# Metropolitan Water Reclamation District of Greater Chicago

# Stormwater Management Program

# Annual Report for 2006



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## Overview

The Metropolitan Water Reclamation District of Greater Chicago assumed responsibility for stormwater management for all of Cook County, including areas that currently lie outside the District's boundaries, with the passage of Public Act 93-1049 (Act) in November 2004. This program includes the planning, design, construction, operation and maintenance of flood control facilities and related stormwater management projects.

The District's Stormwater Management Section within the Engineering Department has assumed the responsibility for implementing many of the requirements of the Act. During 2006, the Section, with the assistance of two consulting firms, developed the Cook County Stormwater Management Plan (CCSMP), which was adopted on February 15, 2007. As a high level organizational document, the CCSMP describes the District's approach towards the countywide stormwater management program. Additionally in 2006, the District initiated the first phase of the Detailed Watershed Plans (DWPs) for three watersheds within Cook The DWPs will provide an assessment of current conditions, existing data, identification of problems in each watershed and will recommend capital improvement projects. Several positions within the Maintenance and Operations Department were staffed by the District for the purpose of stormwater management. The Small Streams Maintenance Program (SSMP) was initiated by the Maintenance and Operations Department with the intent of clearing channel debris and minor blockages. A Geographic Information Systems (GIS) Needs Assessment was conducted in 2006. Also initiated in 2006 were the Buffalo Creek Reservoir Expansion Feasibility Study and Upper Des Plaines Phase II Structure Survey.

In 2007, the District will begin development of a countywide regulatory ordinance, which will play a key role in the stormwater management program. The regulatory ordinance will establish uniform, minimum countywide stormwater management regulations. The second phase of the DWPs initiated in 2006 will commence in 2007, as will the first phase of the remaining watershed studies. Funding for capital improvement projects implemented by the District will also be available in 2007. Development and implementation of a GIS will continue into 2007.

## **Mission and Goals**

#### **Stormwater Management Mission Statement**

The mission of the countywide stormwater management program is to provide Cook County with effective rules, regulations, and projects that will mitigate stormwater effects on public health, safety, property and the environment.

#### Goals

The following goals have been established to support the mission of the countywide stormwater management program:

- Goal A) Protect existing and new development by minimizing the increase of stormwater runoff volume beyond that experienced under predevelopment conditions and by reducing peak stormwater flows.
- Goal B) Identify and remedy existing regional flooding problems to the extent feasible.
- Goal C) Establish comprehensive basin plans within each watershed, which quantify, plan for and manage stormwater flows within and among the jurisdictions in those watersheds.
- Goal D) Promote responsible land use practices in all areas of the watersheds of Cook County, particularly within floodplains and floodways.
- Goal E) Establish uniform, minimum, countywide stormwater management regulations while recognizing and coordinating with those stormwater programs effectively operating within Cook County.
- Goal F) Require cooperation and consistency in stormwater management activities between the government entities having stormwater jurisdiction, and clearly define the roles and responsibilities of each entity.
- Goal G) Coordinate with surrounding counties to ensure minimal negative impacts of inter-county stormwater runoff flows.
- Goal H) Coordinate with watershed councils to provide for the short and long term maintenance of natural waterways, manmade drainageways, and stormwater management facilities in new and existing developments.
- Goal I) Seek to maximize available revenue sources in undertaking comprehensive watershed planning and stormwater facility construction activities, thereby leveraging and reducing reliance on the stormwater funds raised by levy.
- Goal J) Protect existing water resources, including lakes, streams, floodplains, wetlands, and groundwater, from detrimental and unnecessary modification so that their beneficial functions are maintained and public expenditures and damages are minimized.
- Goal K) Develop and maintain a comprehensive hydrologic, hydraulic, demographic and cartographic database using the best available and most appropriate technology to manage the stormwater, flood and water quality data needs of the program.

- Goal L) Promote the awareness and understanding of stormwater management issues by the practitioner and the layperson through ongoing public information and education.
- Goal M) Reduce or mitigate the environmentally detrimental effects of existing and future runoff in order to improve and maintain water quality and protect water related environments.
- Goal N) Control sediment and erosion in and from any source, such as drainageways, developments, construction sites, and agricultural areas.
- Goal O) Consider water quality and habitat protection measures in all stormwater management activities within Cook County.
- Goal P) Preserve and enhance existing aquatic and riparian environments and encourage restoration of degraded agrees.
- Goal Q) Encourage the public to consider stormwater as a resource rather than as a nuisance.
- Goal R) Manage and operate the program in an effective and cost-efficient manner.
- Goal S) Be in compliance with all applicable state and federal laws.

