



# 2016 Budget

Final Adopted December 10, 2015  
and Amended December 17, 2015

**Metropolitan Water Reclamation District of Greater Chicago**



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Metropolitan Water Reclamation District of Chicago  
Illinois**

For the Fiscal Year Beginning

**January 1, 2015**

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Metropolitan Water Reclamation District of Greater Chicago, Illinois for its annual budget for the fiscal year beginning January 1, 2015. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device.

The Metropolitan Water Reclamation District of Greater Chicago is the only Illinois agency thus far in 2015 to receive outstanding in the overall category of Communications Device in the State of Illinois.

The award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.



# 2016 Budget

Final Adopted December 10, 2015  
and Amended December 17, 2015

## Metropolitan Water Reclamation District of Greater Chicago

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### BOARD OF COMMISSIONERS



*Seated, from left to right:*

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VICE PRESIDENT

**Mariyana T. Spyropoulos**  
PRESIDENT

**Frank Avila**  
CHAIRMAN OF FINANCE

*Standing, from left to right:*

**David J. Walsh**

**Cynthia M. Santos**

**Debra Shore**

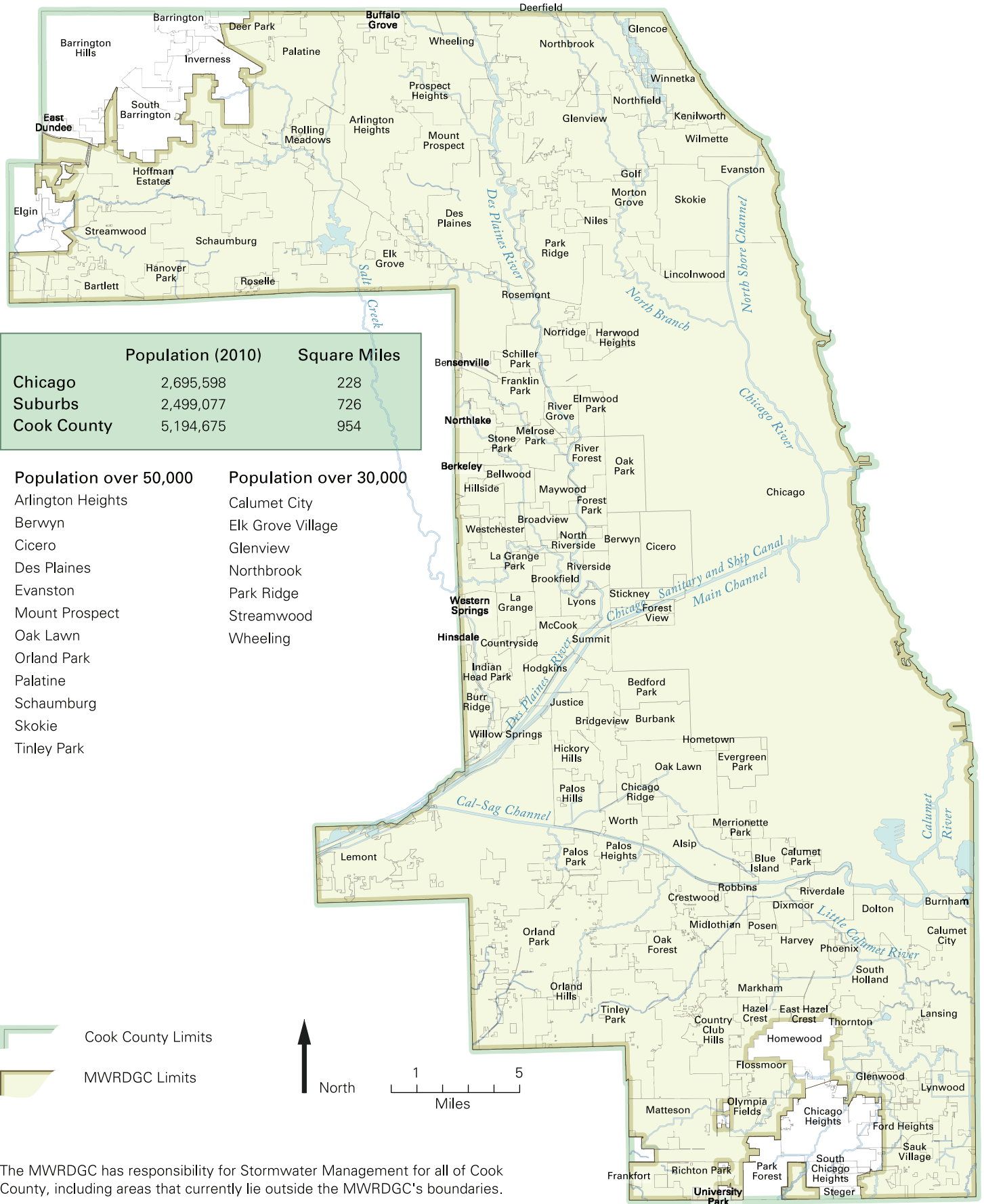
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# Cook County and Metropolitan Water Reclamation District of Greater Chicago



The MWRDGC has responsibility for Stormwater Management for all of Cook County, including areas that currently lie outside the MWRDGC's boundaries.

## **DESCRIPTION OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO: ITS HISTORY, LOCATION, SIZE, POPULATION, AND TYPE OF GOVERNMENT**

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### **Origin and History**

The Metropolitan Water Reclamation District of Greater Chicago (District) is an independent government and taxing body encompassing approximately 91 percent of the land area and 98 percent of the assessed valuation of Cook County, Illinois.

The District is a separate legal entity sharing an overlapping tax base with the City of Chicago, the Chicago Board of Education, the County of Cook, the Cook County Forest Preserve District, the Chicago Park District, the Chicago Public Building Commission, the Cook County Community College District, and various municipalities and school districts outside the City of Chicago but within the District's boundaries.

The District was originally organized as the Sanitary District of Chicago in 1889 under an act of the Illinois General Assembly which has been modified from time to time to increase the District's authority and jurisdiction. The enabling act in 1889 was in direct response to a long standing problem with contamination of the water supply and nuisance conditions of the rivers. The District reversed the flow of the Chicago and Calumet River Systems to stop the discharge of sewage to Lake Michigan and instead, discharge it to the Des Plaines River, where it could be diluted as it flowed into the Illinois River and eventually the Mississippi River. Prior to the District's construction of a 61.3 mile system of canals and waterway improvements, the Chicago and Calumet River Systems were tributaries to Lake Michigan. These river systems are now tributaries to the Illinois River system.

From 1955 through 1988, the District was called The Metropolitan Sanitary District of Greater Chicago. In order to provide a more accurate perception of the District's current functions and responsibilities, the name was changed effective, January 1, 1989, to the Metropolitan Water Reclamation District of Greater Chicago.

### **Mission and Responsibilities**

The mission of the District is to protect the health and safety of the public in its service area, protect the quality of the water supply source (Lake Michigan), improve the quality of water in watercourses in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area.

The District collects wastewater from municipalities in its service area, conveys it to wastewater reclamation plants, provides full secondary treatment, and discharges clean water to local waterways. The District is also responsible for stormwater management for all of Cook County, including areas outside of the District's corporate boundaries for wastewater services.

### **Services**

The District's seven modern water reclamation plants provide excellent treatment for residential and industrial wastewater, meeting permitted discharge limits virtually at all times. The treatment process is protected by a pretreatment program to guard against hazardous substances and toxic chemicals. These are strictly regulated pursuant to federal and state requirements. The District routinely monitors industries and non-residential sources to assure that wastes are disposed of in an environmentally responsible and lawful manner.

Treated wastewater, along with runoff from rainfall, enters local canals, rivers, and streams that serve as headwaters of the Illinois River system. Stormwater in the separate sewer area is controlled to reduce flood damages by a number of stormwater detention reservoirs. In the combined sewer area, the District's Tunnel and Reservoir Plan (TARP) has significantly reduced basement backup and overflows to local waterways.

Flow within the District's waterway system and the Lake Michigan discretionary diversion flow are controlled by three inlet structures on Lake Michigan: the Wilmette Pumping Station, the Chicago River Controlling Works, and the O'Brien Lock and Dam. The single outlet control structure is the Lockport Lock and Powerhouse.

While exercising no direct control over wastewater collection systems owned and maintained by cities, villages, sewer districts, and utilities, the District does control municipal sewer construction by permits outside the City of Chicago. It also owns a network of intercepting sewers to convey wastewater from the local collection systems to the water reclamation plants.

### **Facilities**

The District is located primarily within the boundaries of Cook County, Illinois. The District serves an area of 883.4 square miles which includes the City of Chicago and 128 surrounding suburban communities. The District serves an equivalent population of 10.35 million people; 5.25 million real people, a commercial and industrial equivalent of 4.5 million people, and a combined sewer overflow equivalent of 0.6 million people. The District's 560 miles of intercepting sewers and force mains range in size from 6 inches to 27 feet in diameter, and are fed by approximately 10,000 local sewer system connections.

The TARP is one of the country's largest public works projects for pollution and flood control. Four tunnel systems total 109.4 miles of tunnels, 8 to 33 feet in diameter and 150 to 300 feet underground. The tunnels are planned to empty into three large reservoirs to provide storage for the polluted water captured by TARP.

**DESCRIPTION OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO: ITS HISTORY, LOCATION, SIZE, POPULATION, AND TYPE OF GOVERNMENT**

The District owns and operates one of the world’s largest water reclamation plants, in addition to six other plants and 22 pumping stations. The District treats an average of 1.3 billion gallons of wastewater each day. The District’s total wastewater treatment capacity is over 2.0 billion gallons per day.

The District controls 76.1 miles of navigable waterways, which are part of the inland waterway system connecting the Great Lakes with the Gulf of Mexico. It also owns and operates 34 stormwater detention reservoirs to provide regional stormwater flood damage reduction.

In conjunction with its biosolids beneficial utilization of farm land application program, the District recycles all of its biosolids through land application in northeast Illinois, and owns over 13,500 acres of land in Fulton County, Illinois, formerly used for biosolids application.

**Governance**

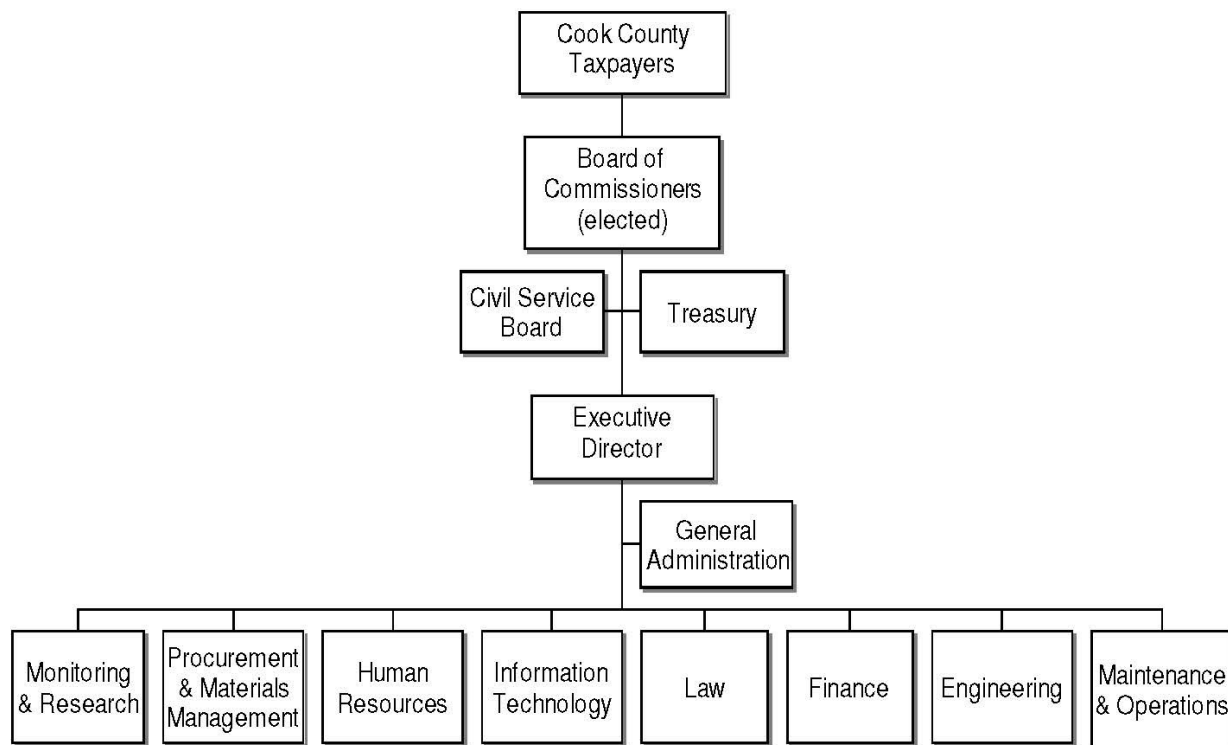
The District is governed by a nine-member Board of Commissioners (Board). Commissioners are elected at large and serve on a salaried basis. Three Commissioners are elected every two years for six-year terms. Biannually, the Board elects from its membership a President, Vice President, and Chairman of the Committee on Finance.

**Organization Structure**

The Executive Director, who reports directly to the Board, manages the District’s day-to-day operations. Eight appointed department heads report to the Executive Director.

The Treasurer of the District, its chief financial officer, is appointed by and reports directly to the Board.

General Administration, which includes the Administrative Services Division, Diversity Section, and Public Affairs Section are direct staff and support units, reporting to the Executive Director.



# HOW TO USE THE DISTRICT’S BUDGET

The organization and presentation of the District’s Budget is designed to satisfy the needs of citizens, public officials, and District employees. It is organized in compliance with the Illinois Compiled Statutes and structured to meet external and internal managerial needs. As a comprehensive management and balanced financial plan, this document describes the programs, services, and resources the District provides, as well as policies and long-run financial plans.

The District’s Budget is organized as follows:

- 1) By Appropriation and Tax Levy Ordinances. Enacted by the Board of Commissioners under the authority of the Illinois Compiled Statutes, these are the legal authority allowing the District to carry out its legally mandated mission.
- 2) By Funds. These are the accounting entities segregating sums of money or other resources for the purpose of carrying on specific activities or government functions in accordance with certain legal restrictions or limitations.
- 3) By Department. These are the primary organizational units of the District.

The District’s Budget is presented in various sections, each providing the reader with specific information related to the District’s financial plans and services.

The sections are presented as follows:

- I. **BUDGET FOREWORD**. An introductory section that contains: the message from the President and the Chairman of the Committee on Budget and Employment; Strategic Business Plan; narratives on operational goals and accomplishments, major issues, policy and program changes; Budget Highlights; Financial Policies, Objectives, and Accomplishments; Policy Development and the Budget Process; and the beginning of the annual Appropriation Ordinance, which gives the Budget legal authority. The full Appropriation Ordinance consists of pages 37 & 38 and sections II through VII.
- II. **BUDGET AND FINANCIAL SUMMARIES, SCHEDULES, AND EXHIBITS**. These provide an overview of the District’s Budget and financial plans of the past, present, and future, including proposed tax levies, revenues, and appropriations.
- III. **FINANCIAL STATEMENTS BY FUND**. These contain detailed information on taxes and all other sources of revenue and expenditure, plus financial statements detailing current assets, current liabilities, and the amount of assets available for appropriation in 2016.
- IV. **CORPORATE FUND**. These present detailed information by department, and priority of activities, objectives, programs, performance measures, proposed line item expenditures, and staffing. The legend to the right shows the placement of data within the text boxes of the organizational charts. Each department provides actual, budgeted, and proposed full-time equivalent (FTE) positions over a three-year period. Salary ranges for pay plans and grades, as shown in the Position Analysis, are included in the Appendix.
 

Organization Unit Number		
Organization Unit Name		
2014	2015	2016
FTE	FTE	FTE
Count	Count	Count
Actual	Budgeted	Proposed
- V. **CAPITAL BUDGET**. The District’s current and long-term programs for capital construction, modernization, and rehabilitation, as detailed in the Construction Fund and Capital Improvements Bond Fund.
- VI. **STORMWATER MANAGEMENT FUND**. The District’s current and long-term programs for the Stormwater Management Fund are detailed.
- VII. **OTHER FUNDS**. Information detailing the Reserve Claim Fund, Bond Redemption & Interest Sinking Funds, and the MWRD Retirement Fund are provided in this section.
- VIII. **TAX LEVY ORDINANCES**. These present the financial and management plan of the District as a legal document which coordinates and establishes the legal authority for the District to obtain and expend funds during the fiscal year.
- IX. **APPENDIX**. Information detailing the District’s compensation plan, glossaries, acronym list, and awards.

To aid the reader in finding specific information quickly, there is a Table of Contents inserted on the manila tabbed divider before each section.

**TABLE OF CONTENTS**

**INTRODUCTION**

Map of Cook County ..... i  
 Description of the Metropolitan Water Reclamation District of Greater Chicago ..... ii  
 How to Use the District’s Budget ..... iv  
 Table of Contents ..... v

**SECTION I. BUDGET FOREWORD**

Transmittal Letter from the President and the Chairman of the Committee on Budget and Employment ..... 1  
 Strategic Business Plan ..... 5  
 Budget Message/Highlights ..... 9  
 Financial Policies, Objectives, and Accomplishments ..... 25  
 Policy Development and the Budget Process ..... 31  
 Report of Committee on Budget and Employment ..... 35  
 Annual Appropriation Ordinance ..... 37

**SECTION II. BUDGET AND FINANCIAL SUMMARIES, SCHEDULES, AND EXHIBITS**

Where the Money Comes From; Where the Money Goes ..... 39  
 Net Assets Appropriable ..... 40  
 Estimated Tax Rate ..... 41  
 Taxable Property (Equalized Assessed Valuation – Table and Graph) ..... 42  
 Appropriations & Expenditures, Tax Levies, and Tax Rates ..... 43  
 Comparative Statement of Appropriations, Tax Levies, and Tax Rates ..... 44  
 Comparative Appropriations:  
     by Major Object/Character of Expenditure (Graph) ..... 46  
     by Major Object of Expenditure ..... 47  
     by Character of Expenditure ..... 48  
     by Department and Major Program ..... 49  
     by Fund and Major Program (Graph) ..... 50  
     by Program Objective and by Fund ..... 51  
 Annual Debt Service (Graph) ..... 52  
 Outstanding Bonds and Estimated Statutory Debt Margin ..... 53  
 Account and Personnel Summary (Table and Graph) ..... 54  
 Five-Year Financial Forecast, 2016-2020 ..... 57

**SECTION III. FINANCIAL STATEMENTS BY FUND**

Financial Narrative ..... 71  
 Summary of Revenue and Expenditures, 2016 – 2014 ..... 75  
 Summary of 2016 Assets Appropriable for All Funds ..... 79  
 Combined Balance Sheets, 2014 – 2013 ..... 80  
 Appropriations for Liabilities, 2016 – 2015 ..... 82  
 Taxes Receivable, 2015 and Prior Years, Including Estimate for 2016 ..... 83  
 Personal Property Replacement Taxes Receivable, 2016 and Prior Years, Including Estimate for 2016 ..... 84  
 Corporate Fund:  
     Financial Narrative ..... 85  
     Revenue Graphs, 2009 – 2016 ..... 86  
     Estimated Balance Sheet, 2016 – 2015 ..... 87  
     Appropriable Revenues, 2016 – 2013 ..... 88  
     Financing, 2016 – 2011 ..... 89  
 Corporate Working Cash Fund: Estimated Balance Sheet, 2016 – 2015, and Revenues, 2016 – 2013 ..... 90  
 Capital Funds:  
     Financial Narrative ..... 91  
     Capital Improvements Bond Fund:  
         Estimated Balance Sheet, 2016 – 2015 ..... 92  
         Appropriable Revenue, 2016 – 2013 ..... 93



**TABLE OF CONTENTS**

**SECTION III. FINANCIAL STATEMENTS BY FUND (continued)**

Construction Fund:

- Estimated Balance Sheet, 2016 – 2015 ..... 94
- Financing, 2016 – 2011, and Appropriable Revenue, 2016 – 2013 ..... 95
- Construction Working Cash Fund: Estimated Balance Sheet, 2016 – 2015, and Revenues, 2016 – 2013 ..... 96

Other Funds:

- Financial Narrative ..... 97
- Stormwater Management Fund:
  - Estimated Balance Sheet, 2016 – 2015 ..... 98
  - Financing, 2016 – 2011, and Appropriable Revenue, 2016 – 2013 ..... 99
- Stormwater Working Cash Fund: Estimated Balance Sheet, 2016 – 2015, and Appropriable Revenue, 2016 – 2013 ..... 100
- Bond Redemption & Interest Fund:
  - Estimated Balance Sheet, 2016 – 2015 ..... 101
  - Appropriable Revenue, 2016 – 2013 ..... 102
- Reserve Claim Fund: Estimated Balance Sheet, 2016 – 2015, and Appropriable Revenue, 2016 – 2013 ..... 103
- Retirement Fund: Estimated Balance Sheet, 2016 – 2015, and Appropriable Revenue, 2016 – 2013 ..... 104

**SECTION IV. DETAIL OF DEPARTMENTAL APPROPRIATIONS FOR THE CORPORATE FUND**

- Corporate Fund Appropriations, Expenditures, and Budgeted FTE Positions, 2007 - 2016 ..... 105
- Corporate Fund Organization Chart ..... 106
- Corporate Fund Line Item Analysis ..... 107
- Detailed Appropriations by Department:
  - Board of Commissioners ..... 111
  - General Administration ..... 119
  - Monitoring & Research ..... 135
  - Procurement & Materials Management ..... 161
  - Human Resources ..... 175
  - Information Technology ..... 191
  - Law ..... 209
  - Finance ..... 223
  - Maintenance & Operations
    - Summary of All Divisions ..... 235
    - General Division ..... 247
    - North Service Area ..... 262
    - Calumet Service Area ..... 280
    - Stickney Service Area ..... 294
  - Engineering ..... 311

**SECTION V. CAPITAL BUDGET**

- Capital Improvement Program Functions and Narrative ..... 331
- Ten-Year Capital Improvement Program Summary, 2011 – 2020 ..... 334
- Construction Fund:
  - Narrative ..... 335
  - Projects Listed by Service Area ..... 337
  - Project List and Operating Impacts ..... 341
  - Project Fact Sheets ..... 345
  - Objectives and Program Summary ..... 402
  - Line Item Analysis ..... 406

**TABLE OF CONTENTS**

**SECTION V. CAPITAL BUDGET (continued)**

Capital Improvements Bond Fund:

- Narrative ..... 409
- Projects Listed by Service Area ..... 411
- Project List and Operating Impacts ..... 417
- Tunnel and Reservoir Plan (TARP) Project Costs and Status Charts ..... 421
- Project Fact Sheets ..... 423
- Other Project Exhibits ..... 455
- Stormwater Management Project List and Operating Impacts ..... 467
- Objectives and Program Summary ..... 471
- Line Item Analysis ..... 473

**SECTION VI. STORMWATER MANAGEMENT FUND**

- Appropriations, Expenditures, and Budgeted FTE Positions, 2007 – 2016 ..... 475
- Organization Chart ..... 476
- Budget Narrative ..... 477
- Project List and Operating Impacts ..... 480
- Project Fact Sheets ..... 482
- Project Exhibits ..... 515
- Objectives and Program Summary ..... 520
- Performance Data ..... 522
- Line Item Analysis ..... 524
- Position Analysis ..... 526

**SECTION VII. OTHER FUNDS**

Reserve Claim Fund:

- Description of Fund, Purpose, and Operation ..... 529
- Line Item Analysis ..... 530

Bond Redemption & Interest Fund:

- Description of Fund, Purpose, and Operation ..... 531
- Appropriation for Payment of Outstanding Bonds, 2016 ..... 533

Retirement Fund:

- Description of Fund, Purpose, and Operation ..... 535
- Appropriation Ordinance ..... 537

**SECTION VIII. TAX LEVY ORDINANCES**

- Retirement Fund and Corporate Fund ..... 539
- Construction Fund ..... 540
- Bond Redemption & Interest Fund:

  - Tax Levy Ordinance for Outstanding Bonds ..... 541
  - Tax Levy for Payment of Outstanding Bonds, 2016 ..... 543

- Reserve Claim Fund ..... 545
- Stormwater Management Fund ..... 546

**SECTION IX. APPENDIX**

- Compensation Plan Narrative ..... 547
- Salary Schedules ..... 548
- User Charge Rates/Property Tax Levies and Collections ..... 549
- Property Tax Base ..... 550
- Awards and Achievements Recognition ..... 552
- Financial Glossary ..... 560
- Glossary of Technical Terms ..... 564
- Acronyms ..... 566

# SECTION I

## BUDGET FOREWORD

This section introduces the budget with explanations of the organization and structure of the District's Budget. It also presents an overview of the substance of the 2016 Budget. It includes the following:

- In the *Transmittal Letter from the President and the Chairman of the Committee on Budget and Employment*, major policies, initiatives, changes, and other significant features of the Final 2016 Budget are presented.
- In the *Strategic Business Plan*, an update of the strategic business plan is presented.
- The *Budget Message/Highlights* section includes a statement of the District's operational goals and accomplishments and a narrative on major issues, policy, and program changes. It is in this section that broad policy, program objectives, and operational accomplishments are defined.
- In the *Financial Policies, Objectives, and Accomplishments* section, an overview of the financial guidelines and accomplishments of the District is presented.
- The *Policy Development and the Budget Process* section describes policy development and the total Budget process. The detailed Budget process is presented in 13 clearly stated steps with a flowchart of the Budget cycle.
- The *Report of Committee on Budget and Employment* officially transmits and recommends for approval, the 2016 Budget, Annual Appropriation Ordinance, and tax levy ordinances to the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago.
- The *Annual Appropriation Ordinance* gives legal effect to the entire Budget document as enacted into law by the Board of Commissioners under authority of the Illinois Compiled Statutes. It includes an explanation of the crosshatch (#) symbols used with some personnel positions within the Budget, indicating changes to positions once vacated.

Transmittal Letter from the President and the Chairman of the Committee on Budget and Employment .....	1
Strategic Business Plan .....	5
Budget Message/Highlights .....	9
Financial Policies, Objectives, and Accomplishments .....	25
Policy Development and the Budget Process .....	31
Report of Committee on Budget and Employment .....	35
Annual Appropriation Ordinance .....	37

**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

January 4, 2016

To the Residents of the Metropolitan Water Reclamation District of Greater Chicago:

The Board of Commissioners (Board) and staff are pleased to present the 2016 Budget, as recommended by the Executive Director and revised by the Committee on Budget and Employment (Committee), which includes the resources to allow the Metropolitan Water Reclamation District of Greater Chicago (District) to provide a quality water environment for our service area.

**Committee Hearings**

The Committee received the Executive Director’s Recommendations on October 13, 2015. A hearing on these recommendations was conducted on November 5, 2015, when the Executive Director and his Executive Team presented major changes and initiatives included in the 2016 Budget. The Executive Director presented a summary of the 2016 Strategic Business Plan and a comprehensive discussion on the financial health of the District. The District has a stable Corporate Fund and a sustainable capital plan, increased funding to the Retirement Fund, continued its commitment to the Other Postemployment Benefits (OPEB) Fund, and purchased insurance policies to provide for catastrophe-level losses. The Executive Team presented several of the major accomplishments of 2015 and the major initiatives planned for 2016, including resource recovery projects, flood control projects, and a continued commitment to the training and development of District employees.

The Committee held a Public Hearing on the Capital Improvement Program on October 29, 2015, while a Public Hearing on the Budget was held on December 3, 2015. The Friends of the Chicago River and the Civic Federation both spoke in support of the 2016 Budget.

The 2016 Budget includes the policies, objectives, and resources to allow the District to make significant progress on our vision statement of “Recovering Resources, Transforming Water.”

**Budget Message**

We are entering 2016 having reached several milestones. First, the Thornton Reservoir is in service, providing needed relief to the southern areas of Cook County. The Thornton Reservoir has a capacity of 7.9 billion gallons and is the second reservoir in the Tunnel and Reservoir Plan (TARP) to come online. Our two disinfection facilities are in service and ready for the 2016 disinfection season. The Calumet Water Reclamation Plant (WRP) provides chlorination/de-chlorination and the O'Brien WRP is ready to operate an ultraviolet disinfection process. These major milestones will start a new chapter in the District’s history.



A tour of the Thornton Reservoir tunnel takes place during the ribbon cutting ceremony on September 1, 2015.

The Calumet Water Reclamation Plant (WRP) provides chlorination/de-chlorination and the O'Brien WRP is ready to operate an ultraviolet disinfection process. These major milestones will start a new chapter in the District’s history.

The District is beginning the second year of our five-year Strategic Business Plan. This 2015 plan is aimed at creating a championship team at the District. The District continues to operate a fiscally sound organization, maintaining a AAA bond rating from two of the three rating agencies. This accomplishment, in the midst of an uncertain Illinois financial environment, is an outstanding achievement and speaks to the careful, thoughtful management of the agency as directed by the Board. 2015 was the first year operating under new policy guidelines established by the Board concerning the District’s pension fund and the OPEB fund – which will ensure

a solid retiree healthcare provision into the future. Both of these policies exemplify the District’s commitment to sound fiscal management as we move forward in fulfilling our mission.

The District’s disinfection project at the O’Brien WRP suffered an embankment failure causing the closure of the Chicago Transit Authority’s (CTA) Yellow Line during 2015. This test was met with integrity, as all parties agreed to make the safe reinstatement of the Yellow Line service a priority. Situations like this, many times, degrade into placement of blame and spiral down into the abyss of legal actions. The CTA, the District, and their partners decided to take the high road and have operated in the direct interest of the public to move forward together. District staff remained committed to the schedule and worked endlessly with our contractor and the CTA to ensure a safe and successful reopening.

The District has continued its environmental leadership focus. The District’s focus includes continued work on biological phosphorus removal at four water reclamation plants: Stickney, Calumet, O’Brien, and Kirie. The District will begin construction on several components of this effort in 2016. These efforts will include improved aeration controls in the secondary process areas of these plants. The algae process for nutrient removal and harvest at the O’Brien WRP was placed in service in 2015 and will be studied for effectiveness in 2016. The District had a successful first year in efforts to implement agricultural initiatives to establish nutrient controls and improve Illinois waterways. The District will continue this work in 2016 by remaining engaged in the statewide nutrient discussions being hosted by the Illinois Environmental Protection Agency (IEPA). We will also continue to implement our research and demonstration projects at the Fulton County site. 2015 proved a successful year in testing a new method of planting cover crops. These efforts should show a marked return on investment in controlling nutrient runoff while improving crop production. The Egan WRP started the pilot project to evaluate the ANITA™-Mox process in 2015, and this year it will be optimized. This process is a critical component in reaching our 2023 energy neutrality goal. Digester capacity utilization hit some learning curves in 2015, resulting in a better focus of the market and steps needed to implement a successful project. The lessons learned will result in well-defined construction projects beginning in 2016. This project has the potential to lower greenhouse gas emissions by 110,000 metric tons per year and deliver a significant return on investment for our taxpayers. The District remains engaged in the discussion concerning invasive species transfer between the Great Lakes and the Mississippi River Basin. The District remains committed to providing leadership to the region concerning waterway issues and discovering new ways to improve our natural environment.

In 2014, the Illinois General Assembly passed important legislation affecting the District. Another important piece of legislation, brought forward by the IEPA, was signed into law. The first legislation dealt with stormwater issues. The second legislation allows the District to focus on resource recovery. These two bills, signed by the Governor in June and July of 2014, will provide the District with the flexibility to advance its mission into the future. The IEPA bill opens up the State Revolving Fund (SRF) to multiple uses including stormwater projects.

Cook County continues to experience historic rain patterns. These rains are intense, short bursts that overwhelm community systems. ***Flooding is the number one issue the District will face in the next five years.*** The stormwater bill allows the District to utilize three new tools. The first tool provides the District with the ability to help communities with local stormwater issues. The focus on flooding issues at a local level will help the District protect the communities we serve with desperately needed projects. The second tool allows the District to purchase flood-prone properties where no other solution exists. The third tool gives the District the ability to issue bonds for stormwater projects. Since the District does not own stormwater project property, this will allow the District to do more while slowing down tax increases. With these tools, we can make significant improvements in our stormwater utility and help us build a resilient Chicagoland.

After the stormwater bill was signed, our Engineering and Law Departments moved quickly. A year prior to the signing, the Engineering Department canvassed communities throughout Cook County, collecting a list of local flooding issues. The team also identified possible buyout areas. Using Phase I and Phase II project lists, the team was ready to mobilize when the bill was signed into law. The Law Department immediately presented changes in Board policy needed to enact the local policy. In addition, the Law and Engineering Departments drafted a buyout policy that the Board adopted. There are over 72 projects moving forward that span immediate construction, preliminary design, and design stages. Partnerships are growing with communities throughout the county as communities and government agencies are banding together to address the serious issues of



An aerial view of the Heritage Park Flood Control Facility, which was facilitated through an intergovernmental agreement between the District, the Wheeling Park District, and the Village of Wheeling.

flooding. Thousands of homes received protection in 2015 due to the completion of key stormwater projects, and thousands more will receive protection in 2016.

The resource recovery bill gives the District the ability to resell resources recovered in the treatment process. This important legislation will allow the District to move forward in recovering water, phosphorus, energy, and biosolids. These resources have the ability to provide a revenue stream, enhance the environment, and create value for the District. The revenue streams derived from these resources can accelerate projects needed to reduce flooding in Cook County. Although the District is focused on the four resources mentioned, the future will uncover additional value that can be recovered from the water treatment process. The District will continue to focus on adding value to the community we serve. Incorporating resource recovery allows the District to reduce greenhouse gases, develop a more sustainable society, and utilize resources that would otherwise be wasted. An exciting new process is being developed at the District that will allow for a significant harvesting of valuable algae. This process has the potential to transform the industry as we stay focused on our vision of “Recovering Resources, Transforming Water.”

In 2015, the IEPA worked with the District to pass legislation in Illinois that would recognize the federal “Class A” designation of biosolids. This designation will open up new markets for this valuable soil enhancement product and enable the District to reduce operating costs significantly. The District has been working hard on improving this product through the blending of wood chips and other organics. This blend has resulted in reuse of 44,000 cubic yards of wood chips provided by the City of Chicago. These organics were being hauled to landfills prior to this arrangement. Therefore, not only does this produce a better soil enhancement product, but it removes significant vehicle traffic from our roadways, reducing our carbon footprint.

The 2016 Strategic Business Plan is the second year of the plan adopting the following vision statement: “Recovering Resources, Transforming Water.” This statement contains two ideas. The first is straightforward: recover resources for reuse in the public marketplace. The second contains the idea of sustainability and resiliency needed within our fences and the communities we serve. The District is taking on the challenge of providing the leadership in Cook County to influence the changes needed to combat the new weather patterns rolling across our region.

This Strategic Business Plan has six major goals, each with identified strategies to accomplish and measure progress. These goals represent the major focus areas for staff as we seek to move forward with the vision of “Recovering Resources, Transforming Water.”

Goal number one is “Add Value.” Every employee at the District will look for opportunities to add value. There are three main areas of focus within this goal: customer service opportunities, real estate, and service levels between departments. The idea behind this goal is to advance the understanding of results versus task orientation. Every employee within the District should understand the end goal of the activity and perform the job with that result in mind. Instead of merely performing tasks, the organization should understand the reason behind the activity and strive for the target.

Goal number two is “Excellence.” Nothing of consequence is accomplished without enthusiasm. This simple statement captures the idea behind this goal. Everything must work reliably. Our finances should be managed in an excellent manner, ensuring value for every dollar spent. Our processes should be optimized within our plants to ensure resources are not wasted. We should have a sense of urgency in the delivery of services to our constituents. Every employee should understand their value and role within the organization.

Goal number three is “Resource Recovery.” This goal will focus on four resources – water, phosphorus, energy, and biosolids. The District has a potential revenue stream of \$70 million annually through resource recovery. Resource recovery projects will have a significant environmental impact as well. This goal met two significant milestones. First, there was a change in biosolids classification legislation. Second, the District started the largest phosphorus recovery facility in the world in 2015. In 2016, we are looking to maximize the production from this facility. We will also construct a water reuse facility at the Stickney WRP and plan to move forward with our partner on reusing water in the Calumet region. Biosolids reuse should take a major step forward this year as we look for ways to bring this product to market. Now that we have gained focus for our food-to-energy project, we should see construction begin and perhaps bring the new process online at the Calumet WRP.

Goal number four is “Develop Employees,” the one carryover from the 2011 plan. The value of this goal is



Construction of the phosphorus recovery facility at the Stickney Water Reclamation Plant.

measured through personal contribution and growth. The name describes the goal’s intention. Every employee at the District should be valued. As such, the focus to invest in the personal growth of each employee remains a critical component of the 2016 plan.

Goal number five is “Leading Partnerships.” We recognize the importance of active involvement in the world around us. The District is a leader in water and resource recovery management. We need to strategically lead in our communities, state, and nation. Having the top staff in the country does not come without responsibility. The District recognizes this responsibility and is positioned to take leadership roles within the community we serve.

Goal number six is “Technology.” The District will embrace a new era of technology that delivers reliable and useful information. This initiative recognizes the importance of useful technological tools that are needed to assist the District in all of our efforts. Utilizing information to be transparent and to provide guidance to the organization is critical to our future success.

We hope you will take the time to review the 2016 Strategic Business Plan in full. This is a brief summary of our aspirations for the next five years. The challenges are many. Our role is clear. We are committed as an agency to continue providing the excellent service expected of the District.

**Financial Summary**

The 2016 Five-Year Financial Plan was developed to maintain budgetary fund balances at policy levels using the Strategic Business Plan as a guideline to establish priorities. The operation, maintenance, and investment in the District’s infrastructure, and other essential services will continue to receive primary focus, while some discretionary activities and non-essential services will be reduced. The District has been aggressive over the past year in addressing some of the primary drivers of the budget, including energy costs, personnel and health care costs, and pension obligations.

These recommendations continue our conservative fiscal management and include the policies, objectives, and resources to allow the District to remain true to our core mission of protecting our water environment and the health of the residents of Cook County.

The District’s appropriation and tax levy for the 2016 Final Budget, compared to the 2015 Budget as Adjusted is:

	<u>2016</u>	<u>2015 (Adjusted)</u>	<u>Increase / (Decrease)</u>	<u>Percent Change</u>
Total Tax Levy	\$ 577,833,062	\$ 559,329,072	\$ 18,503,990	3.3
Aggregate Levy	313,670,500	307,400,000	6,270,500	2.0
Appropriation	1,244,135,730	1,203,447,239	40,688,491	3.4

The aggregate levy is statutorily limited to an annual increase of five percent or the Consumer Price Index (CPI), whichever is lower. The increase in the 2016 aggregate levy is equal to the estimated CPI plus new property for 2015.

Respectfully submitted,



Mariyana T. Spyropoulos  
President of the Board of Commissioners



Kari K. Steele  
Chairman, Committee on Budget and Employment

# STRATEGIC BUSINESS PLAN

## INTRODUCTION

### Recovering Resources, Transforming Water

During the 2015 Budget cycle, the Executive Team reviewed the prior strategic plan and determined that the goals and strategies had been significantly advanced. The vision to “Improve Our Environment” in the areas of Finance, Employee, Public and Natural Environments has served the District well over the past four years. Although it remains important to keep our eyes focused on these areas to ensure that we continue to maintain excellence, the team felt it was time to set new goals for the next five years.

The District held a public meeting to kick off the budget season and to present to the Board of Commissioners (Board) the draft Strategic Business Plan (SBP) that was developed for 2015. The Executive Team performed a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) and from this information formed goals and strategies for the new plan. At the public meeting, staff received input from the Board and the public and incorporated these comments into the plan. It was clear that the Board wants to make certain that we maintain the improvements made in the four areas of focus in the past several years.

The District has many opportunities to serve in the Cook County community. During the past SBP, the District passed a Watershed Management Ordinance and a new infiltration and inflow program. These programs are aimed at improving flood controls throughout the county and maintaining important infrastructure. The District also received additional authority from the Illinois General Assembly authorizing local support to flood mitigation projects and the purchase of flood prone properties – two important new tools that can be used in our work to protect the community from the impacts of severe storms.

In 2015, we will see the Thornton Reservoir come online. During this SBP cycle, the first phase of McCook Reservoir will also be placed in service. This dynamic duo will provide over 10 billion gallons of flood protection to residents and water quality improvements to the Chicago Area Waterway System (CAWS).

The District received authority to recover resources from the treatment process and resell these assets to help offset treatment costs. Becoming a sustainable partner in the region by recovering resources, lowering carbon emissions, creating new revenue streams and promoting resiliency are all part of the goals set for the near future. The District has a great soil enhancer product, nutrients, clean water and energy that can all be used to encourage economic job creation and add benefit to our communities. The District has real estate resources that can also be used to add value to the communities we serve.

Decisions were made to keep the Mission Statement and Values that have been adopted in the past.

## VALUES

### Excellence

*We believe excellence is a never-ending journey to exceed the expectations placed upon us as individuals and as an organization.*

Individual excellence is exhibited by performing one’s responsibilities to the best of his or her ability. We promote employee development and encourage everyone to perform at their best. Organizational excellence is obtained by continuous improvement to existing processes. Excellence at both levels is achieved through proactive, resourceful, reliable, and prudent execution of processes and responsibilities. Striving for excellence will result in continuous improvements in the way we operate and the quality of the environment.

### Innovation

*We seek optimal solutions to provide the best services and products available.*

Innovation increases efficiency and performance by being adaptable and strategic in the face of change. Meaningful, productive change involves looking at challenges and opportunities from new perspectives and then developing and implementing new ideas to address the challenge. We are open to implementing new concepts and sharing what we have learned from our diverse experiences and, in the process, evolving. Embracing growth within the District’s mission, we continue to be a model of wastewater treatment and stewardship of the water environment.

### Respect

*We create an atmosphere of open communication that rewards commitment and performance and is responsive to the needs of our employees and our communities.*



Respect is measured by how we treat each other, by the contributions that flow from our diversity, by the productivity of our relationships, and by a job well done, no matter what the job. To meet our goals, we depend on the integrity, knowledge, skill, diversity, and teamwork of our employees. Creating a respectful, courteous, and fair workplace will lead to improved communication, heightened levels of workplace participation, and innovation due to diverse thinking.

## **Safety**

*We are dedicated to safeguarding our greatest assets – our employees – together with the environment and our communities.*

There is always time to do it safely. We strive to provide a safe environment for our employees and our communities. We continually seek new ways to improve safety performance by routinely training employees in safe operating practices and regulatory responsibilities. We incorporate safety in all planning, operations, and activities. Continuously improving our safety practices will improve the well-being of our employees and the District as a whole.

## **Accountability**

*We are dedicated to fulfilling our responsibility by being accountable to our taxpayers, coworkers, and the environment in a prudent fiscal manner.*

As public service employees, we bring a high degree of integrity, professionalism, quality and caring to our work. We have a commitment to our communities to provide service with the highest level of integrity, transparency, and accountability. Acting with accountability will make us a stronger organization by earning the respect, trust, and confidence of our coworkers and the communities we serve.

## **MISSION**

The District will protect the health and safety of the public in its service area, protect the quality of the water supply source (Lake Michigan), improve the quality of water in watercourses in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area. The District's service area is 883.4 square miles of Cook County, Illinois. The District is committed to achieving the highest standards of excellence in fulfilling its mission.

## **VISION**

The vision statement "Recovering Resources, Transforming Water" captures the changing landscape taking place in the water industry. The District is looking to add value in traditional and non-traditional ways. This vision has produced six main goals for the organization. These goals are listed below with a descriptive statement that captures the thinking behind each goal.

**Add Value:** Every employee at the District will look for opportunities to add value.

**Excellence:** Nothing of consequence is accomplished without enthusiasm.

**Resource Recovery:** The District will pursue the beneficial recovery of natural resources.

**Develop Employees:** Value is measured through personal contribution and growth.

**Leading Partnerships:** We recognize the importance of active involvement in the world around us.

**Technology:** The District will embrace a new era of technology that delivers reliable and useful information.

## **GOALS AND STRATEGIES**

The strategic plan outlines six major goals aimed at achieving the vision of the District. Under each goal, strategies were developed to accomplish the goal. Each strategy will have performance measures. The measures will be used to ensure efforts are achieving the desired results. During the strategic planning review, the measures will be used to make adjustments to the plan as needed so the District can remain focused on continual improvement.

### **GOAL 1 – Add Value**

*Every employee at the District will look for opportunities to add value.* The District will be focused on adding value at every level in the organization. Each employee is challenged to add value in every interaction either internal or external to the agency. The following specific strategies have been developed to meet this goal:

**Customer Service:** Every employee's action should mindfully fulfill the customer's needs.

- Issue permits in less than 30 days;
- Transition from an enforcement perspective to informed compliance;
- Develop and implement effective flood mitigation programs for our customers;
- Structure a multi-dimensional, culture changing strategy around Green Infrastructure implementation;
- Develop and implement targeted odor control strategies.

**Real Estate:** Explore opportunities for community partnerships aimed at reducing waste, our carbon footprint, or revitalizing the environment.

- Utilize ash bore wood chips in biosolid compost blend;
- Work with communities to revitalize the urban forest using property adjacent to plants;
- Utilize land around Hanover Park for tree replenishment;
- Utilize Fulton County property for nutrient control technology.

**Service Levels:** The District will establish service level agreements that meet the needs and expectations of the internal customer.

- Establish contract turn-around timeframe agreements for all contract classes;
- Develop planning schedules and adhere to project time frames;
- Streamline and simplify the budget process;
- Develop and adhere to interdepartmental service agreements.

## **GOAL 2 – Excellence**

*Nothing of consequence is accomplished without enthusiasm.* Excellence should be our goal in everything we do from meeting compliance objectives to delivering projects on time. In order to achieve excellence, the organization should focus on results. It is the measure of the result that determines the degree of success.

**Finances:** Ensure the responsible use of resources in the delivery of services.

- Continue the prioritization of projects to ensure best use of current spending;
- Provide base budget targets and assure approvals above base are tied to strategic initiatives;
- Manage resources to ensure financial stability targets are met.

**Process Evaluation:** Develop processes that are results oriented.

- Optimize energy intensive processes;
- Optimize chemical intensive processes;
- Optimize work distribution processes and workflow.

**Sense of Urgency:** Establish a sense of urgency in delivering community services.

- Deliver and implement flood relief plan for Cook County;
- Establish excellence in maintenance and operations;
- Expedite capital improvement program projects in design, bid, contract award, and construction schedules;
- Understand the immediate needs of our customers.

**Performance Management:** The District will develop performance measures that reflect the excellent contributions of staff.

- Develop automatic measures that indicate performance to our public;
- Develop internal performance measures that encourage improvement.

## **GOAL 3 – Resource Recovery**

*The District will pursue the recovery of natural resources.* The District understands the obligation of every organization to implement sustainable and resilient practices. The District also understands the importance of a sustainable economy and financial base. Therefore, the District will seek to recover resources in a way that has a return on investment and can produce private sector jobs in our region.

**Water:** Pursue reuse applications for the high quality water produced at our plants and for the capture and reuse of stormwater.

- Explore reuse opportunities in the Calumet and Stickney industrial corridors;
- Evaluate park and golf course water reuse;
- Evaluate cistern capture and reuse opportunities in Cook County.

**Phosphorus:** Recover phosphorus in a slow release fertilizer for environmentally-friendly reuse.

- Implement recovery process at the Stickney Water Reclamation Plant (WRP) by 2015;
- Implement recovery process at the Calumet WRP by 2018;
- Implement recovery process at Egan WRP by 2018.

**Energy:** Achieve energy neutrality by 2023.

- Implement food-to-energy and double gas production at the Calumet WRP;
- Maximize use of digester capacity at the Stickney WRP;
- Market electrical capacity at Lockport to maximize return on investment;
- Optimize aeration processes and reduce energy consumption by 25 percent;
- Explore algae nutrient reduction processes as an additional energy resource.

**Biosolids:** Pursue the sale of biosolids to the marketplace for repackaging.

- Work with IEPA to adopt federal standards concerning exceptional quality biosolids;
- Successfully bid the sale of biosolids to private partners.

