
CHAPTER 2

EXISTING STORMWATER MANAGEMENT FRAMEWORK AND RESOURCES

2.1 Introduction

This chapter describes the stormwater management framework in Cook County prior to the passage of Public Act 93-1049 (Act). Presented within the chapter is a review of the role and the authority of municipalities and various agencies, along with information on various ecosystem partnerships, non-profit organizations and volunteer groups. The institutional components of the stormwater management programs are also summarized. The information in this chapter will be combined with the assessment of current stormwater management activities in Chapter 3 to identify inconsistencies and gaps in the present system.

2.2 Functional Framework

The framework that supports stormwater management is categorized into four activities or functions:

- Administration and Management
- Regulation
- Planning
- Maintenance

Administration and Management: Various administrative and management activities support the operation and governing of stormwater management programs: program development, budgeting, identification of funding sources, and management of technical staff. Supporting these basic program management activities are items such as technical assistance, public information outreach, maintenance of a stormwater database, and disaster assistance activities.

Regulation: The regulatory element is comprised of a permit program, consisting typically of permit review, inspection, enforcement, and guidance. It includes coordination with other regulatory entities.

Planning: This function involves stormwater management and capital improvement planning activities. Watershed planning has two basic purposes. One purpose is to develop recommendations to remediate existing flooding and other water resource, environmental, or water quality problems. A strategy is then prepared to implement the recommendations. The second purpose is to identify strategies and provide the tools to prevent increased flooding and degradation of watershed resources. Additional information concerning the components of a comprehensive watershed plan is provided in Chapter 6. Capital improvement planning is included in this element.

Maintenance: Maintenance activities involve the upkeep of property and equipment related to constructed stormwater facilities and preserving the natural functions of streams, lakes and wetlands. Stormwater facility maintenance includes cleaning debris from detention ponds, drainage systems, catch basins and storm sewers. Inspections, regular upkeep and repair of facilities maintain system performance. Maintenance and management of the natural drainage system typically requires inspecting and removing debris from streams, and protecting streambanks from erosion. More intensive activities focus on stream corridor vegetative management and restoration as well as preventing excessive stream bed erosion and deposition.

2.3 Local Agency Roles and Resources

Each of the local agencies and organizations listed below is discussed in general terms based on its activities and how they fit into the four functional categories.

2.3.1 Municipalities

Many municipalities in Cook County are involved in stormwater management within their own corporate boundaries. A discussion of specific activities and regulations within these local authorities is in Chapter 3.

Administration and Management – Many municipalities have primary responsibility for stormwater management and administration within their jurisdiction and operate independently of neighboring jurisdictions.

Regulation – Many municipalities have adopted various forms of stormwater and floodplain regulations, soil erosion and sediment control standards, as well as regulations for protecting wetland and aquatic environments and habitat. They are not required to do so by state or federal regulations. Only floodplain regulations must be enforced to participate in the National Flood Insurance Program (NFIP).

Planning – Most stormwater planning within a municipality is performed by the municipality itself or completed under its direction. Planning assistance on larger waterways may be initiated by state and federal agencies. Capital improvement projects that address local drainage problems are typically implemented by municipalities.

Maintenance – Maintenance of stormwater infrastructure within municipal boundaries is commonly the responsibility of the municipality. Many municipalities have public works departments to maintain their stormwater infrastructure on a regularly scheduled basis.

2.3.2 Townships

Many townships in Cook County are involved in stormwater management within their own corporate boundaries.

Administration and Management – Townships are not responsible for administration of stormwater programs.

Regulation – Townships do not have regulatory authority for stormwater management.

Planning – Townships are not typically involved in stormwater or watershed planning.

Maintenance – Many townships include highway departments which are responsible for maintaining their stormwater infrastructure, which generally consists of sewer and drainage piping as well as detention basins.

2.3.3 Metropolitan Water Reclamation District of Greater Chicago

The primary responsibility of the District is to keep sewage pollution out of Lake Michigan, the area's primary drinking water supply, and to treat sewage to avoid contamination of the Chicago, Des Plaines and Illinois Rivers. In the area of stormwater management, the District regulates stormwater discharge from development and participates in flood control activities.

Administration and Management – The District operates and maintains its flood control and wastewater facilities, programs and budget.

Regulation – The District developed the Sewer Permit Ordinance to protect public health, the District's infrastructure, and the water environment by regulating construction and operation of local sewers and treatment facilities. Among stormwater-related provisions, the ordinance regulates the release rate of stormwater runoff from site development by requiring detention in separate sewer areas. In addition, the rate of runoff from a site after development cannot exceed the release rate of the site in its pre-developed condition. In separate sewer areas, the ordinance provides for the prevention of stormwater inflow and groundwater infiltration into sanitary sewer systems.

Planning – The District designed and constructed the Tunnel and Reservoir Plan (TARP) to address combined sewer overflow within the District's corporate boundaries. The District is also involved in various federal and state flood control projects as a planning team member and/or as a local sponsor.

Maintenance – The District inspects 32 flood control facilities semi-annually within Cook County and shares responsibilities for a portion of these flood control facilities with communities, park districts and other agencies. Prior to the implementation of the District's Small Stream Maintenance Program (SSMP), the District also maintained certain reaches of waterways and streams located in Cook County. Further information on the SSMP can be found in Section 5.4.

2.3.4 Park Districts

Park districts are significant property owners in Cook County. Historically, park districts have been concerned with providing active recreational facilities. More recently, some park districts have become involved in owning and managing detention basins and natural areas, such as wetlands and lakes, for passive recreation.