# 2006 Activities

The District's primary activities in 2006 were focused on adopting project minimum requirements, drafting the CCSMP, initiating the development of three DWPs, and coordination with the Watershed Planning Councils (WPCs) and external agencies. Some of the highlights from the year 2006 are listed below.

#### **Project Minimum Requirements**

This set of basic criteria was adopted by the District's Board of Commissioners on January 19, 2006, after a joint study session with the WPCs was held on January 10, 2006. These criteria represent the minimum requirements with which a capital improvement project must comply in order to be considered for possible funding under the stormwater management program. However, a project is not guaranteed funding solely on the basis of meeting these conditions. Additionally, the project minimum requirements will be used to evaluate projects during the development and prior to the completion of the DWPs.

All proposed capital project funding requests must meet these minimum requirements:

- The project is consistent with the District's Stormwater Management Goals, the CCSMP and the District's watershed management plan for the watershed in which the project will be constructed. In the event that the District's goals, CCSMP, and watershed plan do not exist yet, the proposed project must have been previously approved by a federal or state government agency for funding under their program requirements.
- Benefiting communities are in compliance with the terms and conditions of all existing intergovernmental agreements with respect to stormwater management issues, and the project is legally consistent with all such agreements.

- The project is for the purpose of improved stormwater and watershed management and is not being pursued as a condition of compliance with any local regulation or requirement.
- The project does not serve, as its primary purpose, to accelerate development of floodplain and flood fringe areas. However, development of areas removed from the floodplain as a byproduct of an approved flood-damage reduction project will not be precluded.
- The project does not increase the risk of flooding or erosion to downstream or upstream areas.
- The project is a regional project that affects multiple jurisdictions. Multiple jurisdictions shall be affected in at least one of the following ways:
  - 1. The problem being addressed by the project affects multiple jurisdictions or the source of the problem arises from other jurisdictions.
  - 2. The project may be a localized part of a solution to a regional problem that has been identified in an approved watershed plan.
- Benefiting municipalities must be participants in good standing in the National Flood Insurance Program.

#### **Cook County Stormwater Management Plan**

The District assumed responsibility for stormwater management for all of Cook County, including areas outside the District's corporate limits, with the passage of the Act in November of 2004. Pursuant to the requirements of the Act, the District developed the CCSMP.

The CCSMP is a high level organizational plan wherein the framework for the District's countywide stormwater management program is presented. The CCSMP contains the mission and goals of the program, a description and gap analysis of the existing stormwater management framework of Cook County, guidelines for preparation of watershed plans and project prioritization, the framework for a countywide stormwater regulatory program, and a plan for the implementation of the CCSMP and the District's program.

A draft version of the CCSMP was distributed to all municipalities and townships of Cook County and to various agencies and stakeholders in August of 2006. An electronic copy of the draft version of the CCSMP was made available to the general public on the District's website. A public review period was held from August 7, 2006 through October 13, 2006. During the public review period, the District conducted seven public hearings. The District received 34 letters and over 400 comments during the public review period. The District responded to all of the letters received. All comments received and the District's responses have been compiled and placed on the District's website for public viewing.

#### **Watershed Management Ordinance**

A key aspect of the District's program will be the development of a countywide Watershed Management Ordinance (WMO). The WMO will be applicable to all of Cook County, including areas outside the District's corporate limits. The WMO will establish uniform, minimum countywide stormwater management regulations. Components which may be regulated under the WMO include drainage and detention, floodplain management, wetland

protection, stream habitat and riparian environment protection, soil erosion and sediment control, and water quality. Other established countywide stormwater management programs, such as those managed by the Lake County Stormwater Management Commission and the DuPage County Stormwater Management Committee, have developed ordinances which regulate these components. A more detailed discussion on the potential parameters of the regulatory program is presented in Chapter 7 of the CCSMP, which can be found on the District's website (www.mwrd.org). The regulatory discussion in the CCSMP serves as a basis to facilitate discussions about potential regulations with municipalities and townships via their respective WPCs, various agencies and stakeholders, and the general public during the development of the WMO.

