, the IEPA has coordinated household hazardous wastes collections in Lake and Cook counties and statewide. Acceptable wastes includes oil-based paints, household batteries, paint thinners, used motor oil, herbicides, drain cleaners, insecticides, lawn chemicals, pesticides, solvents, old gasoline, antifreeze, pool chemicals, hobby chemicals, cleaning products, aerosol paints, products containing mercury, fluorescent lamp bulbs, double bagged and wetted asbestos, old and outdated medicines and pharmaceuticals. Collection dates and sites are advertised on IEPA and partner organization websites, through social media, and through other outlets and are free. The Illinois Department of Public Health also has the authority to conduct voluntary programs to collect and dispose of unwanted pesticides from pest control businesses for a nominal fee (**415 ILCS 60/19.1**) <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1596&ChapterID=36>.

The **City of Chicago's Green Stormwater Infrastructure Strategy** addresses nonpoint pollution in the City and supports the implementation of this management measure. Chicago supports green stormwater infrastructure and the myriad of stormwater best management practices that reduce nonpoint pollution. The City also has special **requirements for disposal of lawn and garden wastes**, with biweekly pickup by the Department of Streets and Sanitation (http://www.cityofchicago.org/city/en/depts/streets/provdrs/streets_san/svcs/yard_waste.html).

Enforcement Mechanisms

The Illinois Pollution Control Board (IPCB) has the authority to act for the State in regard to the adoption of standards for submission to the United States under any federal law respecting environmental protection (415 ILCS §5/5(c)). To enforce these standards the IPCB has authority to promulgate permit standards and any rules necessary to implement and participate in NPDES. Section 31 of the Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). The IEPA has the authority to assess civil penalties for violations of NPDES requirements and performance

standards and for ensuring compliance of MS4 permit holders with their general permit. IEPA is also responsible for the enforcement of NPDES rules for construction activities regulated under 40 CFR 122.26. With respect to enforcement, Section 31 of the Clean Water Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). IEPA can assess civil penalties for violations of NPDES requirements or state water quality standards. 415 ILCS §5/42. In addition to the above, IEPA has the authority to issue citations or initiate enforcement actions for documented violations of the State Water Quality Standards (35 IAC 302). State water quality standards also apply to sites smaller than one acre regardless of whether or not they are required to have an NPDES permit.

Pet owners found to violate municipal ordinances requiring removal of excrement may be fined for each offense by the local enforcement authority.

All programs used to implement this measure are listed in Table 4-1. This table summarizes the programs; authorizing legislation; program authority; lead agency enforcement mechanisms; and evaluation methods.

4.3.10 Management Measures: Planning, Siting, & Developing Roads & Highways

This management measure is intended to plan transportation corridors around and away from sensitive ecosystems, including highly erodible areas. Development of road and highways should involve minimal land disturbance, minimal changes to impervious area, and preservation of natural vegetation and drainage features. In fact, federal guidelines specify that planning, siting, and developing roads and highways should meet these three basic criteria:

- Protect areas that provide important water quality functions, or, are particularly susceptible to erosion or sediment loss
- Limit disturbance, such as clearing, grading, and cut and fill, to reduce erosion and sediment loss
- Limit disturbance of natural drainage features and vegetation.

Applicability

The Illinois CNPCP addresses this management measure. This management measure applies to site development and land disturbing activities for new, relocated and reconstructed roads (including residential streets) and highways in order to reduce the generation of NPS pollutants and to mitigate the impacts of urban runoff and associated pollutants from such activities.

Existing Programs or Practices

Programs and activities that are being implemented nationally, statewide or in Cook and Lake Counties for this management measure are listed below. Details on each program which will be used to implement this measure are summarized in Table 4-1.