Administration and Management – Park districts are not responsible for administration of stormwater programs. Some districts sponsor environmental

education programs that educate the public on the many values of stream corridors, wetlands and other natural areas.

Regulation – Park districts do not have regulatory authority for stormwater management.

Planning – Park districts are not typically involved in stormwater or watershed planning.

Maintenance – Some park districts are responsible for detention facilities. Typically the maintenance is limited to mowing and other landscape activities. Park districts are responsible for maintaining culverts, ditches, lakes, streams and wetlands that pass through their property.

2.3.5 Drainage Districts

Drainage districts are public or municipal corporations formed for the purpose of constructing, maintaining and repairing drains, ditches, levees, and pumps to improve land for agricultural, sanitary, or mining purposes. To meet the needs of agricultural landowners, the state legislature in 1879 passed the Levee Act and the Farm Drainage Act and in 1956 passed the Illinois Drainage Code (70 ILCS 605/1-1 *et seq.*). Drainage districts are charged with specific governmental functions and, if necessary, may acquire land rights by eminent domain.

Administration and Management – Drainage districts are administered by commissioners, elected or appointed by the circuit court. The commissioners are charged with keeping drainage systems in operation and under good repair. Drainage district corporate funds may be used to repair, maintain, operate, and improve drains, ditches, levees and pumps. To construct new drains, ditches, levees and pumps, circuit court approval is necessary.

Regulation – Drainage districts do not have regulatory authority for stormwater management.

Planning – Drainage districts are primarily charged with maintaining the drainageways and facilities that have been constructed and only plan new projects as needed. Drainage districts have the ability to tax within their district to fund activities. Planning activities are limited at this time.

Maintenance – Drainage districts are involved in maintaining infrastructure including drain tiles and drainage ditches.

2.3.6 Cook County Highway Department

The Cook County Highway Department (CCHD) is responsible for the planning and design of major and minor roadways in Cook County. The CCHD also reviews engineering plans within the floodplain for compliance with the Floodplain Ordinance for unincorporated Cook County.

Administration and Management – The CCHD is not involved in the administration and management of stormwater activities, except for its own drainage needs related to highway construction.

Regulation – The CCHD reviews engineering plans within unincorporated Cook County for compliance with the Floodplain Ordinance of Cook County on behalf of the Cook County Department of Building and Zoning (CCDBZ). The CCHD regulates activities that affect its own rights-of-way.

Planning – The CCHD’s role in stormwater or watershed planning is limited to highway drainage from and onto its rights-of-way. The CCHD has historically served as the representative for Cook County for several water resources related projects such as the United States Army Corps of Engineers (USACE) Des Plaines River Phase 2 project.

Maintenance – The CCHD is responsible for maintaining all county highway drainage systems.

2.3.7 Cook County Department of Building and Zoning

The CCDBZ is responsible for reviewing plans and issuing permits for developing or redeveloping all buildings and structures within designated single family, multi-family, commercial, industrial and public zoned districts of unincorporated Cook County.

Administration and Management – The CCDBZ is responsible for the administration and management of the Floodplain Ordinance of Cook County, Illinois, in unincorporated Cook County.

Regulation – The CCHD reviews engineering plans for conformance with floodplain regulations within unincorporated Cook County for the CCDBZ.

Planning – The CCDBZ does not conduct planning for stormwater management.

Maintenance – The CCDBZ does not have stormwater infrastructure maintenance responsibilities.

2.3.8 Forest Preserve District of Cook County

The Forest Preserve District of Cook County (FPDCC) acquires and manages land containing one or more natural forests for the purposes of protecting native habitat, educating the public on the environment, and providing recreation to the public. The FPDCC owns and manages a large percentage of the floodplains located along several rivers in Cook County.

Administration and Management – The FPDCC is not responsible for the administration of stormwater programs. The FPDCC actively educates the public on the value of native forested lands and how to protect forest environment and habitat.

Regulation – The FPDCC does not have stormwater regulatory authority.

Planning – The FPDCC is involved in land acquisition and recreational capital improvement projects of forested lands. The FPDCC’s role in watershed planning and stormwater management is limited. As a major landowner in Cook

County of over 67,000 acres, the FPDCC is a participant in several watershed advisory committees, such as the Butterfield Creek Steering Committee.

Maintenance – The FPDCC is responsible for maintenance within the forest preserves of Cook County.

2.3.9 Soil and Water Conservation Districts

Cook County has two Soil and Water Conservation Districts (SWCDs); the North Cook County SWCD and the Will-South Cook SWCD. The purpose of the SWCDs is to provide information, education and guidance on the conservation and wise use of natural resources.

Administration and Management – The SWCDs provide technical assistance relating to soil and water to both rural and urban communities.

Regulations – The SWCDs have no specific stormwater regulatory authority. The USACE has executed intergovernmental agreements with the SWCDs to review erosion and sediment control plans for construction projects. The USACE can withhold permits until the appropriate SWCD approves a project's erosion protection. The SWCDs are charged with assisting individual communities and governments in maintaining farmlands, and protecting wetlands, lakes and rivers from damage caused by point and non-point source pollution, flooding, erosion and sediments. The SWCDs also advise and assist the Illinois Environmental Protection Agency (IEPA) with National Pollutant Discharge Elimination System (NPDES) construction violations.

Planning – The SWCDs assist local, state and federal government agencies in planning conservation programs such as streambank stabilization, habitat restoration, erosion control projects and other such capital improvement projects.