In late 2006, the District began negotiations with an engineering consulting firm to assist in the development of the WMO. Development of the WMO will commence in 2007.

#### **Detailed Watershed Plans**

DWPs will be produced for each of the six established watersheds in Cook County. The purpose of each DWP is to identify the stormwater related problems in a watershed, develop alternative solutions to those problems, and then evaluate the alternatives to determine those that are most effective in addressing the watershed's needs. When finalized, a DWP will contain a summary of the watershed's areas of concern, and a listing of proposed regional capital improvement projects to address those concerns.

The watershed planning process consists of several steps:

- 1. Gathering existing information on current watershed conditions, as well as past analyses that have been conducted.
- 2. Analyzing the suitability of existing information.
- 3. Determining what additional information is necessary but currently missing, and outlining procedures for obtaining.
- 4. Obtaining the required new data.
- 5. Developing hydraulic and hydrologic models of the watershed, using or updating existing models when possible.
- 6. Identifying potential projects to address stormwater related issues such as flooding and water quality.
- 7. Quantifying benefits and estimating costs of potential projects, as well as determining other non-cost factors to allow evaluation of alternative projects.

The first three steps, involving data gathering and analysis, must be completed in order to arrive at a reasonable estimate as to the scope of work and level of effort required for the remaining steps. Therefore, the watershed planning process is broken into two phases. Phase A primarily involves the information gathering tasks necessary to delineate the scope of work for Phase B, in which the generation of new data, modeling, and project development and evaluation will take place.

In 2006 the District selected three engineering consulting firms to assist with the development of the first three DWPs. These first studies are being conducted for the Little Calumet River, Calumet-Sag Channel, and Upper Salt Creek watersheds. The District

entered into an agreement with each of the three selected consulting firms to conduct the Phase A studies for these watersheds. A letter requesting assistance with the studies was sent to each member of the WPCs. The letter requested information on any data that a WPC member has about the conditions in a given watershed. It also afforded them the opportunity to enumerate any and all stormwater management related problems in the watershed. The collected problem area information will form the basis of our watershed investigations in Phase B of the studies. Through the end of 2006, District staff and consultants began the review of information submitted by the WPCs and other agencies that had been similarly asked for assistance.

#### **Coordinate with Watershed Planning Councils**

The Act required the formation of WPCs, which serve as advisory bodies to the District for the stormwater management program. Membership of WPCs includes the chief elected official, or his or her designee, for municipalities and townships, and the Cook County Board President, or his or her designee, for unincorporated areas. In 2005, the District established WPCs for the watersheds of the North Branch of the Chicago River, the Lower Des Plaines River Tributaries, the Calumet-Sag Channel, the Little Calumet River, Poplar Creek, and Upper Salt Creek.

During 2006, each of the aforementioned WPCs met at least once each quarter, as required by the Act. Each WPC elected an executive committee and adopted bylaws. Several WPCs formed subcommittees for specific purposes, such as reviewing potential stormwater management projects. WPC meetings provided ideal opportunities for holding public hearings on the draft CCSMP. Once work on the DWPs began for the watersheds of the Little Calumet River, the Calumet-Sag Channel and Upper Salt Creek, WPC meetings were used as a way for representatives of municipalities and townships to learn about the progress of the DWPs and communicate concerns of the public to the District. As work on the DWPs continues and new DWPs are initiated, and as work on the WMO begins, the District anticipates continuing to rely on the WPCs for input from the public on these key aspects of the stormwater management program.

The Act states that the following Councils of Government (COGs) shall be responsible for coordination of the WPCs: Northwest Municipal Conference (NWMC), West Central Municipal Conference (WCMC), South Suburban Mayors and Managers Association (SSMMA), and Southwest Conference of Mayors (SWCM). In 2005, the District entered into agreements with each of the COGs to provide administrative assistance related to coordination with the WPCs. COGs provided this coordination throughout 2006 by arranging meeting schedules, drafting and distributing meeting agendas, distributing information from the District to WPC members, assembling contact information for WPC representatives, and forwarding project requests from the WPC members to the District. In 2006, the District negotiated new agreements with each of the COGs to provide the same services for a three-year period from 2007 through 2009.