Regulatory

Transportation projects that are located in or near waterbodies and natural drainage systems have the potential to discharge materials to waters of the United States, thereby triggering the “dredge and fill” permitting process (**Joint Permitting**). This nationwide regulation is implemented by the State of Illinois

through environmental reviews and approvals that support the three above criteria for this management measure. Regulations for **401 Water Quality Certifications** by the IEPA are listed in **35 IAC 395**. The IEPA performs a water quality review that evaluates many factors, including potential violation of water quality standards, point and nonpoint source pollutant loading, and erosion potential and sediment loads. Their antidegradation review under 35 IAC 302.105 evaluates deterioration of water quality, water uses, and existing aquatic communities. The Agency is authorized to place conditions on its certification (or waiver of certification) of activities under the IAC rules. Such conditions relate to the characteristics of the specific road or highway site, the nature of the intended activities, and the resources requiring protection. The IDNR is involved in a parallel review under its **authority (17 IAC 3700 et seq.)** to protect threatened or endangered species or their critical habitat, natural areas, waterways, floodplains, and wetlands. The DNR's approvals of permits for developing roads and highways may also concern special provisions to protect natural resources.

IEPA's **General NPDES Permit for Stormwater Discharges from Construction Site Activities (NPDES Permit NO. ILR10)** is required for road and highway construction statewide, provided one or more acres is disturbed. ILR10 requires submittal of a stormwater pollution prevention plan (SWPPP) that identifies potential sources of pollution to stormwater discharges from the site. In addition, the SWPPP is required to describe and ensure the implementation of best management practices to reduce the pollutants in storm water discharges from construction site activity. ILR10 directly implements the activities of this management measure.

The **Cook County Watershed Management Ordinance (55 ILCS §5/5-1062.1; 70 ILCS 2605/1 et. seq.)** is administered by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The purpose of the Cook County Watershed Management Ordinance is to abate the negative impacts of stormwater runoff (e.g. flooding, erosion, water quality impairments, etc.) from developments or redevelopments, including roads and highways. Article 4 of the Ordinance mandates that new developments must meet certain erosion and sediment control requirements and references the Illinois Urban Manual as well as MWRD's WMO Technical Guidance Manual. The Ordinance mandates that all developments incorporate erosion and sediment control practices into their initial site plans, placing primary emphasis on erosion control practices as preventative source controls, while sediment control practices are secondary measures designed to contain eroded soil after it is in transport. Article 6 of the Ordinance mandates special protections for floodplains, wetlands, wetland buffers, and riparian areas. The Ordinance requires that development in floodplains cannot increase flood elevations or decrease conveyance capacity on other property. Developments also cannot increase flood velocity, impair hydrologic function, or degrade water quality. Article 6 has several elements that protect wetland and riparian areas, both of which attenuate the impacts of flooding and erosion. The Ordinance requires that developers must provide the District with the boundaries, extent, function, value, and quality of all wetlands on site. Development that impacts wetlands is discouraged by the WMO, but mitigation is allowed in some cases. The WMO encourages existing riparian functions to be protected. Mitigation practices such as streambank stabilization and native vegetation planting are required. The requirements mandated by Article 5 (erosion and sediment controls) and Article 6 (protection of

floodplains, wetlands, wetland buffers, and riparian areas) meet the requirements of this management measure.

The **Lake County Watershed Development Ordinance (55 ILCS §5.5-1062)** is administered and enforced by the Lake County Stormwater Management Commission (SMC), as well as authorized communities in Lake County. The purposes of the Lake County Ordinance are, among others, to prevent flood damages to life and property, to assure that development does not increase flood and drainage hazards to others, or create unstable conditions susceptible to erosion, to conserve the natural hydrologic, hydraulic, water quality and other beneficial functions of flood-prone areas and wetlands in Lake County. This Ordinance generally requires a Watershed Development Permit for developments in floodplains, wetlands, or depressional storage areas. In fact, any development which hydrologically disturbs 5,000 square feet or more is required at a minimum to meet the soil erosion and sediment control performance standards of the Ordinance. Stormwater management systems and erosion and sediment control measures must be functional before building permits are issued or construction begins, again emphasizing the preventative nature of erosion controls. Section B of Article 4 of Lake County's Ordinance pertains to all Watershed Development Permits and includes mandates protecting stream channels, overland flows of stormwater, and water quality treatment areas. If natural channels are proposed for modification, a mitigation plan is required that demonstrates conservation of the physical characteristics of the existing channel, including length, cross-section, slope, sinuosity and carrying capacity. Revegetation is required using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard. Section C of Article 4 of the Ordinance regulates activities in floodplains by restricting modification and disturbance of natural riverine floodplains to protect existing hydrologic and environmental functions. It requires disturbances shall be minimized and negative impacts mitigated. No developments are permitted that alone or cumulatively create a damaging or potentially damaging increase in flood levels. Section E of Article 4 of the Ordinance regulates activities in jurisdictional and non-jurisdictional wetlands. Delineations, impact assessments, alternatives analyses, and mitigation plans are required. Further, mitigation is required to provide for replacement of lost wetland at rates proportional to the quality of the impacted wetlands, with 6-to-1 mitigation ratio required for impacting forested wetlands. Buffer areas for mitigation wetlands are required, and, mitigation is not allowed within detention facilities. These and other requirements mandated by the Lake County Watershed Development Ordinance meet the requirements of this management measure.