Maintenance – The SWCDs do not perform maintenance activities but do provide technical assistance and historical drainage data for maintaining drainage systems in urban and rural areas.

2.3.10 Property and Homeowner Associations

Many homeowner associations are responsible for maintaining stormwater facilities within their subdivisions.

Administration and Management – Homeowner associations are not responsible for administration of stormwater programs.

Regulations – Homeowner associations have no stormwater regulatory authority. In some subdivisions, developers have placed covenants on individual lots for maintaining drainage paths, roadside swales, drainage easements or native vegetation within and adjacent to wetlands, streams and detention basins.

Planning – Homeowner associations are typically not involved in regional watershed planning activities.

Maintenance – Homeowner associations are often responsible for maintaining their stormwater infrastructure, which generally consists of detention basins.

2.4 Regional Agency Roles and Resources

Each of the regional agencies and organizations listed below is discussed in general terms based on its activities and how they fit into the four functional categories.

2.4.1 Municipal Conferences

Municipal conferences in Cook County were developed to serve the needs of local governments when addressing regional issues. Through combining the resources of the municipalities within a geographical area, the conferences advise and advocate common policy initiatives, programs and services. The four municipal conferences within Cook County are Northwest Municipal Conference (NWMC), West Central Municipal Conference (WCMC), Southwest Conference of Mayors (SWCM), and South Suburban Mayors and Managers Association (SSMMA).

Administration and Management – The municipal conferences are not responsible for the administration of stormwater programs. They do offer advisory input to agencies responsible for stormwater management.

Regulations – The municipal conferences do not have stormwater regulatory authority, but do have an advisory role with respect to regulations.

Planning – The municipal conferences offer input to the agencies responsible for stormwater planning within their region, but they do not directly plan stormwater activities and projects.

Maintenance – The municipal conferences are not responsible for the maintenance of stormwater infrastructure.

2.4.2 Chicago Metropolitan Agency for Planning

The Chicago Metropolitan Agency for Planning (CMAP), formerly known as the Northeastern Illinois Planning Commission, is the regional planning agency for the six-county Chicago metropolitan area. CMAP is involved with research, planning and policy development and review, and local government technical support.

Administration and Management – CMAP is not responsible for the administration of stormwater management within Cook County. CMAP has provided technical assistance and training opportunities to local governments to assist them in carrying out these activities. Some of the training activities CMAP co-sponsors include courses and workshops in design and implementation of stormwater Best Management Practices (BMPs), soil erosion and sediment control, wetland management and hydrologic computer modeling.

Regulation – CMAP does not have regulatory authority over stormwater management. As an advisory agency for local governments, CMAP has developed model ordinances that reflect its policies for stormwater detention, floodplain protection, wetlands and stream protection, and soil erosion and

sediment control. CMAP encourages municipalities and counties interested in these types of environmental management to adopt these ordinances. The agency provides technical assistance to local governments in interpreting and meeting the standards of the model ordinances.

Planning – CMAP has historically performed watershed planning, including developing the area wide Water Quality Management Plan for all of the major watersheds in northeastern Illinois under Section 208 of the Clean Water Act. CMAP assists local governments in developing watershed planning.

Maintenance – CMAP is not responsible for maintaining stormwater infrastructure. With local governments, CMAP has coordinated stream and shoreline maintenance and stabilization activities, including demonstrations of their BMPs.

2.5 State Agency Roles and Resources

Each of the state agencies and organizations listed below is discussed in general terms based on its activities and how they fit into the four functional categories.

2.5.1 Illinois Department of Natural Resources – Office of Water Resources

The Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR) is the state agency responsible for structural and non-structural flood control. The structural program comprises the study, design and construction of capital projects; the non-structural program regulates all construction within the floodways of the rivers, lakes and streams of the state. Public Act 93-1049 states that the Cook County stormwater management program must be consistent, at a minimum, with IDNR-OWR regulations.

Administration and Management – IDNR-OWR is the administrator and sponsor of many flood control projects within Cook County. IDNR-OWR sponsors training activities.

Regulation – IDNR-OWR's regulatory authority for floodplain construction is limited to designated public waters, floodways on streams, or in drainage areas greater than one square mile where no floodway has been defined. IDNR-OWR has jurisdiction within the floodplain of a watercourse with a drainage area of at least one square mile in urban areas or at least ten square miles in rural areas. This authority includes reviewing all state permits for construction activity in floodways in northeastern Illinois. IDNR-OWR also regulates the construction, operation, and maintenance of dams.

The state delegates certain aspects of its program to municipalities and counties that have ordinances containing the minimum state standards. IDNR-OWR, along with CMAP, developed a model floodplain management ordinance for communities to adopt that meets the minimum requirements of the NFIP and the state's floodplain and floodway regulations. IDNR-OWR provides advice and technical assistance to local permit review officials.

IDNR-OWR coordinates the NFIP in Illinois. In this role IDNR-OWR meets with and inspects communities throughout the state to ensure that local floodplain regulations, as adopted for NFIP participation, are being properly enforced. IDNR-OWR also coordinates the development of regulatory floodplain mapping and approval of stream discharges used for regulatory programs. In addition, IDNR-OWR's nonstructural mitigation programs purchase and remove structures which repeatedly incur damages from flooding.

Planning – At the request of local governments, IDNR-OWR performs flood control studies to identify overbank flooding problems, analyze alternative solutions and determine the economic feasibility of those alternative solutions. While plans developed by IDNR-OWR focus on structural flood control measures, non-structural flood mitigation alternatives are also considered.