#### **GOAL 4 – Develop Employees**

*Value is measured through personal contribution and growth.* Employees at the District are the best in the industry. In order to maintain a leadership role in wastewater, the District needs to develop future leadership and pass down competencies. The District will invest in its future by investing in its employees.

- Develop and implement leadership initiatives that support succession planning;
- Develop and implement competency-based individual development plans;
- Develop a culture that recognizes the value of every employee.

#### **GOAL 5 – Leading Partnerships**

*We recognize the importance of active involvement in the world around us.*

**Relationships:** Develop strategic relationships with constituents through active involvement in a variety of venues and organizations on a local, state and national level.

- Inventory and align professional memberships and participation;
- Participate in active leadership roles in a variety of organizations;
- Utilize our enhanced awareness from strategic relationships to make informed decisions.

**Leadership:** Promote the District as one of the top leaders in the water industry.

- Provide active leadership in the invasive species discussion;
- Provide active leadership in water issues in Cook County;
- Provide active leadership in state water issues;
- Provide active leadership in federal water issues.

#### **GOAL 6 – Technology**

*The District will embrace a new era of technology that delivers reliable and useful information.* We live in an age of information. Information allows for good decision making and navigation toward success. The District has always collected volumes of data. This initiative to focus on accessing that data and converting it to useful information will help the District navigate a successful future.

- Simplify SAP to increase utilization, maximize effectiveness and bring up-to-date;
- Provide reliable system services to every user;
- Utilize current capability and develop a shared IT vision;
- Ensure consistent data input from all users to produce useful information;
- Enhance use of current technology platforms.

### **SUMMARY**

The District's Strategic Business Plan will be used throughout the year to measure results and communicate progress to the Board and staff. This plan will be reviewed and updated on an annual basis. It will serve as a guiding document until replaced by a new strategic plan.

## *Budget Message / Highlights*

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*The following pages summarize the major policies, ongoing programs, and initiatives that directly support implementation of the Strategic Business Plan and the development of the District's 2016 annual budget.*

### **Goal 1 – Add Value**

**To maximize our real estate portfolio:** Over the years, the District has acquired substantial real property holdings to carry out its corporate responsibilities. It currently owns approximately 24,000 acres of land located in Cook, Will, DuPage, and Fulton Counties in Illinois and controls approximately 76 miles of navigable waterways, which include the Cal-Sag Channel, Chicago Sanitary and Ship Canal (Main Channel), and the North Shore Channel. Additionally, the District has acquired rights-of-way and easements for the construction and installation of its facilities and structures upon, under, and through miles of real estate owned by other parties.

The District's land holdings are necessary to carry out its lawfully authorized corporate purpose of wastewater collection, treatment, disposal, and ancillary activities. The additional corporate responsibility of stormwater management conferred by the Illinois General Assembly in 2004 has increased the District's activities and may result in an increase of its land holdings in Cook County to facilitate the construction of projects.

The District's land holdings are generally categorized as corporate or non-corporate use properties. Its corporate use properties are those land holdings which are used or will soon be used for the District's corporate purposes. Non-corporate use properties are those land holdings, which are not immediately required for corporate purposes. The non-corporate use properties may be required for future use or it is in the District's best interest strategically to maintain ownership. An example of the latter is land along the waterway corridors that may be needed for future water quality improvement or stormwater management projects.

Currently, non-corporate land holdings include approximately 4,800 acres in Cook County, 250 acres in DuPage County, and 750 acres in Will County. These non-corporate use properties are for the most part managed by the Real Estate/General Administration Division of the District's Law Department. These properties may be leased to other parties until required for corporate purposes in accordance with requirements set forth in state law (70 ILCS 2605/8-8c). State law provides, among other things, that a District lease to a private party/entity may be awarded only upon open and public competitive bidding to the highest responsible bidder. Additionally, state law provides that the District may issue permits or grant easements for others to use District land, provided such use would not interfere with the District's corporate purposes. Management of District land currently includes 176 leases, 369 easements, and 80 permits.

The District continues to pursue a balanced and mixed-use approach with respect to administering its non-corporate use properties. This balanced program seeks to maximize rental income in those instances where District land is made available for private use, while setting aside substantial holdings for public recreational use by lease to other governmental entities (park districts, municipalities, and forest preserve districts). The leases to other governmental entities are for a nominal fee and typically for the express purpose of enhancing public access to, and the development of parks, hiking and bicycle trails, and passive recreational use along the waterways. The District's balanced approach has resulted in approximately 75 percent of District leased lands being leased to governmental entities for public recreational or other public use. The other approximately 25 percent of District leased lands are leased to private parties for industrial and business purposes from which the District expects to derive approximately \$17.5 million per year in rental and fee income.

Regardless of whether its land is leased to a public or private entity, the District has remained committed to improving the aesthetics, public access, and public recreational opportunities along its waterways. A District lease, whether issued to a private party or public entity, requires that the tenant commit to being a good steward of the land. Included among those commitments are compliance with the District's Waterway Strategy Resolution, which represents the District's formal commitment to the creation and maintenance of an attractive linear scenic corridor the entire length of the inland waterways, which will be accessible to the public, where feasible. Toward that end, the resolution imposes certain requirements for new leases located along the waterways, including, but not limited to, the 60-foot waterway edge setback or scenic corridor; construction and maintenance of a landscaped visual screen and trail within the setback. Additionally, in March 2005, the Board adopted a resolution establishing the policy that any land leased along the North Shore located north of Devon Avenue, up to and including Wilmette Harbor channel, shall be dedicated exclusively to open green space and recreational use.

**To improve the water quality of area waterways:** The District will cost-effectively collect and treat approximately 486.3 billion gallons of wastewater from businesses and homes and captured stormwater runoff from its service area. Our performance for treating this wastewater approaches 100 percent compliance with all applicable effluent standards at all WRPs.

## Budget Message / Highlights

The District also employs long-term capital planning to provide for adequate facilities to meet this operational goal into the future. The District has completed and operates the tunnel portion of the Tunnel and Reservoir Plan (TARP), comprising 109.4 miles of tunnels and dewatering pumping stations. The tunnels capture a majority of the area’s combined sewer overflow pollution load. The District operates two of three TARP reservoirs: the Majewski Reservoir has been in operation since 1998, serving the northwest suburban area; the Thornton Reservoir was placed in operation in 2015 and serves the south side of Chicago and 13 of the south suburbs; and the McCook Reservoir is under construction and will service the remainder of the 375 square-mile combined sewer area in the District’s 883.4 square-mile service area.

On June 7, 2011, the Board adopted a policy to disinfect the effluent from the O’Brien and Calumet WRPs. To expedite the installation of disinfection facilities, an interdepartmental task force was convened to update the disinfection study document, Technical Memorandum TM 1-WQ (CTE/AECOM, Aug. 2005). TM 1-WQ indicated that ultraviolet disinfection was the best option for the District. The task force reviewed the findings of the study, considered recent advances with various disinfection technologies, and updated cost estimates. The task force selected chlorination/de-chlorination for the Calumet WRP and ultraviolet technology for the O’Brien WRP. The task force also developed design criteria, block diagrams, and space reservations to inform the final design of the disinfection facilities. The construction of these facilities began in 2013 and was completed in 2015.

**To protect the health and safety of our residents:** The District complies with environmental regulations governing discharges to air, land, and water and assists first-responders in handling threatening incidents and hazardous waste spills.

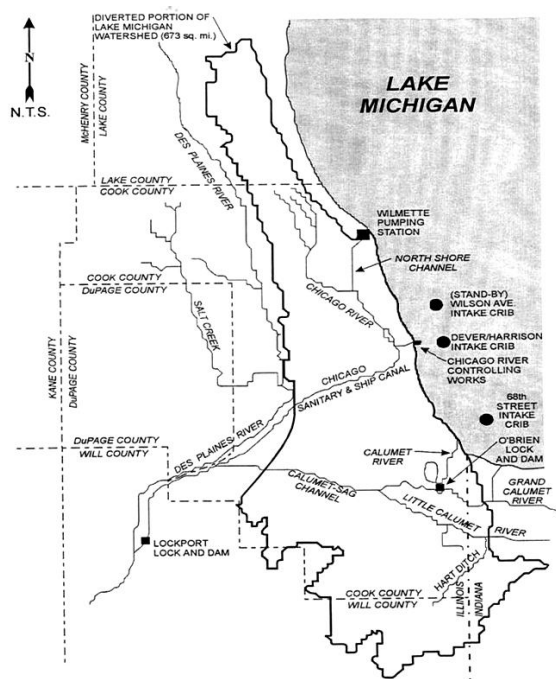
**To protect the quality of Lake Michigan water:** The District has successfully eliminated all sewage discharges to Lake Michigan and strives to minimize discharges to the lake caused by excessive rainfall runoff. To continue to protect Lake Michigan, our region’s fresh drinking water supply, and protect the public health, the District will continue to monitor potential sources of discharges that may threaten Lake Michigan and will minimize combined sewer discharges to the lake through careful operation of the TARP project and the waterway system.

**To provide stormwater management for Cook County:** The mission of the Stormwater Management Fund is to protect the safety of Cook County’s residents and minimize flood damage by coordinating, planning, implementing, financing, and operating regional stormwater management projects and to develop and enforce reasonable rules with respect to watershed development. The framework of the District’s countywide stormwater management program is presented in the Cook County Stormwater Management Plan.

In 2011, the District completed detailed watershed plans (DWPs) identifying flooding problems within each of the six major watersheds within its service area. As a part of the Capital

Improvement Program, the District began preliminary and final engineering for projects identified within the DWPs and approved by the Board. Ordinance O13-002, An Ordinance to Adopt the Watershed Management Ordinance with an effective date of May 1, 2014, was passed by the Board on October 3, 2013.

**To protect aquatic life:** The District operates in-stream and sidestream elevated pool aeration (SEPA) stations to maintain sufficient dissolved oxygen in key sections of the Chicago Area Waterway System (CAWS) to protect aquatic life. The District conducts intensive chemical and biological monitoring of all WRPs receiving streams and has developed, through collaborators in academia, both a one-dimensional and a three-dimensional water quality model of portions of the CAWS to assess the operation of the waterway to continually improve water quality and protect aquatic life. In 2015, the District continued to implement optimization strategies for Lake Michigan diversion to utilize this resource most efficiently, while improving water quality in the CAWS. The state rulemaking regarding Aquatic Life Uses on the CAWS continued throughout 2014, and associated water quality standards were adopted in 2015.



Drainage from the Chicago watershed was redirected to the Des Plaines River and away from Lake Michigan in 1900, thereby protecting the drinking water supply.

## Budget Message / Highlights

**To provide flood protection to residents under the Tunnel and Reservoir Plan:** TARP consists of 109.4 miles of deep rock tunnels designed to capture up to 2.3 billion gallons of the first flush of sewage contaminated stormwater from combined sewers that had previously flowed into the area waterways. The final leg of the TARP tunnels began operation in March 2006. In addition, the second of three planned storage reservoirs was made operational in 2015, providing an additional 7.9 billion gallons of capacity. The final reservoir, McCook Reservoir, will add another 10 billion gallons of capacity when completed. See page 422 for the TARP system project status map.

**Thornton Composite and Transitional Reservoirs:** In 1998, the District executed an agreement for land rights to the quarry property required for the Thornton Composite and Transitional Reservoirs. The agreement outlined the actions to be taken by both parties (the quarry operator and the District) for mining of the Expanded North Lobe, use of the Lower West Lobe for the Transitional Reservoir, construction of the Composite Reservoir, decommissioning of the Transitional Reservoir, and the schedule for transfer of various properties. The construction of the Transitional Reservoir was completed in 2003.

In September 2003, the District executed a Project Cooperation Agreement with the U.S. Army Corps of Engineers (Corps) for construction of the Thornton Composite Reservoir. Due to federal budget constraints, it was apparent that the Corps would not be able to provide sufficient and timely funding for this project. In light of contractually specified timetables with the property owner, requirements of our National Pollutant Discharge Elimination System (NPDES) permits, and proven flood control benefits, the District assumed responsibility for design and construction. Mining of the rough hole required for construction of the Thornton Composite Reservoir was completed in 2013, and construction of the reservoir was completed in 2015.

**McCook Reservoir:** The Corps finalized their Special Reevaluations Report on the McCook Chicago Underflow Plan (CUP) Reservoir in July 1998. This report recommended a 7.0 billion-gallon reservoir to be constructed in two stages at the District's Lawndale Avenue Solids Management Area (LASMA) site. Stages 1 and 2 are planned to be 75 percent funded by the Corps and 25 percent funded by the District under Contract 73-161-2H. The expansion of Stage 2 by 3.0 billion gallons is currently being pursued, with the District funding any incremental costs. The District executed a Project Cooperation Agreement with the Corps in May 1999. One of the major challenges facing the District is uncertainty in the availability of federal appropriations from year-to-year to cover the 75 percent Corps funding.

The McCook TARP Reservoir is being constructed in two stages on District property between the Des Plaines River and the Sanitary and Ship Canal. In 2015, full production mining of the McCook Reservoir continued by Vulcan Construction Materials, LP, under an agreement with the District. Approximately 32 percent of the rock from the reservoir has been removed as of June 30, 2015. In 2015, the Corps awarded two additional contracts and is currently constructing the Stage 2 Slope Stabilization, the Main Tunnel, the Stage 2 Rock Wall Stabilization and the Final Reservoir Preparation contracts.



Facing Southwest in Bedford Park, the future McCook Reservoir will service 3.1 million people in 37 communities providing a total volume of ten billion gallons. The reservoir is planned to be completed in two stages. The first stage (shown in the foreground) will provide 3.5 billion gallons of storage and is expected to be completed in 2017. The second stage (shown in the background) will provide 6.5 billion gallons of storage and is expected to be completed in 2029. The McCook Reservoir is projected to bring \$90 million/year in flood reduction benefits to its residents.

**To control commercial and industrial waste discharges to the sewers and waterways:** The District effectively eliminates offensive or dangerous discharges into the public sewer system through the administration of the Sewage and Waste Control Ordinance that specifies limits on the quantity and quality of wastes discharged by industrial users as required by United States Environmental Protection Agency (USEPA) Regulations. The discharges, unless properly controlled and treated, could interfere with our treatment processes and adversely impact waterways, and could accumulate in biosolids rendering them unsuitable for reuse.

**To maintain our facilities and infrastructure to ensure that they remain an asset to the residents of the District:** The District owns and operates seven modern and effective WRPs, 560 miles of intercepting sewers and force mains, 109.4 miles of TARP tunnels, 22 pumping stations, 35 flood control reservoirs, and two TARP reservoirs. Through preventive maintenance management, modernization, rehabilitation, and planned replacement, the District will ensure the long-term reliability and cost-effectiveness of operations. Facility Improvement Master Plans covering the next 32 years have been prepared for the Calumet, O'Brien, and Stickney WRPs. At the Lemont WRP, construction of a wet weather storage reservoir and treatment facility to treat combined sewer overflows was completed in 2015.

## *Budget Message / Highlights*

### Goal 2 – Excellence

**To provide sewage collection and treatment, and maintain award-winning plants:** In 2016, the District expects to collect and treat approximately 486.3 billion gallons of wastewater at our seven WRPs. These services will be performed in compliance with discharge permits issued by the USEPA, which regulates the quality of our effluent as it leaves our treatment plants. Our high level of compliance emphasizes our excellent performance. This is reflected in 99.98 percent overall compliance with the NPDES requirements in 2014. This compliance resulted in two Gold Awards and five Platinum Awards from the National Association of Clean Water Agencies (NACWA). Operating performance in 2015 is expected to achieve higher performance levels.

The District is currently awaiting responses from the Illinois Environmental Protection Agency (IEPA) for the following renewal applications: Egan WRP Federally Enforceable State Operating Permit (FESOP), Calumet WRP FESOP, Kirie WRP FESOP, O'Brien WRP FESOP, Stickney WRP Title V permits, Egan WRP Solids Drying, Stickney WRP Solids Drying Areas, Calumet WRP East & West Solids Drying Areas, Stickney WRP Septage Disposal, Gloria Alitto Majewski (O'Hare CUP) Reservoir, Kirie WRP NPDES, Hanover Park WRP NPDES, Lemont WRP NPDES, Egan WRP NPDES, Lemont WRP NPDES, and General Stormwater NPDES.

#### Collection, Treatment, and Solids Utilization for the Maintenance & Operations Department

	<b>Budgeted 2016</b>	<b>Budgeted 2015</b>	<b>Actual 2014</b>	<b>% Change 2015-2016</b>
Total cost of collection (millions)	\$47.8	\$47.2	\$44.0	1.3%
Total cost of treatment (millions)	\$71.0	\$67.7	\$61.5	4.9%
Total cost of solids utilization (millions)	\$22.8	\$27.7	\$19.8	(17.7%)

#### Number of full time equivalent employees:

Collection	239	243	241	(1.6%)
Treatment	384	393	389	(2.3%)
Solids Utilization	45	50	49	(10.0%)

#### Design average flow/design maximum flow million gallons per day (MGD) level of treatment by plant:

Stickney WRP – Secondary	1,200/1,400	1,200/1,400	1,200/1,400
Calumet WRP – Secondary	354/430	354/430	354/430
O'Brien WRP – Secondary	333/450	333/450	333/450
Kirie WRP – Secondary	52/110	52/110	52/110
Egan WRP – Tertiary	30/50	30/50	30/50
Hanover Park WRP – Tertiary	12/22	12/22	12/22
Lemont WRP – Secondary	2.3/4	2.3/4	2.3/4

#### Outputs:

	<b>Budgeted 2016</b>	<b>Budgeted 2015</b>	<b>Actual 2014</b>	<b>% Change 2015-2016</b>
Amount of wastewater collected and treated by plant:				
Stickney WRP (million gallons)	265,000	250,000	265,708	6.0%
Calumet WRP (million gallons)	100,000	100,000	43,141	--
O'Brien WRP (million gallons)	89,000	89,000	84,263	--
Kirie WRP (million gallons)	15,558	15,558	10,689	--
Egan WRP (million gallons)	10,200	10,200	9,007	--
Hanover Park WRP (million gallons)	3,500	3,500	3,605	--
Fox River WRP (contract agreement)	2,000	2,000	1,942	--
Lemont WRP (million gallons)	1,000	1,000	875	--

*Budget Message / Highlights*

<b>Outputs:</b>	<b>Budgeted 2016</b>	<b>Budgeted 2015</b>	<b>Actual 2014</b>	<b>% Change 2015-2016</b>
Dry tons of biosolids utilized by area:				
North Service Area	1,000	1,000	498	--
Calumet Service Area	29,100	21,600	12,534	34.7%
Stickney Service Area	105,000	105,000	66,785	--
<b>Outcomes:</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Achievement of water reclamation plant pollution permit requirements by plant:				
Stickney WRP	99.4%	99.71%	100.00%	100.00%
Calumet WRP	100.00%	100.00%	100.00%	100.00%
O'Brien WRP	100.00%	100.00%	100.00%	100.00%
Kirie WRP	100.00%	100.00%	99.97%	100.00%
Egan WRP	100.00%	99.96%	99.78%	99.96%
Hanover Park WRP	100.00%	100.00%	100.00%	100.00%
Lemont WRP	100.00%	100.00%	100.00%	100.00%

**To fund Other Postemployment Benefits:** The District provides and subsidizes health care benefits for its retirees. On August 23, 2007, the General Assembly of the State of Illinois approved the amendment to the Metropolitan Water Reclamation District Act (70 ILCS 2605/9.6d), which authorized and set forth the requirements for the establishment of the District's Other Postemployment Benefits (OPEB) Trust for the purpose of providing for the funding and payment of health benefits for retired, disabled, or terminated employees of the District or for their dependents and beneficiaries.

In 2007, the District adopted an initial OPEB advance funding policy meant to (i) improve the District's financial position by reducing the amount of future employer contributions and (ii) serve to establish a reserve to help ensure the financial ability to provide healthcare coverage for District retirees and annuitants in the future. The funding policy was amended by the Board on October 2, 2014. The amended funding policy changed the target funding level from 50 percent to 100 percent; advanced funding period from 50 years to 12 years; and defined the advance funding amount of \$5 million to be contributed in each of the 12 years from 2015 through 2026. No further advance funding contributions are expected after 2026. Through December 31, 2015, \$117.4 million has been contributed by the District to the OPEB Trust Fund. The advance funding contribution for 2015 was \$5.0 million and the 2016 budgeted contribution is \$5.0 million. While authorized by statute, there is currently no legal requirement for the District to partially or fully fund the OPEB Trust Fund.

The accumulated unfunded OPEB obligation is \$139.5 million as of December 31, 2013, the date of the most recent actuarial valuation. The unfunded liability represents the amount by which the Accrued Liability exceeds the value of the plan assets that have been placed in a trust and dedicated to providing benefits to retirees and their beneficiaries. The policies adopted by the District are cautious by design, and will provide ample opportunity for adjustment. Future direction may also be changed significantly by national health care policies.

### **Goal 3 – Resource Recovery**

In 2015, the District awarded a Request for Expression of Interest for a developer to take up to 10 million gallons per day of treated effluent from the Calumet WRP and transport it to industrial and commercial users on Chicago's south side. By using reclaimed water instead of potable water, there is an environmental benefit as less water is removed from Lake Michigan, and less energy and chemicals are used to clean that equivalent volume of water to drinking water quality.

The District has adopted the ambitious goal of becoming energy neutral. A major activity to achieve this goal is maximizing the use and production of digester gas. The District has been negotiating with a firm selected through a Request for Proposal process to guarantee a long-term supply of organic waste material to boost digester gas production by 160 percent at the Calumet WRP. The contractor will also construct an organic waste receiving station. A second agreement will be negotiated with another contractor to design and build a facility to clean the digester gas to pipeline quality standards. The cleaned digester gas, biomethane, will be transferred in a new pipeline to a connection with a natural gas transmission main. The District is also in the process of negotiating a long-term off-take agreement with the contractor for purchase of the biomethane.



## *Budget Message / Highlights*

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In 2015, the District began research projects on two different technologies that use algae to recover nitrogen and phosphorus from wastewater. Algae can be harvested and used in various beneficial ways such as compost for fertilizer, feed for fish farms, industrial dyes, and bioplastics. If successful, these algae technologies would provide a more sustainable means to nutrient control than the traditional means of chemical addition, by creating usable products through recovered resources.

### **Goal 4 – Develop Employees**

**To improve recruiting, hiring, and development of a dedicated work force, including minorities and women:** The District’s female and minority work force rates are 27 and 40 percent, respectively, as of September 30, 2015. The rates are calculated based on published data from the 2010 census.

**To control staff growth and costs through effective management of District operations:** Productivity gains are achieved through investment in cost-effective technology and sound management principles. The District will continue to control full-time personnel consistent with the demands of safety, productivity, and new responsibilities, and utilize advances in technology following careful analysis of their efficiency and reliability.

**To maximize efficiency:** Beginning in 2011, the District implemented a reorganization plan which focused on eliminating layers within the organization and consolidating the number of job classifications. As part of this reorganization plan, operating departments were asked to review their individual structure. The goal was to gain flexibility in the utilization of staff and to increase the efficiency of operations throughout the District.

The District continues its policy of staff reductions only through attrition. For two decades, the staff size and composition has been managed through the use of our “crosshatch program.” A “#1” following a position title in the Budget indicates that the position will be dropped immediately upon becoming vacant. A “#2” after a position title signifies that when the position is vacated, the person filling the vacancy will receive the title in the parentheses. It can also indicate that while a grade level for a class title has been lowered, the incumbent in the position will be retained at the current grade level. This is indicated by a notation of the new grade level in parentheses following the title. A “#4” after a title signifies that while a class title has been assigned to the Technical, Administrative and Managerial (TAM) salary schedule, the incumbent in the position will be compensated under the previously assigned Professional and Managerial (PM) or General Service (GS) salary schedule. When the position is vacated, the person filling the vacancy by promotion or new appointment will be compensated under the TAM salary schedule.

A total of 1,976 positions are budgeted for 2016, a decrease of six budgeted positions from 2015. The District continues to budget to slow the growth of future salary appropriations to fit within restrictions on property taxes resulting from the Property Tax Extension Limitation Act.

Salary related expenditures are the largest item in our operating budget, comprising approximately 50 percent of the Corporate Fund appropriation. It is impossible to match future appropriation requirements with restricted growth in property tax revenue without making plans to change the way we work. Efforts have been made since 1995 to reengineer many labor intensive functions and reallocate staff, impacting all areas of District operations, including professional/managerial, clerical, operating, and building trade personnel.

### **Goal 5 – Leading Partnerships**

On January 9, 2014, the Board authorized the District to enter in an Intergovernmental Agreement with the Chicago Public Schools (CPS) to provide funding towards the construction of green infrastructure at four Chicago Public School campuses in 2014. The District and the City of Chicago Department of Water Management (DWM) are sharing the costs of the green infrastructure (GI) equally to \$500,000 per school, while CPS is responsible for all fees associated with recreational amenities. The projects at the four schools were completed in 2014 with ribbon cutting ceremonies held in October and November of 2014. Building off the successful partnership with CPS and DWM, the District will fund GI improvements at 30 more schools over the next five years. The projects are great vehicles to promote water conservation and GI, while helping to reduce localized flooding.

In 2015, the District joined other wastewater agencies and water organizations in forming the Value of Water Coalition. This partnership seeks to educate the public and legislatures on the value of water in our lives and to increase funding for water and infrastructure projects.

### **Goal 6 – Technology**

**To implement technology that positively impacts the environment:** In concert with the District’s goal to be environmentally responsible, the Board passed a resolution in 2011 to implement disinfection at the Calumet and O’Brien WRPs. In August

## *Budget Message / Highlights*

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2013, a \$30.0 million contract was awarded for the construction of a chlorination/de-chlorination system at the Calumet WRP, and a \$60.0 million contract was awarded for an ultraviolet light disinfection system at the O'Brien WRP. Construction was completed during 2015.

A construction contract for a new wet weather treatment facility to treat combined sewer overflows at the Lemont WRP was awarded in 2013. The facility will provide primary treatment and disinfection to flows in excess of the dry-weather flow volume plus first flush, from the combined sewer area of the Lemont Basin. This contract will include a new wet-weather storage facility to serve the existing treatment plant.

In 2015, Contract 13-409-3P Nitrogen Removal in Centrate, Egan WRP, was awarded for the partial nitrification-deammonification of centrate at the Egan WRP using the ANITA™ Mox moving bed biofilm process. The Egan WRP currently dewateres the biosolids from both the Egan and Kirie WRPs which produces a centrate stream with high ammonia concentrations. The centrate is then pumped to a gravity sewer, comingled with combined sewage, and then treated at the O'Brien WRP in Skokie, 20 miles away. The transport of the centrate steam creates problems such as potent odors and heavy corrosion in the District's collection system and is a significant ammonia load to the O'Brien WRP. The ANITA™ Mox system will allow this centrate stream to be treated at the Egan WRP and greatly reduce costs.

The District is evaluating opportunities to enter into an agreement with one or more firms to supply liquid organic waste material to the Calumet WRP, where it will be placed in existing anaerobic digesters to produce biogas. The organic waste material will increase biogas production in the Calumet WRP's anaerobic digesters by 30 percent. This biogas will be cleaned and transmitted to the natural gas pipeline, where a natural gas supplier will purchase the biogas from the District, as well as compensate the District for the environmental attributes of the biogas as a renewable fuel under the USEPA's Renewable Fuel Standards program. This gas supplier will compress the biogas into Compressed Natural Gas (CNG) vehicle fuel, which is a cleaner burning vehicle fuel versus gasoline, thus reducing greenhouse gas emissions from vehicles by 4,500 metric tons per year of carbon dioxide equivalent.

In late 2015, operation of a new facility at the Stickney WRP began to recover phosphorus from the plant's liquid waste stream. The phosphorus will be turned into a fertilizer pellet which will be sold for agriculture application. By taking this approach, the District is recovering a non-renewable resource that is essential for life and placing it back into the food cycle, rather than letting it be diluted and lost to the water environment.

To further recover phosphorus from the liquid waste stream, District staff have implemented a process called Enhanced Biological Phosphorus Removal at the Stickney WRP, using only existing infrastructure. This process not only recovers phosphorus from the wastewater, placing it into the biosolids, where it is returned to the land as fertilizer, but it also reduces energy demand by requiring less compressed air than the conventional process.

A pilot unit of a brand new, innovative technology called a membrane aerated biofilm reactor (MABR) was installed at the O'Brien WRP in 2015. Laboratory scale testing has demonstrated that this technology has the ability to perform organic carbon removal and nitrification in a smaller footprint and at 40 percent less energy than conventional activated sludge. Upon completion of a one-year test at the O'Brien WRP, District staff will test the MABR technology at full-scale at the Hanover Park WRP in a side-by-side comparison with conventional activated sludge. Ultimately, MABR technology could be utilized full scale at the O'Brien WRP to enhance the process efficiently during periods of stress, create tank volume for biological phosphorus removal with no new infrastructure needed, and reduce energy consumption by 15 million kWh per year.

The District is performing research on two new technologies in an effort to use algae to recover nutrients from wastewater. One technology uses a rotating belt to increase the surface area that is exposed to sunlight, thus dramatically reducing the footprint need to grow algae. The other technology uses an innovative photo bioreactor which is many times more energy efficient than any other photo bioreactor in production. This photo bioreactor can drive the growth of specific species of algae which can be harvested, and then have chemicals extracted from the algae, which can be sold as a high-volume dye. If successful, these technologies can change the way nutrients are managed in wastewater facilities across the country.

In 2014, the District signed a cooperative memorandum of understanding with the City of Chicago under which the city will deliver wood chips from tree trimming operations to the District's biosolids processing areas, where the wood chips will be co-composted with the biosolids to form a product similar to topsoil. This compost can be used to reclaim brownfield sites, to grow grass on city park land, or in green infrastructure projects.

## *Budget Message / Highlights*

### **Tax Levy, Tax Rate, and Appropriations**

The overall 2016 tax levy required to finance the 2016 Budget is \$577.8 million, an increase of \$18.5 million, or 3.3 percent, from the 2015 Adjusted Budget. This overall increase is due to levy increases of \$10.2 million in the Stormwater Management Fund, \$7.2 million in the Retirement Fund, Bond Redemption & Interest Fund of \$2.0, \$0.1 million in the Construction Fund, and \$0.1 million in the Reserve Claim Fund, offset by a decrease of \$1.1 million in the Corporate Fund.

The overall tax rate for 2016, based on the most recent Equalized Assessed Valuation (EAV), totals 42.67 cents, a decrease of 0.30 cents from the 2015 Adjusted Budget. The allowance for loss in collection of property taxes is budgeted at 3.5 percent, the same as 2015. The budgeted loss will be maintained at this level, based on trends in the required refunds of prior property tax payments.

Overall appropriations for 2016 total \$1,244.1 million, an increase of \$40.7 million, or 3.4 percent, from the 2015 Adjusted Budget. There were increases in the Capital Improvements Bond Fund of \$30.7 million, the Retirement Fund of \$9.1 million, the Corporate Fund of \$7.3 million, and the Bond Redemption & Interest Fund of \$1.5 million, offset by decreases of \$6.1 million in the Stormwater Management Fund, \$1.3 million in the Construction Fund, \$0.5 million in the Reserve Claim Fund. Explanations of these changes are provided in the following detailed Fund summaries.

The following tables and narratives provide clearer explanations of budgetary differences between the 2016 Budget and the 2015 Adjusted Budget.

<b><u>Levies</u></b>	<b><u>2016</u></b>	<b><u>2015 Adjusted</u></b>	<b><u>Increase (Decrease)</u></b>	<b><u>Percent Change</u></b>
Corporate Fund	\$226,109,300	\$227,196,000	(\$1,086,700)	(0.5%)
Construction Fund	16,600,000	16,500,000	100,000	0.6%
Stormwater Management Fund	34,250,000	24,050,000	10,200,000	42.4%
Retirement Fund	65,161,200	58,004,000	7,157,200	12.3%
Reserve Claim Fund	5,800,000	5,700,000	100,000	1.8%
Bond Redemption & Interest Fund	229,912,562	227,879,072	2,033,490	0.9%
TOTAL	<u>\$577,833,062</u>	<u>\$559,329,072</u>	<u>\$18,503,990</u>	<u>3.3%</u>
<b><u>Appropriations</u></b>	<b><u>2016</u></b>	<b><u>2015 Adjusted</u></b>	<b><u>Increase (Decrease)</u></b>	<b><u>Percent Change</u></b>
Corporate Fund	\$366,260,700	\$358,995,400	\$7,265,300	2.0%
Construction Fund	36,614,400	37,910,700	(1,296,300)	(3.4%)
Capital Improvements Bond Fund	483,764,800	453,072,500	30,692,300	6.8%
Stormwater Management Fund	40,500,800	46,588,800	(6,088,000)	(13.1%)
Retirement Fund	70,772,000	61,654,000	9,118,000	14.8%
Reserve Claim Fund	30,175,900	30,700,000	(524,100)	(1.7%)
Bond Redemption & Interest Fund	216,047,130	214,525,839	1,521,291	0.7%
TOTAL	<u>\$1,244,135,730</u>	<u>\$1,203,447,239</u>	<u>\$40,688,491</u>	<u>3.4%</u>

Comparisons of the estimated taxes paid by the owner of a home with a market value of \$100,000 for 2016 as budgeted, and 2015 as adjusted for the 2014 EAV, are as follows:

	<b><u>2016 Budgeted</u></b>	<b><u>2015 Adjusted</u></b>	<b><u>Decrease</u></b>	<b><u>Percent Change</u></b>
Estimated taxes for \$100,000	\$116.29	\$117.11	\$0.82	(0.7%)

## *Budget Message / Highlights*

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### **Basis of Budgeting and Accounting**

The basis of budgeting and the basis of accounting determine when revenues and expenditures are recognized for the purposes of budget control and financial reporting. As per Illinois Compiled Statutes, the District's budget is adopted and executed such that receipts are recognized on a cash basis and expenditures on an accrual basis or as soon as they are incurred. The Comprehensive Annual Financial Report is prepared using the modified accrual basis of accounting in conformity with General Accepted Accounting Principles (GAAP). The exceptions between the basis of budgeting and the basis of accounting are noted below.

In the Corporate, Construction, and Stormwater Management Fund budgets, revenues are recognized on a cash basis except for property and personal property replacement taxes, which are recognized based on working cash borrowing plus an estimate of collections of property and property replacement taxes over and above the working cash borrowing. Expenditures are recognized on a GAAP basis except for inventory expenditures, which are accounted for on the purchase method for budgetary purposes and on the consumption method for GAAP financial reporting purposes. Transfers out to other funds are budgeted as expenditures, while transfers in are considered other financing sources.

The Capital Improvements Bond Fund (CIBF) is budgeted on an "obligation" basis of accounting, which records total expenditures and grant revenues in the period in which contracts or grants are awarded.

Appropriations lapse at year-end for the Corporate, Construction, Retirement, Stormwater Management, and Debt Service Funds. Appropriations for the CIBF lapse at the end of the year to the extent of the unencumbered balances. Encumbered balances are not reported as reservations of fund balances, as the amounts are reappropriated in the following year.

The government-wide and fiduciary financial statements are reported using the economic resource measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded at the time liabilities are incurred, regardless of the period of related cash flows. Property taxes are recognized in the year of levy and personal property replacement taxes are recognized in the year earned. Grants and similar items are recognized as revenue in the fiscal year that all eligibility requirements have been met.

The District's governmental funds are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Under the modified accrual basis, revenues are recognized when susceptible to accrual, i.e., when measurable and available to finance operations. Expenditures are recognized in the period in which the fund liability is incurred, except for principal and interest on long-term debt, compensated absences, claims, judgments, and arbitrage, which are recognized when due and payable.

The accounting and reporting treatment applied to the capital assets and long-term liabilities associated with a fund are determined by its measurement focus. Since governmental funds are accounted for on the current financial resources measurement focus, only current assets and current liabilities are included on their balance sheets. Their reported fund balance (net current assets) is considered a measure of "available spendable resources." Governmental fund operating statements present increases (revenues and other financing sources) and decreases (expenditures and other financing uses) in net current assets. Accordingly, they are said to present a summary of sources and uses of "available spendable resources" during a period.

Property taxes, user charge revenue, interest, land rentals, and personal property replacement tax revenue are accrued to the extent that they are measurable and available to satisfy liabilities of the reporting period. In general, the revenue recognition period is limited to amounts collected within 60 days following year-end. Receivables that are unavailable are reported as deferred revenue.

Grants from federal and state agencies are recorded as revenues in fund financial statements when reimbursable expenditures are incurred, or other eligibility requirements imposed by the provider are met, and the grant resources are measurable and available.

Property taxes attach as an enforceable lien on property as of January 1 of the levy year. They are levied and recorded as a receivable as of January 1 and are due in two installments in the following year.

### **Corporate Fund**

The Corporate Fund is the District's general operating fund and includes appropriation requests for all the day-to-day operational costs anticipated for 2016. The total appropriation for the Corporate Fund in 2016 is \$366.3 million, an increase of \$7.3 million, or two percent, from the 2015 Adjusted Budget.

## *Budget Message / Highlights*

The 2016 tax levy for the Corporate Fund is \$226.1 million, a decrease of \$1.1 million or 0.5 percent compared to the 2015 Adjusted Budget. It is the District's intent over the next few years to maintain a fund balance, or net assets appropriable for the Corporate Fund, higher than the \$44 to \$55 million range. This fund balance level balances the competing imperatives of minimizing the annual levy and providing for unexpected shortfalls in revenues.

Continuing through 2015, economically sensitive non-property tax revenues, such as interest income, are expected to remain stagnant based on forecasted local and national economic indicators.

Property taxes and user charge revenues are the primary funding sources for the District's Corporate Fund. Illinois law limits the tax rate of this fund to 41 cents per \$100 of EAV. The estimated tax rate for the Corporate Fund in 2016 is 16.87 cents, a decrease of 0.59 cents from 2015 as adjusted. User charges are collected from industrial, commercial, and non-profit organizations to recover operations, maintenance, and replacement costs proportional to their sewage discharges, in excess of property taxes collected. The major categories of payers: chemical manufacturers, food processors, and government services, are generally expected to maintain their recent level of discharges.

### **Stormwater Management Fund**

The Stormwater Management Fund was established on January 1, 2005. This fund accounts for tax levies and other revenue to be used for stormwater management activities throughout all of Cook County, including areas that currently lie outside the District's boundaries. The fund consolidates the stormwater management activities of the Engineering and Maintenance & Operations Departments and supports the activities outlined in the Cook County Stormwater Management Plan, which serve as a framework for the District's countywide Stormwater Management Program.

One of the initial goals of the Stormwater Management Program was to develop detailed watershed plans (DWPs) for each of the watersheds in Cook County. The DWPs identified and prioritized "regional" stormwater projects based on a benefit to cost ratio. These may include streambank stabilization, which involves addressing critical active streambank erosion threatening public safety, structures, and/or infrastructure, or flood control, which addressed regional overbank flooding. The Board of Commissioners ultimately selects projects to move forward to design and construction as funds are available.

In 2014, the State Legislature expanded the authorities of the District's stormwater management legislation to allow for the District to address local drainage problems and acquire flood prone property from property owners on a voluntary basis. These legislative changes form the basis of Phase II, the intent of which is to identify and assist municipalities with the implementation of projects that address local flooding concerns, develop Stormwater Master Plans, and implement a Flood-prone Property Buyout Program.

The initial Stormwater Master Plans began in 2014 and consist of five pilot studies to comprehensively address flooding by identifying potential projects within publicly and privately owned property. The pilot areas were recommended to the District by the four Councils of Government and the City of Chicago. It is anticipated that Stormwater Master Plans will be developed for all areas of Cook County over the next several years following the process to be defined through these pilot studies.

The District has developed a voluntary Flood-prone Property Acquisition Program to allow for the District to purchase flood prone properties where no feasible projects exists to protect structures from flood damages. In response to the District's recently released application, 12 municipalities submitted requests for assistance with flood-prone property acquisitions. The District will partner with municipalities and other regional agencies to purchase eligible properties and convert them to open spaces.

The Board of Commissioners granted authority in 2011 for the establishment of a Green Infrastructure (GI) program, which facilitates the planning, design, and construction of multiple GI projects throughout Cook County. In 2014, the District partnered with the Chicago Department of Water Management and the Chicago Public Schools to provide stormwater retention at four elementary schools while reconstructing substandard playgrounds. Due to the success of the program, the District agreed to reconstruct six more school playgrounds per year, for the next five years, beginning in 2015. In 2015, the District also partnered in GI projects in the communities of Blue Island and Evanston.



A trail at the Heritage Park Flood Control Facility, which was facilitated through an intergovernmental agreement between the District, the Wheeling Park District, and the Village of Wheeling.

## *Budget Message / Highlights*

The District’s Board of Commissioners adopted the Watershed Management Ordinance (WMO) on October 3, 2013, and it became effective on May 1, 2014. The WMO establishes uniform and minimum stormwater regulations throughout Cook County. The District is currently developing a Technical Guidance manual, which will serve as a companion reference to the WMO. The District plans to conduct training for municipal representatives and design engineers for them to gain a better understanding of the WMO’s requirements.

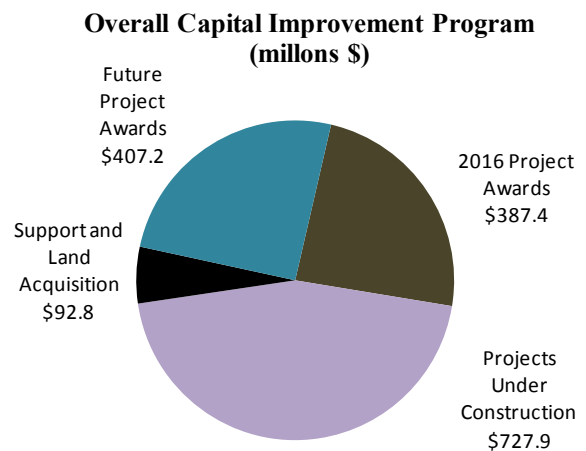
Property taxes are the primary funding source for the District’s Stormwater Management Fund. Illinois law limits the tax rate of this fund to 5 cents per \$100 of EAV. The estimated tax rate for the Stormwater Management Fund in 2016 is 2.56 cents, an increase of 0.71 cents from 2015 Adjusted Tax Rate.

**Capital Improvement Program:**

**Construction Fund and Capital Improvements Bond Fund**

The District’s overall Capital Improvement Program (CIP) includes 2016 project awards, land acquisition, support, future projects, and projects under construction, with a total cost of approximately \$1.6 billion. Capital projects involve the acquisition, improvement, replacement, remodeling, completing, altering, constructing, and enlarging of District facilities. Included are all fixtures which are permanently attached to and made a part of such structures and non-structural improvements, and which cannot be removed without, in some way, impairing the facility or structure.

Projects under construction have been presented and authorized in previous Budgets and are recognized in the Annual Budget as both outstanding liabilities in the CIBF, and as re-appropriations in the Construction Fund. Future projects, not yet appropriated, are included in the Annual Budget to present a comprehensive picture of the District’s CIP. These future projects will be requested for appropriation subject to their priority, design, and available funding.



The District utilizes two funds for its CIP: the Construction Fund and the CIBF. The Construction Fund is utilized as a “pay as you go” capital rehabilitation and modernization program. Capital projects are financed by a tax levy sufficient to pay for project costs as they are constructed. As the District replaces, rehabilitates, and modernizes aged and less effective infrastructure, capital projects are assigned to the Corporate, Construction, or CIBF based on the nature of the project, dollar magnitude, and useful life of the improvement. The Construction Fund is used for operations-related projects, where the useful life of the improvement is less than 20 years.

The CIBF, the District’s other capital fund, includes major capital infrastructure projects whose useful lives extend beyond 20 years, and which will be financed by long-term debt, federal and state grants, and State Revolving Fund loans.

The 1995 Tax Extension Limitation Law (Tax Cap), and subsequent amendments to the bill, dramatically impacted the methods of financing the CIBF. The original legislation required, in general, that all new debt be approved by referendum. However, an exemption for projects initiated before October 1, 1991 was granted to the District to enable completion of the TARP. The bill was later amended to establish a debt service extension base (DSEB), which allowed local governments, with non-referendum authority, to continue to issue non-referendum debt in terms of “limited bonds,” as long as their annual debt service levies did not exceed 1994 levels. This law was further amended in 1997 to exclude TARP project debt from this debt service extension base. The passage of legislation in 1997 allowing for expanded authority to issue “limited bonds” by excluding pre-existing TARP projects provides additional financing flexibility to proceed with our CIP.

In 2009, a further modification to the law allows the DSEB to increase annually by the Consumer Price Index (CPI) or five percent, whichever is less. These changes allow the District to effectively utilize “limited bonds” as a source of financing.

## *Budget Message / Highlights*

### **Construction Fund**

The Construction Fund appropriation for 2016 totals \$36.6 million, a decrease of \$1.3 million, or 3.4 percent, from the 2015 Adjusted Budget.

Beginning in 2002, the budgeting of Engineering Department staff working on capital projects was split between the Construction Fund and the CIBF. In 2013, positions budgeted in both capital funds were transferred to the Corporate Fund along with personnel-related costs such as health care.

Capital projects in the Construction Fund are primarily supported by property taxes and thus subject to the Tax Cap. The 2016 tax levy planned for the Construction Fund is \$16.6 million, an increase of \$0.1 million, or 0.6 percent, from the 2015 Adjusted Levy.

### **Capital Improvements Bond Fund**

The 2016 appropriation for the Capital Improvements Bond Fund is \$483.8 million, an increase of \$30.7 million, or 6.8 percent, from the 2015 Adjusted Budget. The appropriation is based on the scheduled award of \$373.0 million in projects. CIBF projects scheduled for award in 2016 with estimated award values consist of one TARP project at \$139.0 million, six plant expansion and improvement projects at \$43.0 million; six facilities replacement projects at \$42.9 million; fifteen stormwater management projects at \$95.3 million, and two solids projects at \$20.4 million.



MWRD President Mariyana Spyropoulos and US Army Corps of Engineers Lt. Col. Kevin Lovell hold the large scissors to cut the ribbon on the Thornton Composite Reservoir on Sept. 1, 2015.

They are joined by MWRD Vice Pres. Barbara J. McGowan, Chairman of Finance Frank Avila, and Commissioners Timothy Bradford, Cynthia Santos, Debra Shore and Kari Steele; MWRD Exec. Dir. David St. Pierre; Senator Dick Durbin; Congresswoman Robin Kelly; USEPA Region 5 Administrator Susan Hedman, IEPA Director Lisa Bonnett; Secretary/Treasurer of Chicago Fed. of Labor Robert Reiter; South Suburban Mayors & Managers Assoc. Exec. Dir. Ed Paesel; and Friends of Chicago River Exec. Director Margaret Frisbie.

The increase in appropriation for the CIBF of \$30.7 million reflects the pattern in the award of major projects. An appropriation for the open value of existing contracts is also carried forward from the prior year.

The remaining \$110.8 million appropriation for this fund will provide for studies, services, and supplies to support District design and administration of proposed and ongoing construction activity, including the TARP reservoirs. A comprehensive narrative and exhibits detailing our entire CIP is provided in the Capital Budget (Section V) of this budget document.

A listing and description of proposed projects and projects under construction, scheduled for 2016, can be found in the Capital Budget (Section V) of this budget document.

### **Retirement Fund**

The Retirement Fund of the District is established under Illinois Compiled Statutes to provide funding and administration for a retirement program for District employees. The Fund is financed with employee and employer contributions and investment income, which are distributed to the fund when collected. The annual appropriation requests for this fund are taxes receivable from previous years' tax levies. The passage of legislation in 2008 allows

the Board to transfer interest earned on any monies to the District's funds or funds that are most in need.

Public Act 96-0889, signed by the Governor on April 14, 2010, modifies benefits for most Illinois public pension systems, other than Police and Fire Pension Funds. The provisions apply to a person who first becomes an employee and participant of the fund on or after January 1, 2011. The bill increases the age to receive full retirement benefits to age 67 with at least 10 years of service, and age 62 to receive a reduced benefit. It also increases the number of months used to calculate the final average salary to 96 months within the last 10 years and caps the final average salary used to calculate an annuity, which was \$106,800 when Public Act 96-0889 became effective. This amount is increased annually by three percent or one-half of the increase in the Consumer Price Index-U (CPI-U), whichever is lower.