Education, Public Outreach and Technical and Financial Assistance

The **Illinois Urban Manual** (IUM, available at <http://www.aiswcd.org/ium>) is a technical resource containing a myriad of stormwater best management practices, ranging from planning guides to practice standards and design specifications, including soil erosion and control practices. Appendix B is Urban Technical Note No. 1, Erosion and Sedimentation on Construction Sites. This practice, and others in the IUM, is used statewide to mitigate effects of watershed development. It is regularly updated by the Illinois Association of Soil and Water Conservation Districts.

The **Cook County Technical Guidance Manual** is available to help assistance with interpreting the regulations and proper planning and installation of construction BMPs. The LCSMC also has a **Technical Reference Manual (TRM)** for use by the public to meet the objectives of their Watershed Development Ordinance. The TRM contains guidance on preservation of natural resources and drainageways (Sections 3.4A, 3.4B), maintaining the water quality benefits of streams and channels (Sections 3.7B), and design performance of soil erosion and sediment controls (Section 3.10).

Enforcement Mechanisms

The USEPA and USACE are under a memorandum of agreement (MOA) on enforcement of Section 404. Under the MOA, the USACE, as the federal Agency that issues the permits, has the lead on permit violation cases. For unpermitted discharges, USEPA and USACE determine the appropriate lead agency based upon the criteria of the MOA. Enforcement tools include administrative compliance orders requiring a violator to stop any ongoing illegal discharge, civil penalties, and civil judicial enforcement. USEPA and USACE reserve their criminal enforcement authority for only the most flagrant and egregious Section 404 violations. Section 10 violators are issued a cease and desist order, violations are investigated, and administrative or legal action may be taken. Remedial measures can be ordered, and state agencies, including IEPA, can be involved in the decision on appropriate actions.

The IEPA is responsible for the review of Joint Permit applications and issuance of 401 Water Quality Certifications, as appropriate. If the IEPA determines that a discharge subject to a 401 Water Quality Certification will affect the quality of its waters so as to violate any water quality standards in Illinois, the IEPA has the authority to impose conditions or refuse to issue a license or permit. The IEPA, through the 401 Water Quality Certification process, has the authority to file lawsuits against violators of the Rivers and Harbors Act of 1899. IEPA has the authority to assess civil penalties for violations of NPDES requirements and performance standards and for ensuring compliance of MS4 permit holders with their general permit. IEPA is also responsible for the enforcement of NPDES rules for construction activities regulated under 40 CFR 122.26. With respect to enforcement, Section 31 of the Clean Water Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). IEPA can assess civil penalties for violations of NPDES requirements or state water quality standards. 415 ILCS §5/42. In addition to the above, IEPA has the authority to issue citations or initiate enforcement actions for documented violations of the State Water Quality Standards (35 IAC 302). State water quality standards also apply to sites smaller than one acre regardless of whether or not they are required to have an NPDES permit.

The Rivers, Lakes, and Streams Act and Illinois Rivers and Harbors Act gives the IDNR jurisdiction over all waterbodies in the State, navigable and non-navigable and authorizes the Agency to ascertain to what extent, if at all, these waters and shorelines have been or are proposed to be encroached upon by private interests or individuals. The Act gives IDNR authority to either recover full compensation for wrongful encroachment, or to recover the use of the same. The IDNR OWR is responsible for the review of Joint Permit applications and has enforcement authorities. Under the Rivers, Lakes, and Streams Act, illegal discharge is punishable as a Class A misdemeanor (615 ILCS §5/18). OWR has the authority to issue permits for construction in floodplains and floodways and has related enforcement authority.