When the benefits of a proposed flood control project exceed the cost, IDNR-OWR may provide full construction funding for the most cost effective alternative. Local sponsors, generally the municipalities that benefit from the project, must furnish utility relocations, easements and rights-of-way required for the project. Local sponsors must also operate and maintain the completed project in perpetuity. For projects where the benefits do not exceed the costs, IDNR-OWR can provide funds for capital improvements up to an amount equal to the capitalized benefits of the project. IDNR-OWR generally performs the Benefit-to-Cost analysis for flood control projects in-house. IDNR-OWR participates in the funding of projects recommended in local plans which meet state criteria for economic efficiency.

IDNR-OWR provides other funding assistance. The small-projects program is used to address local drainage problems and can fund flood related improvements up to \$100,000. A less rigorous quantification of benefits is allowed under this program. Its flood mitigation program provides funds for the acquisition of flood-prone structures and flood mitigation planning.

IDNR-OWR is involved in assisting the Federal Emergency Management Agency (FEMA) with the Map Modernization Program for Cook County, as explained further in Section 2.6.2.

Maintenance – IDNR-OWR provides limited technical and financial assistance for stream and channel maintenance on a case-by-case basis, as resources are available. IDNR-OWR owns and maintains stream gauges throughout Illinois. Numerous stream gauges maintained by the United States Geological Survey (USGS) are jointly funded by IDNR-OWR.

2.5.2 Illinois Department of Natural Resources – State Water Survey

The Illinois Department of Natural Resources – State Water Survey (IDNR-SWS) is the primary agency responsible for keeping records of the state's water and atmospheric resources. These records include the flood data repository, which houses copies of hydrologic and hydraulic models from IDNR-OWR, rain gauge information, and an extensive mapping collection.

Administration and Management – The IDNR-SWS is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The IDNR-SWS has no regulatory authority in stormwater programs.

Planning – The IDNR-SWS manages research centers that gather and maintain scientific data resources used in watershed planning. The IDNR-SWS is also involved in planning activities for the FEMA Map Modernization Program and acts as IDNR’s map production contractor under the Cooperating Technical Partners agreement with FEMA.

Maintenance – The IDNR-SWS is not responsible for maintenance related to stormwater management.

2.5.3 Illinois Department of Natural Resources – Office of Realty and Environmental Planning

The Illinois Department of Natural Resources - Office of Realty and Environmental Planning (IDNR-OREP) is responsible for the protection of the State’s natural resources and outdoor recreation planning. The following four divisions comprise the IDNR-OREP: Division of Ecosystems, Division of Planning, Division of Realty, and Division of Resource Review and Coordination.

Administration and Management – The IDNR-OREP is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The Division of Resource Review and Coordination is responsible for administering the Endangered Species Protection Act, Interagency Wetlands Policy Act, and the Illinois Natural Areas Preservation Act. The Division of Resource Review and Coordination acts as the primary point of contact for establishing an official Department environmental position on internal and external projects, permits, and plans related to construction, development or other activities that may result in a change in existing environmental conditions.

Section 404 of the Clean Water Act permit applications for the “discharge of dredged or fill material into waters of the United States” are reviewed by the Permit Review Program which is under the Division of Resource Review and Coordination.

Planning – The Division of Planning is responsible for a variety of outdoor recreation and natural resource planning, program development and management, and policy formulation activities, including greenways corridor planning. This Division is comprised of the Greenways and Trails Section and the Site Planning Section. The Greenways and Trails Section promotes greenways, trails and water trails and encourages information-sharing. The Site Planning Section includes the following activities for sites such as State Park and Fish and Wildlife Areas: site plans; capital project planning, review and coordination; land reviews; site trails planning; special studies and reports; and technical assistance.

The Division of Ecosystems is responsible for administering the Conservation 2000 Grant Program. This program is voluntary and provides financial and technical support to groups of individuals, both public and private, which seek to monitor, maintain, enhance, and restore biological diversity and the ecological condition within the watersheds of the State. Section 2.7 provides further information regarding the Ecosystem Partnerships involved in the Ecosystem Program.

Maintenance – The IDNR-OREP is not responsible for maintenance related to stormwater management.

2.5.4 Illinois Department of Natural Resources – Office of Resource Conservation

The Illinois Department of Natural Resources – Office of Resource Conservation (IDNR-ORC) responsibilities include the preservation and enhancement of natural resources in Illinois and management of state parks. The IDNR-ORC works with a variety of public and private agencies involved in the protection of natural resources within the State.

Administration and Management – The IDNR-ORC is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The IDNR-ORC does not have regulatory authority relating to stormwater management.

Planning – The Division of Fisheries, which is under the IDNR-ORC, performs fish surveys as part of their basin survey and biannual sampling programs. The Division of Fisheries also provides technical assistance to the Ecosystem Partnerships.

Maintenance – Maintenance activities are limited to stream management activities for IDNR properties.

2.5.5 Illinois Department of Natural Resources – Office of Architecture, Engineering and Grants

The Illinois Department of Natural Resources – Office of Architecture, Engineering and Grants (IDNR-OAEG) manages, coordinates and executes IDNR's capital program, either through construction projects or through grants to local government entities.

Administration and Management – The IDNR-OAEG is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The IDNR-OAEG does not have regulatory authority relating to stormwater management.