The 2016 appropriation for the Retirement Fund is \$70.8 million, an increase of \$9.1 million, or 14.8 percent, compared to the 2015 Adjusted Budget. The 2016 tax levy of \$65.2 million is an increase of \$7.2 million, or 12.3 percent, from the 2015 Adjusted Levy. The appropriation is based on a statutorily required formula that bases the District levy, and subsequent appropriations, on employee contributions made in previous years. Also by statute, the District may transfer interest income to the Retirement Fund. A detailed explanation of the fund's fiscal status, participation, and income is presented in the Other Funds pages (Section VII) of this budget document.

## Budget Message / Highlights

### Reserve Claim Fund

The Reserve Claim Fund acts as the District’s insurance fund. The District is partially self-insured and utilizes this fund for emergency repairs and claims against the District. District policy is to annually levy a half-cent annual tax rate to provide funds for current claims and to accumulate a fund reserve towards the statutorily authorized limit of \$62.9 million.

The 2016 appropriation of \$30.2 million is a decrease of \$0.5 million, or 1.7 percent, from the 2015 Adjusted Budget. The practice is to fund toward the maximum fund balance allowable. The \$0.2 million estimate for accounts payable and other liabilities is based on an internal review and analysis. This estimate is reviewed and adjusted annually. A historical profile of the resources available in the fund is provided in Section VII of this budget document. The levy increased \$0.1 million for this fund in 2016. The District is levying against the last known EAV at the maximum rate allowed by state statute in 2016. The Board reaffirmed the policy to permit a levy at the statutorily allowable tax rate to protect the District in the event of catastrophic failure of District operational infrastructure or other claims. For the 2016 Budget, the last known EAV (\$125.7 billion) is for the 2014 levy year.

### Bond Redemption & Interest Fund

The Bond Redemption & Interest Fund is the District’s debt service fund. The District finances its major CIP with the sale of long-term general obligation bonds, grants received from the state and federal government, and loans from the Illinois State Water Pollution Control Revolving Loan Fund, or State Revolving Fund (SRF). Principal and interest payments on District general obligation bonds, and SRF loans, require an annual levy and appropriation.

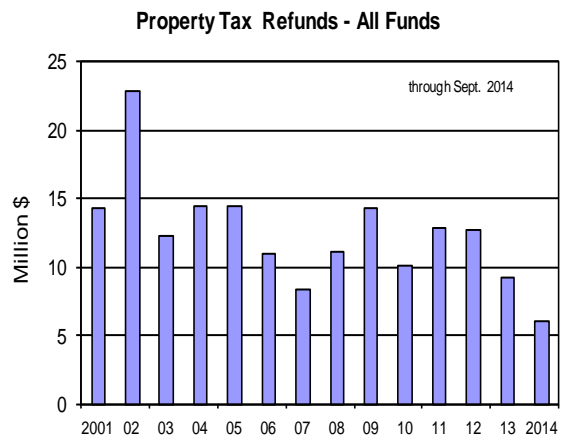
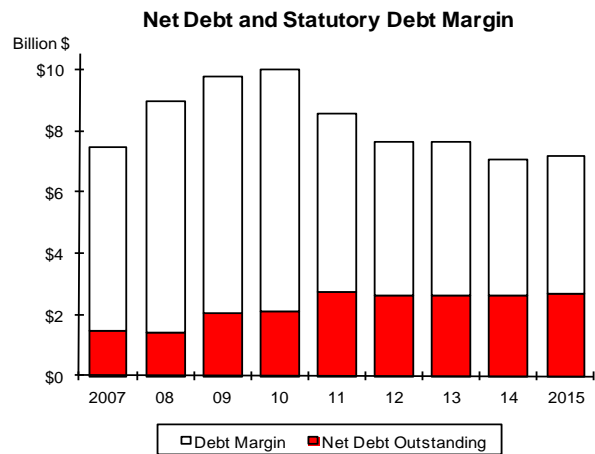
The SRF Loan Fund provides low-interest loans to finance qualifying projects. Upon project completion, District bonds are issued at the same low-interest rate. The current interest rate for new loans to the District is 1.86 percent. The District has authorized approximately \$2.2 billion of SRF loans since the program’s inception. Several projects are currently financed through SRF loans. The State of Illinois expanded the SRF program to provide additional loan funding in 2016 through 2018.

The District expects to receive approximately \$200 million in SRF loans for the years 2016 – 2020. The SRF Loan Fund replaced the Federal Construction Grants program from which the District had historically received 55 to 75 percent direct funding for qualifying capital improvements.

The District’s debt is authorized under Illinois Compiled Statutes, which specifies a debt limit equal to 5.75 percent of the District’s EAV. The District’s 2014 EAV is \$125.7 billion, setting the District’s statutory debt limit at \$7.2 billion. Outstanding debt applicable to the debt limit as of December 31, 2015, totals \$2.7 billion. The debt margin is \$4.5 billion.

The 2016 appropriation for the Bond Redemption & Interest Fund totals \$216.0 million, an increase of \$1.5 million, or 0.7 percent, compared to the 2015 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or state revolving loans bonded. A debt service graph is found on page 52 that displays debt service from 2008 through 2020 and one on page 532 that displays debt service from 2016 through retirement.

The 2016 tax levy for this fund is \$229.9 million, an increase of \$2.0 million, or 0.9 percent, from the 2015 Adjusted Levy.





## *Budget Message / Highlights*

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### **Real Estate Tax Levies**

The District's primary source of operating revenue is ad valorem real estate taxes. The passage of the Tax Cap in 1995 limited future increases in property tax levies, except debt service, to the lesser of five percent or the change in the national CPI, plus allowable increases for new property. The District made significant reductions in operating expenditures in 1995 and 1996 to absorb the initial impact of revenue reductions due to the Tax Cap. Since then, restructuring of the Construction Fund projects, a healthy fund balance, interest transfers, and reduced property tax funding requirements for the Working Cash Funds allowed controlled growth in the Corporate Fund within the limits of the Tax Cap.

Since 2002, the CPI has averaged 2.4 percent, and the growth in Corporate Fund expenditures has increased about 0.9 percent annually. The Corporate Fund Expenditure Rate has been impacted in the past few years by increased contributions to the OPEB Fund and to the Retirement Fund. The District remains aggressive in controlling Corporate Fund expenditures.

Decisions by the Illinois Property Tax Appeals Board and other property tax refunds ordered by the circuit courts have reduced District tax revenues by \$216.6 million since 1994. While the allowance for loss in collections of taxes has provided for a good portion of this, the net effect is that total collections have been less than expected. To provide for the refunds, the rate for loss in collections was raised to 3.5 percent in 2003 from the 3.0 percent used for the 2002 levy. This loss in collections factor will continue to be used through 2016.

Cook County reassesses property values on a triennial cycle, rotating from North Suburban to South Suburban to City of Chicago. Historically, when the city is reassessed, there are a larger number of assessment appeals that must be resolved before the final EAV can be set, tax rates calculated, and property tax bills prepared.

### **Non-Property Tax Revenues – Fund Balances**

The economic decline in this region has been reflected in decreased non-property tax revenues that help support District operations and fund balance levels. While the District is primarily supported by property taxes, prior years' strong levels of investment interest income, personal property replacement tax, and user charge revenues significantly cushioned the impacts of the Tax Cap Law restrictions on tax levy increases.

Decreases in certain non-property tax revenues are anticipated in the conservative revenue estimates used for the 2016 Budget. Before 2004, all net assets appropriable had been reappropriated as revenue for the subsequent year. Beginning in 2004, a portion of the projected net assets remained unappropriated to provide for a fiscally responsible fund balance. A Corporate Fund balance within \$44.0 to \$54.0 million, or 12 to 15 percent of appropriations, is consistent with recommendations of the Government Finance Officers Association (GFOA). The District's current fund balance exceeds this goal and is viewed by District management and the financial markets as necessary to maintain financial stability and sustain us through economic uncertainties. This is an integral part of a long-term plan that also includes reductions of future expenditures to better match current revenues. Revenues and expenditures are closely monitored, so that favorable variances in revenues are recognized and made available for expenditure or unfavorable revenue variances lead to appropriate restrictions.

Investment interest income in 2016 is projected to be \$5.0 million, a decrease of \$0.8 million from the 2015 estimate of \$5.8 million. The actual revenue for 2014 was \$8.3 million. The Treasurer is statutorily limited to investments in U.S. Government direct and agency securities, and high quality, short-term municipal bonds, bank securities of deposit, certain short-term obligations of corporations (commercial paper) rated in the highest classifications, the State Treasurer's Illinois funds, and certain other investments with a maximum maturity of five years. The variation in investment income is largely due to the decrease in short-term interest rates, and cyclical increases and decreases in fund balances. The current level of short-term interest rates is anticipated to continue through 2016. Interest income earned in any fund except the Reserve Claim Fund and the Retirement Fund may be transferred to other funds as necessary.

Personal Property Replacement Tax (PPRT) revenue is estimated for 2016 is \$41.9 million, no change from the 2015 Adjusted Budget. As the PPRT is primarily a tax on corporate income, it trends in parallel with the condition of the state and national economy. PPRT revenue is distributed first to fully fund the Retirement Fund and subsequent receipts are distributed to other non-debt funds.

User Charge revenues have fluctuated in the \$47.0 to \$78.0 million range over the last 10 years. Food processing, chemical, and government segments of the local economy comprise the majority of large payers. Several large payers have closed over the past several years; increased production and payments at many of the remaining industries have made up for the closures. The 2016 revenues are conservatively estimated to be \$49.0 million and are projected at \$51.0 million in 2015.

## *Budget Message / Highlights*

### **Non-Referendum Bonding Authority**

The District has authority to issue bonds without seeking voter approval via referendum through the year 2024, effective January 1, 2011. The initial Tax Cap legislation (PA89-1) limited this non-referendum authority to projects that were initiated prior to October 1, 1991. Public Act 89-385 provided the District with the authority to issue non-referendum “limited bonds” for capital projects initiated after October 1, 1991. However, it was limited to the District’s 1994 debt service level of \$141,463,920 and amended by Public Act 96-0501 to allow for an annual increase equal to the CPI or five percent, whichever is less. It is currently at \$158,198,004. Public Act 90-0485 has provided a further modification by authorizing the exclusion of debt for TARP projects from this debt service limit. With inclusion of the levies for the 2004, 2007, 2009, 2012, and 2014 SRF series of bonds for non-TARP projects, Capital Improvement Bonds Series D of December 2002, the Series of July 2006, and Series B of July 2011, Refunding Bonds Series of May 2006 and Series of March 2007, and Taxable Capital Improvement Bonds, Series of August 2009, Series A of July 2011, the Series of 2014, there is approximately \$38.7 million annual debt service available under the 1994 debt service limit related to the tax levy year 2015.

Additional bond issues through 2024 will be used to finance capital projects identified by prioritization. Initial estimates and schedules for the projects were analyzed and compared to bond issuance authority and funding availability. The bond issuance authority will generally accommodate the proposed project expenditures through 2024. Extension or increase in the authority may be necessary for additional projects that may be required to meet more stringent NPDES permit discharge limits, including effluent disinfection, nutrient removal, and supplemental aeration.

### **Legislative Changes**

The District had three 2015 legislative initiatives as follows, all of which passed the legislature and were signed into law by the Governor in 2015.

**Public Act 099-067** provides for changing in the regulatory framework under which the District operates for its biosolids, paving the way for the District to make broader use of these products.

**Public Act 099-0231** clarifies citizenship requirements for working on District contracts. This Public Act also annexed approximately 145 acres of new territory in Hoffman Estates into the District.

**Public Act 099-0481** authorizes the District to provide for voluntary and involuntary demotions to the employee’s most recent former classification in accordance with the Act and other rules as detailed in the Act.



This is one of several parks where biosolids have been applied.

## *Budget Message / Highlights*

### **Major Budget Amendments Impacting the 2016 Final Adopted and Amended Budget**

The 2016 Executive Director’s Recommendations were presented to the Board of Commissioners on October 13, 2015 according to the budget process detailed on pages 31-33. Throughout the budget process, including two public hearings and departmental budget presentations to the Board, various amendments modified the recommendations. The purpose of this section is to discuss public and legislative participation in the budget process and the impacts of major budgetary amendments between the Executive Director’s Recommendations and the Final Adopted and Amended Budget.

#### **Public Hearings and Board Participation**

The Committee on Budget and Employment held Departmental Hearings on November 5, 2015 and a Public Hearing on the entire budget was held on December 3, 2015. At the public hearing, both the Civic Federation and the Friends of the Chicago River testified in support of the Districts budget and policy priorities. The Board voted on the budget on December 10, 2015, and pursuant to State Statute (70 ILCS 2605), made all final amendments on December 17, 2015.

(Millions)	2016 Executive Director's Recommendation	2016 Final Adopted and Amended Budget
Corporate Fund	\$ 364.2	\$ 366.3
Stormwater Management Fund	\$ 40.4	\$ 40.5
Construction Fund	\$ 32.9	\$ 36.6
Reserve Claim Fund	\$ 30.2	\$ 30.2
Bond Redemption and Interest Fund	\$ 216.0	\$ 216.0
Retirement Fund	\$ 70.8	\$ 70.8
Capital Improvements Bond Fund	\$ 288.3	\$ 483.8
<b>Total Budget</b>	<b>\$ 1,042.9</b>	<b>\$ 1,244.1</b>

The total appropriation increased by \$201.2 million from the Executive Director’s Recommendations, while changes to tax and fee supported Funds totaled \$5.81 million or 0.8 percent from the original recommendations. No changes to the property tax levies or user fees were necessary to support these increases. The Reserve Claim Fund, Bond Redemption & Interest Fund, and the Retirement Fund were adopted without modification from the Executive Director’s Recommendations.

The Corporate Fund saw increases primarily related to personnel expenses including amendments that increased funding for the District interns by \$100,000, an increase in one position, and a general salary adjustment approved by the Board. The increases are funded by an increase in the anticipated Tax Increment Financing (TIF) surplus declared by the City of Chicago and a reduction in the funds dedicated to budgetary reserves for 2016.

The Stormwater Management Fund includes minor increases related to the general salary adjustment and also included changes that had no fiscal impact, but reprioritized funding available based on project schedule. The increases to the Stormwater Management Fund will be offset by anticipated savings in 2015.

#### **Capital Improvement Plan**

At the October 29, 2015 Capital Improvement Plan public hearing, the plan detailing work planned for 2016 was presented relating the large number of projects to the District’s Strategic Business Plan including discussion of the next phase of the Tunnel and Reservoir Projects (TARP), improvements to the water reclamation plants, and implementation of stormwater management projects, as well as rehabilitation and other smaller capital projects funded through the Construction Fund.

#### **Capital Improvements Bond Fund**

Driven by modifications in the anticipated award date, the Capital Improvements Bond Fund increased significantly from \$288.3 million to \$483.8 million. The Capital Improvements Bond Fund is budgeted on an “obligation basis,” meaning that funding for the project is budgeted at the time of award. The projects are funded through current and future anticipated bonds, loans, or grants.

The increase from the original recommendation to the final adopted budget is driven primarily by a change in anticipated award date from 2015 to 2016 for two large projects, a \$139.0 million inflow tunnel project for the McCook Reservoir and a \$20.7 million increase for a service tunnel and connecting tunnel rehabilitation project at Stickney WRP. Additionally, to support the District’s Stormwater Management initiatives, there is a \$9.2 million increase in final design professional engineering services and \$5.3 million increase in funds for intergovernmental agreements related to green infrastructure and stormwater management projects.

#### **Construction Fund**

The Construction Fund, established to finance smaller construction projects on a pay-as-you-go basis, was increased by \$3.7 million or 11.2 percent. These changes are financed by a shift of \$1.1 million in Personal Property Replacement Tax (PPRT) receipts from the Corporate Fund as well as anticipated savings from 2015 projects. The additional funds are necessary due to the timing and equipment delivery for projects within the water reclamation plants as well as the addition of several priority projects. Projects added during the amendment process include building restoration at the Calumet Service Area for the Monitoring & Research Department (\$1.0 million), District-wide building maintenance items (\$1.7 million), and needed technology infrastructure upgrades (\$0.6 million).

## *Financial Policies, Objectives, and Accomplishments*

### **Financial Policies, Objectives, and Accomplishments**

In order to meet its federal, state, and local responsibilities, while ensuring cost-effective operations, the District adheres to a number of financial policies. These policies are part of a dynamic process whereby the best use is made of available District resources. The following provides an overview of these policies, their objectives, and the measurable accomplishments resulting from their use.

#### **Budgetary Policies**

In order to protect the strong financial position of the District, ensure uninterrupted services, and stabilize annual tax levies, the Board adopted the following policies on December 21, 2006 to enhance and maintain budgetary fund balances. The General Corporate Fund policy was amended and the Stormwater Management Fund policy was adopted on December 10, 2009. The Stormwater Management Fund policy and Bond Redemption & Interest Funds Investment Income policy were amended on November 3, 2011.

#### **General Corporate Fund**

- Corporate Fund undesignated fund balance as of January 1 of each budget year between 12 percent and 15 percent of appropriations. The fund balance may be maintained by not fully appropriating prior year fund balances. This level of fund balance will ensure the District's ability to maintain all operations even in the event of unanticipated revenue shortfalls and provide time to adjust budget and operations;
- Corporate Working Cash Fund must be sufficient to finance 95 percent of the full annual expenditure of the Corporate Fund. This will be financed through transfers of surpluses from the Construction Working Cash Fund, direct tax levies, tax levy financed debt (Working Cash Bonds), and transfers of accumulated interest from other funds. This level of fund balance will continue financing of the Corporate Fund in the event of the typical and extraordinary delays in second installment real estate tax collections; and
- Reserve Claim Fund balance targeted toward the maximum level permitted by statute, 0.05 percent of the equalized assessed valuation (EAV), whenever economically feasible. This will be financed through tax levies at the maximum 0.5 cents per \$100 of EAV when economically feasible and financially prudent. This level of funding will protect the District in the event that environmental remediation costs cannot be recovered from former industrial tenants of District properties, catastrophic failure of District operational infrastructure, or other claims. As the District is partially self-insured, adequate reserves are critical.

The District will appropriate funds from the unassigned fund balance for emergencies and other requirements that the District believes to be in its best interest. In the event that any of these specific component objectives cannot be met, the Executive Director will report this fact and the underlying causes to the Board with a plan to bring the fund balances back into compliance with policy within a two-year period. In order to maintain relevance, this policy will be reviewed every three years following adoption or sooner at the discretion of the Executive Director.

#### **Stormwater Management Fund**

The maximum property tax levy of five cents per \$100 of EAV for the Stormwater Management Fund shall be allocated at a maximum two cents per \$100 of EAV to fund operations and maintenance expenditures and a maximum three cents per \$100 of EAV to fund direct cash outflows for capital and capital related expenditures and the interest and redemption of general obligation bond issues for capital projects.

#### **Capital Improvements Bond Fund Investment Income**

Investment earnings from the Capital Improvements Bond Fund (CIBF) resulting from all future bond issues will fund an equity transfer to the Bond Redemption & Interest Funds and be used to abate property tax levies or for other corporate needs. This practice will also limit the payment of arbitrage rebates.

#### **Bond Redemption & Interest Funds Investment Income**

Fund balances in the Bond Redemption & Interest Funds that might accumulate due to investment income will be identified and used to abate Bond Redemption & Interest property tax levies or for other corporate purposes. These abatements appropriately reduce property tax levies by the amount earned on invested balances above what is necessary for paying principal and interest due over the following 12 months, while still maintaining appropriate fund balances and when not required for other corporate purposes. This policy and the subsequent tax abatements will assist in compliance with the Board's overall tax levy policy (not to exceed a five percent increase over the prior year, not including the Stormwater Management Fund tax levy).

## *Financial Policies, Objectives, and Accomplishments*

### Abatement of Interest Rate Subsidies from Build America Bond Issuances

Interest reimbursement payments related to taxes levied for Build America Bond issuances will be presented to the Board for approval to abate, to be used for any lawful corporate purpose, or a combination thereof as determined as part of the annual budget process. Such abatement or alternative lawful use of the funds will be presented to the Board for approval prior to any abatement or use of reimbursement funds.

### Capital Improvements Bond Fund Accumulated Income

Revenues that have accumulated in the CIBF from investment income, grants, or SRF revenues will primarily be used for capital projects. Capital projects are generally in the CIBF; however, capital projects in the Construction or Corporate Funds of critical importance may be financed by transfers from this revenue source. These funds may be transferred to the Bond Redemption & Interest Funds to be used to abate property taxes, or may be used for other corporate needs as necessary.

The Budget for the District shall present a complete financial plan for the Budget Year.

The Budget will be prepared and presented as one comprehensive management and balanced financial plan, including capital and operating requirements, financing requirements, requirements for employee retirement, and reserve claim funding.

In addition, the District prepares and manages its budgets based on the following long-standing policies:

Budget estimates shall be prepared, and appropriations made, in a manner that reflects the use of program and performance principles and unit cost data. Appropriations shall be arranged according to funds, programs, and organizational units.

Historical levels of funding and expenditure shall be included in the Budget to provide comparisons. Financial forecasting of future requirements shall be included to provide estimates of future financial and operating conditions.

The Budget shall contain separate and combined estimated balance sheets for each fund, with estimates of current assets and liabilities as available for appropriation at the beginning of the Budget Year.

The Budget shall include a statement showing the method of arriving at the net tax figure, and provide estimates of all taxes to be levied for such Budget Year, as well as all other current receipts to be derived from other revenue sources.

Statements shall be included in the Budget, which detail bonded indebtedness of the District, and show bonds authorized and unsold, District borrowing capacity, and the maturity dates of bond issues and corresponding rates of interest.

The District will comply with the 1995 Tax Cap and Board policy limiting increases in the total property tax levy to five percent, excluding the Stormwater Management Fund.

### Retirement Fund

On October 2, 2014, the Board adopted a policy establishing the objectives, goals, and funding sources for the annual contribution to the Metropolitan Water Reclamation District Retirement Fund.

Policy Objectives:

- A. Provide for a funding plan based on actuarially determined contributions;
- B. Provide funding discipline to ensure promised benefits can be paid;
- C. Seek reasonable and equitable allocation of the cost of benefits over time;
- D. Minimize volatility of the District's contributions to the extent reasonably possible consistent with other policy goals;  
and
- E. Support the goals of accountability and transparency with clear benchmarks and reporting.

Funding Goal:

The funding goal of the District is to contribute annually to the Fund an amount that over time will increase the ratio of Fund assets to accrued liabilities to 100 percent by the year 2050.

Source of Funding:

The source of funding for the District's contribution is the annual real estate tax levy and personal property replacement tax receipts as allowed under 40 ILCS 5/13-503.

The District may at its discretion transfer excess interest income to the Fund in accordance with 70 ILCS 2605/5.9. Such transfers will be made in addition to the annual tax levy amount funded by real estate and personal property replacement tax receipts.

## *Financial Policies, Objectives, and Accomplishments*

### Implementation of Funding Policy:

In order to achieve the above goals and objectives, the District will annually contribute 1) an amount equivalent to the maximum employer contribution allowable by statute, or 2) if the maximum amount exceeds the amount available for contribution from the District's tax levy in any budget year, the District may contribute an amount determined by the Fund actuary based on a triennial projection that exceeds the minimum employer contribution required by the statute and achieves a funded ratio of 100 percent by the year 2050.

### Benchmarks:

Progress toward the above funding goal will be determined in part by an actuarial projection to be performed by the Fund's actuary every three years. This triennial projection will calculate a consistent multiple through the year 2050 that 1) satisfies the statutory requirements every year and, 2) achieves a funded ratio of 100 percent by 2050. The projection multiple will serve as a guide for determining employer contributions until the next projection is performed. In addition to the triennial projection, the funded ratio calculated each year by the Fund actuary will serve as a benchmark to determine progress toward the funding goal.

### Budgetary Objectives

The District shall make every effort to minimize the tax levy through the use of sound management and cost-effective operations.

The District will maintain a positive relationship between revenues and expenditures.

The financing of the Corporate, Stormwater Management, and Construction Funds Budgets will be managed through use of the Corporate, Stormwater and Construction Working Cash Funds, respectively. Interfund transfers will be used to minimize property tax levies for the Working Cash Funds.

The District's Budget shall be prepared and presented in such a manner that it serves as a clear and comprehensive policy document, financial plan, operations guide, and communications device to its staff, public officials, and citizens.

### Budgetary Accomplishments

The District's property tax levies are in compliance with the Tax Cap Law. Fiscal plans have been developed and implemented to reduce expenditures as necessary to meet property tax revenue constraints while meeting our statutory and regulatory responsibilities.

The District has effectively institutionalized a financing strategy that avoids short-term financing of District operations. The bond rating agencies have favorably recognized this practice. For 2016, the Working Cash Funds have sufficient balances to provide the desired level of financing without imposing a tax levy.

The Five-Year Financial Forecast component of the Budget and interim budgetary reporting have identified future revenue shortfalls well ahead of time to allow for legislative relief to be sought or for other management plans and programs to be developed to avoid actual revenue shortfalls or financial overcommitments.

For the 31st consecutive year, the GFOA of the United States and Canada has presented the Distinguished Budget Presentation for the District's 2015 Annual Budget. In 2015, the District also received special recognition as "Outstanding" for the budget as a Communications Device. For the years 1988 through 1998, the District's Budget was recognized as "Especially Notable" or "Outstanding." The entire 2015 Budget is available at [www.mwr.org](http://www.mwr.org).

### Investment and Cash Management Policy

The District's formal investment policy, in place since December 1999, and last revised in July 2010, states in its preamble that, "It shall be the policy of the District that all public funds available, not restricted by immediate need, be invested in investment securities so as to maximize return without sacrifice of safety or necessary liquidity." This policy complies with Public Act 90-688 requiring all public entities within the State of Illinois to have a formal investment policy passed by its governing authority and sets forth the parameters and objectives of the District's investment and cash management policy.

The primary objectives of investment activities, in priority order, are safety, liquidity, and yield.

District funds can be invested in such securities as authorized by Illinois Public Act 235, the Public Funds Investment Act. The investments which the District may purchase are limited to the following: (1) securities, which are fully guaranteed by the U.S. Government as to principal and interest; (2) certain U.S. Government Agency securities; (3) certificates of deposit or time

***Financial Policies,  
Objectives, and  
Accomplishments***

deposits of banks and savings and loan associations which are insured by a federal corporation; (4) short-term discount obligations of the Federal National Mortgage Association; (5) certain short-term obligations of corporations (commercial paper) rated in the highest classifications by at least two of the major rating services; (6) fully collateralized repurchase agreements; (7) the State Treasurer’s Illinois and Prime Funds; (8) money market mutual funds and certain other instruments; and (9) municipal bonds of the state, or of any other state, or of any political subdivisions thereof, whether interest is taxable or tax-exempt under federal law, rated within the four highest classifications by a major rating service.

Certificates of deposit or time deposits will be collateralized with securities of the U.S. Government, in an amount equal to 105 percent (at market) of the funds on deposit, or with a Federal Home Loan Bank letter of credit equal to 102 percent (at market).

Funds received are to be deposited on the day of receipt and invested as soon as the funds become available, if not immediately required for cash flow needs.

**Investment Objectives**

To maintain an average daily investment of at least 99 percent of funds available for investment.

To increase minority and community development banking and broker/dealer participation in District investments to 30 percent of invested funds.

**Investment Accomplishments**

In the past ten years, the interest income earned on investments has been:

2006	\$ 32,500,000	2011	\$ 9,800,000	
2007	46,200,000	2012	10,300,000	
2008	32,100,000	2013	11,525,000	
2009	11,000,000	2014	8,335,000	
2010	8,100,000	2015	5,842,000	(Estimated)
		<b>Total</b>	<b>\$ 175,702,000</b>	

**Bonded Debt Policy**

Bonded debt of the District is to be issued only in the amounts and for the purposes to which Illinois Statutes limit the District.

Bonded debt issued for working cash or capital improvement purposes is to be issued as general obligation debt of the District. Capital improvement bonded debt is to be issued to mature no more than 30 years from the year of issue.

Bonded debt is to be issued only when needed, and in amounts necessary for meeting such needs, unless financial market conditions and/or projections indicate that it is in the District’s best interest to deviate from this practice.

Excess fund balances in the Bond Redemption & Interest Fund may be identified and used to abate Bond Redemption & Interest Fund levies.

**Bonded Debt Objectives**

To maintain or improve the District’s Aa2, AAA, and AAA bond ratings from Moody’s Investor Services, Fitch Ratings, and Standard & Poor’s Corporation, respectively.

To provide timely and cost-effective bonded debt financing.

To structure future debt service so as to provide a stable trend in future debt service tax levies.

**Bonded Debt Accomplishments**

In April 2001, Fitch Ratings upgraded the District’s outstanding General Obligation Bonds to AAA from AA+ and Standard & Poors Corporation upgraded the District’s Bonds to AA+ from AA. In April 2002, Moody’s Investor’s Service (Moody’s) upgraded the District’s Bonds to Aaa from Aa1. For the July 2006 bond issue, Standard & Poor’s increased the District’s rating to AAA. In August 2013, Moody’s downgraded the District’s Bonds from Aaa to Aa1. In July 2015, Moody’s further downgraded the District’s Bond from Aa1 to Aa2. The primary reason for the downgrades is the pressure on the District’s tax base due to the significant debt burden and pension liabilities for major governmental agencies in Cook County, reflecting Moody’s opinion on the affordability of possible tax increases by other agencies and how this could impact Cook County residents. In addition, Moody’s changed its pension rating methodology in April 2013 and implemented different assumptions to estimate the unfunded pension liability than is currently required by governmental accounting standards.

## *Financial Policies, Objectives, and Accomplishments*

### Bond Rating History

For the 2014 Bonds, Fitch Ratings and Standard & Poor’s Corporation affirmed the District’s rating at AAA citing its diverse economic base, structurally balanced financial operations, managed debt load, pension funding improvement, and the District’s history of prudent financial stewardship. The District did not request a rating from Moody’s for the 2014 Bonds.

Moody’s Investor Services		Fitch Ratings		Standard & Poor’s Corporation	
1938-1944	Baa				
1944-1968	A				
1944-1968	A1				
1968-1974	Aa				
1974-1997	Aa2				
1997-1999	Aa1				
1999-2002	Aa1				
2002-2013	Aaa	1995-1999	AA	1969-2001	AA
2013-2014	Aa1	1999-2001	AA+	2001-2006	AA+
2015-present	Aa2	2001-present	AAA	2006-present	AAA

The Illinois Legislature amended the Metropolitan Water Reclamation District Act to provide that the District must levy a direct annual tax to pay the principal and interest on indebtedness within 30 years after contracting the debt, enabling the District to now issue debt for a maximum of 30 years after contracting the debt. Previously, the District was allowed to issue debt for a maximum of 20 years. In addition, the District’s Act was amended to extend non-referendum bonding authority from December 31, 2016 to December 31, 2024, effective January 1, 2011.

**Financial and Accounting Policies**

The significant accounting policies of the District conform to GAAP in the United States of America, promulgated by the Government Accounting Standards Board (GASB) as applicable to governmental units.

The basic accounting and reporting entity of the District is a “fund”. The District’s governmental funds are reported using the current financial resources measurement focus and modified accrual basis of accounting.

The fiduciary funds of the District are the Pension Trust Fund and the OPEB Trust Fund. Trust fund assets and liabilities are accounted for on the full accrual basis, and investments are recorded at market value.

Property taxes, user charge revenue, and the personal property replacement tax are accrued to the extent that they are measurable and available to satisfy liabilities of the reporting period.

An internal audit function is maintained as an independent appraisal activity for the review of accounting, financial, internal control structure, and other operations. It aids managerial control by measuring and evaluating the effectiveness of and compliance with District policies, procedures, and other internal controls, as directed by the Executive Director.

**Financial and Accounting Objectives**

District financial information is available through the Comprehensive Annual Financial Report (CAFR), Budget Report, Grantor Agency Reports, and supplementary information.

District financial reports are prepared in compliance with GAAP to fulfill the District’s duty to be publicly accountable while allowing users to assess that accountability.

District financial reports are designed to assist users in evaluating the District’s ongoing operations and assessing the level of services provided and our ability to meet obligations as they become due.

The annual audit performed by independent certified public accountants ensures compliance with the District’s financial objectives. In addition to meeting the requirements as set forth in the State of Illinois Compiled Statutes, Chapter 70, 2605/5.12, the audit will also ensure compliance with the Federal Single Audit Act regulations in OMB Circular A-133.

The Internal Auditing Section assists the Executive Director by furnishing independent and objective analyses, appraisals, and recommendations for improvement concerning the activities reviewed.

On July 13, 2006, the Board adopted a policy to address GASB Pronouncement #45, requiring reporting of the future liability for maintaining OPEB, primarily retiree health insurance benefits. An irrevocable trust was established to fund the future liability with the following operating parameters. On October 2, 2014, the funding policy was amended by the Board with the following parameters:



## *Financial Policies, Objectives, and Accomplishments*

- 100 percent maximum funding level;
- 12 year funding period;
- \$5 million funding in each of the twelve years 2015 through 2026, with no further advance funding contributions required after 2026. Beginning in 2027, cash to be withdrawn from the Trust to fund claims and insurance premiums will be determined by the plan’s actuary with the funding percentage to be maintained at 100 percent for all future years.

On November 19, 2009, the Board adopted the OPEB Trust Investment Policy, which was subsequently amended on December 19, 2013, and states that investments shall be made with judgment and care, with prudence, discretion, and intelligence exercised in the management of the Trust assets. The Trust’s investment asset allocation and target percentages were amended, as follows:

Asset Class	Fund Asset Mix		
	Minimum	Normal	Maximum
Domestic Equities	25.0%	30.0%	35.0%
Developed International Equities	12.0%	15.0%	18.0%
Fixed Income Securities (Bonds)	40.0%	45.0%	50.0%
Global Balance Portfolio	7.5%	10.0%	12.5%
Cash/Cash Equivalents (Money Market)	0.0%	1.0%	100.0%

The District has adopted the following fund balance policy in conformity with GASB Pronouncement #54, *Fund Balance Reporting and Governmental Fund Type Definitions*:

- *Committed Fund Balances* – The District’s Board shall establish, modify, or rescind a fund balance commitment by formal action of the Board;
- *Assigned Fund Balances* – The Executive Director may assign amounts of fund balances to a specific purpose;
- *Accounting Policies of Fund Balances* – The General Corporate Fund is a combination of the Corporate, Working Cash, and Reserve Claim Funds. In the General Corporate Fund, the District considers restricted amounts to have been spent first when an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available, followed by committed amounts, and then assigned amounts. Unassigned amounts are used only after the other categories of fund balance have been fully utilized. In governmental funds, other than the General Corporate Fund, the District considers restricted amounts to have been spent last. When an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available, the District will first utilize assigned amounts, followed by committed amounts, and then restricted amounts.

Initiatives are being considered to improve the policies and procedures for the management of capital assets. The process of determining more realistic estimated useful lives and dollar thresholds for capital assets is being examined. Also, an enhanced policy is essential to ensure all bond compliance and regulatory reporting requirements are properly fulfilled.

For the year ended December 31, 2015, the Board has adopted a policy to implement GASB 68. The following categories are recognized and reported in the CAFR to better illustrate the pension liability to the District:

- Net pension liability
- Annual pension expense

**Financial Accomplishments**

The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to the District for its CAFR for the year ended December 31, 2014, and for the MWRD Retiree Health Care Trust for the year ended December 31, 2014. This is the 40<sup>th</sup> consecutive year and 8<sup>th</sup> consecutive year that the District has received these prestigious awards, respectively. The CAFRs are available on the Internet at [www.mwrd.org](http://www.mwrd.org). The external audit of the District’s 2014 financial statements, completed on May 11, 2015, includes an unmodified opinion. In 2015, the Internal Audit Unit completed 17 audits. For 2016, approximately 13 audits are scheduled for completion.

## *Policy Development and The Budget Process*

### **Policy Development and the Budget Process**

Policy development for the District, performed on both the legislative and executive level, is ongoing and integrally related to the budget process.

#### **Planning and Policy Development Activities of the Board of Commissioners**

The District’s Board is the organization’s legislative branch wherein planning is done through a standing committee structure, whereby committee chairpersons and vice-chairpersons are elected by the Board concurrent with the biannual election of officers. With the exception of the Committee on Finance, whose chair is specifically referred to in the District’s enabling legislation, the focus of each committee is determined by the Board itself. The members of these committees are made up of fellow commissioners. The Board’s committees follow:

Affirmative Action	Budget and Employment	Engineering
Ethics	Federal Legislation	Finance
Industrial Waste and Water Pollution	Information and Technology	Judiciary
Labor and Industrial Relations	Maintenance and Operations	Monitoring and Research
Municipalities	Procurement	Public Information and Education
Pension, Human Resources, and Civil Service	Public Health and Welfare	Real Estate Development
State Legislation and Rules	Stormwater Management	

These standing committees develop plans and formulate policies that are then brought before the entire Board for formal adoption. These plans and policies provide direction to both the Board itself and the staff. On critical issues, and where broad discussion is warranted for future consensus building, the committee chairperson periodically calls “study sessions” inviting public testimony and discussion.

District Commissioners participate in regional planning and policy development as members of commissions, associations, and steering committees. By law, the Chairman of Finance serves on the Cook County Public Building Commission. The District has formally designated Commissioner representatives on the Chicago Metropolitan Agency for Planning and Fulton County Steering Committee. District participation in these regional planning committees ensures regional coordination, cooperation, and communication for policy development and planning.

The Board periodically recruits pro bono ad hoc Blue Ribbon Committees made up of government and business leaders to solicit input on issues of either regional interest or where expertise in an area outside the District’s primary functions is required.

Formal adoption of District policies is enacted at regularly scheduled Board meetings (semi-monthly) or at special Board meetings focused on a specific issue.

#### **Strategic Business Plan**

We are in the second year of the District’s new Strategic Business Plan, which is best summarized by the motto “Recovering Resources, Transforming Water.” As we work to eliminate the word “waste” from our vocabulary, the District continues to serve as a leader among utilities in efforts to adopt a resource recovery model. Legislation allows us to generate a revenue stream from biogas, high quality reclaimed water and composted biosolids. We have implemented enhanced biological phosphorus removal ahead of regulation and are able to produce up to 10,000 tons of phosphorus fertilizer annually through our new facility at the Stickney WRP. We continue to move forward with the implementation of a deammonification process to remove nitrogen from ammonia-rich sidestreams. Disinfection is online at the Calumet WRP and starts up at the O’Brien WRP this year. We are working with waste haulers to explore recovery of organic matter, like food waste, from solid waste to increase biogas production from our anaerobic digesters. This biogas can be cleaned and sold to the natural gas pipeline as a renewable energy source. We are researching two new innovative technologies to recover nutrients from wastewater using algae. We have partnered with the city of Chicago to co-compost wood chips from the city’s tree trimming operations with District biosolids to make a high-quality topsoil product that returns valuable nutrients and carbon back into the soil. To address flooding, we are pursuing buyout of floodprone properties, building or expanding reservoirs and implementing green infrastructure projects throughout Cook County. These studies will identify potential flooding solutions using both gray and green infrastructure; the studies will be completed this year. The Thornton Reservoir is now online, with McCook Reservoir Phase I following in 2017. The exciting things happening at the District will have a positive impact not only in Cook County, but throughout the country as well.

## *Policy Development and The Budget Process*

### **Planning Activities by Staff**

The Executive Director serves as the District’s Chief Executive Officer and is responsible for the day-to-day administration of the organization. It is through the direction and authority of this office that compliance with the laws governing the agency and the policies established by the Board is assured. Under the direction of these laws and policies, staff planning takes place on various organizational platforms. Through organizational planning units, steering committees, task forces, and general managerial planning, District staff establishes organizational goals, objectives, and priorities. Planning takes place on both an interdepartmental and intradepartmental basis. Each committee or task force has representation that crosses departmental lines to ensure corporate agreement.

### **Committees and Task Forces Planning**

Other formal planning is accomplished through the utilization of committees and task forces. Committees and task forces meet monthly with the exception of the Board of Standardization, which meets quarterly or as needed. A list of the various staff committees and task forces is as follows:

Inventory Review Board	Biosolids Task Force	Non-Core Business Project Committee
Board of Standardization	Injury Task Force	Records Management Committee
Natural Gas Committee	Audit Committee	Operations Committee

Each of these planning groups is delegated the responsibility to serve as District-wide planners for specific organizational needs. The Operations Committee includes subcommittees with designated assignments and purpose. These subcommittees work independently and then report their recommendations to the committee of the whole.

### **The Budget Process and Budget Procedures**

The Management and Budget Section of General Administration, staff to the Executive Director, prepares the Annual Budget and five-year financial plan. Similar to planning group in the Monitoring & Research Department in its coordinating role, the Budget Office consolidates the capital and maintenance plans for the upcoming and future years, including costs. Revenue projections and debt service requirements are examined along with the financial feasibility of capital projects in light of external and self-imposed financial constraints. The end product of this process is the annual appropriation ordinance and a Five-Year Financial Forecast.

The Five-Year Financial Forecast is prepared prior to the Executive Director’s Budget Recommendations and reflects the best estimates of revenues, fund equity, and appropriation needs available at the time. The forecast is presented to the Executive Director. Subject to his review and approval, it is then included in the Budget. The projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the Annual Budget. It contributes to making the budget a comprehensive financial plan of District operations, past, present, and future. It summarizes the tax impact of the District’s strategic goals and objectives.

All participants in the planning process are made aware of the District’s budget process and cycle. The budget calendar is relatively the same from year-to-year and is distributed to the Board and staff in the first quarter of the preceding budget year. Correspondingly, planning groups develop plans, schedules, and detailed justification for personnel contractual services, materials and supplies, equipment, and capital projects to comply with the annual budgeting process and cycle. Existing facilities’ plans, historical expenditures, cash-flow projections, and long-term forecasts provide valuable guidelines as to the availability of resources for the upcoming budget development. These guidelines both facilitate the development of the budget and allow for meaningful debate during the budget review process as to priorities and organizational goals for the budget year, as well as future years. An outline of the Annual Budget process and procedures follows. The Strategic Business Plan guides the development of the Budget and the Five-Year Financial Forecast.

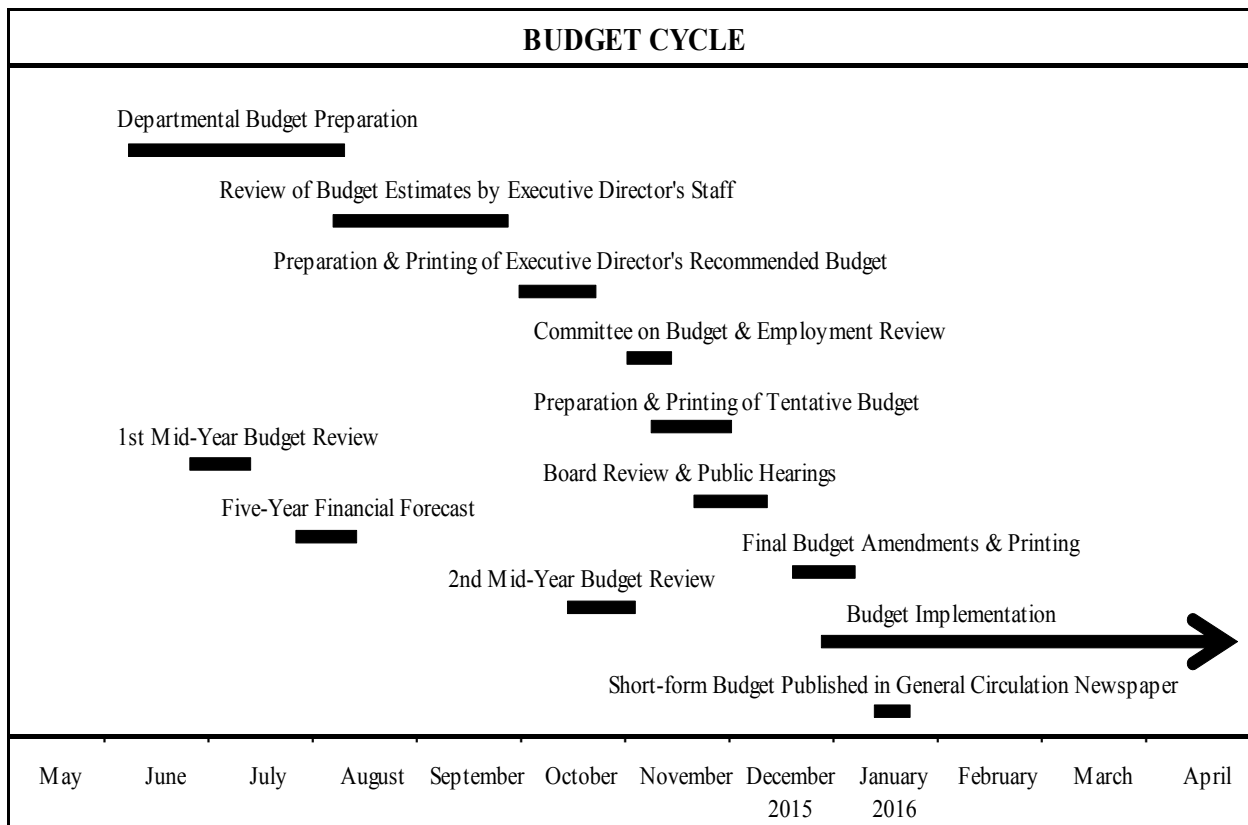
## *Policy Development and The Budget Process*

The fiscal year of the District begins on January 1 and ends on December 31.

1. After the first half of the fiscal year, the Budget Office holds a meeting with departmental budget representatives to discuss policy and procedures for budget preparation that begins in July. Instructions are distributed to departments, together with guidelines from the Executive Director, which indicate the direction the Budget should follow for the coming fiscal year. The basic forms are returned to the Budget Office and a general summary is prepared for the Executive Director, who conducts departmental hearings in September.
2. A revenue meeting is conducted by the Executive Director, Administrative Services Manager, and Budget Officer, along with those departments responsible for revenue items. Available resources used to finance the Budget are analyzed at this meeting.
3. It is usual to have two rounds of departmental hearings. When departmental estimates are approved and final decisions are made, a Budget Message is prepared and the proposals of the Executive Director become the initial Budget document. After departmental requests are finalized, the Executive Director's Budget Recommendations are published within 15 days. The Executive Director's Budget Recommendations are published and presented to the Board in October. At all times, the Budget figures are balanced between revenues and expenditures.
4. The Board holds a public hearing on the Capital Improvement Program in October.
5. The Board's Committee on Budget and Employment holds public meetings with the Executive Director and department heads regarding the Executive Director's proposals.
6. At the conclusion of these hearings, the Committee on Budget and Employment recommends the preparation of a second document, a supplement to the Executive Director's Budget Recommendations called the "Tentative Budget," which incorporates changes approved at the hearings. Once printed, this is placed on public display, along with the Executive Director's Budget Recommendations, for a minimum of 10 days. An advertisement is published in a general circulation newspaper announcing the availability of the Tentative Budget for inspection at the main office of the District, and specifying the time and date of the public hearing.
7. At least one public hearing is held between 10 and 20 days after the Budget has been made available for public inspection. All interested individuals and groups are invited to participate.
8. After the public hearing, the Committee on Budget and Employment presents the Tentative Budget, which includes revisions and the approved Appropriation and Tax Levy Ordinances, to the Board for adoption. This action must take place before January 1.
9. The Budget, as adopted by the Board, can be amended once at the next Regular Meeting of the Board. No amendment, however, can be requested before a minimum of five days after the Budget has been adopted. Amendments for contracts and/or services not received before December 31 must be reappropriated in the new Budget and are included through this amendment process.
10. The Final Budget document "As Adopted and Amended" is produced, and an abbreviated version, known as the "short form" is published in a newspaper of general circulation before January 20 of the fiscal year.
11. Budget implementation begins on January 1. The Finance Department and Budget Office provide control of appropriations and ensure that all expenditures are made in accordance with budget specifications. The manual entitled "Budget Code Book" is published in conformance with the Adopted Budget and is used to administer, control, and account for the Budget.
12. Supplemental appropriations can be made for the appropriation of revenues from federal or state grants, loans, bond issues, and emergencies. The Executive Director is authorized to transfer appropriations between line items within an object class of expenditure within a department. After March 1 of each fiscal year, transfers of appropriations between objects of expenditures or between departments must be presented for approval to the Board in accordance with applicable statutes.
13. The Board can authorize, by a two-thirds majority, the transfer of accumulated investment income between funds and the transfer of assets among the Working Cash Funds.