#### **Coordinate with External Agencies and Organizations**

As one of many agencies involved in stormwater management in Cook County, the District has continued to work with other agencies to coordinate efforts. Additionally, the District and other agencies seek ways to maximize the benefits resulting from expenditures through cost-sharing opportunities. In 2006, the District reinstated the Flood Control Coordinating Committee (FCCC) by hosting a meeting with the City of Chicago, Cook County Highway

Department, Illinois Department of Natural Resources-Office of Water Resources (IDNR-OWR), the Federal Emergency Management Agency (FEMA), and the United States Army Corps of Engineers (USACE). The Flood Control Coordinating Committee was originally formed in the late 1960s by representatives of the State of Illinois, Cook County, the District, and the City of Chicago to study possible solutions for flood control and water pollution abatement. As the agency with responsibility for regional stormwater management in Cook County, the District will continue hosting FCCC meetings to learn about existing stormwater management activities and problems, and to avoid duplication of efforts. The District also met separately with the City of Chicago and with the Cook County Forest Preserve District to help define their roles in the stormwater management program.

The District interacted with agencies and interest groups on several other occasions. Copies of the draft CCSMP were sent to several agencies and private organizations, such as Friends of the Chicago River and the Sierra Club, which have an interest in the District's stormwater management program. The District also solicited information from these agencies and interest groups during the information-gathering phase of the DWPs for the Little Calumet River, Calumet-Sag Channel and Upper Salt Creek. The District attended the North Branch Chicago River Open Space Summit, which was hosted by the Lake County Stormwater Management Commission, but had ramifications for work to be performed along the North Branch of the Chicago River in Cook County. Finally, the District served on the review committees led by the Upper Des Plaines Ecosystem Partnership to review applications submitted for IDNR-OWR's Conservation 2000 and Illinois Environmental Protection Agency's 319 grant programs.

### **Small Streams Maintenance Program**

In 2006, the District implemented the SSMP to remove debris and fallen trees that impede the flow of water. Services provided by the SSMP are limited to streams within the District's corporate boundaries. The Maintenance and Operations Department removed an estimated total of 7,725 cubic yards of debris from small streams in 2006. This was a 52% increase from year 2005. A site on the District webpage was also developed for citizens to report blockages and request removal. The District received 64 blockage removal requests in 2006. Fifty-four of these blockages were removed and six are pending removal and will be addressed by the 2007 Small Streams Maintenance Contract. The Small Streams Maintenance Contract will provide for removal of stream blockages and routine maintenance and will be issued in early 2007.

#### **Buffalo Creek Reservoir Expansion Feasibility Study**

In 1999, USACE approved a study for the Upper Des Plaines River from the Wisconsin/Illinois State line to Riverside, Illinois. Known as the Upper Des Plaines River Phase I Study, its purpose is to identify solutions to flooding along the main stem of the river. The approved plan recommends the construction of four storage facilities and two levees, including the Buffalo Creek Reservoir Expansion and Levee 37. IDNR-OWR later determined that flood heights downstream of Levee 37 will be increased if compensatory storage is not provided upstream of the levee. The proposed expansion of the Buffalo Creek Reservoir will provide the necessary compensatory storage required to mitigate the downstream effects of Levee 37. In addition, the expanded reservoir will provide flood control benefits for Cook County.

The existing Buffalo Creek Reservoir was constructed by the District in two phases, the first completed in 1983 and the second in 1990. Both phases combine to provide a total of 720 acre-feet of floodwater storage. Its location on Lake County Forest Preserve District (LCFPD) property just north of Lake-Cook Road allows the reservoir to provide the greatest possible benefits to Cook County residents, since all properties downstream of the reservoir along Buffalo Creek in Cook County are impacted.

Expansion of the Buffalo Creek Reservoir in the manner proposed by the USACE in the Des Plaines River Phase I Study was opposed by LCFPD as it disturbed the original reservoir site. The expansion now contemplated, after discussions between the District's Engineering Department and the LCFPD, calls for the construction of a new reservoir on LCFPD property immediately adjacent and to the west of the existing reservoir, with only minor impacts to the existing facility.