Planning – The IDNR-OAEG administers state and federal open space programs. The State's program is entitled Open Space Lands Acquisition and Development and the corresponding federal program is entitled Land and Water Conservation Fund. These programs provide funding assistance to local government agencies for open space acquisition. Funding assistance of up to 50% of the approved project costs may be obtained. The funds may be utilized

to assist in the purchase and enhancement of significant wetland, depressional storage, and floodplain areas that are important to the management of stormwater. The IDNR-OAEG works closely with the IDNR-OREP Division of Planning in reviewing and selecting open space grants.

Maintenance – The IDNR-OAEG is not responsible for maintenance related to stormwater management.

2.5.6 Illinois Department of Natural Resources – Office of Scientific Research and Analysis

The Illinois Department of Natural Resources – Office of Scientific Research and Analysis (IDNR-OSRA) conducts research, provides information, and formulates policy related to the State's natural resources.

Administration and Management – The IDNR-OSRA is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The IDNR-OSRA does not have regulatory authority relating to stormwater management.

Planning – The IDNR-OSRA provides research and technical assistance for projects involving natural resources.

Maintenance – The IDNR-OSRA is not responsible for maintenance related to stormwater management.

2.5.7 Illinois Environmental Protection Agency

The Illinois Environmental Protection Agency (IEPA) is responsible for safeguarding environmental quality, consistent with the social and economic welfare of the state, for protecting health, welfare, property and the quality of life.

Administration and Management – IEPA may provide grants to local agencies to fund administrative and management activities for stormwater management. The IEPA, with funding support from the United States Environmental Protection Agency (USEPA), has partially funded a course curriculum to educate designers and permit reviewers in applying stormwater BMPs on urban development sites, as well as distributed public education materials.

Regulation – IEPA is the state regulatory agency that oversees water quality and issues NPDES permits under Section 402p of the Clean Water Act. The Clean Water Act Amendments of 1987 established the NPDES stormwater program. The act called for implementation in two phases. Phase I applied to construction projects larger than 5 acres and municipal storm sewer systems. Phase II began in 1999, and applies to Phase I regulated sites, as well as construction sites that disturb one acre or more. These sites are required to be covered under the NPDES general permit that approves stormwater discharges from construction site activities.

In conjunction with the USACE's responsibilities for issuing permits for wetlands, IEPA makes determinations regarding water quality impacts due to wetland

disturbances and issues Water Quality Certification under Section 401 of the Clean Water Act.

Planning – IEPA collects water quality and biological data on streams and lakes throughout the state. The data are reported in the biannual Illinois Water Quality Report, which documents the level to which water bodies are supporting their designated uses (such as swimming, aquatic life). IEPA also maintains the Illinois Water Quality Management Plan, which offers recommendations for stormwater, soil erosion and sediment control, and stream and wetland best management practices (BMPs). Additionally, the IEPA maintains the Illinois Water Quality Management Plan that offers recommendations for stormwater, soil erosion and sediment control, and stream and wetland BMPs.

IEPA also provides grants annually for implementation of nonpoint source control plans and demonstration projects. These projects can include BMPs to curtail urban runoff as well as instream activities to reduce erosion, sedimentation, and degradation of water quality, as detailed in Section 319 of the Clean Water Act. Activities such as ordinance implementation and workshops on stormwater BMPs have also been funded by the IEPA.

IEPA Illinois Clean Lakes Program provides annual grants for lake remediation projects where there is a realistic opportunity for restoration and protection for high quality lakes. IEPA encourages a watershed approach in addressing lake remediation and protection.

Maintenance – IEPA is not directly involved in maintaining stormwater infrastructure. IEPA does have grants available for local governments to assist in stream maintenance that addresses water quality.

2.5.8 Illinois Emergency Management Agency

The Illinois Emergency Management Agency (IEMA) is responsible for response and recovery activities for emergencies within the state. IEMA is responsible for hazard mitigation planning at the state and local levels, and for pre-disaster and post-disaster mitigation projects.

Administration and Management – IEMA coordinates the efforts of the Interagency Mitigation Advisory Group that includes all state and federal agencies involved in mitigation funding. The group monitors disaster recovery and mitigation activities, and allocates state and federal mitigation funds. The Interagency Mitigation Advisory Group is most active following a presidential disaster declaration.

Regulation – IEMA has no stormwater regulatory authority and is not involved in regulatory issues.

Planning – IEMA administers hazard mitigation programs in Illinois for FEMA. Three IEMA grant programs relate to stormwater and floodplain planning: the Hazard Mitigation Grant Program, the Flood Mitigation Assistance Program, and the Pre-Disaster Mitigation Program. These programs require the development and adoption of a local hazard mitigation plan approved by IEMA and FEMA

before project funds can be granted. Projects must have benefits that exceed the cost to be eligible for funding. The IEMA grant programs provide 75% funding with a required 25% (non-federal) match of cash and in-kind services.

Funding for the Hazard Mitigation Grant Program is initiated by a presidential disaster declaration. Eligible projects include the acquisition, relocation, or elevation of flood-prone structures. The Flood Mitigation Assistance Program provides pre-flood grants to prepare and implement hazard mitigation plans. Communities must participate in the NFIP to be eligible for these grants. Funds are allocated to IEMA each year and can vary based on the federal funds allocated. The Pre-Disaster Mitigation Program is similar to the Flood Mitigation Assistance Grant Program, but extends beyond flooding to fund mitigation projects for all types of natural hazards. Grant applications are made to IEMA. IEMA then submits them to FEMA, and all applicants compete on a nationwide basis for available funding.

Maintenance – IEMA is not involved in maintenance activities.