## CALENDAR FOR 2016 BUDGET

- Board of Commissioners Holds a Study Session  
on the Strategic Business Plan at 2:00 P.M. .... Thursday, June 18, 2015
  
- Executive Director’s Budget Recommendations  
Submitted to Board of Commissioners ..... Tuesday, October 13, 2015
  
- Board of Commissioners Holds a Public Hearing  
on the Capital Improvement Program at 10:00 A.M. .... Thursday, October 29, 2015
  
- Committee on Budget & Employment Hearings ..... 1 p.m. Thursday, November 5, 2015  
(Friday, November 6, 2015, if necessary)
  
- Committee on Budget & Employment Submits Tentative Budget  
to Board of Commissioners for Public Display ..... Thursday, November 19, 2015
  
- Board of Commissioners Holds a Public Hearing  
on the Budget at 2:00 P.M. .... Thursday, December 3, 2015
  
- Board of Commissioners Adopts the Budget ..... Thursday, December 10, 2015
  
- Board of Commissioners Amends the Adopted Budget ..... Thursday, December 17, 2015



The procedure for the Annual Budget process is detailed on the previous page.

CHICAGO, November 19, 2015

**REPORT OF COMMITTEE ON BUDGET AND EMPLOYMENT**

Presented to the Board of Commissioners of the  
Metropolitan Water Reclamation District of Greater Chicago

*To the Honorable, President and Members of the Board of  
Commissioners of the Metropolitan Water Reclamation District  
of Greater Chicago*

LADIES AND GENTLEMEN:

Your Chairman of the Committee on Budget and Employment respectfully reports that she has under consideration the resources of the Metropolitan Water Reclamation District of Greater Chicago and its estimated receipts, together with the sum of money required to be appropriated to defray the necessary expenses and liabilities of the Metropolitan Water Reclamation District of Greater Chicago for the fiscal year beginning January 1, 2016 and ending December 31, 2016, as prepared and submitted by the Executive Director in the document entitled "2016 Budget – Executive Director's Recommendations – October 13, 2015," which document is incorporated by reference herein, made a part hereof and attached hereto.

Your Chairman of the Committee on Budget and Employment has duly considered and reviewed the above budget estimates and revised and amended the same, in certain particulars, which estimates, as amended, were and are approved by your Chairman of the Committee on Budget and Employment and are submitted herewith in final revised form, setting forth the details of the estimates of the resources, revenues and expenditures for the future consideration, review, adoption, and passage by the Board of Commissioners. Your Chairman of the Committee on Budget and Employment further reports that in the consideration and revision of the estimated resources and departmental expenditures, it has received, considered, and transmits them herewith for the guidance of the Board of Commissioners and for public information. The budget estimates are prepared and made up of the following three parts:

- a. General Budget summary setting forth the aggregate figures of the budget in such manner as to show the balanced relations between the total proposed expenditures and the total anticipated revenues and other means of financing the budget for the fiscal year ending December 31, 2016, contrasted with the actual receipts and disbursement figures for the preceding year and the estimated figures for the current year. The budget of the Corporate Fund, Construction Fund, Capital Improvements Bond Fund, and Stormwater Management Fund has been planned and balanced with receipts on an actual cash basis and expenditures on an accrual basis pursuant to Statutes,
- b. The several estimates, statements and other detail, and the complete financial plan for the budget year, set forth as required in Section 5.3 of the Metropolitan Water Reclamation District Act (Chap. 70, Sec. 2605/5.3, Illinois Compiled Statutes),

- c. Complete draft of the Appropriation Ordinances and Tax Levy Ordinances required to give legal sanction to the appropriation when approved and adopted by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago.

Your Chairman of the Committee on Budget and Employment further reports that she has prepared and herewith transmits a draft of Ordinances to be adopted and passed by the Board of Commissioners entitled:

"Annual Appropriation Ordinance of the Metropolitan Water Reclamation District of Greater Chicago for the fiscal year beginning January 1, 2016 and ending December 31, 2016";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Metropolitan Water Reclamation District Retirement Fund and Corporate Fund";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Construction Fund";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, to pay the interest on outstanding Bonds and to discharge the principal thereof";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago

as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Reserve Claim Fund”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Stormwater Management Fund”;

Your Chairman of the Committee on Budget and Employment also recommends the passage of the following Orders:

*Ordered:* That the foregoing report and budget estimates as transmitted by the Chairman of the Committee on Budget and Employment, and the following Ordinances submitted with said report, which have not been adopted be and the same are hereby received for the consideration, adoption and passage by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

“Annual Appropriation Ordinance of the Metropolitan Water Reclamation District of Greater Chicago for the fiscal year beginning January 1, 2016 and ending December 31, 2016”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016 upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Metropolitan Water Reclamation District Retirement Fund and Corporate Fund”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Construction Fund”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, to pay the interest on outstanding Bonds and to discharge the principal thereof”;

and

Approved as to Form and Legality:

*Helen S. Wright*

Head Assistant Attorney

*Ronald M. Hill*

General Counsel

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Reserve Claim Fund”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2016 and ending December 31, 2016, upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the purpose of providing revenues for the Stormwater Management Fund”;

and it is further

*Ordered:* That upon the adoption and passage of the Appropriation Ordinance and the above mentioned Tax Levy Ordinances, the report of your Chairman of the Committee on Budget and Employment, together with the complete budget and statements of the assets, the estimated resources and the revenues of the Metropolitan Water Reclamation District of Greater Chicago for the fiscal year 2016 and the Ordinances listed above which are required to give legal sanction to the appropriations when adopted and passed by the Board of Commissioners, the vote shall be entered in the Proceedings of the Board of Commissioners and the ordinances, report, budget and statements shall be printed in book form for easy reference and examination, and for controlling the expenditures by the Board of Commissioners during the fiscal year beginning January 1, 2016 and ending December 31, 2016;

and it is further

*Ordered:* That the report of your Chairman of the Committee on Budget and Employment and the Appropriation Ordinances of the Metropolitan Water Reclamation District of Greater Chicago for the year 2016 and the Tax Levy Ordinances listed above which are required to give legal sanction to the appropriation when adopted and passed by the Board of Commissioners together with the summary of estimated revenues and estimated expenditures for the year beginning January 1, 2016 and ending December 31, 2016, shall be published once before January 20, 2016, in a newspaper having general circulation within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago;

and it is further

*Ordered:* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby authorized and directed to carry out the aforementioned orders and to incur the necessary expenses thereof.

Respectfully submitted,

*Kari K. Stule*

Chairman,  
Committee on Budget and Employment

**ORDINANCE NUMBER O15-003A**

**ANNUAL APPROPRIATION ORDINANCE OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT  
OF GREATER CHICAGO  
FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2016  
AND ENDING DECEMBER 31, 2016**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* That this Ordinance be and the same is hereby termed the “Annual Appropriation Ordinance of the Metropolitan Water Reclamation District of Greater Chicago for the fiscal year beginning January 1, 2016 and ending December 31, 2016.”

*Section 2.* That the amounts hereinafter set forth or so much thereof as may be authorized by law and as may be needed, and not exceeding the aggregate sum allocated to and expendable by each department or principal division, be and the same are hereby appropriated for the payment of: (a) interest coupons on bonds; (b) sinking fund requirements for the payment of the principal of said bonds; (c) the Metropolitan Water Reclamation District Retirement Fund; (d) Construction Fund purposes; (e) Capital Improvements Bond Fund purposes; (f) Reserve Claim Fund; (g) Stormwater Management Fund purposes; and (h) all other corporate purposes of the Metropolitan Water Reclamation District of Greater Chicago during the fiscal year beginning January 1, 2016 and ending December 31, 2016.

*Section 3.* That for the purposes of accounting and expenditure control, the budgetary accounts set forth under the recital of estimated resources of the Metropolitan Water Reclamation District of Greater Chicago and budgetary accounts and code designations set forth in this Ordinance, shall be the official code designations of the Metropolitan Water Reclamation District of Greater Chicago and that the manual of Classification of Budgetary Code Accounts issued by General Administration of the Metropolitan Water Reclamation District of Greater Chicago, as revised, shall be in conformity therewith.

*Section 4.* That the Clerk and the other Heads of Departments of the Metropolitan Water Reclamation District of Greater Chicago shall use the aforesaid official code designations in administering the Appropriation Ordinance and in accounting for expenditures authorized herein.

*Section 5.* That wherever an appropriation is made under the classification “Personal Services,” “Contractual Services,” “Materials and Supplies,” “Machinery and Equipment,” “Capital Improvements,” “Land” or “Fixed

and other Charges,” it is supported by a schedule of Line Items.

The Executive Director is authorized to transfer appropriations between line items within an object class of expenditure within a department. Transfers of appropriations between objects of expenditure or between departments must be presented for approval to the Board of Commissioners in accordance with applicable statutes.

All expenditures against such appropriations shall be made in accordance with such supporting Line Item Schedules, and no voucher shall be approved by the Clerk for a sum exceeding the amount shown in said schedules; that the titles and the compensations appearing in the Personal Services supporting schedules shall be construed to be the official titles and maximum compensation for the same.

(a) Included in the appropriation for Total Personal Services is Account Number 601010 “Salaries of Regular Employees” that includes District pickup of employees’ contributions to the Pension Fund and in applicable departments, divisions or sections is Account Number 601060 “Compensation Plan Adjustments” provided for the purpose of implementing the Compensation Plan and associated salary and pay grade schedules for classified employees and exempt secretaries as adopted by the Board of Commissioners. The amount set up under Account Number 601060 “Compensation Plan Adjustments” include (1) the adjustment of salaries for employees eligible to receive step increases based on the prescribed standards of service and performance, (2) changes in Labor and Trades Wage Schedule Classifications as authorized by the Board of Commissioners, and (3) payments to eligible employees for incentive pay for unused sick leave, retirements, severance, termination, and unused overtime and/or vacation pay as authorized by the Board of Commissioners.

(b) The symbol “#” or crosshatch followed by a number, when used in the budget document, means the following:

#1. After a title, signifies that the incumbent will retain the title until he or she vacates the position and then the position will be dropped.

#2. After a title, signifies that when the position is vacated, the person filling the vacancy will receive the title within the parentheses. It can also indicate that while a grade level for a class title has been



lowered, the incumbent in the position will be retained at the current grade level. This is indicated by a notation of the new grade level in parentheses following the title.

#4. After a title, signifies that while a class title has been assigned to the Technical, Administrative and Managerial (TAM) salary schedule, the incumbent in the position will be compensated under the previously assigned Professional and Managerial (PM) or General Service (GS) salary schedule. When the position is vacated, the person filling the vacancy by promotion or new appointment will be compensated under the TAM salary schedule.

*Section 6.* That amounts appropriated under classifications other than "Personal Services" to any department or division of the Metropolitan Water Reclamation District of Greater Chicago shall be expended under the following conditions:

(a) Insofar as practicable, all contracts for purchases and open market orders for purchases to be charged against such appropriation shall be based upon specifications which are definite and certain as to character and quality, and which conform to standard specifications for the various classes of Materials and Supplies, Machinery and Equipment already prescribed or hereafter to be prescribed by the Board of Standardization of the Metropolitan Water Reclamation District of Greater Chicago.

(b) The Clerk of the Metropolitan Water Reclamation District of Greater Chicago shall certify to the sufficiency of appropriations out of which such amounts due under contracts are to be paid.

(c) The Director of Procurement and Materials Management shall certify that the specifications for purchases of such Materials and Supplies, and Machinery and Equipment, for which standard specifications have been prescribed by the Board of Standardization of the Metropolitan Water Reclamation District of Greater Chicago, are in conformity with such standard specifications.

(d) All open market orders issued by any department or division for Materials and Supplies, and Machinery and Equipment, for which specifications shall have been prescribed by the Board of Standardization of the Metropolitan Water Reclamation District of Greater Chicago, shall contain a description of the goods ordered and insofar as practicable and feasible conform with such standard specifications.

(e) The Director of Procurement and Materials Management shall, in auditing claims for goods delivered on open market order, determine through inspection or

otherwise, whether the goods delivered conform to such standard specifications.

(f) Every contract or purchase order involving amounts in excess of \$10,000.00 shall be signed by the Chairman of the Committee on Finance or other duly authorized officer of the Board of Commissioners, by the Executive Director, by the Clerk, and by the Director of Procurement and Materials Management of the Metropolitan Water Reclamation District of Greater Chicago.

The only exception to the above is for contracts and purchase orders for materials, supplies, and equipment for which the competitive bid threshold is \$25,000.00. These contracts and purchase orders only require the signature of the Director of Procurement and Materials Management of the Metropolitan Water Reclamation District of Greater Chicago.

(g) The Comptroller of the Metropolitan Water Reclamation District of Greater Chicago shall conduct audits of all expenditures. The Comptroller shall report the results of such audit to the President and the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago.

*Section 7.* That no employee shall have the right to demand continuous employment and compensation by reason of the appropriation if it becomes necessary to lay an employee off due to lack of work or lack of funds.

*Section 8.* That the supporting schedules and statements including unpaid bills and the item objects and purposes are appropriated for as follows:

# SECTION II

## BUDGET AND FINANCIAL SUMMARIES, SCHEDULES, AND EXHIBITS

This section includes a broad overview of the 2016 Budget with comparisons to past years and the projection of future District needs.

It begins by asking two basic questions: Where Does the Money Come From? Where Does the Money Go? Answers are presented graphically using a dollar bill to illustrate.

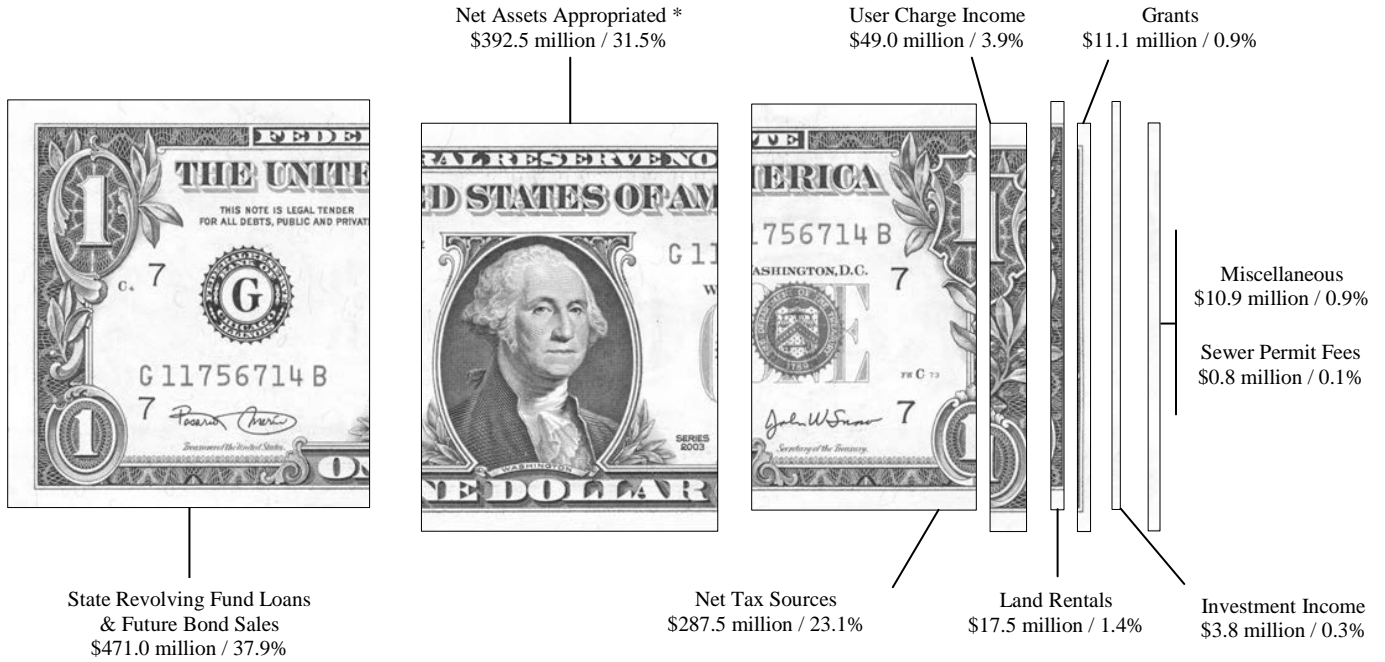
The comparison of budget and current year appropriations, tax levies, and tax rates by fund is one of the most comprehensive and most useful comparisons in the budget.

Continuing to look at the overall picture, this section presents a detailed view of the entire budget, organizing information in different ways so that the user can compare budget and current year appropriations by department, fund, object, and program. Allocation of personnel is also compared by year, department, and fund.

Having looked at the budget plan for 2016 and comparing it to previous years, this section also provides a projection of the future: the comprehensive Five-Year Financial Forecast for 2016-2020.

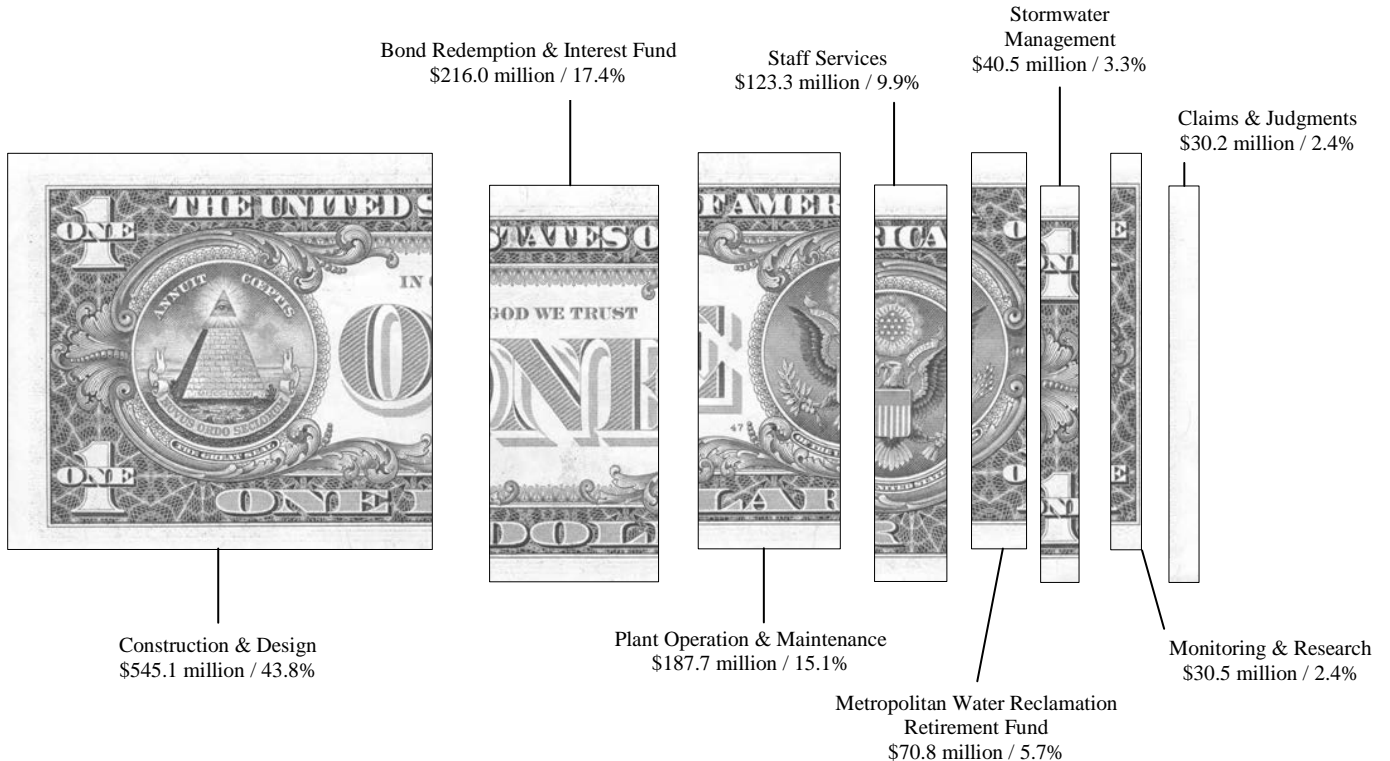
Where the Money Comes From; Where the Money Goes .....	39
Net Assets Appropriable .....	40
Estimated Tax Rate .....	41
Taxable Property (Equalized Assessed Valuation - Table and Graph).....	42
Appropriations & Expenditures, Tax Levies, and Tax Rates .....	43
Comparative Statement of Appropriations, Tax Levies, and Tax Rates.....	44
Comparative Appropriations:	
by Major Object/Character of Expenditure (Graph) .....	46
by Major Object of Expenditure .....	47
by Character of Expenditure .....	48
by Department and Major Program .....	49
by Fund and Major Program (Graph) .....	50
by Program Objective and by Fund .....	51
Annual Debt Service (Graph).....	52
Outstanding Bonds and Estimated Statutory Debt Margin.....	53
Account and Personnel Summary (Table and Graph) .....	54
Five-Year Financial Forecast, 2016-2020 .....	57

**WHERE THE MONEY COMES FROM: \$1,244.1 MILLION**



\* \$392.5 of the \$492.5 Net Assets Appropriable detailed in the analysis on the next page will be appropriated as revenue for 2016 (excludes Capital Improvements Bond Fund).

**WHERE THE MONEY GOES: \$1,244.1 MILLION**



**SUMMARY OF NET ASSETS APPROPRIABLE**

at January 1, 2016

(In Millions)

CURRENT ASSETS	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
Cash & Investments	\$ 129.6	\$ 108.8	\$ 20.2	\$ 6.4	\$ -	\$ 102.6	\$ 24.5	\$ 392.1
Restricted Cash	-	-	-	-	-	-	-	-
Deposit with Escrow Agent	-	-	-	-	-	-	-	-
Taxes Receivable	219.8	-	16.0	23.3	56.0	222.0	5.5	542.6
Replacement Tax	27.1	-	-	-	14.8	-	-	41.9
Grants	-	-	-	-	-	-	-	-
State Revolving Fund								
Loans Receivable	-	151.6	-	-	-	-	-	151.6
Due from Other Funds	0.2	-	-	-	-	-	-	0.2
<b>Total</b>	<b>\$ 376.7</b>	<b>\$ 260.4</b>	<b>\$ 36.2</b>	<b>\$ 29.7</b>	<b>\$ 70.8</b>	<b>\$ 324.6</b>	<b>\$ 30.0</b>	<b>\$ 1,128.4</b>
<b>CURRENT LIABILITIES, DESIGNATIONS AND RESTRICTIONS</b>								
Unpaid Bills and								
Contingent Liabilities	\$ 33.4	\$ 655.9	\$ 5.4	\$ 10.0	\$ -	\$ -	\$ 0.2	\$ 704.9
Due to Working Cash Funds	190.0	-	12.0	12.0	-	-	-	214.0
Liabilities for Restricted Assets	-	-	-	-	-	-	-	-
Principal and Interest	-	-	-	-	-	112.5	-	112.5
<b>Total</b>	<b>\$ 223.4</b>	<b>\$ 655.9</b>	<b>\$ 17.4</b>	<b>\$ 22.0</b>	<b>\$ -</b>	<b>\$ 112.5</b>	<b>\$ 0.2</b>	<b>\$ 1,031.4</b>
<b>*Net Assets Appropriable</b>	<b>\$ 153.3</b>	<b>\$ (395.5)</b>	<b>\$ 18.8</b>	<b>\$ 7.7</b>	<b>\$ 70.8</b>	<b>\$ 212.1</b>	<b>\$ 29.8</b>	<b>\$ 97.0</b>
Budget Reserve	\$ (100.1)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (100.1)
<b>Net Assets Appropriated</b>	<b>\$ 53.2</b>	<b>\$ (395.5)</b>	<b>\$ 18.8</b>	<b>\$ 7.7</b>	<b>\$ 70.8</b>	<b>\$ 212.1</b>	<b>\$ 29.8</b>	<b>\$ (3.1)</b>
<b>Equity Transfer</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3.3</b>	<b>\$ -</b>	<b>\$ 3.3</b>

\* Net Assets Appropriable = Current Assets - Current Liabilities

Note: Amounts are rounded.

**ESTIMATED TAX RATE**

Estimated tax rate to be levied for each \$100.00 of assessed valuation as equalized to finance the appropriations of the Metropolitan Water Reclamation District of Greater Chicago is as follows:

Upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016.

Gross Corporate Fund.....	16.87 ¢
Construction Fund.....	1.24
Stormwater Management Fund.....	2.56
Retirement Fund.....	4.86
Reserve Claim Fund.....	<u>0.43</u>
Subtotal.....	25.96 ¢
Bond Redemption & Interest Fund:	
Capital Improvement Bonds - Series:	
August 2009 Limited Tax.....	2.65 ¢
July 2011 Limited Tax Series A.....	1.51
July 2011 Unlimited Tax Series C.....	0.57
2014 Unlimited Series A.....	0.39
2014 Alt Rev Unlimited Tax Series B.....	0.57
2014 Limited Tax Series C.....	0.39
State Revolving Fund Bonds - Series:	
1992 S,T,U; 1994 R,V; 1997 AA-DD; 2001 A-C; 2004 A-H; 2007 A-D; 2009 A-I; 2012 A,B,D-F,H,J,K,O .....	5.26 ¢
Refunding Bonds - Series:	
May 2006 Unlimited Tax.....	1.34 ¢
May 2006 Limited Tax.....	0.20
March 2007 Unlimited Tax A.....	1.89
March 2007 Unlimited Tax B.....	0.37
March 2007 Limited Tax C.....	0.41
2014 Limited Tax Series D.....	<u>1.16</u>
Subtotal Bond Redemption & Interest Fund.....	16.71 ¢
<b>TOTAL ESTIMATED TAX RATE - 2016.....</b>	<b><u><u>42.67 ¢</u></u></b>

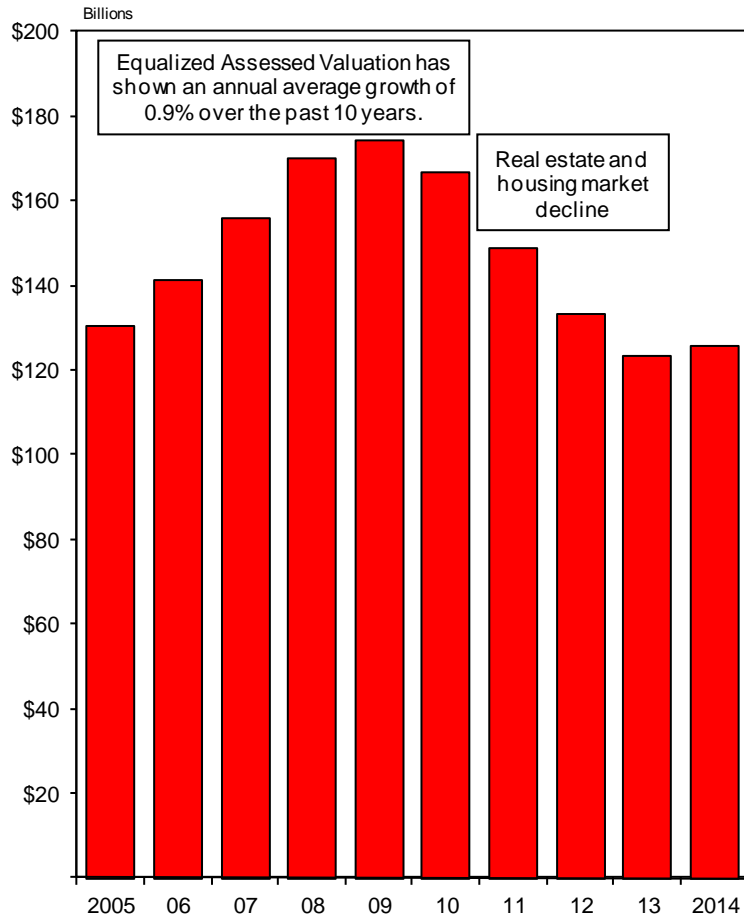
### TAXABLE PROPERTY WITHIN THE DISTRICT (Equalized Assessed Valuation)

The equalized assessed property valuation of the Metropolitan Water Reclamation District has shown an average growth of 0.9 percent per year over the past 10 years. The boundaries of the District encompass 91 percent of the area of Cook County. The District is located in one of the strongest and most economically diverse geographical areas of the country. The growth in commercial, industrial, and residential sectors in both downtown Chicago and the suburbs contributes to the strong base and the growth in the value of properties located within the District.

The Cook County Assessor is responsible for all taxable real property within Cook County except for railroad property and pollution control facilities, which are assessed directly by the State of Illinois.

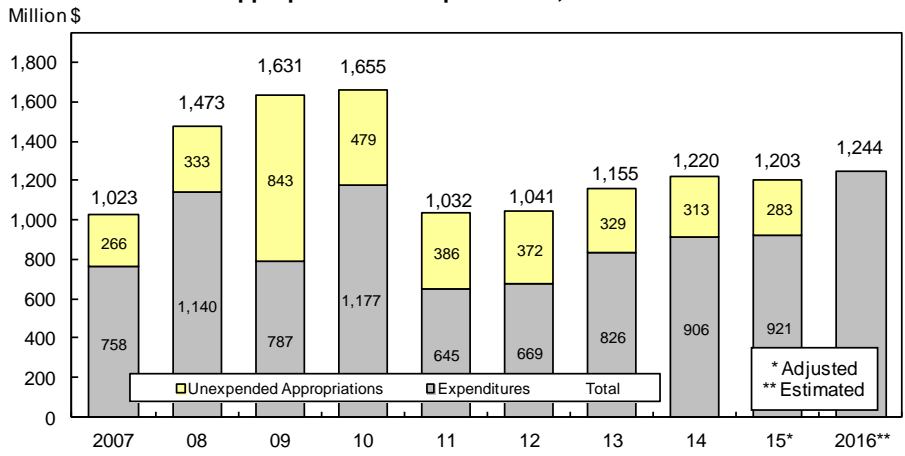
The equalized assessed valuation of real estate property is determined in Cook County based on market values of real estate, reduced by a classification factor determined by property use, and then multiplied by the State of Illinois equalization factor. The statutory objective is to value property at 33<sup>1/3</sup> percent of estimated fair market value.

The equalized assessed property valuation of the District is very important due to the primary reliance of the District on the property tax to fund current operations and future capital programs.



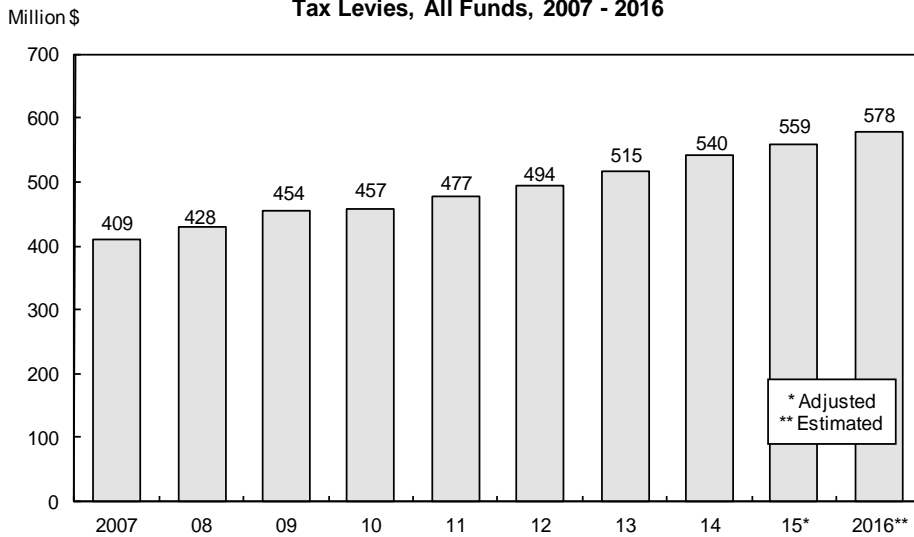
Year	Real Property	Railroad Property and Pollution Control Facilities	Total
2005	\$130.44 billion	\$148.80 million	\$130.59 billion
2006	141.31 billion	156.27 million	141.47 billion
2007	155.80 billion	172.25 million	155.97 billion
2008	169.91 billion	186.24 million	170.10 billion
2009	174.26 billion	212.23 million	174.47 billion
2010	166.66 billion	256.49 million	166.92 billion
2011	148.77 billion	275.01 million	149.05 billion
2012	133.11 billion	286.93 million	133.40 billion
2013	123.11 billion	311.53 million	123.42 billion
2014	125.43 billion	308.36 million	125.74 billion

**Appropriations & Expenditures, 2007 - 2016**

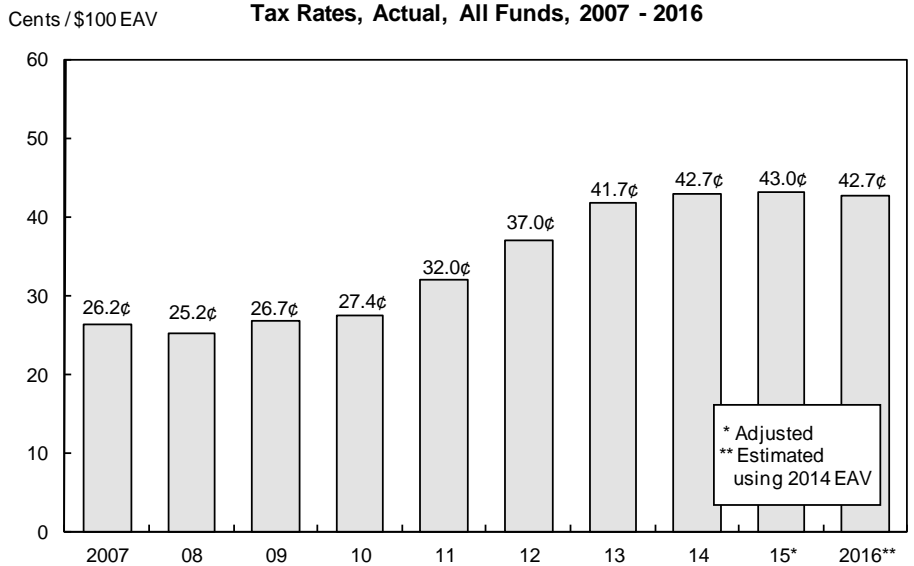


Note: Amounts are rounded.

**Tax Levies, All Funds, 2007 - 2016**



**Tax Rates, Actual, All Funds, 2007 - 2016**



## COMPARATIVE STATEMENT OF APPROPRIATIONS AND TAX LEVIES 2016-2014 ALL FUNDS

APPROPRIATIONS	2016 **	2015	2015	2014
FUND		AS PASSED	AS ADJUSTED *	ACTUAL
Corporate Fund	\$ 366,260,700	\$ 358,995,400	\$ 358,995,400	\$ 395,344,700
Construction Fund	36,614,400	37,910,700	37,910,700	53,306,000
Capital Improvements Bond Fund ***	483,764,800	453,072,500	453,072,500	386,208,300
Stormwater Management Fund	40,500,800	46,588,800	46,588,800	50,907,400
Retirement Fund	70,772,000	61,654,000	61,654,000	74,984,000
Reserve Claim Fund	30,175,900	30,700,000	30,700,000	64,000,000
Bond Redemption & Interest Fund	216,047,130	216,501,181	214,525,839	194,905,714
<b>TOTAL</b>	<b>\$1,244,135,730</b>	<b>\$1,205,422,581</b>	<b>\$1,203,447,239</b>	<b>\$1,219,656,114</b>
<b>LEVIES</b>				
Corporate Fund	\$ 226,109,300	\$ 227,196,000	\$ 227,196,000	\$ 230,000,000
Construction Fund	16,600,000	16,500,000	16,500,000	17,400,000
Stormwater Management Fund	34,250,000	24,050,000	24,050,000	21,000,000
Retirement Fund	65,161,200	58,004,000	58,004,000	50,530,700
Reserve Claim Fund	5,800,000	5,700,000	5,700,000	3,000,000
Subtotal	\$ 347,920,500	\$ 331,450,000	\$ 331,450,000	\$ 321,930,700
Bond Redemption & Interest Fund:				
Capital Improvement Bonds - Series:				
July 2006 Limited Tax	\$ -	\$ 12,529,275	\$ 12,529,275	\$ 13,648,191
August 2009 Limited Tax	35,564,767	35,564,767	35,564,767	26,601,415
July 2011 Limited Tax Series A	20,230,925	5,646,431	5,646,431	4,524,343
July 2011 Limited Tax Series B	-	13,894,139	13,894,139	13,894,139
July 2011 Unlimited Tax Series C	7,622,520	13,205,422	13,205,422	21,386,768
2014 Unlimited Tax Series A	5,181,347	5,181,347	5,181,347	4,677,605
2014 Alt Rev Unlimited Tax Series B ****	3,387,824	3,391,347	3,391,347	-
2014 Limited Tax Series C	15,540,933	5,052,021	5,052,021	3,475,648
State Revolving Fund Bonds - Series:				
1992 S,T,U; 1994 R,V; 1997 AA-DD; 2001 A-C; 2004 A-H; 2007 A-D; 2009 A-I; 2012 A,B,D-F,H,J,K,O	70,482,161	70,134,356	69,284,621	66,582,223
Refunding Bonds - Series:				
May 2006 Unlimited Tax	17,958,549	17,958,549	17,958,549	17,958,549
May 2006 Limited Tax	2,631,606	2,631,606	2,631,606	2,631,606
March 2007 Unlimited Tax A	25,279,534	29,061,140	29,061,140	29,078,497
March 2007 Unlimited Tax B	4,996,749	4,996,749	4,996,749	4,996,749
March 2007 Limited Tax C	5,541,606	5,541,606	5,541,606	5,541,606
2014 Limited Tax Series D	15,494,041	3,940,052	3,940,052	3,322,009
Subtotal Bond Redemption & Interest Fund	\$ 229,912,562	\$ 228,728,807	\$ 227,879,072	\$ 218,319,348
<b>TOTAL</b>	<b>\$ 577,833,062</b>	<b>\$ 560,178,807</b>	<b>\$ 559,329,072</b>	<b>\$ 540,250,048</b>

NOTES: \* As Adjusted reflects the 2014 Equalized Assessed Valuation (EAV) (\$125,736,187,743) estimated to increase 3.5 percent, plus any subsequent supplemental levies and/or appropriations.

\*\* 2016 reflects an estimated 3.0 percent increase in the EAV from the 2015 estimate.

\*\*\* Prior year obligations for the Capital Improvements Bond Fund are included in the Appropriation for Liabilities.

\*\*\*\* As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Fund be transferred to the Bond Fund and used to abate taxes levied for this issue.



## COMPARATIVE STATEMENT OF TAX RATES 2016-2014 ALL FUNDS

Per \$100 in Equalized Assessed Valuation (EAV)

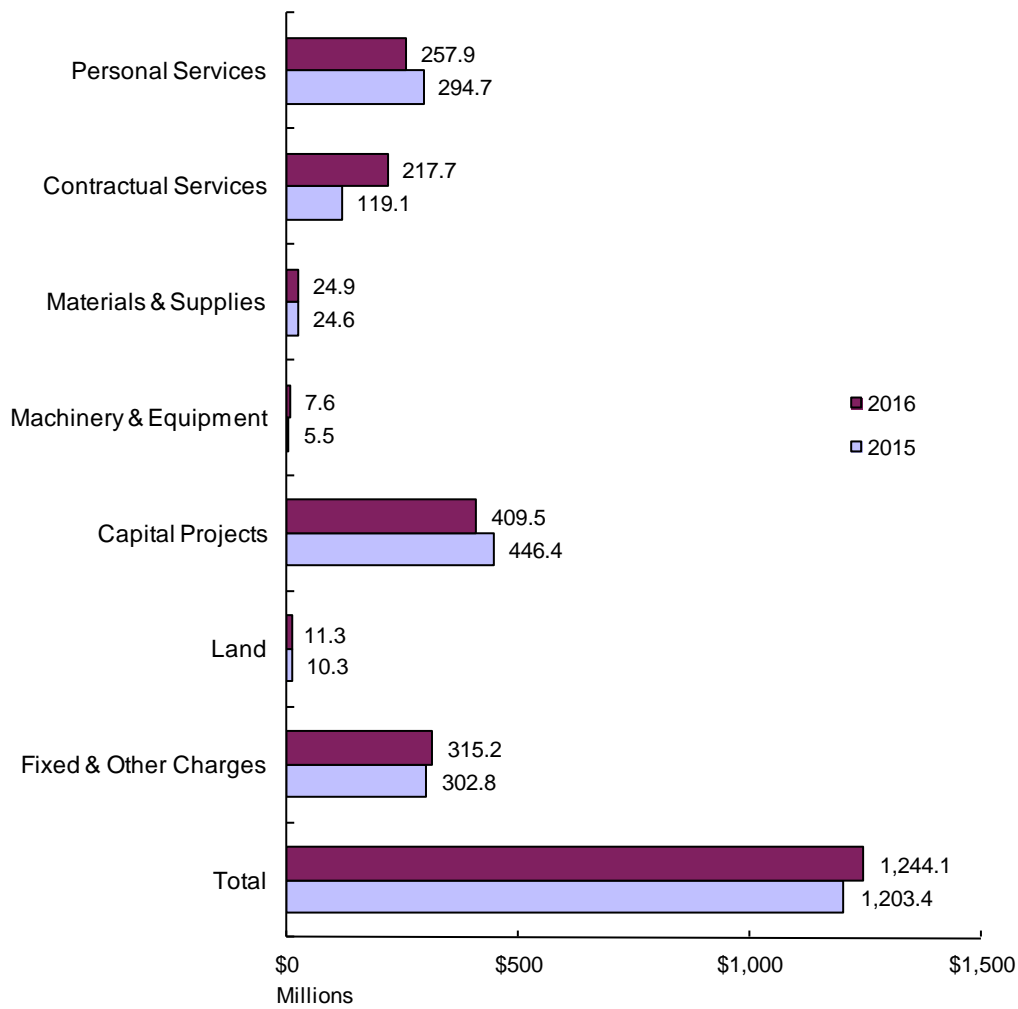
FUND		2016 **	2015 AS PASSED	2015 AS ADJUSTED *	2014 ACTUAL
	tax rate limit				
Corporate Fund	41 ¢	16.87 ¢	17.44 ¢	17.46 ¢	18.29 ¢
Construction Fund	10 ¢	1.24	1.27	1.27	1.38
Stormwater Management Fund	5 ¢	2.56	1.85	1.85	1.67
Retirement Fund		4.86	4.45	4.46	4.02
Reserve Claim Fund	½ ¢	0.43	0.44	0.44	0.24
Subtotal		25.96 ¢	25.45 ¢	25.48 ¢	25.60 ¢
Bond Redemption & Interest Fund:					
Capital Improvement Bonds - Series:					
July 2006 Limited Tax		- ¢	0.96 ¢	0.96 ¢	1.09 ¢
August 2009 Limited Tax		2.65	2.73	2.73	2.12
July 2011 Limited Tax Series A		1.51	0.43	0.43	0.36
July 2011 Limited Tax Series B		-	1.07	1.07	1.11
July 2011 Unlimited Tax Series C		0.57	1.01	1.01	1.70
2014 Unlimited Tax Series A		0.39	0.40	0.40	0.37
2014 Alt Rev Unlimited Tax Series B ***		0.57	0.26	0.26	-
2014 Limited Tax Series C		0.39	0.39	0.39	0.28
State Revolving Fund Bonds - Series:					
1992 S,T,U; 1994 R,V; 1997 AA-DD; 2001 A-C; 2004 A-H; 2007 A-D; 2009 A-I; 2012 A,B,D-F,H,J,K,O		5.26	5.38	5.32	5.30
Refunding Bonds - Series:					
May 2006 Unlimited Tax		1.34	1.38	1.38	1.43
May 2006 Limited Tax		0.20	0.20	0.20	0.21
March 2007 Unlimited Tax Series A		1.89	2.23	2.23	2.31
March 2007 Unlimited Tax Series B		0.37	0.38	0.38	0.40
March 2007 Limited Tax Series C		0.41	0.43	0.43	0.44
2014 Limited Tax D		1.16	0.30	0.30	0.26
Subtotal Bond Redemption & Interest Fund		16.71 ¢	17.55 ¢	17.49 ¢	17.38 ¢
<b>TOTAL</b>		<b>42.67 ¢</b>	<b>43.00 ¢</b>	<b>42.97 ¢</b>	<b>42.98 ¢</b>

NOTES: \* As Adjusted reflects the 2014 EAV (\$125,736,187,743) estimated to increase 3.5 percent, plus any subsequent supplemental levies and/or appropriations.

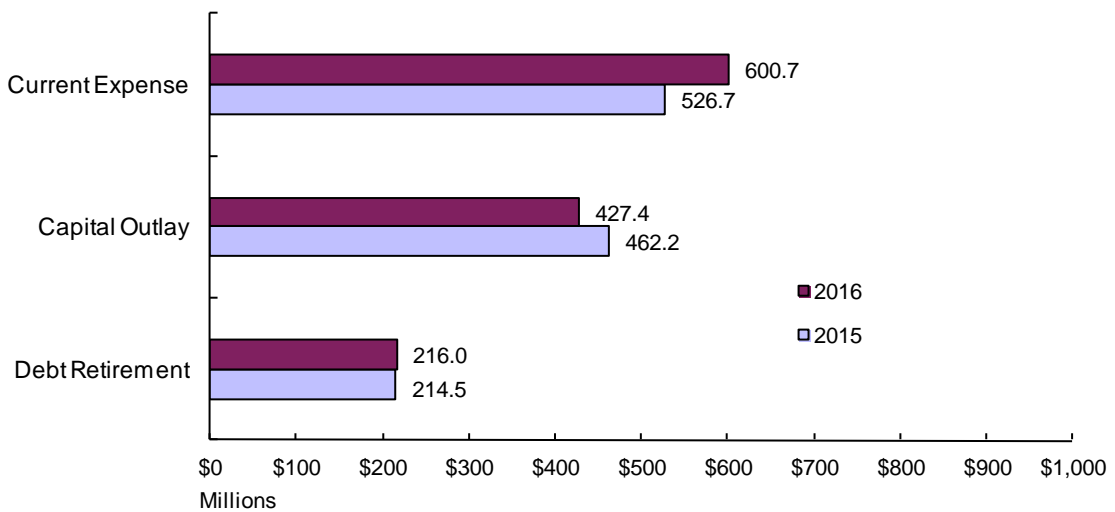
\*\* 2016 reflects an estimated 3.0 percent increase in the EAV from the 2015 estimate.

\*\*\* As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Fund be transferred to the Bond Fund and used to abate taxes levied for this issue.

**COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE**



**COMPARATIVE APPROPRIATIONS BY MAJOR CHARACTER OF EXPENDITURE**



## COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE 2016-2015\* ALL FUNDS

ORGANIZATION or FUND	YEAR	TOTAL	PERSONAL SERVICES	CONTRACTUAL SERVICES	MATERIALS	MACHINERY	CAPITAL PROJECTS	LAND	FIXED
					& SUPPLIES	& EQUIPMENT			& OTHER CHARGES
Board of Commissioners	2016	\$ 4,407,800	\$ 4,029,000	\$ 370,700	\$ 8,100	\$ -	\$ -	\$ -	\$ -
	2015	\$ 4,177,600	\$ 4,103,700	\$ 63,700	\$ 10,200	\$ -	\$ -	\$ -	\$ -
General Administration	2016	16,819,300	11,672,600	4,837,300	299,400	10,000	-	-	-
	2015	16,042,000	11,605,800	4,113,200	313,000	10,000	-	-	-
Monitoring & Research	2016	30,523,200	28,064,900	1,606,100	512,200	340,000	-	-	-
	2015	28,432,700	26,420,300	1,039,200	553,200	420,000	-	-	-
Procurement & Materls. Management	2016	8,777,400	5,536,900	193,000	3,047,500	-	-	-	-
	2015	8,645,100	5,437,100	135,100	3,072,900	-	-	-	-
Human Resources	2016	60,816,800	55,463,500	5,192,900	160,400	-	-	-	-
	2015	60,072,100	55,507,800	4,166,800	397,500	-	-	-	-
Information Technology	2016	17,448,600	9,068,800	7,355,300	877,700	146,800	-	-	-
	2015	16,680,700	8,590,000	6,691,800	1,200,100	198,800	-	-	-
Law	2016	7,972,600	5,152,200	1,975,700	24,700	-	-	-	820,000
	2015	7,765,800	6,775,800	194,000	26,000	-	-	-	770,000
Finance	2016	3,696,300	3,274,900	413,600	7,800	-	-	-	-
	2015	3,572,900	3,494,300	69,800	8,800	-	-	-	-
Maint. & Operations:									
General Division	2016	23,111,200	9,456,000	12,665,300	989,900	-	-	-	-
	2015	25,943,100	10,514,500	14,570,200	858,400	-	-	-	-
North Service Area	2016	43,830,100	26,237,100	14,691,500	2,759,500	142,000	-	-	-
	2015	42,076,200	25,271,700	13,907,300	2,691,200	206,000	-	-	-
Calumet Service Area	2016	38,039,500	19,189,600	13,669,300	5,145,600	35,000	-	-	-
	2015	35,728,500	19,177,900	13,868,000	2,654,600	28,000	-	-	-
Stickney Service Area	2016	82,745,000	38,855,000	34,462,500	9,380,500	47,000	-	-	-
	2015	82,571,900	38,949,800	34,086,200	9,520,200	15,700	-	-	-
TOTAL Maintenance & Operations	2016	\$ 187,725,800	\$ 93,737,700	\$ 75,488,600	\$ 18,275,500	\$ 224,000	\$ -	\$ -	\$ -
	2015	\$ 186,319,700	\$ 93,913,900	\$ 76,431,700	\$ 15,724,400	\$ 249,700	\$ -	\$ -	\$ -
Engineering	2016	28,072,900	27,300,200	689,200	83,500	-	-	-	-
	2015	27,286,800	26,532,800	695,600	58,400	-	-	-	-
TOTAL Corporate Fund	2016	\$ 366,260,700	\$ 243,300,700	\$ 98,122,400	\$ 23,296,800	\$ 720,800	\$ -	\$ -	\$ 820,000
	2015	\$ 358,995,400	\$ 242,381,500	\$ 93,600,900	\$ 21,364,500	\$ 878,500	\$ -	\$ -	\$ 770,000
Construction Fund	2016	36,614,400	-	6,220,900	331,000	6,760,800	23,301,700	-	-
	2015	37,910,700	7,983,400	1,594,800	2,893,600	4,179,900	21,259,000	-	-
Capital Improvements Bond Fund	2016	483,764,800	-	95,883,000	-	-	376,478,600	10,300,000	1,103,200
	2015	453,072,500	14,850,000	9,448,600	-	422,700	416,301,200	10,300,000	1,750,000
Stormwater Management Fund	2016	40,500,800	6,593,600	17,512,600	1,274,500	100,000	9,747,400	1,000,000	4,272,700
	2015	46,588,800	19,485,200	14,456,000	344,000	-	8,863,600	-	3,440,000
Bond Redemption & Interest Fund	2016	216,047,130	-	-	-	-	-	-	216,047,130
	2015	214,525,839	-	-	-	-	-	-	214,525,839
Retirement Fund	2016	70,772,000	-	-	-	-	-	-	70,772,000
	2015	61,654,000	-	-	-	-	-	-	61,654,000
Reserve Claim Fund	2016	30,175,900	8,000,000	-	-	-	-	-	22,175,900
	2015	30,700,000	10,000,000	-	-	-	-	-	20,700,000
<b>GRAND TOTAL</b>	2016	\$1,244,135,730	\$257,894,300	\$ 217,738,900	\$ 24,902,300	\$ 7,581,600	\$ 409,527,700	\$ 11,300,000	\$ 315,190,930
	2015	\$1,203,447,239	\$294,700,100	\$ 119,100,300	\$ 24,602,100	\$ 5,481,100	\$ 446,423,800	\$ 10,300,000	\$ 302,839,839
PERCENTAGES	2016	100.0%	20.7%	17.5%	2.0%	0.6%	32.9%	0.9%	25.3%
	2015	100.0%	24.5%	9.9%	2.0%	0.5%	37.1%	0.9%	25.2%

Note: Percentages are rounded.

\* Adjusted Appropriation

**COMPARATIVE APPROPRIATIONS BY CHARACTER OF EXPENDITURE  
2016-2015\* ALL FUNDS**

<b>ORGANIZATION OR FUND</b>	<b>YEAR</b>	<b>TOTAL</b>	<b>CURRENT EXPENSE</b>	<b>CAPITAL OUTLAY</b>	<b>DEBT RETIREMENT</b>
Board of Commissioners	2016	\$ 4,407,800	\$ 4,407,800	\$ -	\$ -
	2015	\$ 4,177,600	\$ 4,177,600	\$ -	\$ -
General Administration	2016	16,819,300	16,809,300	10,000	-
	2015	16,042,000	16,032,000	10,000	-
Monitoring & Research	2016	30,523,200	30,183,200	340,000	-
	2015	28,432,700	28,012,700	420,000	-
Procurement & Materials Management	2016	8,777,400	8,777,400	-	-
	2015	8,645,100	8,645,100	-	-
Human Resources	2016	60,816,800	60,816,800	-	-
	2015	60,072,100	60,072,100	-	-
Information Technology	2016	17,448,600	17,301,800	146,800	-
	2015	16,680,700	16,481,900	198,800	-
Law	2016	7,972,600	7,972,600	-	-
	2015	7,765,800	7,765,800	-	-
Finance	2016	3,696,300	3,696,300	-	-
	2015	3,572,900	3,572,900	-	-
Maintenance & Operations:					
General Division	2016	23,111,200	23,111,200	-	-
	2015	25,943,100	25,943,100	-	-
North Service Area	2016	43,830,100	43,688,100	142,000	-
	2015	42,076,200	41,870,200	206,000	-
Calumet Service Area	2016	38,039,500	38,004,500	35,000	-
	2015	35,728,500	35,700,500	28,000	-
Stickney Service Area	2016	82,745,000	82,698,000	47,000	-
	2015	82,571,900	82,556,200	15,700	-
TOTAL Maintenance & Operations	2016	\$ 187,725,800	\$ 187,501,800	\$ 224,000	\$ -
	2015	\$ 186,319,700	\$ 186,070,000	\$ 249,700	\$ -
Engineering	2016	28,072,900	28,072,900	-	-
	2015	27,286,800	27,286,800	-	-
TOTAL Corporate Fund	2016	\$ 366,260,700	\$ 365,539,900	\$ 720,800	\$ -
	2015	\$ 358,995,400	\$ 358,116,900	\$ 878,500	\$ -
Construction Fund	2016	36,614,400	6,551,900	30,062,500	-
	2015	37,910,700	12,471,800	25,438,900	-
Capital Improvements Bond Fund	2016	483,764,800	96,986,200	386,778,600	-
	2015	453,072,500	26,048,600	427,023,900	-
Stormwater Management Fund	2016	40,500,800	30,653,400	9,847,400	-
	2015	46,588,800	37,725,200	8,863,600	-
Bond Redemption & Interest Fund	2016	216,047,130	-	-	216,047,130
	2015	214,525,839	-	-	214,525,839
Retirement Fund	2016	70,772,000	70,772,000	-	-
	2015	61,654,000	61,654,000	-	-
Reserve Claim Fund	2016	30,175,900	30,175,900	-	-
	2015	30,700,000	30,700,000	-	-
<b>GRAND TOTAL</b>	2016	\$ 1,244,135,730	\$ 600,679,300	\$ 427,409,300	\$ 216,047,130
	2015	\$ 1,203,447,239	\$ 526,716,500	\$ 462,204,900	\$ 214,525,839
<b>PERCENTAGES</b>	2016	100%	48%	34%	17%
	2015	100%	44%	38%	18%

Note: Percentages are rounded.

\* Adjusted Appropriation

**2016 - 2015\* PROGRAM APPROPRIATION - ALL FUNDS  
BY DEPARTMENT AND MAJOR PROGRAM**

(In Millions)

**MAJOR PROGRAM**

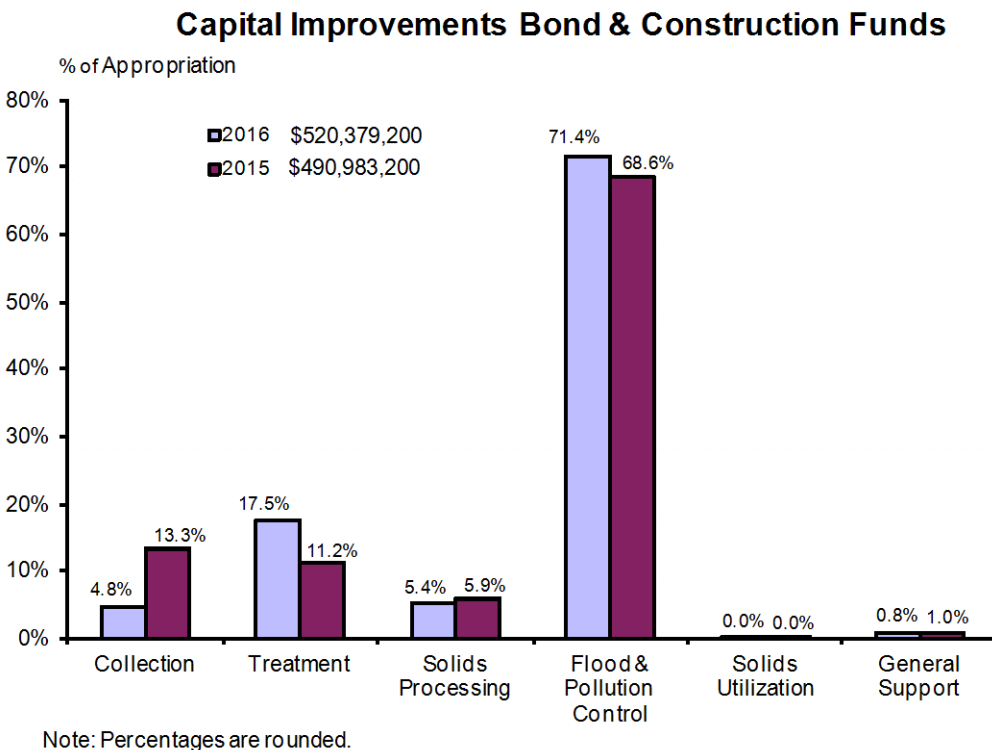
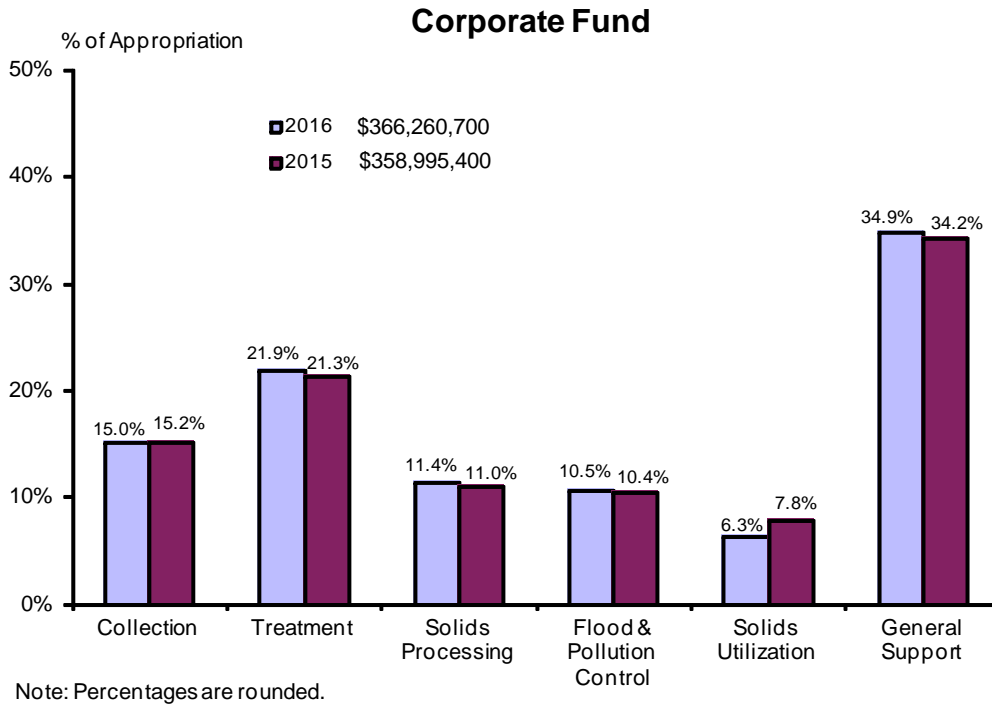
DEPARTMENT	COLLECTION		TREATMENT		SOLIDS PROCESSING		SOLIDS UTILIZATION		FLOOD & POLLUTION CONTROL		GENERAL SUPPORT		TOTAL			
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015		
Board of Commissioners	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4.4	\$ 4.2	\$ 4.4	\$ 4.2
General Administration	-	-	-	-	-	-	-	-	-	-	-	-	16.8	16.1	16.8	16.1
Monitoring & Research	-	-	-	-	-	-	-	-	30.5	28.4	-	-	-	-	30.5	28.4
Procurement & Materials Management	-	-	-	-	-	-	-	-	-	-	-	-	8.8	8.7	8.8	8.7
Human Resources	-	-	-	-	-	-	-	-	-	-	-	-	60.8	60.1	60.8	60.1
Information Technology	-	-	-	-	-	-	-	-	-	-	-	-	17.4	16.7	17.4	16.7
Law	-	-	-	-	-	-	-	-	-	-	-	-	7.9	7.7	7.9	7.7
Finance	-	-	-	-	-	-	-	-	-	-	-	-	3.7	3.6	3.7	3.6
Maintenance & Operations	47.8	47.2	71.0	67.7	35.9	34.6	22.8	27.7	4.7	5.0	5.5	4.1	187.8	186.4	187.8	186.4
Engineering	7.2	7.4	9.0	8.8	5.8	4.9	0.4	0.4	3.3	3.9	2.4	1.8	28.1	27.3	28.1	27.3
<b>Total Corporate Fund</b>	<b>\$55.0</b>	<b>\$54.6</b>	<b>\$80.0</b>	<b>\$76.5</b>	<b>\$41.7</b>	<b>\$39.6</b>	<b>\$23.1</b>	<b>\$28.1</b>	<b>\$38.6</b>	<b>\$37.3</b>	<b>\$127.7</b>	<b>\$122.9</b>	<b>\$366.2</b>	<b>\$359.0</b>	<b>\$366.2</b>	<b>\$359.0</b>
Construction and Capital Improvements Bond Funds	25.0	65.1	91.3	55.0	27.9	28.9	0.2	0.2	371.7	336.8	4.4	4.8	520.4	490.9	520.4	490.9
Stormwater Management Fund	-	-	-	-	-	-	-	-	40.5	46.6	-	-	-	-	40.5	46.6
Miscellaneous (Debt Service, Retirement, and Reserve Funds)	-	-	-	-	-	-	-	-	-	-	317.0	308.9	317.0	308.9	317.0	308.9
<b>GRAND TOTAL</b>	<b>\$80.0</b>	<b>\$119.7</b>	<b>\$171.3</b>	<b>\$131.5</b>	<b>\$69.6</b>	<b>\$68.5</b>	<b>\$23.3</b>	<b>\$28.3</b>	<b>\$450.8</b>	<b>\$420.7</b>	<b>\$449.1</b>	<b>\$436.6</b>	<b>\$1,244.1</b>	<b>\$1,205.3</b>	<b>\$1,244.1</b>	<b>\$1,205.3</b>

Note: Totals are rounded.

\* Adjusted Appropriation

### APPROPRIATION DISTRIBUTION BY PROGRAM

To comply with Illinois State Statute, it is necessary to prepare budget estimates and appropriate funds according to programs, as well as organizational units, performance principles, and unit cost data. The two charts on this page show the relationship of major objectives or functions within the Corporate, Construction, and Capital Improvements Bond Funds. The charts compare major program appropriations to the total fund appropriations for 2016 and 2015, as shown on page 49.

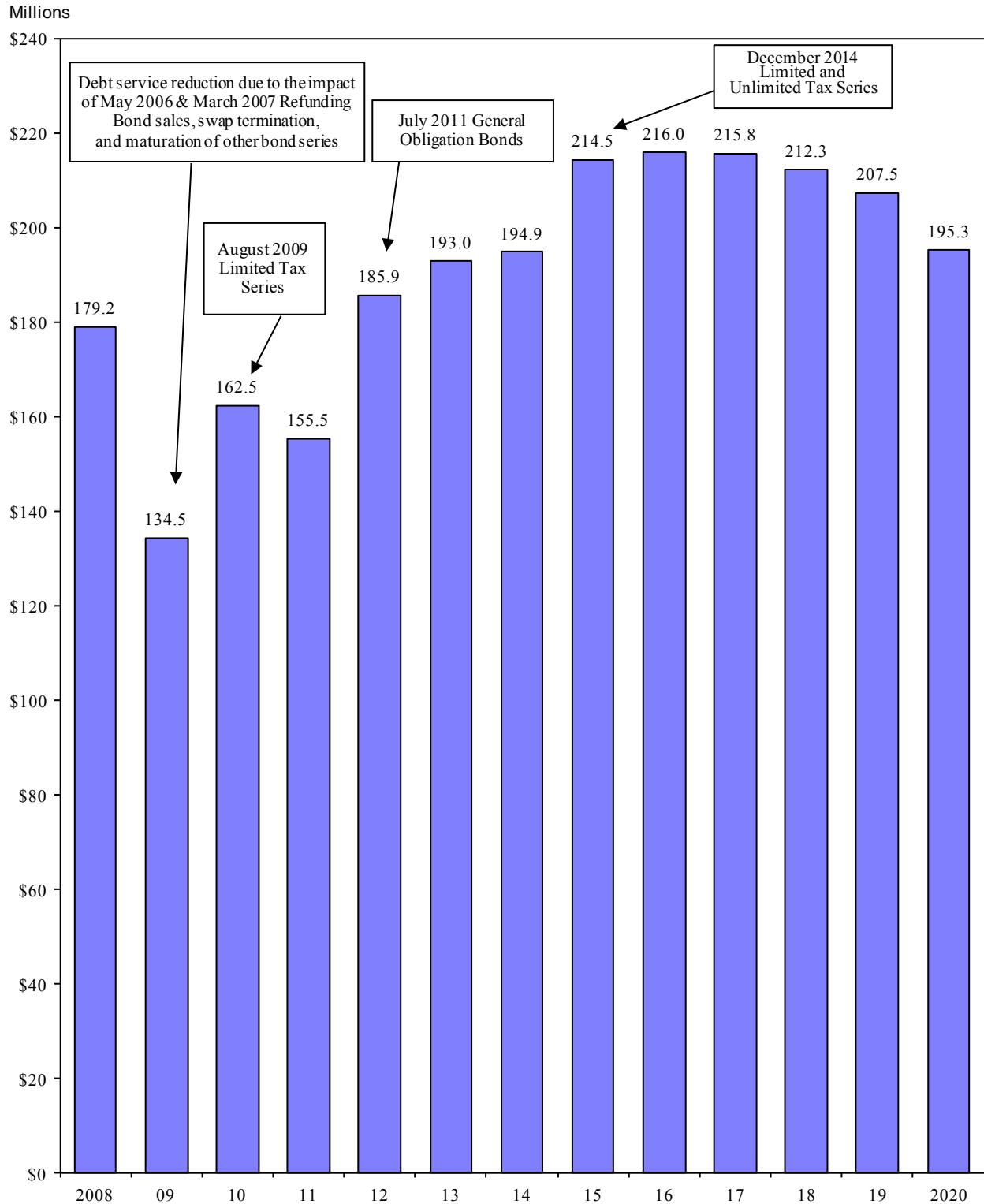


## 2016 - 2015 PROGRAM APPROPRIATION COMPARISON ALL FUNDS

PROGRAM OBJECTIVE		2016 BUDGET	2015 ADJUSTED BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
NUMBER	NAME					2016	2015
1000	Collection	\$ 80,039,251	\$ 119,709,849	\$ (39,670,598)	(33.1)	315	320
2000	Treatment	171,310,957	131,573,270	39,737,687	30.2	466	473
3000	Solids Processing	69,593,901	68,490,869	1,103,032	1.6	254	258
4000	Flood & Pollution Control	450,785,249	420,771,664	30,013,585	7.1	417	410
5000	Solids Utilization	23,286,462	28,319,818	(5,033,356)	(17.8)	48	53
7000	General Support (Debt, Retirement, Law, etc.)	449,119,910	434,581,769	14,538,141	3.3	476	468
<b>TOTAL</b>		<b>\$ 1,244,135,730</b>	<b>\$ 1,203,447,239</b>	<b>\$ 40,688,491</b>	<b>3.4</b>	<b>1,976</b>	<b>1,982</b>

SUMMARY BY FUND	2016 BUDGET	2015 ADJUSTED BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS 2016	2015
Corporate Fund	\$ 366,260,700	\$ 358,995,400	\$ 7,265,300	2.0	1,917	1,923
Construction & Capital Improvements Bond Funds	520,379,200	490,983,200	29,396,000	6.0	-	-
Stormwater Management Fund	40,500,800	46,588,800	(6,088,000)	(13.1)	59	59
Retirement Fund	70,772,000	61,654,000	9,118,000	14.8	-	-
Bond Redemption & Interest Fund	216,047,130	214,525,839	1,521,291	0.7	-	-
Reserve Claim Fund	30,175,900	30,700,000	(524,100)	(1.7)	-	-
<b>TOTAL</b>	<b>\$ 1,244,135,730</b>	<b>\$ 1,203,447,239</b>	<b>\$ 40,688,491</b>	<b>3.4</b>	<b>1,976</b>	<b>1,982</b>

**ANNUAL DEBT SERVICE - PRINCIPAL AND INTEREST 2008 - 2020**



This chart shows debt service for current bonds outstanding. It does not include bonds to be sold in the future, which are detailed in the Five-Year Financial Forecast on pages 59 and 67.



**OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN  
DECEMBER 31, 2015**

<b>BOND SERIES</b>	<b>DATE OF MATURITY</b>	<b>INTEREST RATES</b>	<b>AMOUNT PAYABLE</b>
<b>Capital Improvements Bonds - Series:</b>			
July 2006 Limited Tax	2033	5.0	\$ 11,515,000
August 2009 Limited Tax	2038	5.72	600,000,000
July 2011 Limited Tax Series A	2016	0.891 to 2.22	5,330,000
July 2011 Limited Tax Series B	2032	3.1 to 5.0	270,000,000
July 2011 Unlimited Tax Series C	2031	3.0 to 5.0	60,180,000
December 2014 Limited Tax Series	2028	2.0 to 5.0	75,000,000
December 2014 Unlimited Tax Series	2044	5.0	100,000,000
December 2014 Stormwater Alternate Revenue	2044	2.0 to 5.0	50,000,000
<b>SUBTOTAL - Capital Improvements Bonds:</b>			<b>\$ 1,172,025,000</b>
<b>Refunding Bonds - Series:</b>			
May 2006 Unlimited Tax	2031	5.035	\$ 346,600,000
May 2006 Limited Tax	2031	5.035	50,790,000
March 2007 Series A	2014 to 2022	4.0 to 5.0	149,880,000
March 2007 Series B	2034 to 2035	4.0 to 5.0	91,845,000
March 2007 Series C	2025 to 2033	4.0 to 5.0	101,860,000
December 2014	2022	2.0 to 5.0	70,805,000
<b>SUBTOTAL - Refunding Bonds:</b>			<b>\$ 811,780,000</b>
<b>State Revolving Fund Bonds - Series:</b>			
June 1996, 94R L170820	2017	2.50	\$ 3,295,857
February 1996, 92S L170875	2015	2.50	454,243
January 1997, 92T L170876	2016	2.50	1,797,243
July 1996, 92U L170877	2017	2.50	2,680,144
February 1997, 94V L171150	2018	2.50	6,197,664
January 2000, 97AA L170822	2019	2.506	12,348,721
December 2000, 97BB L171151	2020	2.535	3,058,829
July 2002, 97CC L172031	2021	2.535	14,190,309
August 2003, 97DD L171152	2023	2.905	7,369,726
July 2004, 01A L172126	2024	2.57	28,824,714
July 2004, 01B L172127	2024	2.50	32,420,462
July 2006, 01C L172128	2026	2.50	31,176,019
January 2009, 04A L172485	2028	2.50	16,281,878
January 2009, 04B L172488	2028	2.50	19,020,406
March 2007, 04C L172493	2027	2.50	1,716,311
March 2007, 04D L172494	2027	2.50	1,645,900
January 2009, 04E L172495	2028	2.50	5,523,854
March 2007, 04G L172611	2027	2.50	2,673,825
February 2009, 04H L172849	2029	2.50	40,320,298
June 2010, 07A L172625	2030	2.50	33,522,549
June 2010, 07D L172763	2030	2.50	7,646,125
July 2010, 07B L172850	2030	2.50	23,025,632
April 2011, 09H L173800	2031	0.00	570,282
April 2011, 04F L172496	2031	0.00	3,080,383
June 2011, 09B L173064	2031	0.00	5,934,792
June 2011, 09I L174675	2031	1.25	8,868,534
August 2011, 09E L173005	2031	1.25	32,877,592
September 2011, 09C L173063	2031	0.00	1,735,336
September 2011, 07C L172770	2031	0.00	51,666,667
September 2012, 09A L173074	2032	1.25	40,913,292
September 2012, 09F L174557	2032	1.25	55,605,865
July 2013, 09D L174558	2032	2.30	36,081,157
July 2013, 09G L173075	2032	1.25	26,976,678
August 2014, 12A L174710	2034	2.30	7,176,911
August 2014, 12B L174712	2034	2.30	5,974,404
July 2015, 12D L174988	2035	1.93	26,910,081
July 2015, 12E L174709	2035	1.93	5,343,063
July 2015, 12F L174989	2035	1.93	33,669,566
July 2015, 12H L174924	2035	1.93	18,834,792
July 2015, 12J L175172	2035	1.995	2,189,117
July 2015, 12K L174925	2035	1.995	10,167,698
July 2015, 12O L175166	2035	1.995	1,792,777
<b>SUBTOTAL - State Revolving Fund Bonds:</b>			<b>\$ 671,559,696</b>
<b>TOTAL OUTSTANDING BONDS:</b>			<b>\$ 2,655,364,696</b>

**CALCULATION OF ESTIMATED STATUTORY DEBT MARGIN**

<b>Debt Applicable to Debt Limit:</b>			
Outstanding Bonds	\$	2,655,364,696	
Bond Anticipation Note - Principal		90,115,600	
Bond Anticipation Note - Interest		344,800	
Capital Lease - Biosolids Facility		43,172,887	
Liabilities of Tax - Financed Funds		50,154,930	\$ 2,839,152,913
<b>Less Applicable Assets:</b>			
Cash and Investments - Bond Redemption & Interest Fund	\$	(102,566,469)	
Interest on Bonds Payable in Next Twelve Months		115,735,161	\$ 13,168,692
<b>NET DEBT APPLICABLE TO LIMIT:</b>			<b>\$ 2,852,321,605</b>
Statutory Debt Limit 5.75% of 2014 Equalized Assessed Valuation (\$125,736,187,743)	\$		7,229,830,795
Less Net Debt Applicable to Limit			2,852,321,605
<b>ESTIMATED STATUTORY DEBT MARGIN:</b>			<b>\$ 4,377,509,190</b>

## ACCOUNT SUMMARY COMPARISON

### 2016 - 2015 ALL FUNDS

ORGANIZATION OR FUND	Account Appropriation		Increase (Decrease) 2016 - 2015	
	2016	2015*	Dollars	Percent
<b>Board of Commissioners</b>	\$ 4,407,800	\$ 4,177,600	\$ 230,200	5.5
<b>General Administration</b>	16,819,300	16,042,000	777,300	4.8
<b>Monitoring &amp; Research</b>	30,523,200	28,432,700	2,090,500	7.4
<b>Procurement &amp; Materials Management</b>	8,777,400	8,645,100	132,300	1.5
<b>Human Resources</b>	60,816,800	60,072,100	744,700	1.2
<b>Information Technology</b>	17,448,600	16,680,700	767,900	4.6
<b>Law</b>	7,972,600	7,765,800	206,800	2.7
<b>Finance</b>	3,696,300	3,572,900	123,400	3.5
<b>Maintenance &amp; Operations:</b>				
<b>General Division</b>	23,111,200	25,943,100	(2,831,900)	(10.9)
<b>North Service Area</b>	43,830,100	42,076,200	1,753,900	4.2
<b>Calumet Service Area</b>	38,039,500	35,728,500	2,311,000	6.5
<b>Stickney Service Area</b>	82,745,000	82,571,900	173,100	0.2
<b>TOTAL Maintenance &amp; Operations</b>	<u>\$ 187,725,800</u>	<u>\$ 186,319,700</u>	<u>\$ 1,406,100</u>	0.8
<b>Engineering</b>	28,072,900	27,286,800	786,100	2.9
<b>TOTAL Corporate Fund</b>	<u>\$ 366,260,700</u>	<u>\$ 358,995,400</u>	<u>\$ 7,265,300</u>	2.0
<b>Construction Fund</b>	36,614,400	37,910,700	(1,296,300)	(3.4)
<b>Capital Improvements Bond Fund</b>	483,764,800	453,072,500	30,692,300	6.8
<b>TOTAL Capital Budget</b>	<u>\$ 520,379,200</u>	<u>\$ 490,983,200</u>	<u>\$ 29,396,000</u>	6.0
<b>Stormwater Management Fund</b>	40,500,800	46,588,800	(6,088,000)	(13.1)
<b>Bond Redemption &amp; Interest Fund</b>	216,047,130	214,525,839	1,521,291	0.7
<b>Retirement Fund</b>	70,772,000	61,654,000	9,118,000	14.8
<b>Reserve Claim Fund</b>	30,175,900	30,700,000	(524,100)	(1.7)
<b>GRAND TOTAL</b>	<u><u>\$ 1,244,135,730</u></u>	<u><u>\$ 1,203,447,239</u></u>	<u><u>\$ 40,688,491</u></u>	3.4

\*Adjusted Appropriation

**PERSONNEL SUMMARY COMPARISON****2016 - 2014 ALL FUNDS**

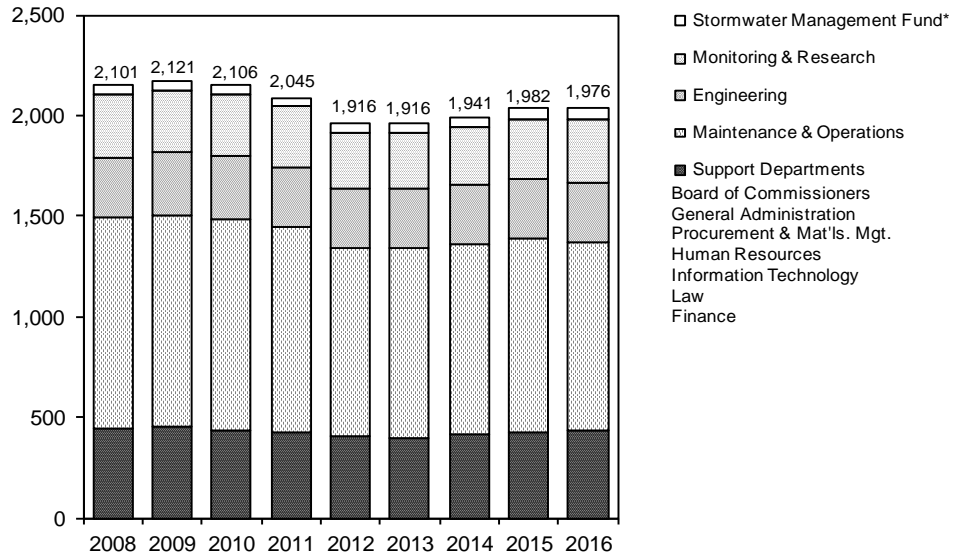
<b>ORGANIZATION OR FUND</b>	<b>Proposed FTEs 2016</b>	<b>Budgeted FTEs 2015</b>	<b>Actual FTEs 2014</b>	<b>Increase (Decrease) 2016 - 2015</b>	
				<b>FTEs</b>	<b>Percent</b>
<b>Board of Commissioners</b>	38	37	37	1	2.7
<b>General Administration</b>	122	119	113	3	2.5
<b>Monitoring &amp; Research</b>	308	297	287	11	3.7
<b>Procurement &amp; Materials Management</b>	63	63	61	-	-
<b>Human Resources</b>	73	74	69	(1)	(1.4)
<b>Information Technology</b>	76	70	69	6	8.6
<b>Law</b>	38	37	35	1	2.7
<b>Finance</b>	28	29	29	(1)	(3.4)
<b>Maintenance &amp; Operations:</b>					
<b>General Division</b>	87	95	90	(8)	(8.4)
<b>North Service Area</b>	259	260	259	(1)	(0.4)
<b>Calumet Service Area</b>	196	201	201	(5)	(2.5)
<b>Stickney Service Area</b>	385	399	395	(14)	(3.5)
<b>TOTAL Maintenance &amp; Operations</b>	<u>927</u>	<u>955</u>	<u>945</u>	<u>(28)</u>	<u>(2.9)</u>
<b>Engineering</b>	244	242	243	2	0.8
<b>TOTAL Corporate Fund</b>	<u>1,917</u>	<u>1,923</u>	<u>1,888</u>	<u>(6)</u>	<u>(0.3)</u>
<b>Construction Fund</b>	-	-	-	-	-
<b>Capital Improvements Bond Fund</b>	-	-	-	-	-
<b>TOTAL Capital Budget</b>	-	-	-	-	-
<b>Stormwater Management Fund</b>	59	59	53	-	-
<b>Bond Redemption &amp; Interest Fund</b>	-	-	-	-	-
<b>Retirement Fund</b>	-	-	-	-	-
<b>Reserve Claim Fund</b>	-	-	-	-	-
<b>GRAND TOTAL</b>	<u><u>1,976</u></u>	<u><u>1,982</u></u>	<u><u>1,941</u></u>	<u><u>(6)</u></u>	<u><u>(0.3)</u></u>

### PERSONAL SERVICE APPROPRIATIONS

Positions reported in this chart are actual positions through 2014, meaning that at some point during the year the position was filled. In 2014, 20 positions were unfilled for the entire year. In 2013, there were 11 positions that remained vacant for the entire year.

Maintenance & Operations, Engineering, and Monitoring & Research are referred to as the District’s operating departments. These departments are directly responsible for the daily operations of sewage collection, treatment, disposal, and environmental monitoring activities. The remaining departments are generally termed as support departments. While positions in these departments may be considered indirect or overhead, they are also necessary for technical expertise, statutory compliance, governance, and public accountability.

**Position History (2008- 2016)**



\* In 2016, 59 positions for the Maintenance & Operations and Engineering Departments are budgeted in the Stormwater Management Fund, while the operations remain with the departments.

Modest staffing increases in the operating departments beginning in 2008 through 2010 were necessary to adequately staff for the design and implementation of the Master Plans and Stormwater Management initiatives. The staffing reductions in 2011 and 2012 were part of a five-year plan to restructure the organization to ensure future financial viability. The staffing increases in 2014 and 2015 were necessary to address new and continuing initiatives as presented in the Strategic Business Plan.

The exhibit below provides the personal service appropriations for 2015 and 2016, and the actual expenditures for personal services in 2014. The District has introduced a number of initiatives in an effort to control all areas of personal service appropriations, several of which are discussed in the Budget Foreword section of this document.

Personal Service Summary - All Funds					
	2014	2015	2016	2015 - 2016	Percentage
	Actual Exp.	Adj. Approp.	Budgeted	Dollars	Change
Salaries of Regular Employees*	\$ 171,105,056	\$ 183,606,500	\$ 189,057,200	\$ 5,450,700	3.0%
Compensation Plan Adjustments	6,905,125	7,584,100	7,584,100	0	0.0%
Social Security & Medicare Contributions	2,427,579	2,692,800	2,676,100	(16,700)	-0.6%
Employee Claims	3,618,169	10,060,200	8,047,900	(2,012,300)	-20.0%
Other Employee Personal Services**	1,386,011	1,896,400	1,752,400	(144,000)	-7.6%
Health & Life Insurance Premiums***	59,521,423	45,104,600	48,776,600	3,672,000	8.1%
<b>Total</b>	<b>\$ 244,963,363</b>	<b>\$ 250,944,600</b>	<b>\$ 257,894,300</b>	<b>\$ 6,949,700</b>	<b>2.8%</b>

\* Includes 2016 Salary Adjustments  
 \*\* Includes Tuition, Training, and Non-budgeted Salaries  
 \*\*\* Includes Other Postemployment Benefits Distribution

# **FIVE-YEAR FINANCIAL FORECAST**

## **2016 - 2020**

The District's Five-Year Financial Forecast (FYFF), as defined by generally accepted accounting principles, is an interim financial report. Interim financial reports are designed to provide estimates of future financial operating conditions to policymakers and managers. They reflect no legal obligation of the organization, present or future.

The FYFF is prepared prior to the Executive Director's Budget Recommendations and reflects the best estimates of revenues, fund equity, and appropriation needs available at the time. This forecast is presented to the Executive Director. Subject to his review and approval, it is then included in the Budget.

The FYFF presentation is in the form of a letter from the Administrative Services Manager to the Executive Director, which discusses the assumptions used in making the forecast. It also provides a discussion of the changes and trends in operations, which are expected to occur during the FYFF period. Graphs and tables are provided, detailing the financial projections of all funds.

**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

Mr. David St. Pierre  
Executive Director  
OFFICE

October 13, 2015

SUBJECT: **FIVE-YEAR FINANCIAL FORECAST, 2016 – 2020**

Dear Sir:

I have reviewed the Five-Year Financial Forecast prepared for the fiscal years 2016 – 2020 and offer the following report and summary. Subject to your review and approval, this will be included in the 2016 Budget. These projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the 2016 Budget itself. They also contribute to making the Budget a comprehensive financial plan of District operations, present, and future.

This forecast is designed to provide the reviewer with a better understanding of how the District’s revenues and expenditures are expected to develop during the next five years. It also summarizes the tax impact of the District’s strategic goals and objectives. As useful as the forecast is in providing a short- and long-term view of the District’s financial position, it should be used with an understanding of the underlying expenditure and revenue assumptions. The report’s value lies in the projected trends rather than the absolute numbers. The current trends require the District to remain diligent in cutting costs and increasing efficiencies.

**OVERVIEW**

The Property Tax Extension Limitation (Tax Cap) law of 1995, Public Act 89-1, remains the primary limiting factor for the District’s long-term financial planning. This law essentially limits increases in property tax levies for our aggregate or operating funds, to an increase of five percent or the change in the national Consumer Price Index (CPI), whichever is less. Revenue sources for the District are limited by statute and are derived primarily from property taxes. Projections of economic growth in Illinois, reflected in revenues from personal property replacement tax collections, investment income, real estate leases, and user charge collections are anticipated to show slow to moderate growth over the projection period as the economy slowly recovers. Large swings in these smaller revenue streams are possible, but unpredictable.

The aggregate levy for 2016 is estimated to increase by 2.0 percent over 2015, and is projected to increase an average of 3.2 percent per year for 2016 through 2020. As noted on the graph on page 63, the 2016 levy is projected to be at the Tax Cap limitation. In planning for future years, it is necessary to plan major expenditures such that appropriations and resulting levies do not exceed the statutory limitations on property tax revenues in any given year. The Cook County Clerk ensures that the District’s levy remains in compliance by adjusting the levy extension, if required. The District has directed the Cook County Clerk to make any such reduction only to the Construction Fund. The Tax Cap may reduce the 2015 aggregate levy to be collected in 2016, depending on the 2015 CPI. It is not anticipated to be a significant reduction.

The Tax Cap law also has an impact on the future funding of the District’s capital program. While the Debt Service levy is not part of the aggregate levy, under Public Act 89-0001, the District’s non-referendum bond authority was restricted to fund only projects initiated prior to October 1, 1991, which generally covered only Tunnel and Reservoir Plan (TARP) projects. However, Public Act 89-0385 provided additional non-referendum authority to the District by authorizing the issuance of “limited bonds.” These “limited bonds” can be issued to the extent that the total debt service requirement of any new debt when combined with existing debt service does not exceed the debt service extension base of \$141.5 million established by the Act. This “limited bond” capacity was expanded for the District by passage of Public Act 90-485 in the 1997 legislative session by excluding debt issued and used for TARP projects from the limiting debt service extension base. In 2009, Public Act 96-0501 was passed which allows for an annual increase in this limiting debt service base by the lesser of five percent or the percentage increase in the CPI beginning with the 2011 levy. The debt service extension base is currently \$158.2 million and estimated to be at \$161.4 million in 2016.

In 2001, the Illinois Legislature amended the Metropolitan Water Reclamation District Act to allow the issuance of debt for up to 30 years (previously 20 years). In 2002, the District’s overall non-referendum authority was extended through December 31, 2016 and in 2010, it was extended again through December 31, 2024. In 2004, the District received authority

to issue \$150 million (previously \$100) of non-referendum bonds during any budget year. These legislated changes provide resources for financing the capital program for the foreseeable future.

**EXPENDITURES: DEPARTMENTAL GUIDELINES AND METHODOLOGY**

The Budget Office asked each department to project its needs for the years 2016 – 2020. These projections were made before the actual 2016 departmental budget requests were finalized and may not precisely match 2016 budget requests. The projections were made in current dollars, then inflated based on the most recently provided inflation factors from the Illinois Commission on Government Forecasting and Accountability. These were applied to reflect market forecasts for material and service expenditures appropriate to our industry. The Human Resources Department directly projected health and life insurance costs based on current multi-year agreements and industry trends. Electricity was adjusted for rate changes due to industry deregulation, current multi-year agreements, and operating needs.

**REVENUE AND FINANCING ASSUMPTIONS**

Key assumptions made in the projections of revenues and tax rates are:

- Short-term fluctuations in commodities such as lumber and metals should have little impact over the long term. Over the long term, these costs will be viewed as normal cost increases in tandem with an economy that will continue with modest growth trends for the projection period;
- Tax collections will be 96.5 percent of what is levied - allowing for loss in collections, Property Tax Appeals Board (PTAB) decisions, circuit court decisions, and other tax refunds;
- The annual Equalized Assessed Valuation (EAV) projection is based on the 2014 amount as provided by the Cook County Clerk, an estimated 3.5 percent increase in 2015, and a 3.0 percent increase in each year thereafter;
- The estimated annual tax levy increase for the aggregate funds controlled by the Tax Cap is based on projections of available funding, increases in the CPI, estimated at 2.0 percent for 2015 and 2.5 percent for the years 2016 – 2020, and allowable adjustments to EAV for new property at just under 1.0 percent annually;
- The planned sale of capital improvement bonds, assumed to be a 30-year level payment, will occur as follows:

<u>Year</u>	<u>Limited Bonds</u>	<u>Unlimited Bonds</u>	<u>Unlimited Stormwater Bonds</u>
2016			\$75 million
2017			
2018	\$50 million	\$50 million	\$75 million
2019			
2020			

- Bond Redemption & Interest Fund levy estimates are based on a five percent interest rate on bond issues;
- The District has typically received between \$46 and \$50 million annually in State Revolving Fund loans; however, it is expected to range between \$150 to \$200 million through the next five years;
- Operating fund balances will be no less than 12 percent of appropriations.

**APPROPRIATION FORECASTS**

Total District appropriations are expected to range from \$979.2 to \$1,120.8 million for the period 2016 – 2020, and are summarized in the exhibit on page 63, and detailed in Table I on page 64. The year to year variation is largely due to the schedule of awards for major capital projects. Changes and explanations within the various District funds are as follows:

Corporate Fund

The Corporate Fund, the District's general fund, includes all appropriations for day-to-day operations. Appropriations for the fund are expected to increase an average of 2.2 percent annually from 2016 – 2020. This relative stability of appropriations is attributed to the Tax Cap limits, as well as planned control of growth in operations and stability in staffing levels. Annual average increases greater than the general price index are anticipated for health care, contracted solids disposal, chemicals, repairs, and energy.

The District’s long-term benefits strategy continues to focus on rising health-care costs and the impact of the Patient Protection and Affordable Care Act. In 2015, the District made several changes to the medical plan design to help contain the cost of medical claims and to mitigate exposure to the excise or “Cadillac” tax scheduled for implementation in 2018. A retiree benefits strategy is also being developed to manage the cost of retiree health benefits going forward. In addition, the District continues to fund the Other Postemployment Trust to address its future healthcare liability with an anticipated appropriation of \$5 million annually.

A fund balance of 12 to 15 percent of appropriations, or within the \$44 to \$55 million range, is viewed by District management

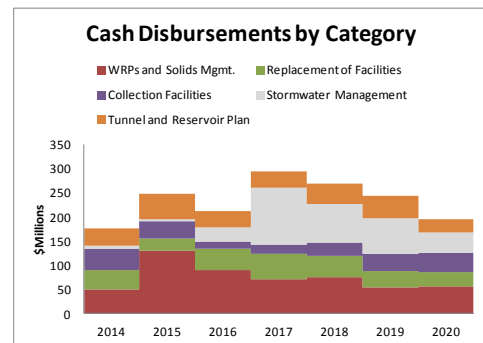
and the financial markets as necessary to maintain financial stability and sustain us through economic uncertainties. The beginning 2015 fund balance is projected to be higher, reflecting substantial restructuring over the past few years, including 149 positions dropped in 2012, an increase in in-house maintenance, and other operating efficiencies. A portion of the projected net assets will remain unappropriated to protect the downside of possible economic swings and provide for a fiscally responsible fund balance.

With the planned construction of new facilities that will require significant amounts of new energy, aggressive conservation efforts and alternative energy generation have been pursued at existing facilities to minimize the cost impact. In this forecast, energy costs are expected to increase in 2016 through 2018 and be balanced against reduced consumption as we realize the benefits of these modernization projects in later years. The unit cost for electricity rose 37 percent on January 2, 2007 when a 1957 agreement with ComEd expired. With the deregulation of the electrical supply industry, the District entered into an agreement with Peoples Energy Corporation for electrical generation, while ComEd continues local power delivery. In 2011, the District conducted its first reverse auction to procure an electricity supply and realized savings of approximately \$10 million for 2012 and 2013. The District executed contract extensions for 2014 and 2015 below the first auction price obtained in 2011. In November 2014, the District conducted another reverse auction to procure an electricity supply for 2016 and 2017, at a 4.4 percent price increase over the 2015 rate, which will increase our costs by \$1 million for those years.

Overall, biosolids disposal costs are competitive due to favorable local markets. A contract to handle approximately 30 percent of the solids stream at Stickney, via an alternative biosolids facility, was awarded in 2001 and became operational in 2010. It is anticipated that the District will have appropriations of \$5 to \$7 million per year for biosolids processing and utilization costs. This increase reflects both operating and capital costs. Operating costs are indexed to the CPI and natural gas prices, while the capital costs are fixed. The project, however, is specifically designed to provide the District with alternative markets for biosolids that do not compete with current utilization outlets, thus avoiding the potential for volatile costs associated with a single outlet. Beginning in 2014 and continuing into 2015, the District evaluated turnkey composting systems for biosolids processing by conducting on-site, pilot-scale tests. In addition, the District researched what type of equipment would be needed for open windrow composting. Based on the positive findings that show the use of such equipment will reduce both the carbon footprint and processing costs, the District will procure windrow turners for composting in late 2015. With composting, product quality (odor and appearance) will also improve due to the addition of wood chips received through an intergovernmental agreement with the City of Chicago. The District has set the goal of producing 10,000 tons of composted biosolids in 2016 and more in the future as the operation improves. It is also expected that composting will generate a revenue stream for the District.