The District retained the services of a consulting engineering firm to conduct a study to determine if the expansion of the Buffalo Creek Reservoir now being contemplated is economically feasible. The study will conclude in early 2007. If the project is determined to be feasible, final design of the project will be initiated by the District in 2007.

# Facilitate Completion of Deer Creek Reservoir

In 1997, the Board of Commissioners authorized the participation of the District in the Deer Creek Reservoir project. The project was recommended by USACE in a feasibility study of recurrent flooding problems along Deer Creek. Annual damages in 1997 due to overbank flooding were estimated to exceed \$400,000. As the project's Local Sponsor, the Village of Ford Heights entered into a project cooperation agreement with USACE on August 21, 2002 for construction of the reservoir. The project's total construction cost at this time was expected to be \$8,309,000. The Board of Commissioners authorized the District to enter into a separate agreement with the Village of Ford Heights to provide assistance with responsibilities associated with the Village's role as the project's Local Sponsor. In its May 15, 2002 agreement with the Village, the District agreed to undertake responsibility for operation and maintenance of the spillway and diversion structure of the reservoir, and to donate \$700,000 to defray the costs of constructing the reservoir. Additional local commitments to the project were \$1.6 million from IDNR-OWR, and \$500,000 from Cook County.

In 2006, the District and the other non-federal sponsors were asked to provide additional funding to help cover an increase in the cost of the project, the total cost of which had increased to \$9,936,000, due primarily to an underestimate in the quantity of the required excavation. At this point, all but approximately \$1.5 million of the construction work had been completed and remaining work consisted of installation of erosion control measures and landscaping. USACE had an appropriation of approximately \$1 million which could be applied to the remaining work if the required matching funds were provided by the non-federal sponsors. On May 4, 2006, the Board of Commissioners authorized the District to provide an additional \$250,000 towards completion of the Deer Creek Reservoir project. The additional \$253,000 will be provided by the State of Illinois through a Department of Commerce and Economic Opportunity grant. The District has been working with USACE to apply for this grant.

Though not yet completed, the Deer Creek Reservoir has already provided flood protection benefits. The reservoir prevented damages to 80 structures during a storm event in March

2006, and protected 237 structures from flooding during a storm in April 2006. USACE estimate of flood damages avoided during the April event is \$400,000.

## **Upper Des Plaines River Phase II Structure Survey**

The Upper Des Plaines River and Tributaries Phase II Study is being performed through a partnership with Kenosha County, Wisconsin, Lake and Cook Counties in Illinois, IDNR-OWR and USACE. The District has agreed to assist with the study for areas involving Cook County. This study is a multi-purpose flood damage reduction and ecosystem restoration planning effort for the entire Upper Des Plaines River Watershed.

In 2006, the District hired a consulting engineering firm to survey structures within the FEMA 100-year floodplain along the Upper Des Plaines River and its tributaries. The survey collected first floor elevations, lowest point of entry into a structure and lowest adjacent ground elevation on the property for use in an economic model to determine flood damages, and will be incorporated by the USACE into the Upper Des Plaines River and Tributaries Phase II Study. The data acquired from this survey will also be used by the District on its upcoming Lower Des Plaines Tributaries DWP. Completion of the survey is anticipated in early 2007.

### **Geographic Information Systems Needs Assessment**

The GIS Needs Assessment commenced in late 2005 and concluded in early 2006. The study focused on selecting a system for the District to assist with aspects of stormwater management including maintenance and management of existing stormwater facilities, stormwater management administration and enforcement, and stormwater facility planning and design. This assessment produced a framework document that was used to develop the scope of work for the GIS implementation contract. Negotiations for the GIS implementation were initiated in 2006 and implementation is expected to begin in early 2007.

#### Joint Funding Agreement with the United States Geological Survey

The District entered into a Joint Funding Agreement with the United States Geological Survey (USGS) on July 31, 2006 to fund the maintenance and operation of the following eight stream gauges located within Cook County:

- North Branch of the Chicago River at Deerfield
- Salt Creek at Elk Grove Village
- Salt Creek at Western Springs
- Salt Creek at Rolling Meadows
- Deer Creek at Chicago Heights
- Butterfield Creek at Flossmoor
- Midlothian Creek at Oak Forest
- Tinley Creek at Palos Park

These stream gauges will be funded jointly by the District, USACE, IDNR-OWR and USGS into 2007.