For any structure or fill in Lake Michigan, IDNR must evaluate the potential of the activity to result in bank or shoreline instability on other properties. 17 Ill. Adm. Code 3704. If it is determined that the activity would likely cause shoreline erosion or other negative impacts, the applicant is required to submit the supplemental information about the measures to be provided in the project design, construction and operation which would minimize and/or mitigate those impacts.

IDNR also has authority to conduct a comprehensive review on actions funded or performed by IDNR for environmental and historical impacts. Projects expected to have negative impacts can be halted until the project proponent agrees to modifications to minimize or mitigate impacts. IDNR has the power to enforce the laws of the State and the rules and regulations of the Department in or on any lands owned, leased, or managed by the Department (20 ILCS §805/805-515)

MWRD has the authority and the responsibility for administering the Cook County Watershed Management Ordinance. This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. They also have technical experience in water quality monitoring and modeling.

LCSMC has the authority and the responsibility for administering the Lake County Watershed Development Ordinance (WDO). This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. Legal action may be taken and a notice of the violation may be recorded to the title to the property. LCSMC is available to meet with communities to provide technical assistance on WDO related issues at any time. LCSMC also has delegated authority from the OWR for enforcement of Part 3708 of the Rivers, Lakes and Streams Act (17 IAC 3708).

At the local level, MS4 Permit Holders have the authority to enforce their local ordinances for new development construction and may take the form of issuing citations, stop work orders, denying the issuance of building or occupancy permits, technical assistance with erosion control plans, etc.

All programs used to implement this measure are listed in Table 4-1. This table summarizes the programs; authorizing legislation; program authority; lead agency enforcement mechanisms; and evaluation methods.

4.3.11 Management Measure for Bridges

This management measure requires that runoff from bridges be assessed and that appropriate stormwater quality measures and treatment are utilized to protect critical habitat, wetlands, fisheries, and water supplies. This issue, like planning of roads and highways in general, is best addressed during planning and design phases. Bridges that utilize deck drains are a particular concern because they likely discharge directly into the water below. Federal guidelines specify that while planning, siting, and developing bridges, sensitive aquatic habitats and areas that have important water quality functions should be protected.

Applicability

The Illinois CNPCP addresses this management measure. This management measure is applicable to new, relocated, and rehabilitated bridge structures for control of erosion, streambed scouring, and surface runoff.

Existing Programs or Practices

Programs and activities that are being implemented nationally, statewide or in Cook and Lake Counties for this management measure are listed below. Details on each program which will be used to implement this measure are summarized in Table 4-1.

Regulatory

Most bridge projects are located in or near waterbodies and natural drainage systems and have the potential to discharge materials to waters of the United States. In this way, bridges undergo the **Joint Permit review process**. Joint Permits have environmental reviews and approvals that support the three above criteria for this management measure. Regulations for 401 Water Quality Certifications by the IEPA are at **35 IAC 395**. The IEPA performs a water quality review that evaluates many factors, including potential violation of water quality standards, point and nonpoint source pollutant loading, and erosion potential and sediment loads. Their antidegradation review under **35 IAC 302.105** evaluates deterioration of water quality, water uses, and existing aquatic communities. The Agency is authorized to place conditions on its certification (or waiver of certification) of activities under the IAC rules. Such conditions relate to the characteristics of the specific road or highway site, the nature of the intended activities, and the resources requiring protection. The IDNR is involved in a parallel review under its authority (**17 IAC 3700 et seq.**) to protect threatened or endangered species or their critical habitat, natural areas, waterways, floodplains, and wetlands. The DNR's approvals of permits for developing bridges may also concern special provisions to protect natural resources.

IEPA's **General NPDES Permit for Stormwater Discharges from Construction Site Activities (NPDES Permit number ILR10)** is required for bridge construction statewide, provided one or more acres is disturbed. ILR10 requires submittal of a stormwater pollution prevention plan (SWPPP) that identifies potential sources of pollution to stormwater discharges from the site. In addition, the SWPPP is required to describe and ensure the implementation of best management practices to reduce the pollutants in storm water discharges from construction site activity. ILR10 directly implements the activities of this management measure.