Capital Improvements Bond and Construction Funds

The Capital Improvements Bond Fund (CIBF) accounts for all resources, principally bond proceeds and construction grants, used for the construction of capital facilities. Total bond sales to support the CIBF are projected at \$75 million in 2016 and \$175 million in 2018. No bond sales are projected in 2017, 2019, and 2020. These bond sales will provide a sufficient level of available funds to continue the District’s Capital Improvement Program, including the construction of the Tunnel and Reservoir/CUP Plan (Chicago Underflow Plan). By law, the District may separate the funding of its projects" into “Limited” and “Unlimited Bonds”. This funding will be used in conjunction with federal appropriations from the Army Corps of Engineers to support a major portion of the McCook and Thornton CUP reservoir projects.



The District has agreements with the Army Corps of Engineers to share the funding costs of the CUP reservoirs. The District also had language inserted into the Water Resources Development Act calling for reimbursement of funds for these projects. Due to the current federal fiscal climate, reimbursements are not expected in the near future and are not included in this projection.

The Construction Fund is used to finance modernization and rehabilitation projects and is funded primarily through the annual property tax levies. Appropriations for this fund lapse at year-end and uncompleted projects must be reappropriated.

Initial estimates and schedules have been analyzed and compared to bond issuance authority and funding availability. Cash balance in the CIBF will accommodate the proposed projects through 2020. Effective January 1, 2011, the District’s non-referendum bonding authority was extended through December 31, 2024. Extension of the authority was necessary for additional projects, including nutrient removal and effluent disinfection.

In 2016, the Process Facility Capital Planning and Technology Evaluation Group, that was created in 2013, will continue to update the Master Plans and prioritize and size future capital projects ensuring the most effective use of the CIBF.



Retirement, Debt Service, and Reserve Claim Funds

The appropriation for the Retirement Fund is expected to increase an average of 9.1 percent annually from 2016 – 2020. Due to a change in legislation, beginning in 2013, the tax levy is based on the fund’s actuarially determined contribution requirement, but shall not exceed an amount equal to employee contributions of two years prior, multiplied by 4.19. The previous multiplier was 2.19.

Debt Service Fund appropriations will increase an average of 2.8 percent annually over the period. Current debt service schedules, additional debt service requirements for new revolving fund loans, and anticipated bond sales in the years 2016 through 2020 will increase due to increased capital expenditures related to major plant expansion and system improvement – a disinfection project, TARP reservoir projects, and Stormwater Management Program projects. In 2014, the District issued \$225 million of General Obligation Capital Improvement Bonds. The bonds provide partial financing for the ongoing new construction and rehabilitation program of the District and will mature over the years 2016 – 2044. The District’s additional margin for “limited” bonds under the debt service extension base is roughly \$38.7 million. As stated earlier, recent legislative changes allow for an annual inflationary increase to the debt service tax extension limit beginning with the 2009 levy. The debt service extension base capacity is at approximately \$161.4 million.

The appropriation for the Reserve Claim Fund is expected to increase an average of 2.1 percent annually and is expected to continue in this manner. The Reserve Claim Fund is the District’s self-insurance fund, and the annual appropriation equals all available resources in the fund. The projected annual increases, which are based on historical trends, will continue moving towards the fund’s statutory limit, as established by the Board of Commissioners’ policy. Expenditures related to Workers’ Compensation claims are low and stable due to an active safety education and enforcement program. In 2015, the District purchased insurance coverage for roughly \$10.5 billion in assets.

**TAX LEVY FORECASTS**

Overall tax levies are projected to increase an average rate of 4.1 percent annually over the five-year period. Efforts will be undertaken to adjust annual variability consistent with meeting our objectives. The District has been very successful in managing its financial resources to limit any increases in the overall tax levy, excluding Stormwater Management, to five percent with tax abatements since before the imposition of the Tax Cap. Projections of tax levies and revenue sources for the various District funds are as follows:

Corporate Fund

Tax levy projections for the Corporate Fund are expected to increase an average of 3.0 percent annually from 2016 – 2020. This fund provides for day-to-day operations and has diverse sources of revenue. Taxes account for 69.7 percent of Corporate Fund revenue. Other significant funding sources include industrial user charge fees, investment income, and land rentals. The funding from the user charge system, which by design recovers costs attributable to industrial users, is expected to range between \$47 to \$50 million. Local governments, and chemical and food processing users pay the majority of user charge fees. Revenues from these local industries have been relatively stable.

Construction Fund

The tax levy for the Construction Fund is \$16.7 million in 2016. Beginning in 2012, pay as you go capital projects and equipment related to maintenance were moved from the Corporate and Capital Improvements Bond Funds. It is anticipated appropriations will range from \$16.7 million to \$21.0 million per year from 2016 – 2020.

Stormwater Management Fund

The Stormwater Management Fund levy is projected to fluctuate in the range of \$34.3 million to \$63.9 million during the period 2016 – 2020. Regional stormwater management projects are being vetted for funding in 2016 and the following years.

Retirement Fund

The average increase projected for 2016 – 2020 is 3.3 percent for the Retirement Fund levy. In 2012, the Governor signed into law modifications to the District’s pension plan. The provisions of Public Act 97-0894 are described in detail on page 535.

Debt Service Fund

The existing tax levies for the District’s Debt Service Fund are based on six refunding bonds, six capital improvement bonds, and forty-seven State Revolving Fund (SRF) bonds. Additional projected capital improvement and SRF bond sales will be used to finance TARP and other capital projects. Debt service funds account for annual property tax levies and certain other revenues, primarily investment income that is used to finance the payment of interest and principal on general obligation bond issues. It is District policy to use excess investment income from bond issues to abate portions of the levy. The projected debt for the District during 2016 – 2020 appears on page 67. The District’s outstanding bonds and ability to issue additional bonds are presented on pages 531 – 532.

Reserve Claim and Working Cash Funds

The tax levy for the Reserve Claim Fund is projected to range from \$5.8 million to \$6.2 million from 2016 – 2020. There is no levy planned for the working cash funds for this period. The District is authorized to levy a half-cent annually against taxable property for the Reserve Claim, Corporate, and Construction Working Cash funds. The Stormwater Working Cash

Fund has no debt or tax levy authority. The increase projected for the Reserve Claim Fund levy is based on slow growth of EAV. The District maintains insurance for catastrophic coverage.

The District’s Board of Commissioners may, by a two-thirds vote of all its members, transfer fund balances among its working cash funds. The Corporate, Stormwater, and Construction Working Cash Funds will remain sufficiently funded by transfers among the working cash funds, themselves.

**TAX RATE FORECASTS**

Forecasts of property tax rates are dependent on projected EAV. The estimated tax rates are calculated using the projected levy and EAV applicable for a particular tax year. Annual tax rate limits exist for the District's Corporate, Construction, Reserve Claim, and Working Cash Funds. The District's Corporate and Construction Funds annual tax rate limits are 41 and 10 cents, respectively. Adequate margins exist in both the Corporate and Construction Funds to extend taxes for District operations. A half-cent annual levy is allowed for the Reserve Claim, Corporate, and Construction Working Cash Funds. The Stormwater Management Fund can levy up to five cents and is not limited by the Tax Cap.

The rates are expected to increase primarily due to increases for stormwater management and debt service. Public Act 93-0715 limits the growth of residential property EAV to seven percent annually with a maximum individual property exemption of \$20,000. This law had only a marginal impact on the revenue for funds levying their maximum rate, e.g., the Reserve Claim Fund. The seven percent limit on residential EAV increases was effective 2004 through 2006. In 2007, Public Act 95-0644 renewed the seven percent Expanded Homeowner’s Exemption for an additional assessment period with new maximum exemption amounts.

**SUPPORTING EXHIBITS**

The data presented to illustrate the projected financial status of the District is divided into six segments: Summary of All Funds, the Corporate Fund, Capital Improvements Funds, Debt Service, Program Distribution within Fund, and the Combined GAAP-Basis Balance Sheets for the Corporate Fund Group.

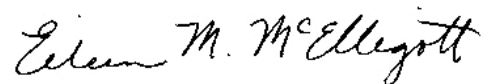
The graphs on page 63, and the tables on page 64, summarize the projected appropriations, property tax rates, and tax levies for all funds for the years 2016 – 2020. Historical comparisons can be made by reviewing the actual appropriations, tax rates, and levies for the years 2007 – 2016 on page 43.

Table II, on page 65 provides detailed revenue and tax rate projections, as well as appropriations by department and major categories for the Corporate Fund for 2016 – 2020. Corporate Fund appropriations and expenditures for the years 2007 – 2016 can be found on page 105.

Projections for revenues, tax rates, and appropriations for the Construction Fund for the years 2016 – 2020, appear on page 66, and projected appropriable resources and appropriations for the Capital Improvements Bond Fund appear on page 67. The table on the bottom of page 65 and the exhibits on page 68 present appropriation projections by major programs. A summary of actual and projected expenditures for both funds, for the years 2011 – 2020, can be found in the Capital Improvement Program Section, on page 334.

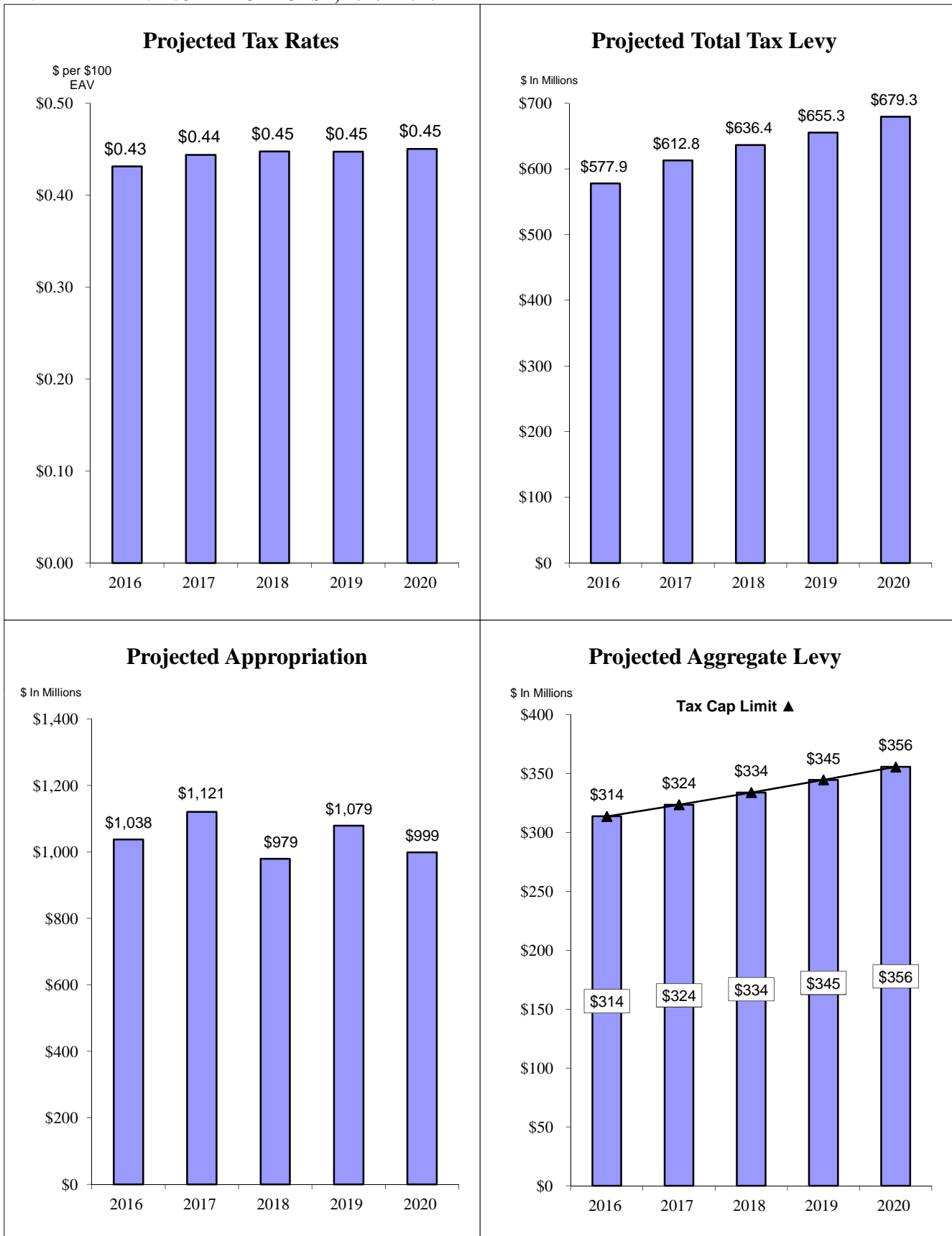
The balance sheet statement on page 69 is prepared on a GAAP-basis of accounting and is included to show the effect on the Corporate Fund Group, which is comprised of the Corporate, Corporate Working Cash, and Reserve Claim Funds. One of the most important factors in evaluating the financial position of a government is the balance sheet of the Corporate Fund Group, which relates total assets, liabilities, and fund equity. The strength of a government’s financial position is shown in its total fund equity and unreserved, undesignated fund balance. The total fund equity projection for 2016 is \$310.3 million. This total fund equity projection includes future claims in the Reserve Claim Fund. The projection for the years 2016 – 2020 shows an average of \$321.1 million.

Very truly yours,



Eileen M. McElligott  
Administrative Services Manager

**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**



**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**

**TABLE I**

<b>ALL FUNDS</b>					
<b>Projected Tax Rates</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Corporate	\$0.1687	\$0.1655	\$0.1666	\$0.1678	\$0.1687
Construction	0.0125	0.0140	0.0139	0.0137	0.0139
Stormwater Management	0.0256	0.0296	0.0338	0.0381	0.0424
Debt Service	0.1715	0.1798	0.1788	0.1739	0.1721
Retirement	0.0486	0.0507	0.0502	0.0496	0.0491
Reserve Claim	0.0043	0.0043	0.0042	0.0042	0.0041
<b>Total (\$ in cents)</b>	<b>\$0.4312</b>	<b>\$0.4439</b>	<b>\$0.4475</b>	<b>\$0.4474</b>	<b>\$0.4503</b>
<b>Percentage Change</b>		<b>2.95%</b>	<b>0.82%</b>	<b>(0.03%)</b>	<b>0.66%</b>

Projected tax rate per \$100 Equalized Assessed Valuation (EAV). Assumes 2014 EAV of \$125.736 billion increasing 3.5% in 2015 and 3.0% thereafter.

<b>Projected Tax Levies</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Corporate	\$226,109	\$228,434	\$236,901	\$245,781	\$254,553
Construction	16,692	19,299	19,800	20,100	21,000
Stormwater Management	34,250	40,856	48,076	55,735	63,932
Debt Service-Existing	229,913	230,154	224,557	213,256	211,734
Debt Service-Proposed	-	18,108	29,688	41,499	47,883
Retirement	65,161	70,050	71,356	72,685	74,037
Reserve Claim	5,800	5,900	6,000	6,200	6,200
<b>Total Levy (\$ in thousands)</b>	<b>\$577,926</b>	<b>\$612,801</b>	<b>\$636,377</b>	<b>\$655,256</b>	<b>\$679,339</b>
<b>Percentage Change</b>		<b>6.03%</b>	<b>3.85%</b>	<b>2.97%</b>	<b>3.68%</b>
<b>Aggregate Levy (\$ in thousands)</b>	<b>\$313,763</b>	<b>\$323,684</b>	<b>\$334,057</b>	<b>\$344,765</b>	<b>\$355,790</b>
<b>Percentage Change</b>		<b>3.16%</b>	<b>3.20%</b>	<b>3.21%</b>	<b>3.20%</b>

<b>Projected Annual Appropriations</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Corporate	\$364,218	\$379,174	\$385,981	\$392,088	\$397,738
Capital Improvements Bond	288,292	344,339	162,854	233,154	135,768
Construction	32,930	22,583	22,610	22,902	23,342
Stormwater Management	40,419	44,463	51,964	60,158	66,497
Debt Service-Existing	216,047	215,780	212,312	207,464	195,255
Debt Service-Proposed	-	10,092	29,230	42,368	56,552
Retirement	61,654	70,772	79,505	85,470	87,063
Reserve Claim	34,000	33,600	34,700	35,800	36,900
<b>Total Appropriation (\$ in thousands)</b>	<b>\$1,037,561</b>	<b>\$1,120,803</b>	<b>\$979,157</b>	<b>\$1,079,404</b>	<b>\$999,115</b>

<b>Projected Positions</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Corporate	1,914	1,914	1,914	1,914	1,914
Stormwater Management	60	60	60	60	60
<b>Total Positions</b>	<b>1,974</b>	<b>1,974</b>	<b>1,974</b>	<b>1,974</b>	<b>1,974</b>

Note: Totals are rounded.

## FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020

TABLE II

<b>CORPORATE FUND</b>						<b>% average annual change</b>
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2016 - 2020</b>
Property Taxes	\$218,195	\$220,439	\$228,609	\$237,178	\$245,643	3.01%
Personal Property Replacement Tax	27,602	26,176	24,928	24,595	24,256	(3.16%)
User Charge	49,000	50,000	49,000	48,000	47,000	(1.02%)
Investment Income	600	2,500	3,000	3,100	3,600	89.03%
Land Rentals	17,500	15,600	15,700	15,800	15,900	(2.24%)
Sewer Permits	750	825	850	900	950	6.12%
Miscellaneous	6,943	7,186	7,438	7,698	7,967	3.50%
Net Assets Appropriable	149,332	151,724	133,193	115,334	99,727	(9.39%)
Net Assets Available for Future Use	(105,704)	(95,275)	(76,736)	(60,518)	(47,305)	(18.07%)
<b>Total Appropriable Resources (\$ in thousands)</b>	<b>\$364,218</b>	<b>\$379,174</b>	<b>\$385,981</b>	<b>\$392,088</b>	<b>\$397,738</b>	<b>2.23%</b>
Projected Equalized Assessed Valuation (EAV) (Based on 2014 EAV, assumes 3.5% increase for 2015 then 3.0% annually)	\$134.041 billion	\$138.062 billion	\$142.204 billion	\$146.470 billion	\$150.864 billion	
Projected Tax Rate Cents per \$100 EAV	16.9¢	16.5¢	16.7¢	16.8¢	16.9¢	
Gross Levy - assumes 3.5% uncollectible.	\$226,109	\$228,434	\$236,901	\$245,781	\$254,553	
<b>Projected Appropriations by Major Categories</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2016 - 2020</b>
Employee Cost - Salaries	\$193,018	\$197,546	\$198,082	\$198,601	\$199,113	0.78%
Employee Cost - Health Care	43,227	45,733	49,531	52,853	56,407	6.88%
Other Postemployment Benefits Trust	5,000	5,000	5,000	5,000	5,000	0.00%
Professional Services	6,120	5,904	5,966	6,064	5,782	(1.37%)
Energy Cost	39,467	40,493	41,516	41,622	41,490	1.27%
Chemicals	12,546	13,447	13,456	13,461	13,461	1.82%
Materials & Supplies	9,765	11,219	11,153	11,175	11,196	3.67%
Solids Disposal	10,821	14,078	14,201	14,208	14,208	7.75%
Contracted Solids Disposal	5,000	5,859	6,035	6,904	7,090	9.32%
Computer Systems & Telecommunications	8,234	7,505	8,562	9,663	10,843	7.58%
Repairs to Structures & Equipment	12,375	13,220	13,199	13,039	13,080	1.44%
Contractual Services	17,258	17,525	17,713	17,799	18,451	1.69%
Machinery & Equipment	569	775	647	727	597	3.53%
Real Estate Taxes	820	870	920	970	1,020	5.61%
<b>Total (\$ in thousands)</b>	<b>\$364,218</b>	<b>\$379,174</b>	<b>\$385,981</b>	<b>\$392,088</b>	<b>\$397,738</b>	<b>2.23%</b>
<b>Projected Appropriations by Department</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2016 - 2020</b>
Board of Commissioners	\$4,260	\$4,388	\$4,414	\$4,419	\$4,444	1.07%
General Administration	17,742	20,299	20,267	20,189	20,279	3.58%
Monitoring & Research	29,870	30,790	30,723	30,940	30,846	0.82%
Procurement & Materials Management	8,682	8,673	8,688	8,703	8,725	0.12%
Human Resources	60,620	63,257	67,216	70,792	74,325	5.23%
Information Technology	17,314	16,444	17,547	18,792	19,995	3.79%
Law	7,844	7,976	8,078	8,122	8,182	1.06%
Finance	3,677	3,710	3,769	3,761	3,800	0.83%
Engineering	27,354	27,970	28,181	28,174	28,625	1.15%
Maintenance & Operations	186,856	195,668	197,097	198,197	198,518	1.54%
<b>Total (\$ in thousands)</b>	<b>\$364,218</b>	<b>\$379,174</b>	<b>\$385,981</b>	<b>\$392,088</b>	<b>\$397,738</b>	<b>2.23%</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2016 - 2020</b>
1000 Collection	54,838	56,038	55,138	55,164	55,162	0.16%
2000 Treatment	79,633	82,659	84,760	84,756	85,688	1.86%
3000 Solids Processing	40,718	42,622	42,385	42,467	42,430	1.06%
4000 Flood & Pollution Control	38,325	39,831	40,061	40,218	39,719	0.91%
5000 Solids Disposal	23,159	27,594	27,893	28,797	28,991	6.04%
7000 General Support	127,544	130,430	135,745	140,687	145,747	3.39%
<b>Total (\$ in thousands)</b>	<b>\$364,218</b>	<b>\$379,174</b>	<b>\$385,981</b>	<b>\$392,088</b>	<b>\$397,738</b>	<b>2.23%</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**

**TABLE III**

<b>CONSTRUCTION FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Property Taxes	\$16,108	\$18,624	\$19,107	\$19,396	\$20,265
Personal Property Replacement Tax	-	-	-	-	-
User Charge	300	300	300	300	300
Investment Income & Miscellaneous Revenue	945	945	945	945	945
Net Assets Appropriable	15,577	2,714	2,258	2,261	1,832
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$32,930</b>	<b>\$22,583</b>	<b>\$22,610</b>	<b>\$22,902</b>	<b>\$23,342</b>
Projected Equalized Assessed Valuation (EAV) (Based on 2014 EAV, assumes 3.5% increase for 2015 then 3.0% annually thereafter)	\$134.041 billion	\$138.062 billion	\$142.204 billion	\$146.470 billion	\$150.864 billion
Projected Tax Rate Cents per \$100 of EAV	1.2¢	1.4¢	1.4¢	1.4¢	1.4¢
Gross Levy - assumes 3.5% uncollectible rate.	\$16,692	\$19,299	\$19,800	\$20,100	\$21,000
<b>Projected Appropriations</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Capital Projects	\$19,140	\$13,009	\$15,764	\$16,139	\$16,592
Professional Services	7,041	4,437	3,748	3,613	3,700
Other Charges	6,750	5,138	3,098	3,150	3,050
<b>Total (\$ in thousands)</b>	<b>\$32,930</b>	<b>\$22,583</b>	<b>\$22,610</b>	<b>\$22,902</b>	<b>\$23,342</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
1000 Collection	\$2,488	\$3,282	\$4,350	\$2,850	\$2,950
2000 Treatment	17,389	10,466	10,400	11,540	11,925
3000 Solids Processing	4,708	1,950	1,350	1,376	1,350
4000 Flood & Pollution Control	4,195	3,245	3,096	2,993	2,980
5000 Solids Disposal	\$150	\$240	\$250	\$255	\$249
7000 General Support	4,000	3,400	3,164	3,888	3,888
<b>Total (\$ in thousands)</b>	<b>\$32,930</b>	<b>\$22,583</b>	<b>\$22,610</b>	<b>\$22,902</b>	<b>\$23,342</b>
<b>STORMWATER MANAGEMENT FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Property Taxes	\$33,051	\$39,426	\$46,393	\$53,784	\$61,694
Investment Income & Miscellaneous Revenue	300	995	1,134	1,172	1,293
Net Assets Appropriable	7,068	4,042	4,437	5,201	3,509
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$40,419</b>	<b>\$44,463</b>	<b>\$51,964</b>	<b>\$60,158</b>	<b>\$66,497</b>
Projected EAV (Based on 2014 EAV, assumes 3.5% increase for 2015 then 3.0% annually)	\$134.041 billion	\$138.062 billion	\$142.204 billion	\$146.470 billion	\$150.864 billion
Projected Tax Rate Cents per \$100 of EAV	2.6¢	3.0¢	3.4¢	3.8¢	4.2¢
Gross Levy - assumes 3.5% uncollectible rate.	\$34,250	\$40,856	\$48,076	\$55,735	\$63,932
<b>Projected Appropriations</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Employee Cost - Salaries	\$5,937	\$6,005	\$6,111	\$6,197	\$6,290
Employee Cost - Health Care	588	628	672	718	767
Contractual Services	18,771	21,611	20,259	20,289	20,289
Capital Projects	8,479	3,293	8,301	16,604	22,800
Other Charges	3,375	3,271	2,651	2,379	2,379
Equity Transfer	3,269	9,655	13,971	13,971	13,971
<b>Total (\$ in thousands)</b>	<b>\$40,419</b>	<b>\$44,463</b>	<b>\$51,964</b>	<b>\$60,158</b>	<b>\$66,497</b>
<b>Projection Appropriation Distribution by Program</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
4000 Flood & Pollution Control					
<b>Total (\$ in thousands)</b>	<b>\$40,419</b>	<b>\$44,463</b>	<b>\$51,964</b>	<b>\$60,158</b>	<b>\$66,497</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**

**TABLE IV**

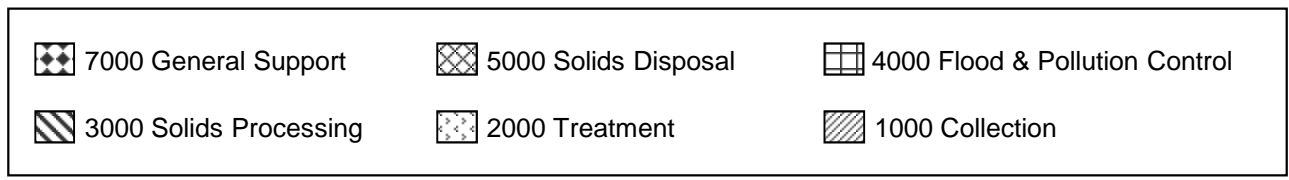
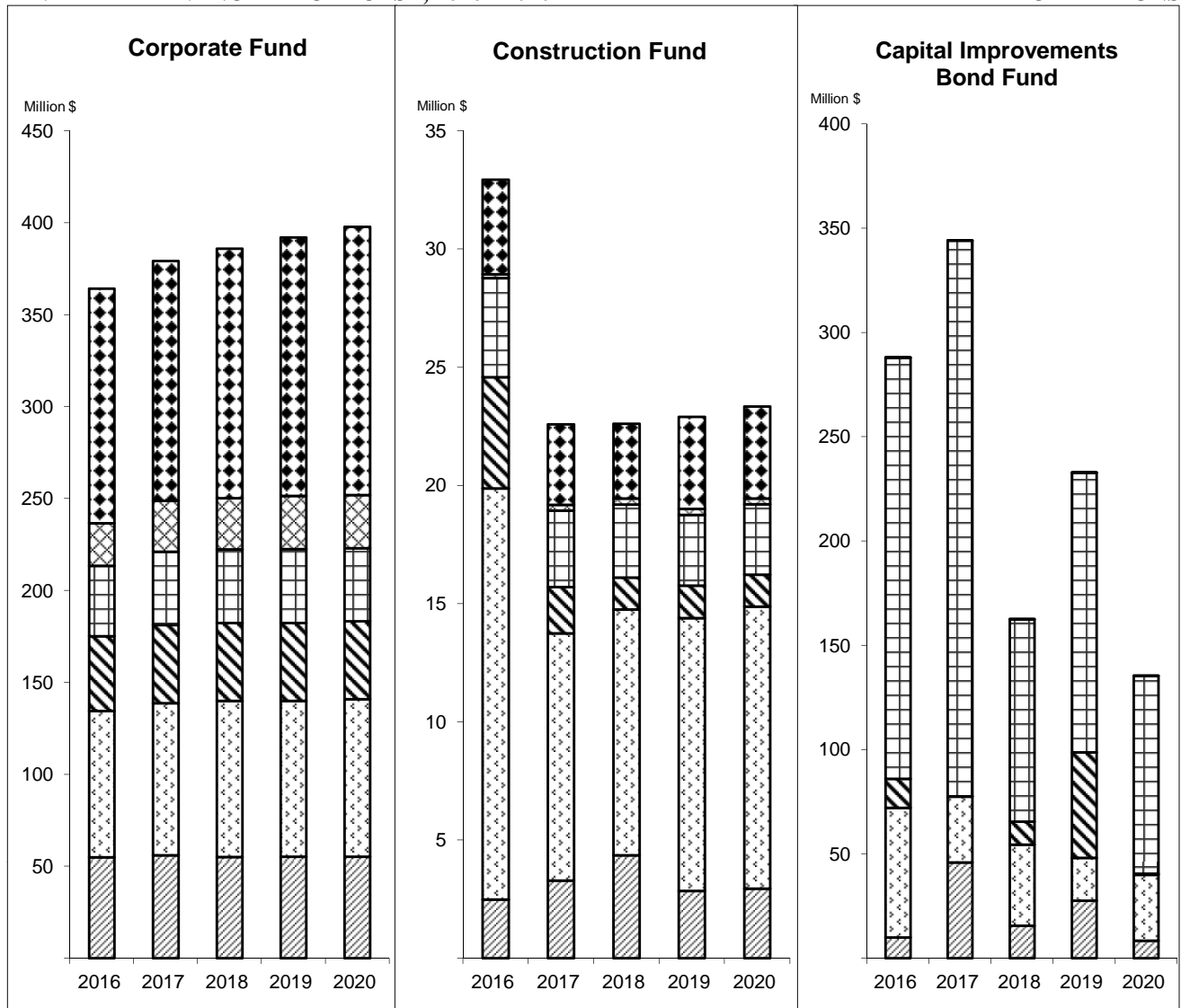
<b>CAPITAL IMPROVEMENTS BOND FUND</b>					
<b>Appropriable Resources (Cash)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Bond Sales - Limited	\$ -	\$ -	\$50,000	\$ -	\$ -
Bond Sales - Unlimited	-	-	50,000	-	-
Bond Sales - Unlimited Stormwater Management	75,000	-	75,000	-	-
State Revolving Loan Fund Receipts	200,000	200,000	200,000	200,000	200,000
Investment Income & Grant Revenue	12,735	13,935	14,335	14,335	14,335
Beginning Cash	311,333	385,778	310,283	446,228	433,513
<b>Total Assets Appropriable (\$ in thousands)</b>	<b>\$599,068</b>	<b>\$599,713</b>	<b>\$699,618</b>	<b>\$660,563</b>	<b>\$647,849</b>
Expenditures	\$213,290	\$289,430	\$253,390	\$227,050	\$182,120
<b>Ending Cash (\$ in thousands)</b>	<b>\$385,778</b>	<b>\$310,283</b>	<b>\$446,228</b>	<b>\$433,513</b>	<b>\$465,729</b>
<b>Projected Appropriations by Major Categories</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Professional Consulting Services	\$81,217	\$46,669	\$45,649	\$50,209	\$48,709
Capital Projects	205,972	297,421	115,633	182,695	85,498
Other Charges	1,103	250	1,572	250	1,562
<b>Total (\$ in thousands)</b>	<b>\$288,292</b>	<b>\$344,339</b>	<b>\$162,854</b>	<b>\$233,154</b>	<b>\$135,768</b>
<b>Projected Appropriation Distribution by Program</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
1000 Collection	\$9,935	\$45,985	\$15,535	\$27,575	\$8,500
2000 Treatment	62,144	31,434	38,934	20,494	31,494
3000 Solids Processing	13,938	200	11,009	50,600	509
4000 Flood & Pollution Control	201,926	266,371	97,026	134,135	94,916
5000 Solids Disposal	100	100	100	100	100
7000 General Support	250	250	250	250	250
<b>Total (\$ in thousands)</b>	<b>\$288,292</b>	<b>\$344,339</b>	<b>\$162,854</b>	<b>\$233,154</b>	<b>\$135,768</b>
<b>DEBT SERVICE FUNDS</b>					
<b>Projected Debt</b>					
<b>EXISTING DEBT</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
January 1 Debt	\$2,655,365	\$2,830,053	\$2,922,790	\$3,182,553	\$3,259,600
Annual Current Debt Retirement	(100,312)	(103,363)	(103,437)	(102,264)	(93,705)
<b>Net Debt</b>	<b>\$2,555,053</b>	<b>\$2,726,690</b>	<b>\$2,819,353</b>	<b>\$3,080,290</b>	<b>\$3,165,895</b>
<b>PROPOSED FUTURE DEBT</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Annual Sale of Bonds:					
Capital Bonds - Limited	\$ -	\$ -	\$50,000	\$ -	\$ -
Capital Bonds - Unlimited	-	-	50,000	-	-
Alternate Bonds - Unlimited Stormwater	75,000	-	75,000	-	-
State Revolving Fund Bond Issues	200,000	200,000	200,000	200,000	200,000
Future Debt Retirement	-	(3,900)	(11,800)	(20,690)	(32,263)
<b>Proposed New Debt (\$ in thousands)</b>	<b>\$275,000</b>	<b>\$196,100</b>	<b>\$363,200</b>	<b>\$179,310</b>	<b>\$167,737</b>
<b>PROJECTED DEBT OUTSTANDING</b>	<b>\$2,830,053</b>	<b>\$2,922,790</b>	<b>\$3,182,553</b>	<b>\$3,259,600</b>	<b>\$3,333,631</b>
Gross Levy for Existing Debt	\$229,913	\$230,154	\$224,557	\$213,256	\$211,734
Gross Levy for Future Debt	-	18,108	29,688	41,499	47,883
<b>Total Debt Levy</b>	<b>\$229,913</b>	<b>\$248,261</b>	<b>\$254,245</b>	<b>\$254,755</b>	<b>\$259,617</b>
Tax Rate (cents)	17.2¢	18.0¢	17.9¢	17.4¢	17.2¢
Projected Equalized Assessed Valuation (EAV) (Assumes 2014 EAV increase thru 2020)*	\$134.041 billion	\$138.062 billion	\$142.204 billion	\$146.470 billion	\$150.864 billion

Note: Totals are rounded.

\*Assumes a 3.5% increase in 2015, and a 3.0% increase annually thereafter.

**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**

**APPROPRIATIONS**



This set of stacked bar charts is a restatement of each fund's appropriation table. The relatively steady proportions across all programs within the Corporate Fund reflect the District's consistent view of its objectives in the near term. The most significant aspect of the Construction Fund involves increasing its use for smaller pay-as-you-go capital projects administered by the Maintenance & Operations Department. The fluctuations in the Capital Improvements Bond Fund's (CIBF) appropriations represent the award of major Master Plan and disinfection projects. The CIBF operates on a full obligation basis and is the only fund where the encumbered appropriations do not lapse at the fiscal year end.



**FIVE-YEAR FINANCIAL FORECAST, 2016 - 2020**  
 Combined GAAP Balance Sheets - General Corporate Fund  
 (in Thousands)

<b>Assets</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Cash	\$ 31,604	\$ 32,236	\$ 32,881	\$ 33,538	\$ 34,209
Restricted Cash	2,537	2,588	2,640	2,693	2,747
Investments	243,422	248,291	253,257	258,322	263,488
Receivables:					
Property Taxes	269,160	273,198	277,296	281,455	285,677
Less Allowance for Uncollectible Taxes	36,945	37,500	38,062	38,633	39,212
Net Property Taxes Receivable	232,215	235,698	239,234	242,822	246,464
Personal Property Replacement Tax	-	-	-	-	-
User Charges	(2,959)	(3,048)	(3,139)	(3,233)	(3,330)
Miscellaneous	2,511	2,561	2,612	2,665	2,718
Inventories	39,421	39,521	39,532	39,411	39,444
<b>Total Assets</b>	<b>\$ 548,751</b>	<b>\$ 557,847</b>	<b>\$ 567,015</b>	<b>\$ 576,216</b>	<b>\$ 585,740</b>
<b>Liabilities and Fund Equity</b>					
<b>Liabilities:</b>					
Deferred Tax Revenue	\$ 202,755	\$ 205,796	\$ 208,883	\$ 212,016	\$ 215,197
Accounts Payable and Other Liabilities	35,669	36,383	37,110	37,853	38,610
Due to Other Funds	-	-	-	-	-
<b>Total Liabilities</b>	<b>\$ 238,424</b>	<b>\$ 242,179</b>	<b>\$ 245,994</b>	<b>\$ 249,869</b>	<b>\$ 253,806</b>
<b>Fund Equity:</b>					
Fund Balances					
Non-spendable - Inventory	\$ 40,377	\$ 40,418	\$ 40,458	\$ 40,498	\$ 40,539
Restricted - Working Cash	289,542	293,885	298,293	302,768	307,309
Real Estate Escrow	3,827	3,831	3,835	3,839	3,843
Reserve Claim	26,766	27,034	27,304	27,577	27,853
Designated for Future Claims	-	-	-	-	-
Unreserved:					
Undesignated	(50,186)	(49,500)	(48,869)	(48,335)	(47,611)
<b>Total Fund Equity</b>	<b>\$ 310,327</b>	<b>\$ 315,668</b>	<b>\$ 321,022</b>	<b>\$ 326,347</b>	<b>\$ 331,934</b>
<b>Total Liabilities and Fund Equity</b>	<b>\$ 548,751</b>	<b>\$ 557,847</b>	<b>\$ 567,015</b>	<b>\$ 576,216</b>	<b>\$ 585,740</b>

Note: Totals are rounded.

**NOTE PAGE**

# SECTION III

## FINANCIAL STATEMENTS BY FUND

In this section, the financial structure of the District is presented with an explanation of the funds used, the accounting basis employed, and the relationships among the various funds. All financial statements, which Illinois Compiled Statutes require to be included in the Budget, are presented in this section. These statements and schedules provide full disclosure of assets and liabilities.

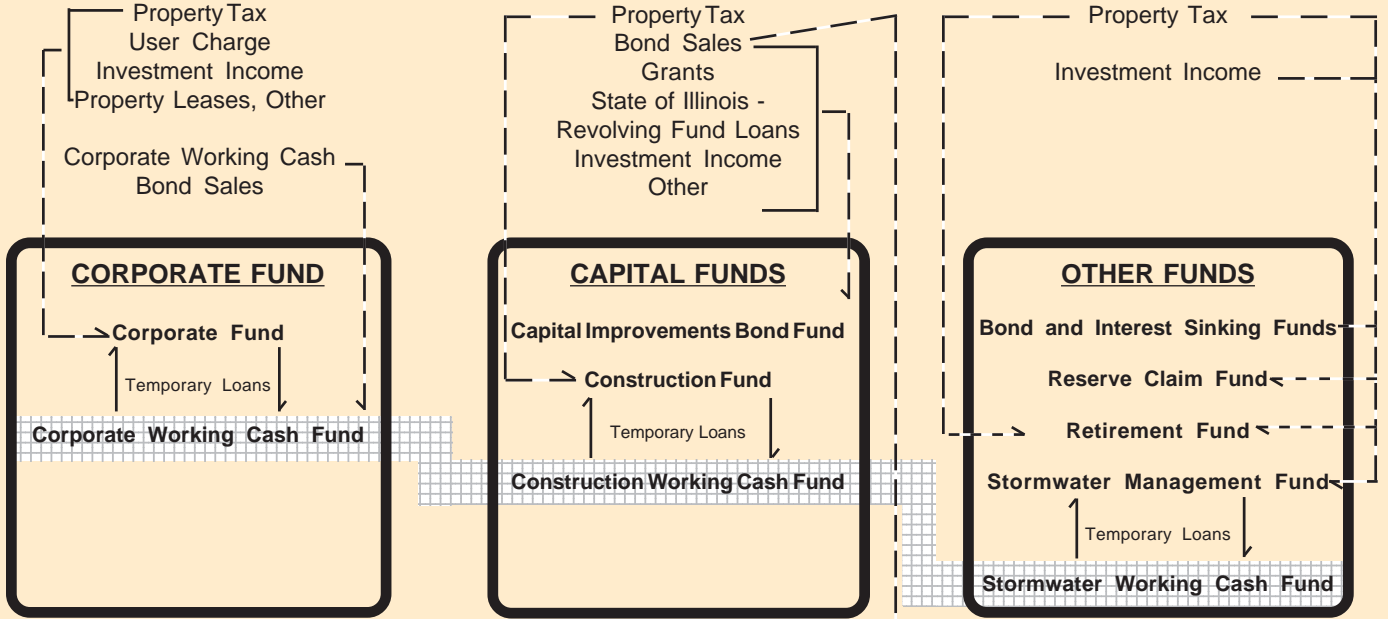
The financial statements are first presented in summary, with an overall financial narrative, then with summary statements of revenue and expenditures for 2014 through the Budget Year 2016. Consolidated statements of taxes receivable, providing historical data on tax levies, are included in this section. A consolidated Appropriation for Liabilities statement is presented, which identifies and provides an appropriation for unpaid bills, contracts, and other liabilities. These liabilities are then subtracted from current assets to determine assets available for appropriation.

Major fund category narratives are presented for the Corporate Fund, Capital Funds, and Other Funds, which discuss revenue sources, trends in revenue and expenditures, fiscal/financial policies, and other elements of these funds. Estimated balance sheets, statements of appropriable revenue, and statements of financial sources are then presented individually for each fund.

Financial Narrative .....	71
Summary of Revenue and Expenditures, 2016-2014 .....	75
Summary of 2016 Assets Appropriable for All Funds .....	79
Combined Balance Sheets, 2014-2013 .....	80
Appropriation for Liabilities, 2016-2015 .....	82
Taxes Receivable, 2015 and Prior Years, Including Estimate for 2016 .....	83
Personal Property Replacement Taxes Receivable, 2016 and Prior Years, Including Estimate for 2016 .....	84
Corporate Fund: Financial Narrative .....	85
Revenue Graphs, 2009-2016 .....	86
Estimated Balance Sheet, 2016-2015 .....	87
Appropriable Revenue, 2016-2013 .....	88
Financing, 2016-2011 .....	89
Corporate Working Cash Fund: Estimated Balance Sheet, 2016-2015, and Revenues, 2016-2013 .....	90
Capital Funds: Financial Narrative .....	91
Capital Improvements Bond Fund:	
Estimated Balance Sheet, 2016-2015 .....	92
Appropriable Revenue, 2016-2013 .....	93
Construction Fund:	
Estimated Balance Sheet, 2016-2015 .....	94
Financing, 2016-2011, and Appropriable Revenue, 2016-2013 .....	95
Construction Working Cash Fund: Estimated Balance Sheet, 2016-2015, and Revenues, 2016-2013 .....	96
Other Funds: Financial Narrative .....	97
Stormwater Management Fund:	
Estimated Balance Sheet, 2016-2015 .....	98
Financing, 2016-2011, and Appropriable Revenue, 2016-2013 .....	99
Stormwater Working Cash Fund: Estimated Balance Sheet, 2016-2015, and Appropriable Revenue, 2016-2013 .....	100
Bond Redemption & Interest Fund:	
Estimated Balance Sheet, 2016-2015 .....	101
Appropriable Revenue, 2016-2013 .....	102
Reserve Claim Fund:	
Estimated Balance Sheet, 2016-2015 .....	103
Appropriable Revenue, 2016-2013 .....	103
Retirement Fund:	
Estimated Balance Sheet, 2016-2015 .....	104
Appropriable Revenue, 2016-2013 .....	104

# DISTRICT'S FLOW OF FUNDS STRUCTURE

**Revenue Sources:**



**Uses of Funds:**

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>General Operational Expenditures</li> </ul> | <ul style="list-style-type: none"> <li>Permanent Facilities</li> <li>Environmental Facilities</li> <li>Stormwater Management Projects</li> <li>Other Capital Expenditures</li> </ul> | <ul style="list-style-type: none"> <li>Payments for Claims and Damages</li> <li>Employee Pension Payments</li> <li>Stormwater Management Expenditures</li> </ul> |
|--|--|--|

## FINANCIAL NARRATIVE

### FUND STRUCTURE, PURPOSE, AND ACCOUNTING BASIS

The financial structure of the Metropolitan Water Reclamation District of Greater Chicago (District) is organized on a fund accounting basis. Each statutorily authorized fund maintains a self-balancing set of accounts that are reported separately in their own financial statements. The District's use of funds ensures that public money is spent appropriately and within the amounts authorized. Established funds account for the different types of activities and legal restrictions that are associated with a particular government function. The use of funds and the budgeting, accounting, and auditing that are associated with this type of structure are governed by Illinois Compiled Statutes and Generally Accepted Accounting Principles (GAAP), as determined by the Governmental Accounting Standards Board (GASB).

The District uses the following funds to control its financial activities:

- Corporate
- Capital Improvements Bond
- Construction
- Stormwater Management
- Reserve Claim
- Corporate Working Cash
- Bond Redemption & Interest (Debt Service)
- Construction Working Cash
- Stormwater Working Cash
- Retirement

The chart on the facing page shows the flow of money within and between these funds.

The Corporate Fund is used to pay for the operations and general expenditures of the District, not specifically chargeable to other funds. The Corporate Working Cash Fund consists of accounts maintained for the sole purpose of making temporary loans to the Corporate Fund in anticipation of tax collections. The accounts of the Corporate, Corporate Working Cash, and Reserve Claim Funds are combined and reported as the General Corporate Fund for financial reporting purposes.

The capital project funds account for resources used for the acquisition of capital facilities. The Capital Improvements Bond Fund is used for improvements, replacements, and additions to designated environmental improvement projects and accounts for the proceeds of bonds authorized by the Illinois General Assembly, grant revenues, and other revenues. Beginning in 2014, this fund is also used for larger stormwater capital projects utilizing alternate bond proceeds. The Construction Fund is used for the acquisition and maintenance of long-term assets used in the principal functions of the District and accounts for a property tax levy and other revenues. The Construction Working Cash Fund consists of accounts maintained for the sole purpose of making temporary loans to the Construction Fund in anticipation of tax collections. The accounts of the Construction and Construction Working Cash Funds are combined and reported as the Construction Fund for financial reporting purposes.

The Bond Redemption & Interest Fund is used for the payment of interest and redemption of general obligation bond issues. It accounts for property tax levies and certain other revenues, such as interest on investments. A subfund is created for each bond issue.

The Reserve Claim Fund is used for the payment of claims, awards, losses, or liabilities that might be imposed against the District and for the emergency replacement or repair of damaged District property. It accounts for a property tax levy and other revenues. As stated above, the accounts of the Reserve Claim Fund are included in the General Corporate Fund for financial reporting purposes.

The Stormwater Management Fund was established in 2005 by an act of the Illinois state legislature. The purpose of this fund is to account for property tax levies and certain other revenues, such as interest on investments and permit fees, which are used for planning, management, and implementation activities relating to stormwater, flood, and floodwater management in Cook County, including areas outside of the District's corporate boundaries. The Stormwater Working Cash Fund, established in 2005 by an act of the Illinois General Assembly, consists of accounts maintained for the sole purpose of making temporary loans to the Stormwater Management Fund in anticipation of tax collections. The accounts of the Stormwater Management Fund and the Stormwater Working Cash Fund are combined and reported as the Stormwater Management Fund for financial reporting purposes.

The Retirement Fund is used to fund pension costs in accordance with statutory provisions and to account for a specific property tax levy. The taxes are collected by the District and paid to the MWRD Retirement Fund, a pension trust fund.

### BASIS OF BUDGETING AND ACCOUNTING

The budget is prepared using a cash basis of accounting for revenue recognition and an accrual basis for recording expenditures, as prescribed by Illinois Compiled Statutes. Revenues are recognized when received in cash, and expenditures are recorded at the time the liability is incurred, except for principal and interest on long-term debt, compensated absences, claims, judgments, and arbitrage, which are recognized when due and payable.

Encumbrance accounting is used in the budgetary process for all funds. Appropriations lapse at year end for the Corporate, Stormwater Management, Reserve Claim, Construction, Retirement, and Bond Redemption & Interest Funds. Appropriations for the Capital Improvements Bond Fund use a full encumbrance (obligation) method of budgetary accounting, which means

## FINANCIAL NARRATIVE (continued)

that appropriations lapse at year-end only to the extent of the unencumbered balances. The appropriation for the Capital Improvements Bond Fund is adjusted to carry forward the open value of encumbrances from the prior year.