The streamflow data collected at these sites by the USGS will be used in conjunction with USGS streamflow data at other sites funded by the USACE and other agencies under joint

funding agreements. The District's participation in this USGS program will protect the integrity of data and will help in the development of valuable historical records at the gauge locations. The station at Deer Creek in Chicago Heights is close to the Deer Creek Reservoir and provides data that will help in the evaluation of operation of the reservoir. All of the streamflow gaging stations will provide data that the District will use as it develops DWPs as part of the stormwater management program.

#### **Public Information**

In 2006, the District drafted a brochure to provide the public with information about the stormwater management program. The brochure contents include a description of the District's historical involvement in flood control projects for Cook County, a summary of the Act, the goals and mission of the District's program, information about the future regulatory ordinance and watershed plans, and information about various Best Management Practices (BMPs).

In 2006, the District continued development of the Stormwater Management webpage on the District's website (<a href="www.mwrd.org">www.mwrd.org</a>). The webpage and its associated links serve to provide the public with information about the District's program.

The District met with the public to provide information about the stormwater management program on several occasions in 2006. The Chief Engineer provided an overview of the District's program and status at the annual Illinois Association for Floodplain and Stormwater Management Conference held in Tinley Park, Illinois in March. The District presented an overview of the Cook County Stormwater Management Plan at the Friends of the Chicago River's 4<sup>th</sup> Annual Chicago River Summit held in Chicago in October. As mentioned above, the District conducted seven public hearings for the CCSMP at various locations within Cook County in the fall of 2006. During the course of 2006, the District participated in numerous WPC meetings held throughout Cook County. The schedule for the WPC meetings is posted on the District's website and the meetings are open to the public.

# **Anticipated Activities for 2007**

In 2007 the District adopted the CCSMP and will continue development of the WMO and DWPs initiated in 2006. The WMO will specify uniform standards, regulations and enforcement for countywide use and compliance. Once completed, the DWPs will function as standardized guides for their respective watersheds and recommend projects for the District's Capital Improvement Program.

A few of the key activities forecasted for 2007 are as follows:

#### **Begin Development of the Cook County Watershed Management Ordinance**

Work will commence on the development of the WMO in spring of 2007. It is anticipated that work on the WMO will conclude in 2009. Further information on the WMO can be found within the Watershed Management Ordinance discussion located under 2006 Activities on Page 5.

# **Adoption of the Cook County Stormwater Management Plan**

The CCSMP was revised in late 2006 and early 2007 to incorporate comments provided during the public review process which were germane to the CCSMP. The CCSMP was subsequently adopted by the District's Board of Commissioners on February 15, 2007 and prior to the publication of the 2006 Annual Report. The CCSMP is posted on the District's website for viewing by the public and will be distributed to all municipalities and townships of Cook County along with various agencies and stakeholders in March of 2007.

#### **Development of the Detailed Watershed Plans**

DWPs for the Little Calumet River, Calumet-Sag Channel, and Upper Salt Creek watersheds will continue in 2007, with anticipated completion in 2008. Phase A for these studies will conclude in the Spring of 2007, and new agreements will be negotiated with the consulting firms for Phase B work. Later in the year, the District will select consulting firms to begin DWP work for the remaining three watersheds: the Des Plaines Tributaries, North Branch Chicago River, and Poplar Creek watersheds. Requests for information will be sent to the WPC members of those watersheds in 2007.

The budgeted staffing level for the planning portion of the stormwater management program will increase in 2007 by the addition of positions for a Senior Civil Engineer and an Assistant Civil Engineer. These additional staff will participate in the development and implementation of the DWPs.

# **Capital Improvement Projects**

Capital improvement projects will be identified in the DWPs. Alternatively, a capital improvement project that has been approved by a federal or state government agency for funding under that program's requirements can be considered by the District for funding. Capital improvement projects must meet the District's minimum project requirements to be considered for funding. Funding for projects will be prioritized on a countywide basis by the District's Board of Commissioners. In 2007, the District will continue to study options for compensatory storage for the USACE Levee 37 project, such as the Buffalo Creek Reservoir Expansion, described previously. Work on detailed design documents for the required compensatory storage may commence in 2007.