2.5.9 Illinois Department of Transportation

The Illinois Department of Transportation (IDOT) is responsible for planning, building and maintaining the state's highway system. It is involved in drainage issues on projects related to stream crossings and drainage of roadways.

Administration and Management – IDOT is not involved in the administration and management of stormwater programs in Cook County, other than its own drainage needs.

Regulation – IDOT has regulatory authority over construction activities that may affect its drainage system. The authority allows IDOT to review drainage plans to determine whether there is a diversion or increase of runoff onto IDOT rights-of-way.

Planning – IDOT is not involved in stormwater or watershed planning activities, other than activities related to its own drainage systems.

Maintenance – IDOT is responsible for maintaining the drainage system within its rights-of-way, including bridges and culverts.

2.5.10 Illinois Pollution Control Board

The Illinois Pollution Control Board (IPCB) is responsible for adopting environmental regulations and decision making for contested environmental cases in Illinois.

Administration and Management – IPCB is not involved in the administration and management of stormwater programs in Cook County.

Regulation – The IPCB has the authority to enforce Illinois' environmental requirements brought to action by the Attorney General and State's Attorneys on behalf of the people. Actions may be brought to the IPCB for failure to comply with NPDES stormwater permits, stormwater pollution prevention plans, and erosion control plans.

Planning – IPCB is not involved in stormwater or watershed planning activities.

Maintenance – IPCB is not involved in maintenance activities.

2.6 Federal Agency Roles and Resources

Each of the federal agencies and organizations listed below is discussed in general terms based on its activities and how they fit into the four functional categories.

2.6.1 United States Army Corps of Engineers

The USACE is responsible for structural and non-structural urban flood control. The structural program features the study, design and construction of capital projects whereas the non-structural program regulates all dredging and filling in the Waters of the United States including jurisdictional wetlands.

Administration and Management – The USACE is the administrator and sponsor of many flood control projects along navigable waters within Cook County.

Regulation – Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into Waters of the United States without a permit from USACE.

USACE is primarily interested in protecting the water quality and habitat value of wetlands and does not directly protect the stormwater storage volume of wetlands.

In a number of northeastern Illinois counties, including Cook, USACE has entered into interagency coordination agreements with the SWCDs to review soil erosion and sediment control plans and conduct inspections on development sites with permitted wetland disturbances. Violations of permit conditions noted by the SWCDs are reported to USACE for enforcement action.

Planning – USACE administers a program for cost-sharing funding for the study, design and construction of flood control projects. These projects are generally limited to structural flood control measures. If a reconnaissance level study shows that a project is likely to be cost effective, USACE proceeds with a project analysis, which must be funded locally by 50% matching funds. For approved projects, USACE administers funds up to 65% of design and construction costs with the remaining costs to be funded by a non-federal or local sponsor. These sponsors must furnish all required lands, easements and rights-of-way, utility relocations, as well as operate and maintain the completed project in perpetuity. Cost sharing agreements must be individually negotiated with USACE on a project-by-project basis. USACE also provides design services for floodproofing of residences as part of an overall flood control project.

Maintenance – The USACE is responsible for the infrastructure maintenance of the Chicago River, Chicago Sanitary and Ship Canal, the Calumet-Sag Channel and its own facilities.

2.6.2 Federal Emergency Management Agency

FEMA is part of the United States Department of Homeland Security and responsible for the NFIP. FEMA provides disaster assistance during floods and other disasters, and provides mitigation funds. FEMA produces floodplain maps used for insurance and regulatory purposes under the NFIP.

Administration and Management – FEMA is the lead agency in providing federal disaster assistance. In Illinois, assistance and funding for relief, recovery, and mitigation programs is provided through IEMA. The NFIP is administered through IDNR-OWR. FEMA has participated in and sponsored training programs on the NFIP and flood hazard mitigation activities.

Regulation – To maintain eligibility in the NFIP, local governments must adopt and enforce minimum floodplain standards set by FEMA. Participation in the NFIP allows residents of the community to purchase flood insurance and their communities to be eligible for federal emergency relief funds if a presidential disaster is declared. Flood insurance must be purchased for insurable structures within floodplains if the owners apply for loans and mortgages from federally insured or regulated lenders. In support of the local regulatory programs, floodplain mapping has been produced for all communities participating in the NFIP. The most recent countywide mapping update to the Cook County Flood Insurance Rate Maps (FIRM) occurred in 2000.

In support of the NFIP, IDNR-OWR and CMAP prepared a model floodplain ordinance for communities to adopt. Adoption and enforcement of the ordinance satisfies FEMA's requirements to maintain eligibility in the federal program.

Planning – FEMA has several flood hazard mitigation funding programs that are administered by IEMA and described in Section 2.5.8. Some of the FEMA regulatory floodplain maps for Cook County are inadequate. They do not include water surface elevations or they are out of date, due to significant land use and other topographic changes. FEMA has initiated a NFIP map modernization program, for which IDNR-OWR is a cooperating technical partner. The primary goal of map modernization is to make flood risk maps easy to use and readily available in digital format. NFIP maps will be updated as part of this effort, which at a local level is compiling existing hydrologic and hydraulic modeling data for selected map panels in Cook County. This data will be included in a countywide modernization of floodplain maps.

Maintenance – FEMA is not involved in maintenance activities.

2.6.3 United States Department of Agriculture – Natural Resources Conservation Service

The United States Department of Agriculture – Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, is primarily concerned with the wise use of soil, water and other related natural resources. NRCS assists local government by providing soils data, swamp buster maps (location of farmed wetlands and hydric soils), floodplain management studies and other natural resources information.