The **Cook County Watershed Management Ordinance (55 ILCS §5/5-1062.1; 70 ILCS 2605/1 et. seq.)** is administered by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The purpose of the Cook County Watershed Management Ordinance is to abate the negative impacts of stormwater runoff (e.g. flooding, erosion, water quality impairments, etc.) from developments or redevelopments, including bridges. Article 4 of the Ordinance mandates that new developments must meet certain erosion and sediment control requirements and references the Illinois Urban Manual as well as MWRD's WMO Technical Guidance Manual. The Ordinance mandates that all developments incorporate erosion and sediment control practices into their initial site plans, placing primary emphasis on erosion control

practices as preventative source controls, while sediment control practices are secondary measures designed to contain eroded soil after it is in transport. Article 6 of the Ordinance mandates special protections for floodplains, wetlands, wetland buffers, and riparian areas. The Ordinance requires that development in floodplains cannot increase flood elevations or decrease conveyance capacity on other property. Developments also cannot increase flood velocity, impair hydrologic function, or degrade water quality. Article 6 has several elements that protect wetland and riparian areas, both of which attenuate the impacts of flooding and erosion. The Ordinance requires that developers must provide the District with the boundaries, extent, function, value, and quality of all wetlands on site. Development that impacts wetlands is discouraged by the WMO, but mitigation is allowed in some cases. The WMO encourages existing riparian functions to be protected. Mitigation practices such as streambank stabilization and native vegetation planting are required. The requirements mandated by Article 5 (erosion and sediment controls) and Article 6 (protection of floodplains, wetlands, wetland buffers, and riparian areas) meet the requirements of this management measure.

The **Lake County Watershed Development Ordinance (55 ILCS §5.5-1062)** is administered and enforced by the Lake County Stormwater Management Commission (SMC), as well as authorized communities in Lake County. The purposes of the Lake County Ordinance are, among others, to prevent flood damages to life and property, to assure that development does not increase flood and drainage hazards to others, or create unstable conditions susceptible to erosion, to conserve the natural hydrologic, hydraulic, water quality and other beneficial functions of flood-prone areas and wetlands in Lake County. This Ordinance generally requires a Watershed Development Permit for developments in floodplains, wetlands, or depressional storage areas. In fact, any development which hydrologically disturbs 5,000 square feet or more is required at a minimum to meet the soil erosion and sediment control performance standards of the Ordinance. Stormwater management systems and erosion and sediment control measures must be functional before building permits are issued or construction begins, again emphasizing the preventative nature of erosion controls. Section B of Article 4 of Lake County's Ordinance pertains to all Watershed Development Permits and includes mandates protecting stream channels, overland flows of stormwater, and water quality treatment areas. If natural channels are proposed for modification, a mitigation plan is required that demonstrates conservation of the physical characteristics of the existing channel, including length, cross-section, slope, sinuosity and carrying capacity. Revegetation is required using the native plants. Section C of Article 4 of the Ordinance regulates activities in floodplains by restricting modification and disturbance of natural riverine floodplains to protect existing hydrologic and environmental functions. It requires disturbances shall be minimized and negative impacts mitigated. No developments are permitted that alone or cumulatively create a damaging or potentially damaging increase in flood levels. Section E of Article 4 of the Ordinance regulates activities in jurisdictional and non-jurisdictional wetlands. Delineations, impact assessments, alternatives analyses, and mitigation plans are required. Further, mitigation is required to provide for replacement of lost wetland at rates proportional to the quality of the impacted wetlands, with 6-to-1 mitigation ratio required for impacting forested wetlands. Buffer areas for mitigation wetlands are required, and, mitigation is not allowed within detention facilities. These and other requirements mandated by the Lake County Watershed Development Ordinance meet the requirements of this management measure.

Education, Public Outreach and Technical and Financial Assistance

The **Illinois Urban Manual** (IUM, available at <http://www.aiswcd.org/ium>) is a technical resource containing a myriad of stormwater best management practices, ranging from planning guides to practice standards and design specifications, including soil erosion and control practices. Appendix B is Urban Technical Note No. 1, Erosion and Sedimentation on Construction Sites. This practice, and others in the IUM, are used statewide to mitigate effects of bridge construction and other projects. It is regularly updated by the Illinois Association of Soil and Water Conservation Districts.