# **Small Streams Maintenance Program**

In early 2007, the Maintenance and Operations Department issued the Small Streams Maintenance Contract, which is divided into Initial Stream Maintenance and Routine Stream Maintenance work. Seven of the most severely blocked sites are identified within the Initial Stream Maintenance segment. A scope of work for general routine maintenance to be performed throughout the District's corporate boundaries is outlined in the Routine Stream Maintenance segment of the contract. A majority of the contract funds allocated are anticipated to be utilized for blockage removal. Maintenance and Operations personnel will continue to respond to requests and remove smaller blockages in 2007.

# Geographic Information System (GIS) Implementation

The District will begin the implementation of a GIS in the first half of 2007 to assist with the stormwater management program. A GIS is a computer system that links databases with geographical features (spatial data) to provide detailed information about the area. The District will utilize the GIS tool to assist with analyzing regional watershed problems and their associated solutions, as well as track information based on the locations. Some examples of the information that may be tracked in the system include ground elevations, floodplain boundaries, and regional stormwater problem history.

The implementation project will consist of developing and implementing system wide standards, databases, spatial features (rivers, streets, municipal boundaries, etc.) and applications. The District will acquire existing data from agencies such as Cook County and IDNR-OWR to minimize the generation of new data. The project will also include training for the users and administrators of this system. Completion of GIS implementation is anticipated to take approximately two years.

#### **Public Information**

The stormwater management informational brochure will be printed and disseminated to the public in spring of 2007.

The District added a Public Information Representative position for 2007 whose responsibilities will include preparation of the annual report, oversight of public education about stormwater management, preparation of updates to the District's website, and coordination of public meetings.

The District plans to participate in several of the Watershed Planning Council meetings to be held during 2007, and also is available to attend any meeting for which a request to do so has been received from the WPC through its respective coordinating COG.

# **Expenditures**

		2006
Category	Description	Expenditures

Capital	Construction of stormwater management facilities:		\$250,000
Projects	Assistance provided for the completion of		Ψ200,000
. rejecte	Deer Creek Reservoir.	\$250,000	
Personal	Fees paid to consultants for professional services		
Services:	rendered, including the following projects:		\$733,140
Consultant	Cook County Stormwater Management Plan	\$386,680	
	Detailed Watershed Plans	\$99,605	
	Buffalo Creek Reservoir Expansion Study	\$137,547	
	Upper Des Plaines River Structure Survey	\$109,308	
Personal	Salaries and associated costs related to District personnel:		\$2,725,083
Services:	Engineering Department	\$999,970	
In House	Maintenance and Operations Department	\$1,725,113	
Contractural	Fees paid for services provided by COGs, agencies or		
Services	companies, including the following:		\$179,953
	COG Administrative Contracts:		
	Northwest Municipal Conference	\$23,738	
	South Suburban Mayors and Managers Association	\$24,311	
	Southwest Conference of Mayors	\$53,596	
	West Central Municipal Conference	\$6,616	
	Court Reporting Services	\$11,214	
	USGS Joint Funding Agreement for Stream	\$13,875	
	Gaging Stations in Cook County		
	Facility Inspection Services	\$5,715	
	Miscellaneous Contractual Services	\$40,888	
Administrative	Materials, equipment and supplies:		\$19,496
Expenses	Materials, equipment and supplies	\$19,496	

Total 2006 Expenditures \$3,907,672

2006 Appropriation \$24,497,500

Net Assets Appropriable for 2007 \$20,589,828

# **Acronyms**

Act Public Act 93-1049

BMPs Best Management Practices

CCSMP Cook County Stormwater Management Plan

COGs Councils of Government

DWPs Detailed Watershed Plans

FEMA Federal Emergency Management Agency

GIS Geographic Information System

IDNR-OWR Illinois Department of Natural Resources - Office of Water Resources

LCFPD Lake County Forest Preserve District

NWMC Northwest Municipal Conference

SSMMA South Suburban Mayors and Managers Association

SSMP Small Stream Maintenance Program
SWCM Southwest Conference of Mayors

USACE United States Army Corps of Engineers

USGS United States Geological Survey
WMO Watershed Management Ordinance

WPCs Watershed Planning Councils