All of the funds in the previous section are defined as governmental-type funds, except for the pension trust fund. For GAAP purposes, the governmental-type funds are accounted for on a spending or “financial flow” measurement focus using the modified accrual basis of accounting, which means that only current assets and liabilities are generally included on the balance sheets. The reported fund balances (net current assets) are considered a measure of “available spendable resources.”

The Comprehensive Annual Financial Report of the District is prepared on a GAAP basis. GASB Statement Number 34 became effective for the 2002 fiscal year, and the District is in compliance with all of its provisions. The District is using the modified approach for assessing infrastructure, except for TARP deep tunnels and drop shafts, which will be depreciated. The District uses specific budgetary accounts to record the repair or preservation of existing capital assets, in addition to the construction of new assets or enhancements of existing capital assets. Inventory is accounted for on the purchase method for budgetary purposes and on the consumption method for GAAP financial reporting.

The District is a special district government created by the State of Illinois. Its powers and authority, in regard to revenue sources, are generally restricted to those powers granted by applicable state statutes. The following exhibits, 1 - 6, are derived from the summary of revenue and expenditures found on pages 76 - 78 of the 2016 Budget, and similar summaries in prior years' budgets. This is a summary of all District funds.

### TAX SOURCES

The main source of revenue for the District is ad valorem property taxes. The authority to levy property taxes for the various funds generally specifies a tax rate limit per hundred dollars of property value, which when applied, yields a maximum amount of money which can be levied or collected against property owners. All District funds, with the exception of the District's Capital Improvements Bond Fund, derive their revenues primarily from property taxes. Approximately 46.4 percent of the 2016 appropriation is supported by property taxes. Taxes levied in one year are collected in the next year, and Working Cash Funds for the Corporate, Construction, and Stormwater Management Funds provide temporary financing while awaiting property tax receipts. Net Tax Sources displayed in Exhibit 1 reflect only property tax revenue for the Corporate, Construction, and Stormwater Management Funds. The estimate for uncollectible taxes for 2016 is 3.5 percent, based on annual review of prior years' tax collections.

A personal property replacement tax provides income tax revenue from corporations, partnerships, and the invested capital of public utilities to replace the personal property taxes, which were once received from these sources. These revenues are received directly from the State of Illinois. Revenue from this source is estimated at \$41.9 million for 2016, unchanged from the 2015 Adjusted Budget. This revenue source typically trends with the state of the economy.

Exhibit 1 presents revenue from net tax sources for the years 2012 - 2016. Due to the enactment of Tax Cap laws in 1995, future increases in property tax levies, except for debt service and the Stormwater Management Fund, are limited to the lesser of 5.0 percent or the change in the national Consumer Price Index (CPI), plus new property. For 2016, an increase of 2.7 percent is forecast, consisting of an estimated 2.0 percent change in the CPI plus an estimated 0.7 percent for new development and newly annexed properties. For 2016, the District is estimated to be near the Tax Cap limit. Impacts of the Tax Cap laws are discussed in the fund narratives and budget foreword.

### GRANTS AND LOANS

Federal and state grants, and state loans contribute to finance the District's capital programs. For 2016, \$80.0 million in State Revolving Fund (SRF) loan revenue and \$11.1 million in federal grants is budgeted. In the past, the District has been successful in obtaining some grant funding and will continue to pursue grants for additional TARP projects. Exhibit 2 shows the grants and loans for the years 2012 - 2016.

Exhibit 1

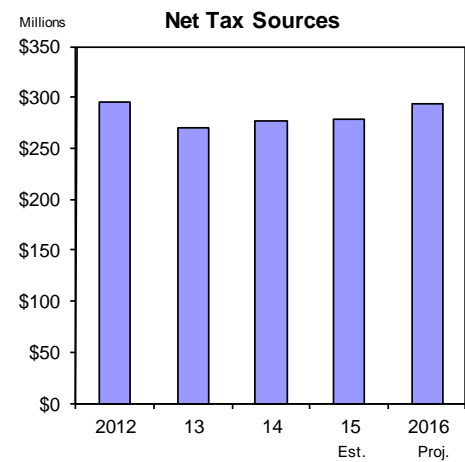
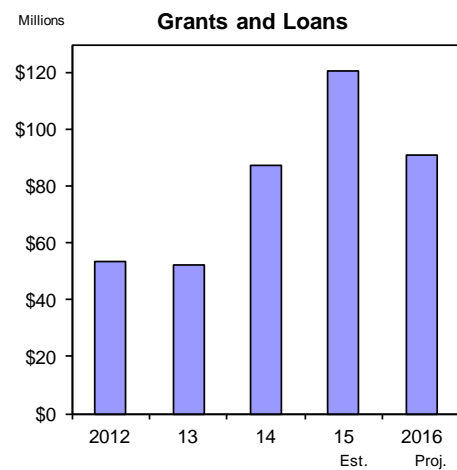


Exhibit 2



## FINANCIAL NARRATIVE (continued)

The District anticipates receiving an annual allocation of at least \$150.0 million in State Revolving Fund loans in each of the next five years, before the State reverts to its historical lending amounts.

### BOND SALES

The District's Capital Program is financed primarily with general obligation bond sale proceeds. Bonds are used to provide necessary revenue for capital project cash flows. The District issued \$225 million of General Obligation Capital Improvement Bonds, 2014 Series A, B, C, which closed in January of 2015.

The 2014 Series B General Obligation Unlimited Tax Bonds were issued as "alternate bonds" pursuant to the Debt Reform Act. The 2014 Series B bonds will be paid by the District from the levy and collection of Stormwater Management tax receipts, which constitute a "revenue source" pledged as security for the payment of principal and interest on the bonds.

Tax Cap laws restrict the District's non-referendum bonding authority to funding projects initiated prior to October 1, 1991, which generally include only TARP projects. However, Public Act 89-385 provided additional non-referendum authority to the District to authorize the issuance of "limited bonds". In 1997, Public Act 090-485 was adopted and expands this "limited bond" authority by excluding bonds issued for TARP purposes from the tax extension limitation. The District's limited bonds have sold successfully and will be used in the future. In 2003, Public Act 092-143 was passed to authorize the issuance of 30 year bonds. Public Act 092-726 extended the non-referendum bonding authority from December 31, 2006 to December 31, 2016; and Public Act 096-1308, effective January 1, 2011, extended the non-referendum bonding authority from December 31, 2016 to December 31, 2024.

The Capital Funds narrative on page 91 provides a more detailed discussion. The statement of outstanding bonds and statutory debt margin on page 53 shows the District's strong position. The Five-Year Financial Forecast on pages 59 and 67 details future bond sale projections. Bond sales are summarized in Exhibit 3.

### PROPERTY, SERVICES, AND MISCELLANEOUS

Exhibit 4 summarizes revenue from property, services, and miscellaneous items. A major revenue source is the user charge system, which imposes a surcharge above property tax payments for commercial, industrial, and tax-exempt users of the sewage systems. Estimated user charge revenues in 2016 are \$49.0 million.

Land rentals, investment income, sewer permit fees, connection impact fees, and other revenues will provide an estimated \$33.0 million in 2016. Estimates for land rental revenues are based on existing and renegotiated leases. Investment income is based on projections of cash flow and interest rates for 2016. Interest rates on short-term securities are expected to remain stable or decrease slightly through 2016. Our investments are predominately short-term in nature. Sewer permit revenue estimates are based on anticipated development projects and 2015 rates. Connection impact fees were established in 1998 to require new service areas to contribute to the past investment in the District's infrastructure.

### NET ASSETS APPROPRIABLE

Exhibit 5 shows the trend in net assets appropriable, which is primarily impacted by bond sales, expenditures for capital projects, and the reservation of future years' principal and interest payments in the debt service funds. Net assets appropriable have been used to reduce future years' taxes. Beginning in 2005, a portion of the projected Corporate Fund net assets was left unappropriated to maintain a fiscally sound fund balance. The negative amount in 2015 is attributable to use of the obligation basis of budgetary accounting for the Capital Improvements Bond Fund and indicated that future bond sales were necessary to finance projects.

Exhibit 3

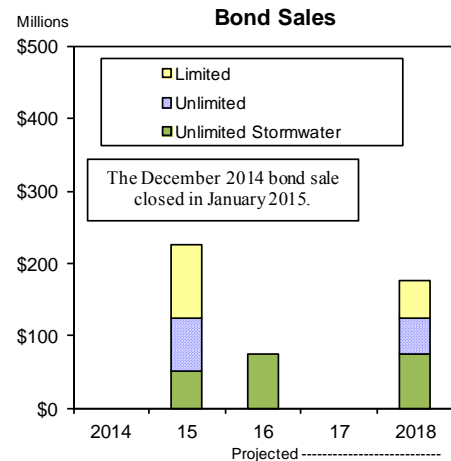


Exhibit 4

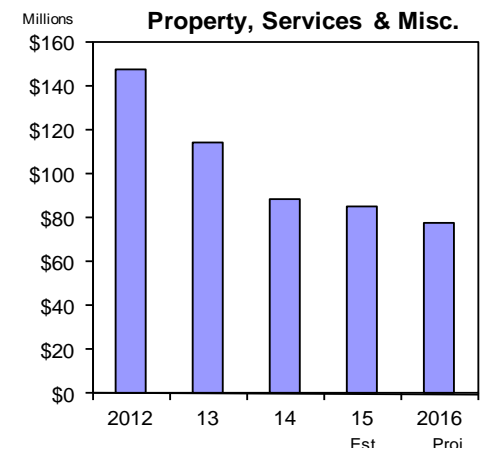
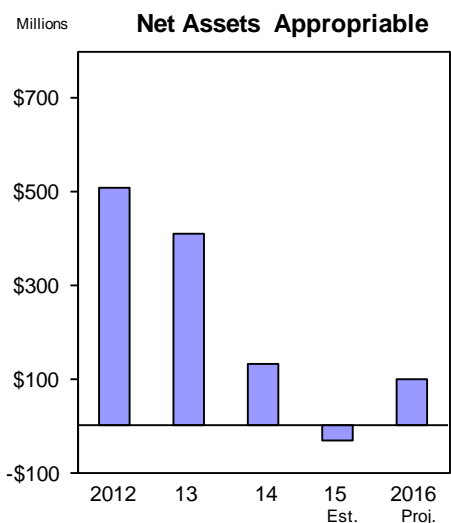


Exhibit 5



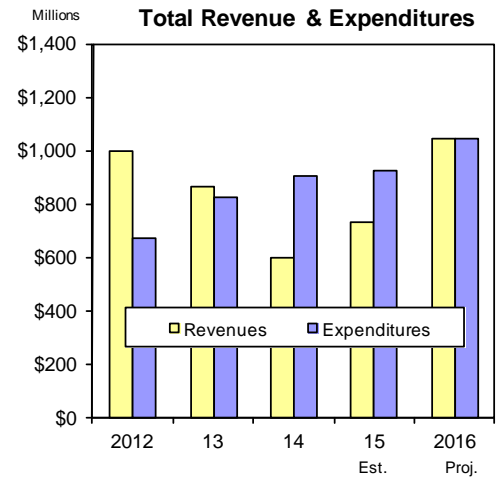
# FINANCIAL NARRATIVE (continued)

## TOTAL REVENUES AND EXPENDITURES

Exhibit 6 displays the relationship between revenues and expenditures. The difference between revenues and expenditures is primarily accounted for by bond sale proceeds to finance future payments for capital projects. In general, the Capital Improvements Bond Fund aside, a balance is maintained between revenues and expenditures to fully utilize net assets appropriate, therefore, limiting property taxes.

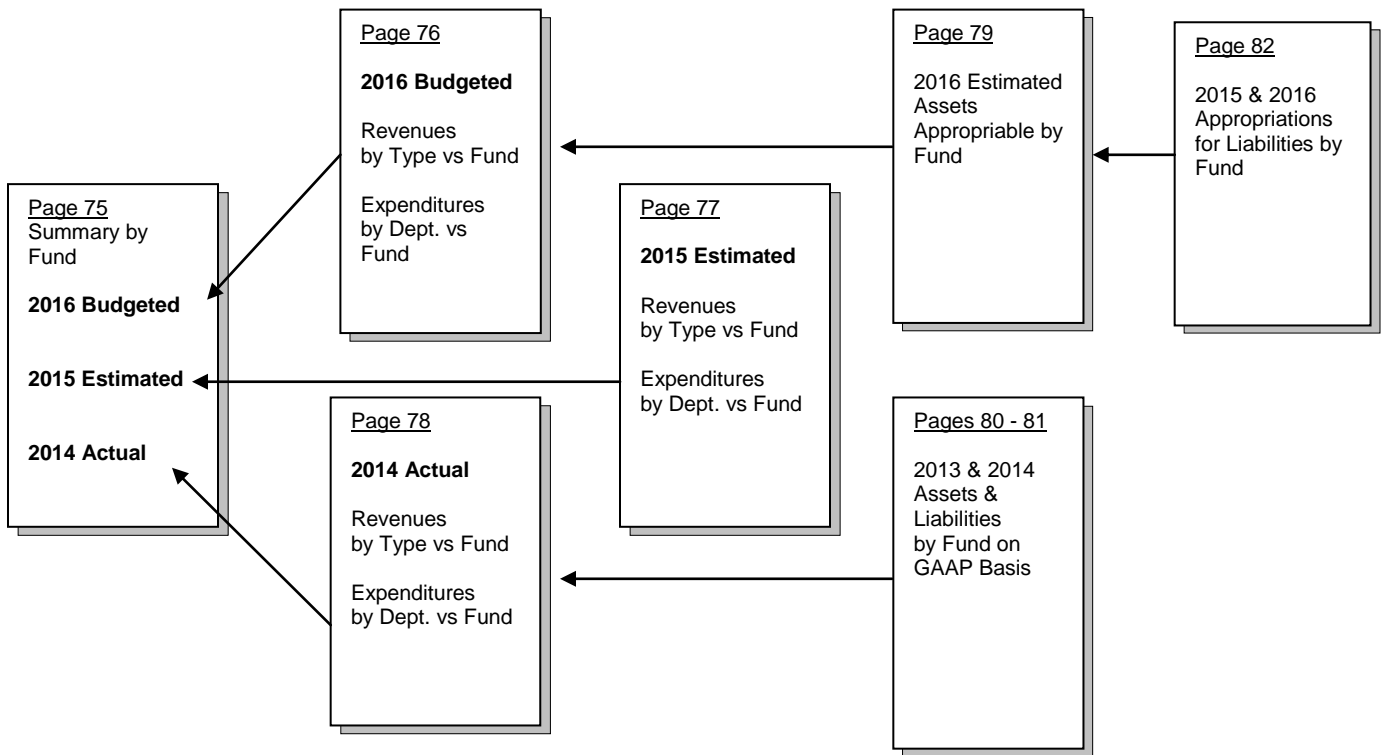
For 2016, a portion of the Corporate Fund projected net assets will remain unappropriated to ensure a fiscally responsible fund balance. District management and the financial markets view a Corporate Fund balance within the \$44 to \$55 million range as necessary to maintain financial stability in the face of economic uncertainties. This fund balance level is consistent with the level recommended by the Government Finance Officers Association. This strategy is an integral part of a long-term plan that also includes reductions of future expenditures to better match current revenues.

Exhibit 6



## SUMMARY FINANCIAL STATEMENTS

Summary financial statements presented on pages 75 - 78 provide comparisons of revenues and expenditures for all funds for the years 2014 - 2016. These statements provide a financial summarization by fund of the 2016 Budget as proposed, the estimated status at year-end of the 2015 Budget, and the actual results of operations for the 2014 Budget. The relationships among the pages are diagramed below.



The table of taxes receivable on page 83 provides detailed data on property tax levies and tax receipts from 2011 to 2015. While 2011 through 2013 show high levels of collection, delayed refunds continue to be processed through the Property Tax Appeals Board and the Circuit Courts. Estimated refunds affecting levy years prior to 2011 are summarized.

Specific details about all revenue sources, assets, liabilities, and appropriable revenue are presented in the various funds' financial narratives and statements on pages 85 through 104.



**ALL FUNDS**  
**SUMMARY OF REVENUE, EXPENDITURES, AND NET ASSETS APPROPRIABLE (b)**  
**2016 BUDGETED, 2015 ESTIMATED, AND 2014 ACTUAL**

(In Thousands)

	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT (d)	BOND REDEMPTION & INTEREST (d)	RESERVE CLAIM (d)	TOTAL
<b>2016 BUDGETED</b>								
Net Assets Appropriable	\$ 153,329.0	\$ (395,492.1)	\$ 18,869.4	\$ 7,700.8	\$ 70,772.0	\$ 212,077.8	\$ 29,775.9	\$ 97,032.8
Net Assets Appropriated	\$ 53,247.7	\$ (395,492.1)	\$ 18,869.4	\$ 7,700.8	\$ 70,772.0	\$ 212,077.8	\$ 29,775.9	\$ (3,048.5)
Revenue	313,013.0	879,256.9	17,745.0	32,800.0	-	3,969.3	400.0	1,247,184.2
Appropriation	\$ 366,260.7	\$ 483,764.8	\$ 36,614.4	\$ 40,500.8	\$ 70,772.0	\$ 216,047.1	\$ 30,175.9	\$ 1,244,135.7
<b>2015 ESTIMATED</b>								
Beginning Net Assets Appropriable as adjusted (c)	\$ 142,060.3	\$ (519,237.1)	\$ 20,563.3	\$ 21,297.6	\$ 61,654.0	\$ 213,412.2	\$ 29,887.1	\$ (30,362.6)
Revenue (a)	317,967.3	383,922.6	16,648.8	23,015.9	-	965.0	400.0	742,919.6
Adjustment for 2015 receipts	16,474.3	-	652.0	(2,460.2)	-	-	-	14,666.1
Expenditures	(323,172.9)	(260,177.5)	(18,994.6)	(34,152.6)	(61,654.0)	(216,501.2)	(5,998.2)	(920,651.0)
Ending Net Assets Appropriable	\$ 153,329.0	\$ (395,492.0)	\$ 18,869.5	\$ 7,700.7	\$ -	\$ (2,124.0)	\$ 24,288.9	\$ (193,427.9)
<b>2014 ACTUAL</b>								
Beginning Net Assets Appropriable as adjusted (c)	\$ 163,333.9	\$ (402,318.1)	\$ 22,608.6	\$ 28,692.1	\$ 63,556.0	\$ 182,703.8	\$ 71,170.9	\$ 129,747.2
Revenue	320,682.6	81,582.3	17,663.7	20,534.1	12,000.0	12,201.9	545.2	464,661.4
Expenditures	(341,956.2)	(198,501.3)	(23,128.0)	(27,380.2)	(75,556.0)	(194,905.7)	(44,743.6)	(906,171.0)
Ending Net Assets Appropriable	\$ 142,060.3	\$ (519,237.1)	\$ 17,144.3	\$ 21,846.0	\$ -	\$ -	\$ 26,972.5	\$ (311,762.4)
Adjusted NAA 1/1/2015	\$ 158,534.6		\$ 21,215.3	\$ 18,837.4				
Adjustment (a)	\$ 16,474.3		\$ 652.0	\$ (2,460.2)				

(a) Adjustment to NAA required due to current 2015 estimate on collection of property tax levies and PPRT. See the Balance Sheets and Appropriable Revenue statements 1/1/2015 for the Corporate (pages 87-88), Construction (pages 94-95), and Stormwater Management (pages 98-99) Funds. The adjustment is reflected in the 2015 revenues.

(b) This statement is a summary presentation of pages 76-79, separating current revenue and NAA from the revenue category.

(c) Ending NAA for one year are revised for accounting adjustments, equity transfers, and changes in the amount of designations to establish beginning net assets for the next year.

(d) Revenue for the Retirement, Reserve Claim, and Bond Redemption & Interest Funds does not include the current year tax levies, which are reflected in the next year's NAA.

**ALL FUNDS  
SUMMARY OF REVENUE AND EXPENDITURES  
2016 BUDGETED**

(In Thousands)

	<b>FUND</b>							
	<b>CORPORATE</b>	<b>CAPITAL IMPROVEMENTS BOND*</b>	<b>CONSTRUCTION</b>	<b>STORMWATER MANAGEMENT</b>	<b>RETIREMENT</b>	<b>BOND REDEMPTION &amp; INTEREST</b>	<b>RESERVE CLAIM</b>	<b>TOTAL</b>
<b>REVENUE</b>								
Net Assets Appropriate	\$ 153,329.0	\$ (395,492.1)	\$ 18,869.4	\$ 7,700.8	\$ 70,772.0	\$ 212,077.8	\$ 29,775.9	\$ 97,032.8
Budget Reserve	(100,081.3)	-	-	-	-	-	-	(100,081.3)
Net Property Taxes	218,195.5	-	16,019.0	33,051.3	-	-	-	267,265.8
Personal Property Replacement Tax	24,676.0	-	1,100.0	-	-	-	-	25,776.0
Working Cash Borrowings Adjustment	(4,671.5)	-	(319.0)	(551.3)	-	-	-	(5,541.8)
Bond Sales (Present & Future)	-	786,521.8	-	-	-	-	-	786,521.8
Grants (Federal & State)	-	11,135.1	-	-	-	-	-	11,135.1
Investment Income	600.0	1,600.0	200.0	300.0	-	700.0	400.0	3,800.0
State Revolving Fund Loans	-	80,000.0	-	-	-	-	-	80,000.0
Property & Services	19,500.0	-	-	-	-	-	-	19,500.0
User Charge	49,000.0	-	-	-	-	-	-	49,000.0
TIF Differential Fee & Impact Fee	2,245.0	-	745.0	-	-	-	-	2,990.0
Equity Transfer	-	-	-	-	-	3,269.3	-	3,269.3
Miscellaneous	3,468.0	-	-	-	-	-	-	3,468.0
<b>TOTAL REVENUE</b>	<b>\$ 366,260.7</b>	<b>\$ 483,764.8</b>	<b>\$ 36,614.4</b>	<b>\$ 40,500.8</b>	<b>\$ 70,772.0</b>	<b>\$ 216,047.1</b>	<b>\$ 30,175.9</b>	<b>\$ 1,244,135.7</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,407.8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,407.8
General Administration	16,819.3	-	-	-	-	-	-	16,819.3
Monitoring & Research	30,523.2	-	-	-	-	-	-	30,523.2
Procurement & Materials Mgmt.	8,777.4	-	-	-	-	-	-	8,777.4
Human Resources	60,816.8	-	-	-	-	-	-	60,816.8
Information Technology	17,448.6	-	-	-	-	-	-	17,448.6
Law	7,972.6	-	-	-	-	-	-	7,972.6
Finance	3,696.3	-	-	-	-	-	-	3,696.3
Engineering	28,072.9	483,764.8	36,614.4	-	-	-	-	548,452.1
Maintenance & Operations	187,725.8	-	-	-	-	-	-	187,725.8
Stormwater Management Fund	-	-	-	37,228.1	-	-	-	37,228.1
Retirement Fund	-	-	-	-	70,772.0	-	-	70,772.0
Bond Redemption & Interest Fund	-	-	-	-	-	216,047.1	-	216,047.1
Reserve Claim Fund	-	-	-	-	-	-	30,175.9	30,175.9
Equity Transfer	-	-	-	3,272.7	-	-	-	3,272.7
<b>TOTAL EXPENDITURES</b>	<b>\$ 366,260.7</b>	<b>\$ 483,764.8</b>	<b>\$ 36,614.4</b>	<b>\$ 40,500.8</b>	<b>\$ 70,772.0</b>	<b>\$ 216,047.1</b>	<b>\$ 30,175.9</b>	<b>\$ 1,244,135.7</b>

\* The Capital Improvements Bond Fund is budgeted on an "obligation" basis, which records expenditures in the period in which the contracts or grants are awarded.

**ALL FUNDS  
SUMMARY OF REVENUE AND EXPENDITURES  
2015 ESTIMATED**

(In Thousands)

	<b>FUND</b>							
	<b>CORPORATE</b>	<b>CAPITAL IMPROVEMENTS BOND*</b>	<b>CONSTRUCTION</b>	<b>STORMWATER MANAGEMENT</b>	<b>RETIREMENT</b>	<b>BOND REDEMPTION &amp; INTEREST</b>	<b>RESERVE CLAIM</b>	<b>TOTAL</b>
<b>REVENUE</b>								
Net Assets Appropriable	\$ 142,060.3	\$ (519,237.2)	\$ 20,563.3	\$ 21,297.6	\$ 61,654.0	\$ 213,412.2	\$ 29,887.1	\$ (30,362.7)
Adjustment for Receipts	16,474.3	-	652.0	(2,460.2)	-	-	-	14,666.1
Net Property Taxes	219,244.1	-	15,922.5	23,208.3	-	-	-	258,374.9
Personal Property Replacement Tax	20,101.6	-	-	-	-	-	-	20,101.6
Working Cash Borrowings Adjustment	(4,445.7)	-	(622.5)	(408.3)	-	-	-	(5,476.5)
Bond Sales (Present & Future)	-	261,183.0	-	-	-	-	-	261,183.0
Grants (Federal & State)	-	11,135.1	-	-	-	-	-	11,135.1
Investment Income	860.0	1,940.0	272.0	216.0	-	965.0	400.0	4,653.0
State Revolving Fund Loans	-	109,664.5	-	-	-	-	-	109,664.5
Property & Services	20,353.3	-	-	-	-	-	-	20,353.3
User Charge	51,000.0	-	300.0	-	-	-	-	51,300.0
TIF Differential Fee & Impact Fee	6,343.9	-	745.0	-	-	-	-	7,088.9
Equity Transfer	-	-	-	-	-	2,123.9	-	2,123.9
Miscellaneous	4,510.1	-	31.8	-	-	-	-	4,541.9
<b>TOTAL REVENUE</b>	<b>\$ 476,501.9</b>	<b>\$ (135,314.6)</b>	<b>\$ 37,864.1</b>	<b>\$ 41,853.4</b>	<b>\$ 61,654.0</b>	<b>\$ 216,501.1</b>	<b>\$ 30,287.1</b>	<b>\$ 729,347.0</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,021.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	4,021.5
General Administration	14,996.6	-	-	-	-	-	-	14,996.6
Monitoring & Research	26,885.7	-	-	-	-	-	-	26,885.7
Procurement & Materials Mgmt.	8,328.1	-	-	-	-	-	-	8,328.1
Human Resources	56,826.9	-	-	-	-	-	-	56,826.9
Information Technology	15,877.7	-	-	-	-	-	-	15,877.7
Law	7,118.5	-	-	-	-	-	-	7,118.5
Finance	3,404.8	-	-	-	-	-	-	3,404.8
Engineering	26,766.4	260,177.5	18,994.6	-	-	-	-	305,938.5
Maintenance & Operations	158,946.7	-	-	-	-	-	-	158,946.7
Stormwater Management Fund	-	-	-	32,028.7	-	-	-	32,028.7
Retirement Fund	-	-	-	-	61,654.0	-	-	61,654.0
Bond Redemption & Interest Fund	-	-	-	-	-	216,501.2	-	216,501.2
Reserve Claim Fund	-	-	-	-	-	-	5,998.2	5,998.2
Equity Transfer	-	-	-	2,123.9	-	-	-	2,123.9
<b>TOTAL EXPENDITURES</b>	<b>\$ 323,172.9</b>	<b>\$ 260,177.5</b>	<b>\$ 18,994.6</b>	<b>\$ 34,152.6</b>	<b>\$ 61,654.0</b>	<b>\$ 216,501.2</b>	<b>\$ 5,998.2</b>	<b>\$ 920,651.0</b>

\* The Capital Improvements Bond Fund is budgeted on an "obligation" basis, which records expenditures in the period in which the contracts or grants are awarded.

**ALL FUNDS  
SUMMARY OF REVENUE AND EXPENDITURES  
2014 ACTUAL**

(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
<b>REVENUE</b>								
Net Assets Appropriable	\$ 163,333.9	\$ (402,318.1)	\$ 22,608.6	\$ 28,692.1	\$ 63,556.0	\$ 182,703.8	\$ 71,170.9	\$ 129,747.2
Adjustment for Receipts	9,432.7	-	229.3	(548.4)	-	-	-	9,113.6
Net Property Taxes	221,950.0	-	16,791.0	20,265.0	-	-	-	259,006.0
Personal Property Replacement Tax	18,608.1	-	-	-	-	-	-	18,608.1
Working Cash Borrowings Adjustment	(4,358.0)	-	(791.0)	(265.0)	-	-	-	(5,414.0)
Bond Sales	-	-	-	-	-	-	-	-
Grants (Federal & State)	-	-	-	-	-	11,141.1	-	11,141.1
Investment Income	2,030.9	2,694.1	388.1	394.0	-	1,060.8	541.0	7,108.9
State Revolving Fund Loans	-	76,356.1	-	-	-	-	-	76,356.1
Property & Services	17,881.3	-	-	-	-	-	-	17,881.3
User Charge	44,664.8	-	300.0	-	-	-	-	44,964.8
TIF Differential & Impact Fee	4,395.2	-	745.5	-	-	-	-	5,140.7
Equity Transfer	-	-	-	-	12,000.0	-	-	12,000.0
Miscellaneous	6,077.6	2,532.1	0.8	140.1	-	-	4.2	8,754.8
<b>TOTAL REVENUE</b>	<b>\$ 484,016.5</b>	<b>\$ (320,735.8)</b>	<b>\$ 40,272.3</b>	<b>\$ 48,677.8</b>	<b>\$ 75,556.0</b>	<b>\$ 194,905.7</b>	<b>\$ 71,716.1</b>	<b>\$ 594,408.6</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 3,709.7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,709.7
General Administration	14,794.5	-	-	-	-	-	-	14,794.5
Monitoring & Research	26,124.9	-	-	-	-	-	-	26,124.9
Procurement & Materials Mgmt.	8,046.0	-	-	-	-	-	-	8,046.0
Human Resources	72,855.4	-	-	-	-	-	-	72,855.4
Information Technology	14,368.4	-	-	-	-	-	-	14,368.4
Law	6,796.0	-	-	-	-	-	-	6,796.0
Finance	3,424.2	-	-	-	-	-	-	3,424.2
Engineering	25,295.3	198,501.3	23,128.0	-	-	-	-	246,924.6
Maintenance & Operations	166,541.8	-	-	-	-	-	-	166,541.8
Stormwater Management Fund	-	-	-	27,380.2	-	-	-	27,380.2
Retirement Fund	-	-	-	-	75,556.0	-	-	75,556.0
Bond Redemption & Interest Fund	-	-	-	-	-	194,905.7	-	194,905.7
Reserve Claim Fund	-	-	-	-	-	-	44,743.6	44,743.6
Equity Transfer	-	-	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 341,956.2</b>	<b>\$ 198,501.3</b>	<b>\$ 23,128.0</b>	<b>\$ 27,380.2</b>	<b>\$ 75,556.0</b>	<b>\$ 194,905.7</b>	<b>\$ 44,743.6</b>	<b>\$ 906,171.0</b>

\* The Capital Improvements Bond Fund is budgeted on an "obligation" basis which records expenditures in the period in which the contracts or grants are awarded.

**SUMMARY OF ESTIMATED ASSETS APPROPRIABLE FOR THE CORPORATE, CAPITAL IMPROVEMENTS BOND, RETIREMENT, CONSTRUCTION, STORMWATER MANAGEMENT, BOND REDEMPTION & INTEREST, AND RESERVE CLAIM FUNDS FOR THE YEAR 2016**

DESCRIPTION	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
2016 Revenue	\$ 313,013,000	\$ 879,256,915	\$ 17,745,000	\$ 32,800,000	\$ -	\$ 700,000	\$ 400,000	\$ 1,243,914,915
Resources Available at 01/01/16	376,756,955	260,414,850	36,222,500	29,677,246	70,772,000	324,625,031	29,975,900	1,128,444,482
Total Resources	\$ 689,769,955	\$ 1,139,671,765	\$ 53,967,500	\$ 62,477,246	\$ 70,772,000	\$ 325,325,031	\$ 30,375,900	\$ 2,372,359,397
Liabilities:								
Liabilities and Designations at 01/01/16	223,428,000	655,906,965	17,353,100	21,976,446	-	112,547,243 *	200,000	1,031,411,754
Equity Transfer	-	-	-	-	-	3,269,300	-	3,269,300
Budget Reserve	100,081,255	-	-	-	-	-	-	100,081,255
<b>ASSETS APPROPRIABLE</b>	<b>\$ 366,260,700</b>	<b>\$ 483,764,800</b>	<b>\$ 36,614,400</b>	<b>\$ 40,500,800</b>	<b>\$ 70,772,000</b>	<b>\$ 216,047,088</b>	<b>\$ 30,175,900</b>	<b>\$ 1,244,135,688</b>

\* Future Years' Principal and Interest

**GAAP Basis Statement From 2014 CAFR - Exhibit A-1**  
**Governmental Funds Balance Sheets / Statements of Net Assets**

December 31, 2014 (with comparative amounts for prior year)

(in thousands of dollars)

	General Corporate Fund		Debt Service Fund		Capital Improvements Bond Fund	
	2014	2013	2014	2013	2014	2013
	<b>Assets</b>					
Cash	\$ 45,390	\$ 29,781	\$ 2,065	\$ 24,959	\$ 6,574	\$ 6,561
Certificates of deposit (note 4)	10,295	17,555	7,013	4,011	6,002	44,138
Investments (note 4)	191,294	251,043	99,313	69,036	119,156	185,432
Prepaid insurance	2,143	2,391	-	-	-	-
Taxes receivable, net (note 5)	224,845	222,071	210,679	195,211	-	-
Other receivables, net (note 5)	4,380	(1,943)	928	1,001	32,908	31,853
Due from other funds (note 12)	52	176	-	-	-	-
Restricted deposits	1,409	1,425	-	-	-	-
Inventories	39,586	40,136	-	-	-	-
Capital assets not being depreciated (note 6)	-	-	-	-	-	-
Capital assets being depreciated, net (note 6)	-	-	-	-	-	-
<b>Total Assets</b>	<b>\$ 519,394</b>	<b>\$ 562,635</b>	<b>\$ 319,998</b>	<b>\$ 294,218</b>	<b>\$ 164,640</b>	<b>\$ 267,984</b>
Deferred outflows of resources:						
Loss on prior debt refunding	-	-	-	-	-	-
<b>Total assets and deferred outflows of resources</b>	<b>\$ 519,394</b>	<b>\$ 562,635</b>	<b>\$ 319,998</b>	<b>\$ 294,218</b>	<b>\$ 164,640</b>	<b>\$ 267,984</b>
<b>Liabilities, Fund Balances / Net Assets</b>						
<b>Liabilities:</b>						
Accounts payable and other liabilities (note 5)	\$ 37,817	\$ 30,530	\$ -	\$ -	\$ 42,951	\$ 35,646
Due to Pension Trust Fund	-	-	-	-	-	-
Due to other funds (note 12)	-	-	-	-	-	-
Accrued interest payable	-	-	-	-	-	-
Long-term liabilities: (note 11)						
Due within one year	-	-	-	-	-	-
Due in more than one year	-	-	-	-	-	-
<b>Total Liabilities</b>	<b>\$ 37,817</b>	<b>\$ 30,530</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 42,951</b>	<b>\$ 35,646</b>
Deferred inflows of resources:						
Unavailable tax revenue (note 5)	190,865	193,898	178,908	170,690	-	-
Other unavailable/unearned revenue (note 5)	3,686	3,082	928	1,001	-	-
<b>Total deferred inflows of resources</b>	<b>\$ 194,551</b>	<b>\$ 196,980</b>	<b>\$ 179,836</b>	<b>\$ 171,691</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fund Balances/Net Assets:</b>						
Nonspendable for prepaid insurance	2,143	2,391	-	-	-	-
Nonspendable for inventories	39,586	40,136	-	-	-	-
Restricted for deposits	1,409	1,425	-	-	-	-
Restricted for working cash	278,148	276,894	-	-	-	-
Restricted for reserve claims	27,590	66,239	-	-	-	-
Restricted for debt service	-	-	140,162	122,527	-	-
Restricted for capital projects	-	-	-	-	8,921	119,860
Assigned	-	-	-	-	112,768	112,478
Unassigned (Deficit)	(61,850)	(51,960)	-	-	-	-
<b>Total Fund Balances</b>	<b>\$ 287,026</b>	<b>\$ 335,125</b>	<b>\$ 140,162</b>	<b>\$ 122,527</b>	<b>\$ 121,689</b>	<b>\$ 232,338</b>
<b>Total Liabilities, Deferred Inflows and Fund Balances</b>	<b>\$ 519,394</b>	<b>\$ 562,635</b>	<b>\$ 319,998</b>	<b>\$ 294,218</b>	<b>\$ 164,640</b>	<b>\$ 267,984</b>
<b>Net Position:</b>						
Net investment in capital assets						
Restricted for corporate working cash						
Restricted for reserve claim						
Restricted for debt service						
Restricted for capital projects						
Restricted for construction working cash						
Restricted for stormwater working cash						
Unrestricted (Deficit)						
<b>Total Net Position</b>						

Notes reference the 2014 CAFR of the District - Available on the Internet at [www.mwr.org](http://www.mwr.org)

Metropolitan Water Reclamation District of Greater Chicago

Retirement Fund		Other Governmental / Nonmajor Funds		Total Governmental Activities		Adjustments (Note 2a)		Statements of Net Assets	
2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
\$ -	\$ -	\$ 3,244	\$ 3,195	\$ 57,273	\$ 64,496	\$ -	\$ -	\$ 57,273	\$ 64,496
-	-	1,801	11,612	25,111	77,316	-	-	25,111	77,316
-	-	71,555	74,422	481,318	579,933	-	-	481,318	579,933
-	-	-	-	2,143	2,391	-	-	2,143	2,391
54,678	56,638	37,056	29,991	527,258	503,911	-	-	527,258	503,911
-	-	745	745	38,961	31,656	-	-	38,961	31,656
-	-	-	-	52	176	(52)	(176)	-	-
-	-	-	-	1,409	1,425	-	-	1,409	1,425
-	-	-	-	39,586	40,136	-	-	39,586	40,136
-	-	-	-	-	-	5,317,556	5,169,462	5,317,556	5,169,462
-	-	-	-	-	-	1,722,885	1,733,584	1,722,885	1,733,584
\$ 54,678	\$ 56,638	\$ 114,401	\$ 119,965	\$ 1,173,111	\$ 1,301,440	\$ 7,040,389	\$ 6,902,870	\$ 8,213,500	\$ 8,204,310
-	-	-	-	-	-	13,518	16,376	13,518	16,376
\$ 54,678	\$ 56,638	\$ 114,401	\$ 119,965	\$ 1,173,111	\$ 1,301,440	\$ 7,053,907	\$ 6,919,246	\$ 8,227,018	\$ 8,220,686
\$ -	\$ -	\$ 12,337	\$ 6,330	\$ 93,105	\$ 72,506	\$ -	\$ -	\$ 93,105	\$ 72,506
13,293	12,975	-	-	13,293	12,975	41,385	43,663	54,678	56,638
-	-	52	176	52	176	(52)	(176)	-	-
-	-	-	-	-	-	13,623	14,247	13,623	14,247
-	-	-	-	-	-	114,993	143,086	114,993	143,086
-	-	-	-	-	-	2,718,896	2,766,191	2,718,896	2,766,191
\$ 13,293	\$ 12,975	\$ 12,389	\$ 6,506	\$ 106,450	\$ 85,657	\$ 2,888,845	\$ 2,967,011	\$ 2,995,295	\$ 3,052,668
41,385	43,663	31,489	26,148	442,647	434,399	(442,647)	(434,399)	-	-
-	-	-	745	4,614	4,828	(1,669)	(1,742)	2,945	3,086
\$ 41,385	\$ 43,663	\$ 31,489	\$ 26,893	\$ 447,261	\$ 439,227	\$ (444,316)	\$ (436,141)	\$ 2,945	\$ 3,086
-	-	-	-	2,143	2,391	(2,143)	(2,391)	-	-
-	-	-	-	39,586	40,136	(39,586)	(40,136)	-	-
-	-	-	-	1,409	1,425	(1,409)	(1,425)	-	-
-	-	58,868	59,334	337,016	336,228	(337,016)	(336,228)	-	-
-	-	-	-	27,590	66,239	(27,590)	(66,239)	-	-
-	-	-	-	140,162	122,527	(140,162)	(122,527)	-	-
-	-	11,655	27,232	20,576	147,092	(20,576)	(147,092)	-	-
-	-	-	-	112,768	112,478	(112,768)	(112,478)	-	-
-	-	-	-	(61,850)	(51,960)	61,850	51,960	-	-
\$ -	\$ -	\$ 70,523	\$ 86,566	\$ 619,400	\$ 776,556	\$ (619,400)	\$ (776,556)	\$ -	\$ -
\$ 54,678	\$ 56,638	\$ 114,401	\$ 119,965	\$ 1,173,111	\$ 1,301,440	\$ -	\$ -	\$ -	\$ -
						\$ 4,548,793	\$ 4,506,950	\$ 4,548,793	\$ 4,506,950
						278,148	276,894	278,148	276,894
						7,764	9,861	7,764	9,861
						305,375	278,970	305,375	278,970
						15,457	28,886	15,457	28,886
						21,833	21,644	21,833	21,644
						37,035	37,690	37,035	37,690
						14,373	4,037	14,373	4,037
						\$ 5,228,778	\$ 5,164,932	\$ 5,228,778	\$ 5,164,932

## APPROPRIATION FOR LIABILITIES - BY FUND JANUARY 1, 2016 AND 2015

<b>CORPORATE FUND</b>	<b>2016</b>	<b>2015</b>
Unpaid Bills:		
Accrued Salaries & Wages	\$ 3,900,000	\$ 7,900,000
Personal Services - Other	-	-
Payroll Withholding & Miscellaneous	3,000,000	5,200,000
Contractual Services	26,528,000	35,487,072
Capital Projects	-	-
Materials & Supplies	-	-
Machinery & Equipment	-	-
Due to Corporate Working Cash Fund	190,000,000	190,000,000
Designated for Future Claims Liabilities	-	-
<b>Total Liabilities of Corporate Fund</b>	<b>\$ 223,428,000</b>	<b>\$ 238,587,072</b>
<b>CONSTRUCTION FUND</b>		
Unpaid Bills:		
Contracts Payable	\$ 4,507,955	\$ 1,964,500
Personal Services	-	487,900
Contractual Services	400,145	253,300
Materials & Supplies	-	2,800
Machinery & Equipment	445,000	-
Due to Construction Working Cash Fund	12,000,000	16,000,000
Designated for Future Claims Liabilities	-	-
<b>Total Liabilities of Construction Fund</b>	<b>\$ 17,353,100</b>	<b>\$ 18,708,500</b>
<b>CAPITAL IMPROVEMENTS BOND FUND</b>		
Unpaid Bills:		
Personal Services - Other	\$ -	\$ 37,375,412
Contractual Services	77,693,900	62,012,362
Contracts Payable	578,213,065	516,332,867
<b>Total Liabilities of Capital Improvements Bond Fund</b>	<b>\$ 655,906,965</b>	<b>\$ 615,720,641</b>
<b>RESERVE CLAIM FUND</b>		
Accounts Payable & Other Liabilities	\$ 200,000	\$ 268,419
<b>BOND REDEMPTION &amp; INTEREST FUND</b>		
Future Payment of Principal & Interest	\$ 112,547,243	\$ 91,602,271
<b>STORMWATER MANAGEMENT FUND</b>		
Accrued Salaries & Wages	\$ 200,000	\$ -
Contracts Payable	9,776,446	\$ 1,491,700
Due to Stormwater Working Cash Fund	12,000,000	19,000,000
<b>Total Liabilities of Stormwater Management Fund</b>	<b>\$ 21,976,446</b>	<b>\$ 20,491,700</b>
<b>TOTAL LIABILITIES JANUARY 1, 2016 AND 2015</b>	<b>\$ 1,031,411,754</b>	<b>\$ 985,378,603</b>



**STATEMENT OF TAXES RECEIVABLE FOR 2015 AND PRIOR YEARS AT JANUARY 1, 2016  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2016**

YEAR	FUND	TAX EXTENSION	COLLECTED THRU 12/31/15	%	UNCOLLECTED AT 12/31/15	RESERVE \$	%	ESTIMATED NET TAXES RECEIVABLE	CASH ESTIMATED IN 2016
<b>2015</b>	Corporate	\$ 227,196,000	\$ -	0%	\$ 227,196,000	\$ 7,951,860	3.5%	\$ 219,244,140	\$ 221,516,100
	Bond Redemption & Interest	228,728,807	-	0%	228,728,807	8,005,508	3.5%	220,723,299	223,010,587
	Retirement	58,004,000	-	0%	58,004,000	2,030,140	3.5%	55,973,600	55,973,600
	Construction	16,500,000	-	0%	16,500,000	577,500	3.5%	15,922,500	16,087,500
	Stormwater Management	24,050,000	-	0%	24,050,000	841,750	3.5%	23,208,250	23,448,750
	Reserve Claim	5,700,000	-	0%	5,700,000	199,500	3.5%	5,500,500	5,557,500
	Total	\$ 560,178,807	\$ -	0%	\$ 560,178,807	\$ 19,606,258	3.5%	\$ 540,572,289	\$ 545,594,037
<b>2014</b>	Corporate	\$ 230,000,000	\$ 224,250,000	97.5%	\$ 5,750,000	\$ 8,050,000	3.5%	\$ -	\$ 2,530,000
	Bond Redemption & Interest	218,319,357	212,861,373	97.5%	5,457,984	7,641,177	3.5%	-	2,401,513
	Retirement	50,530,700	49,267,433	97.5%	1,263,267	1,768,575	3.5%	-	-
	Construction	17,400,000	16,965,000	97.5%	435,000	609,000	3.5%	-	191,400
	Stormwater Management	21,000,000	20,475,000	97.5%	525,000	735,000	3.5%	-	231,000
	Reserve Claim	3,000,000	2,925,000	97.5%	75,000	105,000	3.5%	-	33,000
	Total	\$ 540,250,057	\$ 526,743,806	97.5%	\$ 13,506,251	\$ 18,908,752	3.5%	\$ -	\$ 5,386,913
<b>2013</b>	Corporate	\$ 224,399,734	\$ 221,258,138	98.6%	\$ 3,141,596	\$ 7,853,991	3.5%	\$ -	\$ (1,570,798)
	Bond Redemption & Interest	201,388,786	198,569,343	98.6%	2,819,443	7,048,608	3.5%	-	(1,409,722)
	Retirement	51,620,700	49,813,976	96.5%	1,806,724	1,806,725	3.5%	-	-
	Construction	11,079,300	10,924,190	98.6%	155,110	387,776	3.5%	-	(77,555)
	Stormwater Management	20,000,000	19,720,000	98.6%	280,000	700,000	3.5%	-	(140,000)
	Reserve Claim	6,170,977	6,084,583	98.6%	86,394	215,984	3.5%	-	(43,197)
	Total	\$ 514,659,497	\$ 506,370,230	98.4%	\$ 8,289,267	\$ 18,013,084	3.5%	\$ -	\$ (3,241,272)
<b>2012</b>	Corporate	\$ 237,247,822	\$ 234,163,600	98.7%	\$ 3,084,222	\$ 8,303,674	3.5%	\$ -	\$ (1,660,735)
	Bond Redemption & Interest	180,747,560	178,397,842	98.7%	2,349,718	6,326,165	3.5%	-	(1,265,233)
	Retirement	28,489,600	27,492,464	96.5%	997,136	997,136	3.5%	-	-
	Construction	20,417,700	20,152,270	98.7%	265,430	714,620	3.5%	-	(142,924)
	Stormwater Management	20,000,000	19,740,000	98.7%	260,000	700,000	3.5%	-	(140,000)
	Reserve Claim	6,669,900	6,583,191	98.7%	86,709	233,447	3.5%	-	(46,689)
	Total	\$ 493,572,582	\$ 486,529,367	98.6%	\$ 7,043,215	\$ 17,275,042	3.5%	\$ -	\$ (3,255,581)
<b>2011</b>	Corporate	\$ 249,828,032	\$ 244,581,643	97.9%	\$ 5,246,389	\$ 8,743,981	3.5%	\$ -	\$ (749,484)
	Bond Redemption & Interest	169,645,516	166,082,960	97.9%	3,562,556	5,937,593	3.5%	-	(508,937)
	Retirement	28,162,600	27,458,535	97.5%	704,065	985,691	3.5%	-	-
	Construction	1,819,030	1,780,830	97.9%	38,200	63,666	3.5%	-	(5,457)
	Stormwater Management	24,100,000	23,593,900	97.9%	506,100	843,500	3.5%	-	(72,300)
	Reserve Claim	3,400,000	3,328,600	97.9%	71,400	119,000	3.5%	-	(10,200)
	Total	\$ 476,955,178	\$ 466,826,468	97.9%	\$ 10,128,710	\$ 16,693,431	3.5%	\$ -	\$ (1,346,378)
<b>Prior Years' Levies</b>	Corporate								\$ (249,828)
	Bond Redemption & Interest								(169,646)
	Retirement								-
	Construction								(1,819)
	Stormwater Management								(24,100)
	Reserve Claim								(3,400)
	Total								\$ (448,793)
<b>RECAPITULATION BY FUND</b>									
	Corporate	\$ 1,168,671,588	\$ 924,253,381		\$ 244,418,207	\$ 40,903,506		\$ 219,244,140	\$ 219,815,255
	Bond Redemption & Interest	998,830,026	755,911,518		242,918,508	34,959,051		220,723,299	222,058,562
	Retirement	216,807,600	154,032,408		62,775,192	7,588,267		55,973,600	55,973,600
	Construction	67,216,030	49,822,290		17,393,740	2,352,562		15,922,500	16,051,145
	Stormwater Management	109,150,000	83,528,900		25,621,100	3,820,250		23,208,250	23,303,350
	Reserve Claim	24,940,877	18,921,374		6,019,503	872,931		5,500,500	5,487,014
	Total	\$ 2,585,616,121	\$ 1,986,469,871		\$ 599,146,250	\$ 90,496,567		\$ 540,572,289	\$ 542,688,926

**STATEMENT OF PERSONAL PROPERTY REPLACEMENT TAXES RECEIVABLE  
FOR 2016 AND PRIOR YEARS AT JANUARY 1, 2016  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2016**

YEAR	FUND	ACTUAL/ESTIMATED		CASH ESTIMATED IN 2016
		RECEIVABLE	COLLECTED THROUGH 2016	
2016	Corporate	\$ 24,676,000	\$ -	\$ -
	Retirement	16,624,500	-	-
	Construction	1,100,000	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 42,400,500	\$ -	\$ -
2015	Corporate	\$ 27,101,600	\$ -	\$ 27,101,600
	Retirement	14,798,400	-	14,798,400
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 41,900,000	\$ -	\$ 41,900,000
2014	Corporate	\$ 29,008,100	\$ 29,008,100	\$ -
	Retirement	12,891,900	12,891,900	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 41,900,000	\$ 41,900,000	\$ -
2013	Corporate	\$ 27,830,000	\$ 27,830,000	\$ -
	Retirement	13,170,000	13,170,000	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 41,000,000	\$ 41,000,000	\$ -
2012	Corporate	\$ 32,054,895	\$ 32,054,895	\$ -
	Retirement	7,268,500	7,268,500	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 39,323,395	\$ 39,323,395	\$ -
2011	Corporate	\$ 24,063,951	\$ 24,063,951	\$ -
	Retirement	7,185,100	7,185,100	-
	Construction	1,193,334	1,193,334	-
	Reserve Claim	3,029,233	3,029,233	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 35,471,618	\$ 35,471,618	\$ -

## CORPORATE FUND FINANCIAL NARRATIVE

The Corporate Fund is the general fund of the District. It is used to account for the general operations and expenditures of the District. The 2016 appropriation is \$366.2 million, an increase of \$7.3 million, or 2.0 percent, from the 2015 Adjusted Budget.