The **Cook County Technical Guidance Manual** is available to help assistance with interpreting the regulations and proper planning and installation of construction BMPs. The LCSMC also has a **Technical Reference Manual (TRM)** for use by the public to meet the objectives of their Watershed Development Ordinance. The TRM contains guidance on preservation of natural resources and drainageways (Sections 3.4A, 3.4B), maintaining the water quality benefits of streams and channels (Sections 3.7B), and design performance of soil erosion and sediment controls (Section 3.10).

Enforcement Mechanisms

The USEPA and USACE are under a memorandum of agreement (MOA) on enforcement of Section 404. Under the MOA, the USACE, as the federal Agency that issues the permits, has the lead on permit violation cases. For unpermitted discharges, USEPA and USACE determine the appropriate lead agency based upon the criteria of the MOA. Enforcement tools include administrative compliance orders requiring a violator to stop any ongoing illegal discharge, civil penalties, and civil judicial enforcement. USEPA and USACE reserve their criminal enforcement authority for only the most flagrant and egregious Section 404 violations. Section 10 violators are issued a cease and desist order, violations are investigated, and administrative or legal action may be taken. Remedial measures can be ordered, and state agencies, including IEPA, can be involved in the decision on appropriate actions.

The IEPA is responsible for the review of Joint Permit applications and issuance of 401 Water Quality Certifications, as appropriate. If the IEPA determines that a discharge subject to a 401 Water Quality Certification will affect the quality of its waters so as to violate any water quality standards in Illinois, the IEPA has the authority to impose conditions or refuse to issue a license or permit. The IEPA, through the 401 Water Quality Certification process, has the authority to file lawsuits against violators of the Rivers and Harbors Act of 1899. IEPA has the authority to assess civil penalties for violations of NPDES requirements and performance standards and for ensuring compliance of MS4 permit holders with their general permit. IEPA is also responsible for the enforcement of NPDES rules for construction activities regulated under 40 CFR 122.26. With respect to enforcement, Section 31 of the Clean Water Act sets the basic framework for environmental compliance assurance and enforcement (415 ILCS §5/31). IEPA can assess civil penalties for violations of NPDES requirements or state water quality standards. 415 ILCS §5/42. In addition to the above, IEPA has the authority to issue citations or initiate enforcement actions for documented violations of the State Water Quality Standards (35 IAC 302). State water quality standards also apply to sites smaller than one acre regardless of whether or not they are required to have an NPDES permit.

The Rivers, Lakes, and Streams Act and Illinois Rivers and Harbors Act gives the IDNR jurisdiction over all waterbodies in the State, navigable and non-navigable and authorizes the Agency to ascertain to what extent, if at all, these waters and shorelines have been or are proposed to be encroached upon by private interests or individuals. The Act gives IDNR authority to either recover full compensation for wrongful encroachment, or to recover the use of the same. The IDNR OWR is responsible for the review of Joint Permit applications and has enforcement authorities. Under the Rivers, Lakes, and Streams Act, illegal discharge is punishable as a Class A misdemeanor (615 ILCS §5/18). OWR has the authority to issue permits for construction in floodplains and floodways and has related enforcement authority.

For any structure or fill in Lake Michigan, IDNR must evaluate the potential of the activity to result in bank or shoreline instability on other properties. 17 Ill. Adm. Code 3704. If it is determined that the activity would likely cause shoreline erosion or other negative impacts, the applicant is required to submit the supplemental information about the measures to be provided in the project design, construction and operation which would minimize and/or mitigate those impacts.

IDNR also has authority to conduct a comprehensive review on actions funded or performed by IDNR for environmental and historical impacts. Projects expected to have negative impacts can be halted until the project proponent agrees to modifications to minimize or mitigate impacts. IDNR has the power to enforce the laws of the State and the rules and regulations of the Department in or on any lands owned, leased, or managed by the Department (20 ILCS §805/805-515)

MWRD has the authority and the responsibility for administering the Cook County Watershed Management Ordinance. This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. They also have technical experience in water quality monitoring and modeling.