Administration and Management – NRCS provides technical assistance to local soil and water conservation districts. NRCS co-sponsors training including courses and workshops in design and implementation of stormwater BMPs, soil erosion and sediment control, wetland management, and hydrologic computer modeling.

Regulation – NRCS uses a voluntary, rather than a regulatory, approach to enforce its conservation program authorities. In agricultural areas, producers who want to participate in the United States Department of Agriculture’s programs and receive benefits must meet NRCS conservation requirements. NRCS has developed conservation practice standards and specifications that may be used in regulatory programs.

Planning – NRCS has planned, designed, and constructed flood control facilities to address overbank flooding in the Chicago metropolitan region with local sponsors including the District. NRCS has also performed floodplain management studies and updated floodplain mapping for local governments.

In an effort partially funded by Section 319 of the Clean Water Act under the IEPA’s direction, NRCS developed the Illinois Urban Manual, a technical reference for developers, planners, engineers, government officials and others involved in land use planning, building site development, and natural resource conservation. Applicable in rural, urban, and developing areas, the manual includes BMPs for soil erosion and sediment control, stormwater management, and special area protection. The Illinois Urban Manual was updated in 2002.

Maintenance – NRCS has no maintenance responsibilities but does provide technical assistance to land owners and public works officials on maintenance of streams and stormwater management facilities in agricultural and urban areas.

2.6.4 United States Geological Survey

The United States Geological Survey (USGS) provides the hydrologic information necessary to achieve the best use and management of the nation's water resources.

Administration and Management – Although the USGS is not involved in local stormwater administration and management, USGS co-sponsors training courses in hydrologic and hydraulic modeling in northeastern Illinois.

Regulation – The USGS does not have regulatory authority relating to stormwater management.

Planning – Through a cooperative program, the USGS (Illinois Water Science Center) maintains a stream gauging network and publishes an annual report containing daily streamflow data, water quality and precipitation information for selected sites around the state. The USGS provides funding for site-specific hydrologic and water quality data collection and analysis. Some mapping efforts may be fundable through the USGS. USGS funds 50% of a project’s in-house labor and expenses. On this reimbursable basis, USGS provides technical assistance in developing watershed models and other hydrologic and water

quality related assistance. In the past, the USGS has researched and completed studies on emerging technologies in the water resources field.

Maintenance – USGS is not involved in maintenance activities.

2.6.5 United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) protects the nation's waters from pollution through the Clean Water Act.

Administration and Management – USEPA is not involved in local administration or management of stormwater programs.

Regulation – NPDES is the responsibility of USEPA; however, that authority has been delegated to the IEPA in Illinois. Not directly involved in the permitting process, USEPA works with USACE to establish wetlands policy. USEPA has enforcement authority for several sections of the Clean Water Act.

Planning – USEPA provides grants for water quality related planning and demonstration projects under Section 319(h) of the Clean Water Act, as discussed under IEPA's roles and resources in Section 2.5.7. USEPA routinely holds national conferences on stormwater-related topics.

Maintenance – USEPA plays no direct role in maintenance activities. USEPA is an administrator of grant funds to assist in maintenance and restoration activities, also discussed in Section 2.5.7, IEPA.

2.6.6 United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) is responsible for protection of aquatic and wildlife habitats and is actively involved in water quality and wetland preservation. The USFWS works with numerous agencies on a variety of wetland protection projects.

Administration and Management – USFWS is not involved in administration and management of stormwater activities in Cook County.

Regulation – Section 404 permit applications required by USACE are reviewed by USFWS for impacts to fish and wildlife resources.

Planning – USFWS can provide technical review and support for planning and designing wetland protection and restoration.

Maintenance – USFWS may provide technical assistance to land owners performing stream and wetland maintenance and management that would enhance their wildlife habitat functions.

2.6.7 National Park Service

The National Park Service (NPS) is charged with preserving the nation's natural, cultural, and recreational resources. The NPS carries out its mission through acquisition, development, and maintenance of the nation's parks and by providing technical assistance to state and local governments as well as private organizations.

Administration and Management – The NPS is not involved with administration and management of stormwater activities in Cook County.

Regulation – The NPS does not have regulatory authority relating to stormwater management.

Planning – The Rivers, Trails and Conservation Assistance Program provides technical assistance to support local river conservation projects. The NPS staff will work with local governments and private groups on river corridor projects to help them achieve multiple benefits including floodwater retention, wetland protection, habitat restoration, water quality improvements, and recreational opportunities. The NPS staff can assist with citizen involvement activities, local discussion and decision making, and development and implementation of plans.

Maintenance – The NPS is not involved in maintenance activities in Cook County.

2.7 Ecosystem Partnerships

As stated in Section 2.5.3, the Division of Ecosystems is one of the four divisions that comprise the IDNR-OREP. The Division of Ecosystems is responsible for administering the Conservation 2000 Grant Program, which is a comprehensive long-term approach to protecting and managing Illinois' natural resources. The Ecosystems Program is funded through the Conservation 2000 Grant Program and is a voluntary, broad-based incentive program. The purpose of the Ecosystems Program is to integrate the interests and participation of local communities and private, public and corporate landowners to enhance and protect watersheds through ecosystem-based management.