LCSMC has the authority and the responsibility for administering the Lake County Watershed Development Ordinance (WDO). This includes inspections to ensure compliance, issuance of fines, placing a stop-work order, or revoking a permit. Legal action may be taken and a notice of the violation may be recorded to the title to the property. LCSMC is available to meet with communities to provide technical assistance on WDO related issues at any time. LCSMC also has delegated authority from the OWR for enforcement of Part 3708 of the Rivers, Lakes and Streams Act (17 IAC 3708).

The Chicago River Corridor Design Guidelines and Standards are enforceable through the Zoning Administrator for the City of Chicago. The City of Chicago Zone Administrator has the authority to deny, revoke or withhold permits, stop work, require abatement or remedial action, issue a fine, or seek other penalties as allowed by law.

At the local level, MS4 Permit Holders have the authority to enforce their local ordinances for new development construction and may take the form of issuing citations, stop work orders, denying the issuance of building or occupancy permits, technical assistance with erosion control plans, etc.

All programs used to implement this measure are listed in Table 4-1. This table summarizes the programs; authorizing legislation; program authority; lead agency enforcement mechanisms; and evaluation methods.

4.4 Coordination for Urban Sources Pollution Prevention

Administration and implementation of the Illinois CNPCP will be housed within the Illinois Coastal Program (ICMP). This office

- Consults and coordinates within IDNR, and among IEPA and other state agencies, local governments, interstate agencies, and regional agencies within the coastal zone, assuring full participation in carrying out the purposes and management policies as cited in the ICMP
- Administers the Coastal Grants Program, making annual funds available for competitive
- grants
- Coordinates with the IEPA for coastal nonpoint control projects
- Administers Federal Consistency reviews to ensure that federal actions affecting land or water use within the coastal zone are consistent with the ICMP.

The ICMP coordinates with the IDNR Office of Realty and Environmental Planning for reviews under the Comprehensive Environmental Review Process (CERP), including reviews of projects funded through Coastal Grants which include sustainability planning for urban areas.

The ICMP Office also coordinates with the OWR Division of Water Resource Management - Lake Michigan Programs Section, which is responsible for managing the state's interests in Lake Michigan, and issuing permits for work in and along the Lake Michigan shore, waterways, and within floodplains and floodways. OWR is responsible for evaluating joint permitting applications and is aware of permitting decisions and any permitting issues from IEPA or USACE. OWR, as mentioned above, is also responsible for reviewing projects for Federal Consistency.

While ICMP has oversight, coordination and management responsibilities, other agencies may implement many of the rules, regulations, and programs that fulfill the management measures. In Illinois, these Clean Water Act programs are administered by the IEPA Bureau of Water. Two units of IEPA's Watershed Management Section are responsible for carrying out these programs. The Planning Unit implements the TMDL Program. Section 319 is administered by the Nonpoint Source Unit. The entire Bureau of Water implements the Water Quality Management Program. The Household Hazardous Waste Collection Program and NPDES storm water program are also administered by IEPA. The IEPA Bureau of Water administers grants through the authority of the Clean Water Act. These grant programs offer opportunities to coordinate the implementation of coastal NPS management measures and include Section 104 (b) (3), 319 (h), and 205 (j). IEPA also provides support for continued development of the Illinois Urban Manual and conducts a variety of water quality monitoring programs.

ICMP collaborates with MWRD and LCSMC and municipal stakeholders to disseminate information on trainings and funding opportunities. ICMP has attended, participated in, and presented at public

meetings and trainings regarding the Lake County Watershed Development Ordinance and the Cook County Watershed Management Ordinance and will continue coordination activities in the future.

Table 4-1 Management Measure Programs and Practices for Urban Sources

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
401 Water Quality Certification	Environmental Protection Act (415 ILCS 5/) Federal Water Pollution Control Act	35 IAC 395 33 CFR 1251-1387	Illinois Environmental Protection Agency	Issuance of Water Quality Certification. Issuance of cease and desist orders, orders requiring remediation, administrative penalties, criminal penalties, civil penalties.	Number of 401 certifications	4.3.2, 4.3.3, 4.3.10, 4.3.11
Cook County Watershed Management Ordinance	55 ILCS 5/5-1062.1, 70 ILCS 2605/1 et seq.	70 ILCS 2605/1	Metropolitan Water Reclamation District of Greater Chicago (or authorized municipality)	Issuance of permit Permittees are required to monitor for 5 years post-construction and submit water quality data to MWRD.	MWRD will evaluate data for demonstrated effectiveness	4.3.2, 4.3.3, 4.3.10, 4.3.11
Cook County Technical Guidance Manual			Metropolitan Water Reclamation District of Greater Chicago			4.3.2, 4.3.3, 4.3.10, 4.3.11

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
Green Infrastructure for Clean Water Act	Public Act 96-26		Illinois Environmental Protection Agency		Number of green infrastructure projects completed	4.3.2, 4.3.3
Illinois Pesticide Act	415 ILCS 60	8 IAC 250	Illinois Department of Agriculture	Administrative penalties, civil penalties		4.3.9

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
Joint Permit Program	Section 404 of the CWA Rivers and Harbors Act Federal Water Pollution Control Act Rivers, Lakes, and Streams Act (615 ILCS 5/) Interagency Wetland Policy Act Of 1989 (20 ILCS 830/) Fish and Wildlife Coordination Act (16 USC 661-664) Illinois Endangered Species Act (520 ILCS 10/)	33 CFR 322 33 CFR 1251-1387 17 IAC 3700 et al. 17 IAC 1010	Partnership of IDNR, IEPA, and USACE	Issuance of permits. Issuance of cease and desist orders, orders requiring remediation, administrative penalties, criminal penalties, civil penalties.	Number of permits issued	4.3.2

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
Lake County Watershed Development Ordinance	55 ILCS 5/5-1062	70 ILCS 2605/1	Lake County Stormwater Management Commission (or authorized municipality)	Issuance of permit. Permittees are required to monitor for 5 years post-construction and submit water quality data to LCSWMC.	Compliance with permit conditions	4.3.2, 4.3.3, 4.3.10, 4.3.11
Lake County Technical Manual			Lake County Stormwater Management Commission			4.3.2, 4.3.3, 4.3.10, 4.3.11
NPDES Stormwater Program	Environmental Protection Act (415 ILCS 5/) Federal Water Pollution Control Act	35 IAC 309 33 CFR 1251-1387	Illinois Environmental Protection Agency	Issuance of permits, technical assistance with pollution prevention, et al., administrative penalties, criminal penalties, civil penalties.	Annual stormwater pollutant loads to receiving waters	4.3.2, 4.3.3, 4.3.9, 4.3.10, 4.3.11

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
City of Chicago's Green Stormwater Infrastructure Strategy			Chicago Department of Water Management			4.3.9
City of Chicago Stormwater Management Ordinance	Title 11 Chicago Municipal Code, Chapter 11-18	City of Chicago Municipal Code	Chicago Department of Water Management	Issuance of permits, technical assistance with pollution prevention, et al., administrative penalties, civil penalties.	Reductions in CSO frequencies, volume, and pollutant loads	4.3.9
Yard Waste Programs			Local municipalities		Mass diverted from landfills	4.3.9
Watershed Improvement Act	505 ILCS 140		Illinois Department of Agriculture			4.3.2
Illinois Urban Manual			Association of Illinois Soil and Water Conservation Districts			4.3.2, 4.3.3, 4.3.10, 4.3.11

Program or Practice	Authorizing Legislation	Program Authority	Lead Implementing Agency	Enforcement Mechanism(s)	Evaluation Method(s)	Management Measure
Illinois Environmental Protection Act Pollution Control Board		35 IAC 301	Illinois Pollution Control Board			4.3.9
Removal of Excrement Ordinance		7-12-420	City of Chicago	Civil penalties	Number of violations	4.3.9
Control of Defecation Ordinance		9-4-12	City of Evanston	Civil penalties	Number of violations	4.3.9
Responsibilities of Dog Owner		6.08.020	Village of Winnetka	Civil penalties	Number of violations	4.3.9
Proper Cleanup		4-48	City of Waukegan	Civil penalties	Number of violations	4.3.9