It is the goal of the Ecosystem Program to promote the formation of Ecosystem Partnerships. Ecosystem Partnerships include a combination of local stakeholders such as private landowners, businesses, scientists, environmental organizations, recreational enthusiasts, and policy makers. Ecosystem Partnerships within Cook County include the following:

- Chicago Wilderness
- Fox River
- Lake Calumet
- Lake Michigan Watershed
- Lower Des Plaines
- North Branch of the Chicago River
- Prairie Parklands
- Thorn Creek Macrosite
- Upper Des Plaines

Administration and Management – Ecosystem Partnerships are not involved in the administration and management of stormwater programs.

Regulation – Ecosystem Partnerships have no regulatory authority in stormwater programs.

Planning – Ecosystem Partnerships are involved in planning projects which protect and manage Illinois' natural resources. Grants for these projects are funded through the Conservation 2000 Grant Program.

Maintenance – Ecosystem Partnerships are involved in stream and creek maintenance activities such as clearing blockages caused by debris.

2.8 Non-Profit Organizations Roles and Resources

Each of the organizations listed below is discussed in general terms based on its activities and how they fit into the four functional categories.

2.8.1 Center for Neighborhood Technology

The Center for Neighborhood Technology (CNT) promotes the development of more livable and sustainable communities. The mission of CNT is to recognize and enhance hidden assets and undervalued resources to make households, neighborhoods, and regions more efficient and economically viable.

Administration and Management – The CNT is not involved with administration and management of stormwater activities in Cook County.

Regulation – The CNT does not have regulatory authority relating to stormwater management.

Planning – The CNT provides technical assistance in support of stormwater management planning activities in Cook County. CNT has developed interactive maps which illustrate floodplains, soil types, conservation easements, streets, wetlands, trails, and greenways by municipality, zip code, county, or watershed.

Maintenance – The CNT is not involved in maintenance activities in Cook County.

2.8.2 Environmental Law and Policy Center

The Environmental Law and Policy Center (ELPC) is a non-profit organization which has the goal of achieving cleaner energy resources and implementing sustainable energy strategies, promoting innovative and efficient transportation and land use approaches that produce cleaner air and more jobs, and developing sound environmental management practices that conserve natural resources and improve the quality of life in communities. ELPC believes that environmental progress and economic development can be achieved together. ELPC also identifies opportunities to improve environmental quality in the Midwest and works to actively develop and achieve the potential benefits.

Administration and Management – The ELPC is not involved with administration and management of stormwater activities in Cook County.

Regulation – The ELPC does not have regulatory authority relating to stormwater management.

Planning – The ELPC provides planning assistance to support stormwater management planning activities in Cook County by creating a strategic regional perspective as energy, transportation, and forests and land conservation issues are increasingly complex and require coordinated strategies to shape public policy.

Maintenance – The ELPC is not involved in maintenance activities in Cook County.

2.8.3 Friends of the Chicago River

The Friends of the Chicago River is a non-profit organization and its mission is to preserve, protect, and foster the vitality of the Chicago River for the human, plant, and animal communities within its watershed.

Administration and Management – The Friends of the Chicago River is not involved with administration and management of stormwater activities in Cook County.

Regulation – The Friends of the Chicago River does not have regulatory authority relating to stormwater management.

Planning – The Friends of the Chicago River are active participants of the North Branch of the Chicago River Planning Committee Ecosystem Partnership and have played an important role in representing the interest of Cook County stakeholders to date.

Maintenance – The Friends of the Chicago River is involved in stream and creek maintenance activities such as the removal of blockages caused by debris.

2.8.4 Openlands

Openlands is a non-profit organization dedicated to preserving and enhancing public open space in northeastern Illinois. To date, Openlands has taken leadership roles in securing more than 45,000 acres of land in the Chicago area for public parks, forest preserves, land and water greenway corridors, and urban gardens.

Administration and Management – Openlands is not involved with administration and management of stormwater activities in Cook County.

Regulation – Openlands does not have regulatory authority relating to stormwater management.

Planning – Openlands is not involved in planning activities for stormwater management within Cook County.

Maintenance – Openlands is involved in stream and creek maintenance activities such as clearing blockages caused by debris.

2.8.5 Sierra Club Illinois Chapter

The Sierra Club Illinois Chapter is a non-profit organization which is committed to protecting the environment.

Administration and Management – The Sierra Club is not involved with administration and management of stormwater activities in Cook County.

Regulation – The Sierra Club does not have regulatory authority over stormwater management in Cook County.

Planning – The Sierra Club is not involved with stormwater management planning activities within Cook County.

Maintenance – Maintenance activities conducted by the Sierra Club Clean Water Committee include monitoring the quality of Illinois' waters.

2.9 Volunteer Groups Roles and Resources

Each of the volunteer groups listed below is involved in a variety of stormwater management activities including but not limited to planning and maintenance. These groups will be contacted for input during preparation of the Detailed Watershed Plans (DWPs) and Watershed Management Ordinance (WMO).

- Butterfield Creek Steering Committee
- Corlands
- Evanston Environment Board
- Glenview Prairie Preservation
- North Branch Restoration Project
- Poplar Creek Watershed Coalition
- Salt Creek Watershed Network
- Thorn Creek Restoration Coalition

2.10 Summary

Flood control and stormwater management programs have been in place in Cook County for many years. The District's construction of TARP and its many other flood control projects, along with state and federal agencies' work, have reduced flooding throughout the county. Yet many existing and potential flood problems have not been addressed due to existing program funding limitations. Stormwater runoff controls in the county have been in place for many years, but a uniform countywide minimum standard for stormwater management does not exist. The existing stormwater management framework in Cook County is extensive, though it is fragmented among the authorities and responsibilities of local, state and federal agencies.