Property taxes are the major source of revenue for the Corporate Fund. In 2016, the net property tax levy will provide 69.7 percent of the fund's revenue. The property tax levy proposed for 2016 is \$226.1 million, a decrease of \$1.1 million, or 0.5 percent, from the 2015 Adjusted Levy.

A fund balance within the \$44 to \$55 million range is viewed by District management and the financial markets as necessary to maintain financial stability and sustain us through economic uncertainties. This fund balance level is consistent with the level recommended by the Government Finance Officers Association. In order to ensure that an adequate fund balance is maintained, all net assets appropriable have not been reappropriated as revenue for the subsequent year. For 2016, a portion amounting to \$100.1 million of the projected net assets will remain unappropriated to provide for a fiscally responsible fund balance.

User charge revenue allocated to the Corporate Fund is estimated at \$49.0 million in 2016, a \$2.0 million decrease from the 2015 Adjusted Budget. There are no user charge revenue allocations to other funds in 2016. While industries have made adjustments to reduce their loadings and associated expenses, current user charge rates continue to provide revenue paralleling the costs of treatment. The state economy significantly impacts the food processing and chemical industries, two major categories of user charge payers. The third major segment of user charge payers is government operated airports and water filtration facilities. The revenues from these sources are more affected by weather conditions than the general economy.

User charge rates and revenues parallel changes in operations and maintenance costs. User charge rates are based on United States Environmental Protection Agency-required review of the classes of users to ensure that each class pays its proportionate share of actual operations, maintenance, and replacement (OM&R) costs. Large commercial, industrial and tax-exempt users are charged fees based on the volume and strength of biochemical oxygen demand and suspended solids in their effluents, with credit given for the OM&R portion of any property taxes paid. The OM&R credit is adjusted for any users in tax increment financing districts to give credit only for property taxes actually received. Residential and small commercial/industrial classes pay only property taxes. This rate method ensures that the costs of providing service to these classes of users are fully recaptured. The user charge rate history appears in the Appendix.

Personal Property Replacement Tax (PPRT) revenue is primarily based on a corporate income tax. It is budgeted at \$24.7 million for 2016, an increase of \$4.6 million compared to the 2015 Budget due to revenue allocation to the Construction and Retirement Funds. This major revenue source trends with the state of the economy.

In 2016, land rental revenue is budgeted at \$17.5 million, an increase of \$1.0 million from the 2015 Adjusted Budget. Real estate income for the District has trended upwards in recent years. Expiring leases are reviewed and necessary environmental or other types of property remediation are performed, when possible, well ahead of lease expiration to expedite re-leasing at current market rates. This process should result in increased revenues in the future. Revenue from the sale of surplus land is estimated at \$1.3 million in 2016. Revenue from land sales was \$3.0 million in 2015.

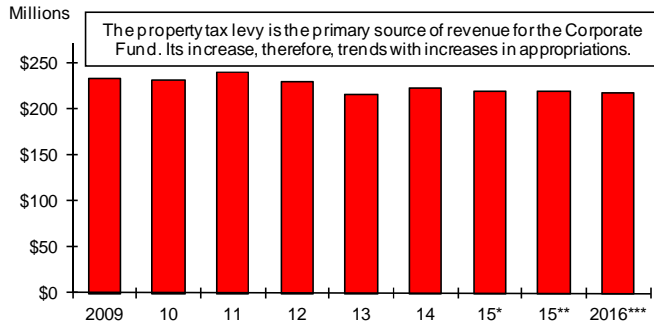
Investment income is budgeted for 2016 at \$0.6 million. The adjusted estimate for 2015 is \$0.9 million. The 2014 and 2013 actual amounts are \$2.0 and \$3.0 million, respectively. This level of income reflects relatively stable short-term interest rates and fund balances available for investment during the past several years.

The revenue estimate for sewer permit fees for 2016 is \$0.8 million. Actual 2015 revenues are projected to be \$0.9 million. The District is authorized to recover 100 percent of the sewer permit processing costs, and sewer permit fees are evaluated annually in light of this objective. Permits are required for new real estate development, and applications are expected to remain flat in 2016 due to the slow recovery in the area real estate market.

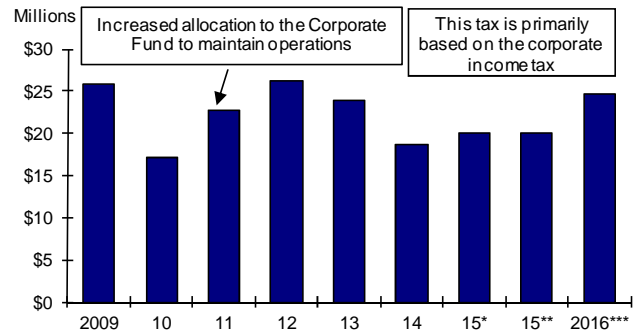
The Corporate Working Cash Fund is used to provide short-term financing to the Corporate Fund. As the property tax levy for one year is not collected until the next year, short-term financing of the current year tax levy is necessary. The District is authorized to sell Working Cash Bonds and is authorized to extend a property tax levy to meet these needs. State statute allows loans in the amount of 100 percent of the property tax levy plus personal property replacement tax receivables. The estimated amount the District will allocate as available for loan in 2016 is \$238.3 million, or 95 percent, of the maximum. Public Act 93-252 amended the District's Act to allow the Board of Commissioners, by a two-thirds vote, to transfer fund balances between its Working Cash Funds. The Board also has authority to transfer accumulated investment income between funds by a two-thirds vote.

### REVENUE - CORPORATE FUND (BUDGETARY BASIS)

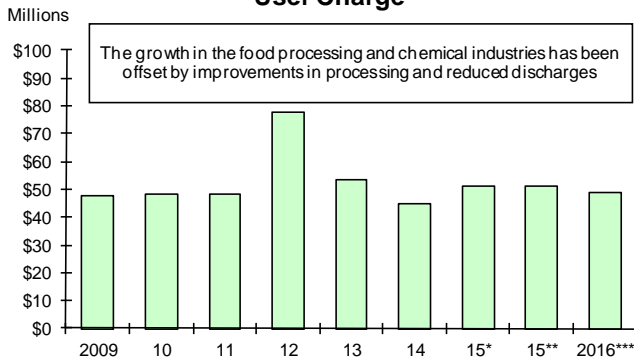
**Net Property Tax Levy**



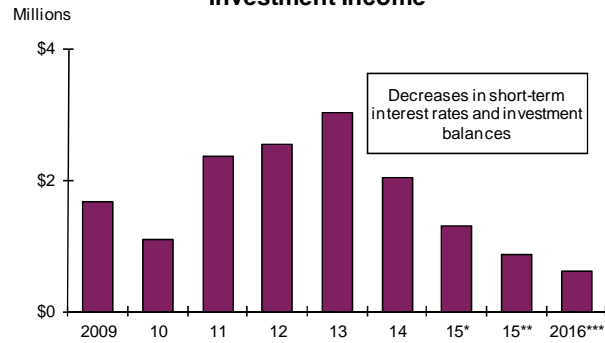
**Personal Property Replacement Tax**



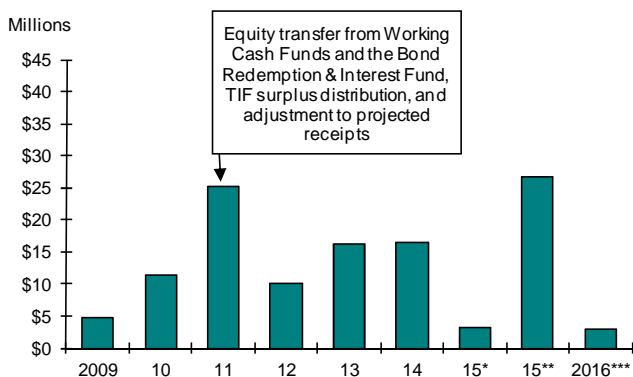
**User Charge**



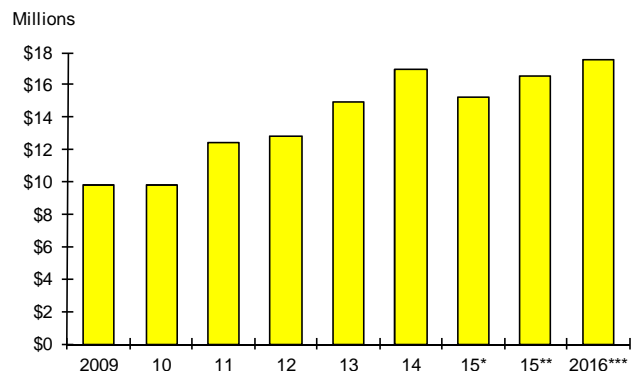
**Investment Income**



**Other**



**Land Rentals**



Note: Other includes sewer permit and permit services fees, land sales, agricultural product sales, Tax Increment Finance (TIF) district surplus distribution, and other small revenue sources.

Note: 2009 - 2014 actual  
 \* 2015 as budgeted  
 \*\* 2015 adjusted estimate  
 \*\*\* 2016 estimate

**CORPORATE FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

	<b>ASSETS</b>		<b>2015</b>	
	<b>2016</b>			
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 129,640,100	\$ 129,640,100	\$ 132,427,342	\$ 132,427,342
Taxes Receivable	219,244,140	219,815,255	221,950,000	222,348,630
Replacement Tax	27,101,600	27,101,600	29,008,100	29,008,100
Due from Other Funds	200,000	200,000	200,000	200,000
<b>Total Current Assets</b>	<b>\$ 376,185,840</b>	<b>\$ 376,756,955</b>	<b>\$ 383,585,442</b>	<b>\$ 383,984,072</b>

<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 3,900,000	\$ 3,900,000	\$ 7,900,000	\$ 7,900,000
Personal Services - Other	-	-	-	-
Payroll Withholding & Miscellaneous	3,000,000	3,000,000	5,200,000	5,200,000
Contractual Services	26,528,000	26,528,000	35,487,072	35,487,072
Materials & Supplies	-	-	-	-
Machinery & Equipment	-	-	-	-
Due to Corporate Working Cash Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Liabilities</b>	<b>\$ 223,428,000</b>	<b>\$ 223,428,000</b>	<b>\$ 238,587,072</b>	<b>\$ 238,587,072</b>
<b>Total Liabilities &amp; Designations</b>		<b>\$ 223,428,000</b>		<b>\$ 238,587,072</b>

<b>ASSETS APPROPRIABLE FOR 2016 &amp; 2015</b>				
Net Assets Appropriable		\$ 153,328,955		\$ 145,397,000
Budget Reserve		\$ (100,081,255)		\$ (96,746,600)
Net Assets Appropriated		53,247,700		48,650,400
Equity Transfer		-		-
Estimated Revenue		313,013,000		310,345,000
<b>Total Assets Appropriable</b>		<b>\$ 366,260,700</b>		<b>\$ 358,995,400</b>

<b>FUND EQUITY</b>				
Undesignated	\$ 152,757,840		\$ 144,998,370	
<b>Total Fund Equity</b>	<b>\$ 152,757,840</b>		<b>\$ 144,998,370</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 376,185,840</b>		<b>\$ 383,585,442</b>	

**CORPORATE FUND**  
**APPROPRIABLE REVENUE**  
**2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Property Taxes					
Gross Tax Levy	\$ 226,109,300	\$ 227,196,000	\$ 227,196,000	\$ 230,000,000	\$ 224,100,000
Less Allowance for Uncollectible Taxes	(7,913,826)	(7,951,860)	(7,951,860)	(8,050,000)	(7,843,500)
Net Property Taxes	\$ 218,195,474	\$ 219,244,140	\$ 219,244,140	\$ 221,950,000	\$ 216,256,500
Revenue from Personal Property					
Replacement Tax	\$ 24,676,000	\$ 20,101,600	\$ 20,101,600	\$ 18,608,149	\$ 23,831,500
Net Tax Sources	\$ 242,871,474	\$ 239,345,740	\$ 239,345,740	\$ 240,558,149	\$ 240,088,000
Adjustment to match working cash borrowings	(4,671,474)	(4,445,740)	(4,445,740)	(4,358,149)	(4,588,000)
Working Cash Financing at 95% of Gross Tax Sources	\$ 238,200,000	\$ 234,900,000	\$ 234,900,000	\$ 236,200,000	\$ 235,500,000
Investment Income	\$ 600,000	\$ 860,000	\$ 1,300,000	\$ 2,030,933	\$ 3,021,483
Land Rentals	17,500,000	16,500,000	15,500,000	16,933,079	14,929,731
Sewer Permit Fees	750,000	900,000	750,000	940,228	699,543
Sewer Service Agreement Revenue	1,400,000	1,400,000	1,350,000	1,443,450	1,334,798
User Charge	49,000,000	51,000,000	51,000,000	44,664,848	53,501,653
Lockport Electricity Generation	1,000,000	1,100,000	1,000,000	1,395,547	939,288
Miscellaneous (details below)	4,563,000	11,307,250	4,545,000	7,642,040	10,024,120
Subtotal	\$ 74,813,000	\$ 83,067,250	\$ 75,445,000	\$ 75,050,125	\$ 84,450,616
Adjustment to Net Assets Available for Projected Receipts	-	16,474,253	-	9,432,662	7,766,617
Equity Transfer	-	-	-	-	-
<b>GRAND TOTAL</b>	<b>\$ 313,013,000</b>	<b>\$ 334,441,503</b>	<b>\$ 310,345,000</b>	<b>\$ 320,682,787</b>	<b>\$ 327,717,233</b>
<b>-----</b>					
<b>Components of Miscellaneous</b>					
TIF Surplus Distribution	\$ 2,020,000	\$ 6,118,900	\$ 2,000,000	\$ 4,170,246	\$ 3,088,417
TIF Differential Fee	225,000	225,000	225,000	225,000	225,000
Land Sales	1,250,000	2,953,250	1,250,000	8,031	2,575,088
Fines	-	-	-	-	-
Claims & Damage Settlements	-	49,000	-	125,729	1,024,181
Agricultural Products	-	-	2,000	-	23,203
Water Sales	-	5,000	-	13,821	8,139
Scrap Sales	50,000	100,000	50,000	97,907	148,999
Sales of Automobiles	15,000	52,100	15,000	107,554	17,606
Interest on Taxes - Cook County Treasurer	3,000	4,000	3,000	5,425	4,829
Other	1,000,000	1,800,000	1,000,000	2,888,327	2,908,658
<b>Total</b>	<b>\$ 4,563,000</b>	<b>\$ 11,307,250</b>	<b>\$ 4,545,000</b>	<b>\$ 7,642,040</b>	<b>\$ 10,024,120</b>

**CORPORATE FUND  
FINANCING  
2016 - 2011**

	<u>ESTIMATED</u>			<u>ACTUAL</u>			
	<u>2016 (1)</u>	<u>2015 REVISED</u>	<u>2015 ORIGINAL</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
<b><u>BORROWINGS</u></b>							
Working Cash Loans Current Year	\$ 238,200,000	\$ 190,000,000	\$ 234,900,000	\$ 236,200,000	\$ 190,000,000	\$ 190,000,000	\$ 257,600,000
Working Cash Loans Prior Year	-	-	-	-	-	-	-
<b>Total Borrowings</b>	<b>\$ 238,200,000</b>	<b>\$ 190,000,000</b>	<b>\$ 234,900,000</b>	<b>\$ 236,200,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 257,600,000</b>
<b><u>REPAYMENTS</u></b>							
Working Cash Loans Repaid Current	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 257,600,000	\$ 244,300,000
Working Cash Loans Repaid Prior	-	-	-	-	-	-	17,444,117
<b>Total Repayments</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 257,600,000</b>	<b>\$ 261,744,117</b>

**(1) FINANCING LIMITATION**

		<b>2016</b>
		(In Millions)
Property Tax Levy	\$	226.1
Personal Property Replacement Tax		24.7
Total	\$	250.8
* Borrowing Limitation		95.0 %
Total Available for Financing	\$	238.3

\* Statutory limitation is 100%

**CORPORATE WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2016 AND 2015**

<b>CURRENT ASSETS</b>	<b>ASSETS</b>		<b>2015</b>	
	<b>2016</b>		<b>AMOUNT</b>	<b>AVAILABLE FOR</b>
	<b>AMOUNT</b>	<b>AVAILABLE FOR</b>		<b>APPROPRIATION</b>
		<b>APPROPRIATION</b>		
Cash & Investments	\$ 88,058,394	\$ 88,058,394	\$ 88,058,394	\$ 88,058,394
Replacement Tax	-	-	-	-
Due from Corporate Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Assets</b>	<b>\$ 278,058,394</b>	<b>\$ 278,058,394</b>	<b>\$ 278,058,394</b>	<b>\$ 278,058,394</b>

<b>FUND EQUITY</b>	
Estimated Revenue & Other Financing Sources	\$ 900,000
<b>ASSETS AVAILABLE FOR 2016 AND 2015</b>	<b>\$ 278,958,394</b>
<b>FUND EQUITY</b>	<b>\$ 278,058,394</b>

**CORPORATE WORKING CASH FUND  
REVENUES  
2016 - 2013**

<b>REVENUE DESCRIPTION</b>	<b>ESTIMATED</b>			<b>ACTUAL</b>	
	<b>2016</b>	<b>2015</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
	<b>BUDGET</b>	<b>ADJUSTED</b>	<b>BUDGET</b>		
Revenue from Money & Property					
Investment Income	\$ 900,000	\$ 840,000	\$ 800,000	\$ 834,350	\$ 837,738
Revenue from Miscellaneous Sources	-	-	-	-	-
<b>TOTAL</b>	<b>\$ 900,000</b>	<b>\$ 840,000</b>	<b>\$ 800,000</b>	<b>\$ 834,350</b>	<b>\$ 837,738</b>



## CAPITAL FUNDS FINANCIAL NARRATIVE

The Capital Funds of the District are the Capital Improvements Bond Fund (CIBF) and the Construction Fund. These funds are used to account for the acquisition of capital facilities and other capital assets. The District's major functions of sewage collection and treatment, solids processing, solids utilization, flood control, and stormwater management are capital intensive, requiring significant investments in infrastructure. The national priority of environmental protection, coupled with the District's prime mission of protecting the Lake Michigan drinking water supply from pollution, drives the capital program for the District. Funding for the national, state, and local priorities that drive the District's program is provided by bonds, grants, and other financial assistance available to the District.

The CIBF is used to provide resources from grants, bonds, and other sources to design and construct major capital facilities that are structures of permanent duration. The 2016 appropriation is \$483.8 million, an increase of \$30.7 million from the 2015 Adjusted Budget, or seven percent. The appropriation varies by the scheduled awards of major projects.

The CIBF balance sheet (page 92) estimates the net assets appropriable for 2016 at (\$395.5) million and (\$374.9) million for 2015. The CIBF balance sheet estimated negative net assets appropriable for 2016 and 2015 are a result of accounting for the full value of the contract awards as a liability, without recognizing the bonds to be sold during the course of the projects to meet financial needs. An obligation basis of budgetary accounting is used for this fund. Liabilities are recognized as the total value of all project awards at the time of award, even though cash disbursements are made over several future years.

Since 1969, the District has sold approximately \$5.7 billion in bonds in order to support its capital program. The District is authorized to issue \$150.0 million in nonreferendum Capital Improvements Bonds in any one year, plus amounts unissued from the prior three years. Bonds for State Revolving Fund loans are excluded. The District's nonreferendum bonding authority was extended to 2024 by state statute, effective January 1, 2011, and the annual debt issuance authorization was increased from \$100.0 million to \$150.0 million in 2003. This level of authority allows the District to proceed with the award of multi-year contracts, then sell bonds as cash flow requirements demand during the course of the project. The Five-Year Financial Forecast on pages 57 - 69 presents detailed projections of the financial aspects of the capital program into the future.

Property tax limitation laws enacted in Illinois had significant impacts on the future funding of the District's capital program through bond sales. Under Public Act 89-1, the District's nonreferendum bonding authority was restricted to finance only projects initiated prior to October 1, 1991, which generally covers only Tunnel and Reservoir Plan (TARP) projects. However, Public Acts 89-385 and 90-485 provided additional nonreferendum authority to the District by authorizing the issuance of "limited tax bonds." Limited bonds can be issued to the extent that any new debt when combined with existing debt service does not exceed the debt service extension base established by these Acts, which for the District is \$141.5 million. However, it was limited to the District's 1994 debt service level of \$141,463,920 and amended by Public Act 96-0501 to allow for an annual increase equal to the consumer price index or five percent, whichever is less, and is currently estimated at \$158.2 million for the 2015 levy year and \$161.4 million for the 2016 levy year. These "limited tax bonds" allow the District to issue nonreferendum debt for projects initiated after October 1, 1991 and exclude debt associated with the TARP program and other projects initiated prior to that date from the extension base. There will be sufficient authorization to issue bonds to meet our capital program for the next few years.

The State of Illinois Revolving Loan Fund (SRF) provides low-interest loans to finance qualifying projects. Upon project completion, District bonds are issued at the same low-interest rate. The current interest rate for new loans to the District is 1.86 percent. The District has authorized approximately \$2.2 billion of SRF loans since the program's inception. Several projects are currently financed through SRF loans. The District expects to receive an allocation of at least \$200.0 million annually from SRF loans for the next several years. For 2016, \$80.0 million in SRF revenue is budgeted to fund plant projects.

For 2016, approximately \$11.1 million of Build America Bonds subsidy will be used for capital projects. The District has been very successful in obtaining grant funding in the past, and future grants or appropriations are being pursued for the TARP program at the federal level through the Energy and Water Development Appropriations and the Water Resources Development Act.

The Construction Fund is a property tax supported fund designed to provide resources for capital projects for which long-term bond funding is not desirable or is not available. This fund is intended for pay-as-you-go capital projects to perform major rehabilitation of facilities, extending their useful life, and to acquire other capital assets. The funding mechanism for this is a working cash fund that provides loans in anticipation of tax collections. The liabilities for contracts not completed during a fiscal year are reappropriated in the next year. Net assets appropriable, therefore, fluctuate based on the value of contract liabilities carried forward to the next year.

The 2016 tax levy for the Construction Fund is \$16.6 million, an increase of \$0.1 million, or 0.6 percent, from the 2015 Adjusted Budget. The 2016 appropriation is \$36.6 million, a decrease of \$1.3 million, or three percent, from the 2015 Adjusted Budget. This decreased appropriation level reflects the anticipated expenditures for existing projects and the appropriations required to fund projects with 2016 award dates.

**CAPITAL IMPROVEMENTS BOND FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

	<u>ASSETS</u>		<u>2015</u>	
	<u>2016</u>			
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 108,774,219	\$ 108,774,219	\$ 108,073,288	\$ 108,073,288
Grants Receivable	-	-	-	-
State Revolving Fund Loans Receivable	151,640,631	151,640,631	132,706,153	132,706,153
<b>Total Current Assets</b>	<b>\$ 260,414,850</b>	<b>\$ 260,414,850</b>	<b>\$ 240,779,441</b>	<b>\$ 240,779,441</b>
 <b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ -	\$ -	\$ -	\$ -
Personal Services - Other	-	-	37,375,412	37,375,412
Contractual Services	77,693,900	77,693,900	62,012,362	62,012,362
Contracts Payable	578,213,065	578,213,065	516,332,867	516,332,867
<b>Total Current Liabilities</b>	<b>\$ 655,906,965</b>	<b>\$ 655,906,965</b>	<b>\$ 615,720,641</b>	<b>\$ 615,720,641</b>
Designated for Future Claims Liabilities	-	-	-	-
<b>Total Liabilities</b>	<b>\$ 655,906,965</b>	<b>\$ 655,906,965</b>	<b>\$ 615,720,641</b>	<b>\$ 615,720,641</b>
 <b>ASSETS APPROPRIABLE</b>				
Net Assets Appropriable		\$ (395,492,115)		\$ (374,941,200)
Net Assets Appropriated		(395,492,115)		(374,941,200)
Equity Transfer to Retirement Fund		-		-
Estimated Revenue		879,256,915		828,013,700
<b>Total Assets Appropriable</b>		<b>\$ 483,764,800</b>		<b>\$ 453,072,500</b>
<b>FUND EQUITY</b>	\$ (395,492,115)		\$ (374,941,200)	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 260,414,850</b>		<b>\$ 240,779,441</b>	

**CAPITAL IMPROVEMENTS BOND FUND  
 APPROPRIABLE REVENUE  
 2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Money & Property					
Bond Sales (Present & Future)	\$ 786,521,791	\$ 261,183,004	\$ 734,546,700	\$ -	\$ -
Investment Income & Miscellaneous	1,600,000	1,940,000	2,500,000	2,694,091	4,375,410
<b>Subtotal</b>	<b>\$ 788,121,791</b>	<b>\$ 263,123,004</b>	<b>\$ 737,046,700</b>	<b>\$ 2,694,091</b>	<b>\$ 4,375,410</b>
Revenue from Miscellaneous Sources					
Federal & State Grants	\$ 11,135,124	\$ 11,135,124	\$ 10,967,000	\$ -	\$ -
State Revolving Fund Loans	80,000,000	109,664,500	80,000,000	76,356,100	41,546,026
Miscellaneous	-	-	-	2,532,064	1,025,143
<b>Subtotal</b>	<b>\$ 91,135,124</b>	<b>\$ 120,799,624</b>	<b>\$ 90,967,000</b>	<b>\$ 78,888,164</b>	<b>\$ 42,571,169</b>
<b>Total Revenue</b>	<b>\$ 879,256,915</b>	<b>\$ 383,922,628</b>	<b>\$ 828,013,700</b>	<b>\$ 81,582,255</b>	<b>\$ 46,946,579</b>
Other Financing Sources (Uses)					
Equity Transfer To Retirement Fund	\$ -	\$ -	\$ -	\$ (8,000,000)	\$ -
<b>GRAND TOTAL</b>	<b>\$ 879,256,915</b>	<b>\$ 383,922,628</b>	<b>\$ 828,013,700</b>	<b>\$ 73,582,255</b>	<b>\$ 46,946,579</b>

**CONSTRUCTION FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

**ASSETS**

	<b>2016</b>		<b>2015</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 20,171,355	\$ 20,171,355	\$ 16,077,980	\$ 16,077,980
Taxes Receivable	15,922,500	16,051,145	16,791,000	16,896,220
Replacement Tax	-	-	-	-
<b>Total Current Assets</b>	<b>\$ 36,093,855</b>	<b>\$ 36,222,500</b>	<b>\$ 32,868,980</b>	<b>\$ 32,974,200</b>

**LIABILITIES & FUND EQUITY**

**CURRENT LIABILITIES**

Unpaid Bills:				
Accrued Salaries & Wages	\$ -	\$ -	\$ -	\$ -
Contracts Payable	4,507,955	4,507,955	1,964,500	1,964,500
Personal Services - Other	-	-	487,900	487,900
Contractual Services	400,145	400,145	253,300	253,300
Materials & Supplies	-	-	2,800	2,800
Machinery & Equipment	445,000	445,000	-	-
Due to:				
Construction Working Cash Fund	12,000,000	12,000,000	16,000,000	16,000,000
<b>Total Current Liabilities</b>	<b>\$ 17,353,100</b>	<b>\$ 17,353,100</b>	<b>\$ 18,708,500</b>	<b>\$ 18,708,500</b>
Designated for Future Claims Liabilities		\$ -		\$ -
<b>Total Current Liabilities and Designations</b>		<b>\$ 17,353,100</b>		<b>\$ 18,708,500</b>

**ASSETS APPROPRIABLE FOR 2016 AND 2015**

Net Assets Appropriable	\$ 18,869,400	\$ 14,265,700
Net Assets Appropriated	\$ 18,869,400	\$ 14,265,700
Estimated Revenue	17,745,000	23,645,000
<b>Total Assets Appropriable</b>	<b>\$ 36,614,400</b>	<b>\$ 37,910,700</b>

**FUND EQUITY**

Designated for Future Claims Liabilities	\$ -	\$ -
Undesignated	18,740,755	14,160,480
<b>Total Fund Equity</b>	<b>\$ 18,740,755</b>	<b>\$ 14,160,480</b>
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 36,093,855</b>	<b>\$ 32,868,980</b>

**CONSTRUCTION FUND FINANCING  
2016 - 2011**

	ESTIMATED			ACTUAL			
	2016 (1)	2015 REVISED	2015 ORIGINAL	2014	2013	2012	2011
<b>BORROWINGS</b>							
Working Cash Loans	\$ 16,800,000	\$ 12,000,000	\$ 22,300,000	\$ 10,000,000	\$ 7,000,000	\$ 13,200,000	\$ 6,000,000
<b>Total Borrowings</b>	<b>\$ 16,800,000</b>	<b>\$ 12,000,000</b>	<b>\$ 22,300,000</b>	<b>\$ 10,000,000</b>	<b>\$ 7,000,000</b>	<b>\$ 13,200,000</b>	<b>\$ 6,000,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
- Current	\$ 12,000,000	\$ 10,000,000	\$ 10,000,000	\$ 7,000,000	\$ 13,200,000	\$ 2,950,485	\$ 9,500,000
- Prior Year	-	-	-	-	-	3,049,515	-
<b>Total Repayments</b>	<b>\$ 12,000,000</b>	<b>\$ 10,000,000</b>	<b>\$ 10,000,000</b>	<b>\$ 7,000,000</b>	<b>\$ 13,200,000</b>	<b>\$ 6,000,000</b>	<b>\$ 9,500,000</b>

**(1) FINANCING LIMITATION**

(In Millions)

Property Tax Levy	\$ 16.6
Personal Property Replacement Tax	1.1
<b>Total</b>	<b>\$ 17.7</b>
Borrowing Limitation *	95% * Statutory limitation is 100%
<b>Total Available for Financing</b>	<b>\$ 16.8</b>

**CONSTRUCTION FUND  
APPROPRIABLE REVENUE  
2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Property Taxes					
Gross Tax Levy	\$ 16,600,000	\$ 16,500,000	\$ 16,500,000	\$ 17,400,000	\$ 11,079,300
Less: Allowance for Uncollectible Taxes	(581,000)	(577,500)	(577,500)	(609,000)	(387,776)
<b>Net Property Taxes</b>	<b>\$ 16,019,000</b>	<b>\$ 15,922,500</b>	<b>\$ 15,922,500</b>	<b>\$ 16,791,000</b>	<b>\$ 10,691,524</b>
Revenue from Personal Property Replacement Tax	1,100,000	-	7,000,000	-	-
<b>Net Tax Sources</b>	<b>\$ 17,119,000</b>	<b>\$ 15,922,500</b>	<b>\$ 22,922,500</b>	<b>\$ 16,791,000</b>	<b>\$ 10,691,524</b>
Adjustment to Match Working Cash Borrowings	(319,000)	(622,500)	(622,500)	(791,000)	(191,524)
Working Cash Financing (Maximum 95% of Gross Tax Sources)	16,800,000	15,300,000	22,300,000	16,000,000	10,500,000
Revenue from Current Services					
Connection Impact Fees	745,000	745,000	745,000	745,500	745,000
Revenue from Money & Property					
Investment Income	200,000	272,000	300,000	388,074	496,125
Miscellaneous	-	31,824	-	821	816,721
User Charge	-	300,000	300,000	300,000	300,000
<b>Subtotal</b>	<b>\$ 945,000</b>	<b>\$ 1,348,824</b>	<b>\$ 1,345,000</b>	<b>\$ 1,434,395</b>	<b>\$ 2,357,846</b>
Adjustment to Net Assets Available for Projected Receipts	-	652,000	-	229,347	-
<b>Total</b>	<b>\$ 17,745,000</b>	<b>\$ 17,300,824</b>	<b>\$ 23,645,000</b>	<b>\$ 17,663,742</b>	<b>\$ 12,857,846</b>

**CONSTRUCTION WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2016 AND 2015**

	<u>ASSETS</u>			
	<u>AMOUNT</u>	<u>2016</u> <u>AVAILABLE FOR</u> <u>APPROPRIATION</u>	<u>AMOUNT</u>	<u>2015</u> <u>AVAILABLE FOR</u> <u>APPROPRIATION</u>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 9,912,234	\$ 9,912,234	\$ 11,794,332	\$ 11,794,332
Taxes Receivable	-	-	-	-
Replacement Tax	-	-	-	-
Due to Corporate Fund	-	-	-	-
Due from Construction Fund	10,000,000	10,000,000	10,000,000	10,000,000
<b>Total Current Assets</b>	<u>\$ 19,912,234</u>	<u>\$ 19,912,234</u>	<u>\$ 21,794,332</u>	<u>\$ 21,794,332</u>

<u>FUND EQUITY</u>			
Estimated Revenue & Other Financing Sources		\$ 100,000	\$ 200,000
<b>ASSETS AVAILABLE FOR 2016 AND 2015</b>		<u>\$ 20,012,234</u>	<u>\$ 21,994,332</u>
<b>FUND EQUITY</b>		<u>\$ 19,912,234</u>	<u>\$ 21,794,332</u>

**CONSTRUCTION WORKING CASH FUND  
REVENUES  
2016 - 2013**

<u>REVENUE DESCRIPTION</u>	<u>ESTIMATED</u>			<u>ACTUAL</u>	
	<u>2016</u> <u>BUDGET</u>	<u>2015</u> <u>ADJUSTED</u>	<u>2015</u> <u>BUDGET</u>	<u>2014</u>	<u>2013</u>
Revenue from Money & Property					
Investment Income	\$ 100,000	\$ 128,000	\$ 200,000	\$ 147,239	\$ 34,742
Revenue from Miscellaneous Sources	-	-	-	-	-
<b>TOTAL</b>	<u>\$ 100,000</u>	<u>\$ 128,000</u>	<u>\$ 200,000</u>	<u>\$ 147,239</u>	<u>\$ 34,742</u>

## OTHER FUNDS FINANCIAL NARRATIVE

**The Stormwater Management Fund** was established by Public Act 93-1049 on January 1, 2005. This fund accounts for tax levies and other revenue to be used for stormwater management activities throughout all of Cook County. The 2016 property tax levy for the Stormwater Management Fund is \$34.3 million, an increase of \$10.2 million, or 42.4 percent, from the 2015 Adjusted Budget. During 2005, Public Act 94-474 authorized the creation and use of a Stormwater Working Cash Fund for the sole purpose of providing temporary loans to the Stormwater Management Fund in anticipation of tax collections. Details of this fund's purpose and \$40.5 million appropriation for 2016 are presented on pages 475 through 528.

**The Reserve Claim Fund** is the District's self-insurance fund, and is financed through an annual property tax levy of one-half cent (0.5¢) per \$100 of the last known equalized assessed valuation (EAV). This one-half cent tax rate is the maximum allowed by state statute. It is Board policy to levy the maximum whenever possible. For 2016, \$5.9 million is budgeted. The available fund balance and amount available for appropriation for the Reserve Claim Fund are based on the net impact of current revenues and current expenditures.

The 2016 appropriation for this fund is \$30.2 million, a decrease of \$0.5 million, or 1.7 percent, from the 2015 Adjusted Budget. The maximum fund balance that can be accumulated is 0.05 percent of the last known EAV. For the 2016 Budget, using the last known EAV of 2014, the maximum accumulation is estimated at \$62.9 million. The allowance for accounts payable and estimated liabilities is estimated at \$0.2 million.

This fund is the District's self-insurance fund, and it is important that all potential claims and contingencies are evaluated to ensure that sufficient resources are set aside. The Board adopted a policy for the 1998 budget and subsequent years, for the accumulation of fund balance towards the statutory limit, and a continuance of the maximum annual tax levy for the fund. The Board of Commissioners annually reaffirms the policy to accumulate toward the statutory limit, and to levy at the statutorily allowable tax rate to provide necessary resources for environmental liabilities.

The financial status of this fund is closely monitored. Administrative risk management programs in the Claims and Safety areas are in place to help control the rate of growth for the employee disability component. A detailed presentation of this fund begins on page 529.

**The Bond Redemption & Interest (B&I) Fund** is a series of subfunds that account for the property tax levies and other revenues received to pay for the principal and interest of bonds issued by the District. The property tax levies for outstanding bond issues are collected and paid through this fund. The 2016 property tax levy for the B&I Fund is \$229.9 million, an increase of \$2.0 million, or 0.9 percent, from the 2015 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or state revolving fund loans. The 2016 appropriation for this fund is \$216.0 million, which is an increase of \$1.5 million, or 0.7 percent, from the 2015 Adjusted Budget.

Property tax levy collections are invested prior to the time when actual principal and interest payments must be made. Investment income earned on tax collections is credited to the specific sub-funds for each bond issue. The amount of estimated investment income for 2016 is \$0.7 million, which is a decrease of \$0.3 million, or 27.5 percent, from the 2015 Adjusted Budget. Investment income has decreased from the \$1.4 million received in 2013. Whenever possible, excess investment income will be used to abate a portion of the levy. A detailed presentation on the B&I Fund is found on pages 531 through 534.

**The Retirement Fund** receives the proceeds of the annual tax levy that the District extends on behalf of the Metropolitan Water Reclamation District Retirement Fund, a pension trust fund. The amounts, as certified by the Retirement Fund Board, are levied by the District and appropriated when received. The tax levy for 2016 is \$65.2 million compared to the 2015 Adjusted Levy of \$58.0 million and are based on a statutory multiplier of employee contributions made in 2014 and 2013, respectively. On August 3, 2012, the Governor signed Public Act 97-0894, which establishes that beginning in 2013, the tax levy will be based on the fund's actuarially determined contribution requirement but shall not exceed an amount equal to employee contributions two years prior multiplied by 4.19. The previous statutory multiplier was 2.19. The appropriable resources and appropriation consist of the collection of the previous year's tax levy plus personal property replacement tax receipts.

The 2016 appropriation is \$70.8 million, an increase of \$9.1 million, or 14.8 percent, from the 2015 Adjusted Budget.

The District's Retirement Fund is part of the aggregate levy under the Tax Cap law that is limited to annual increases of 5.0 percent or the CPI, whichever is less. Due to the irregular nature of levy requirements of the fund which parallel retirements, the District's Board of Commissioners established a policy in 1995 to exclude the Retirement Fund levy from any future adjustments to the aggregate levy required by tax caps. When required, adjustments or limitations have been made to other funds subject to the aggregate levy limit. An expanded presentation on the Retirement Fund is made on pages 535 and 536.

**STORMWATER MANAGEMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

	<u>ASSETS</u>			
	<u>2016</u>		<u>2015</u>	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 6,373,896	\$ 6,373,896	\$ 24,690,316	\$ 24,690,316
Taxes Receivable	23,208,250	23,303,350	20,265,000	20,290,184
<b>Total Current Assets</b>	<b>\$ 29,582,146</b>	<b>\$ 29,677,246</b>	<b>\$ 44,955,316</b>	<b>\$ 44,980,500</b>
	<u>LIABILITIES &amp; FUND EQUITY</u>			
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 200,000	\$ 200,000	\$ -	\$ -
Contracts Payable	9,776,446	9,776,446	1,491,700	1,491,700
Personal Services	-	-	-	-
Contractual Services	-	-	-	-
Materials & Supplies	-	-	-	-
Machinery & Equipment	-	-	-	-
Due to:				
Stormwater Working Cash Fund	12,000,000	12,000,000	20,000,000	20,000,000
<b>Total Current Liabilities</b>	<b>\$ 21,976,446</b>	<b>\$ 21,976,446</b>	<b>\$ 21,491,700</b>	<b>\$ 21,491,700</b>
Designated for Future Claims Liabilities		\$ -		\$ -
<b>Total Current Liabilities and Designations</b>		<b>\$ 21,976,446</b>		<b>\$ 21,491,700</b>
<b>ASSETS APPROPRIABLE FOR 2016 AND 2015</b>				
Net Assets Appropriable		\$ 7,700,800		\$ 23,488,800
Net Assets Appropriated		\$ 4,428,100		\$ 23,488,800
Equity Transfer to Bond and Interest Fund		3,272,700		-
Estimated Revenue		32,800,000		23,100,000
<b>Total Assets Appropriable</b>		<b>\$ 40,500,800</b>		<b>\$ 46,588,800</b>
<b>FUND EQUITY</b>	<b>\$ 7,605,700</b>		<b>\$ 23,463,616</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 29,582,146</b>		<b>\$ 44,955,316</b>	



**STORMWATER MANAGEMENT FUND FINANCING  
2016 - 2011**

	ESTIMATED			ACTUAL			
	2016 (1)	2015 Revised	2015 Original	2014	2013	2012	2011
<b>BORROWINGS</b>							
Working Cash Loans	\$ 32,500,000	\$ 12,000,000	\$ 22,800,000	\$ 20,000,000	\$ 19,000,000	\$ 19,000,000	\$ 22,900,000
<b>Total Borrowings</b>	<b>\$ 32,500,000</b>	<b>\$ 12,000,000</b>	<b>\$ 22,800,000</b>	<b>\$ 20,000,000</b>	<b>\$ 19,000,000</b>	<b>\$ 19,000,000</b>	<b>\$ 22,900,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
- Current	\$ 12,000,000	\$ 20,000,000	\$ 20,000,000	\$ 19,000,000	\$ 19,000,000	\$ 22,900,000	\$ 22,800,000
- Prior Year	-	-	-	-	-	-	945,280
<b>Total Repayments</b>	<b>\$ 12,000,000</b>	<b>\$ 20,000,000</b>	<b>\$ 20,000,000</b>	<b>\$ 19,000,000</b>	<b>\$ 19,000,000</b>	<b>\$ 22,900,000</b>	<b>\$ 23,745,280</b>

**(1) FINANCING LIMITATION**

2016 (In Millions)	
Property Tax Levy	\$ 34.3
Personal Property Replacement Tax	-
<b>Total</b>	<b>\$ 34.3</b>
Borrowing Limitation *	95% * Statutory limitation is 100%
<b>Total Available for Financing</b>	<b>\$ 32.5</b>

**STORMWATER MANAGEMENT FUND  
APPROPRIABLE REVENUE  
2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Property Taxes					
Gross Tax Levy	\$ 34,250,000	\$ 24,050,000	\$ 24,050,000	\$ 21,000,000	\$ 20,000,000
Less: Allowance for Uncollectible Taxes	(1,198,750)	(841,750)	(841,750)	(735,000)	(700,000)
Net Property Taxes	\$ 33,051,250	\$ 23,208,250	\$ 23,208,250	\$ 20,265,000	\$ 19,300,000
Adjustment to Match Working Cash Borrowings	(551,250)	(408,250)	(408,250)	(265,000)	(300,000)
Working Cash Financing at 95% of Gross Tax Sources	\$ 32,500,000	\$ 22,800,000	\$ 22,800,000	\$ 20,000,000	\$ 19,000,000
Revenue from Money & Property					
Investment Income	\$ 300,000	\$ 216,000	\$ 300,000	\$ 393,951	\$ 676,062
Miscellaneous	-	-	-	140,132	312,976
Grants	-	-	-	-	-
Subtotal	\$ 300,000	\$ 216,000	\$ 300,000	\$ 534,083	\$ 989,038
Adjustment to Net Assets Available for Projected Receipts	\$ -	\$ (2,460,200)	\$ -	\$ (548,397)	\$ -
<b>Total</b>	<b>\$ 32,800,000</b>	<b>\$ 20,555,800</b>	<b>\$ 23,100,000</b>	<b>\$ 19,985,686</b>	<b>\$ 19,989,038</b>

**STORMWATER WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

	<u>ASSETS</u>			
	<u>2016</u>		<u>2015</u>	
	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 25,234,436	\$ 25,234,436	\$ 26,878,435	\$ 26,878,435
Replacement Tax	-	-	-	-
Due from Stormwater Management Fund	12,000,000	12,000,000	20,000,000	20,000,000
<b>Total Current Assets</b>	<b>\$ 37,234,436</b>	<b>\$ 37,234,436</b>	<b>\$ 46,878,435</b>	<b>\$ 46,878,435</b>
<b>FUND EQUITY</b>				
Estimated Revenue & Other Financing Sources		\$ 200,000		\$ 200,000
Equity Transfer to Retirement Fund		-		-
<b>ASSETS AVAILABLE FOR 2016 AND 2015</b>		<b>\$ 37,434,436</b>		<b>\$ 47,078,435</b>
<b>FUND EQUITY</b>		<b>\$ 37,234,436</b>		<b>\$ 46,878,435</b>

**STORMWATER WORKING CASH FUND  
APPROPRIABLE REVENUE  
2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Investment Income	\$ 200,000	\$ 200,000	\$ 200,000	\$ 235,930	\$ 167,692
Other Financing Sources (Uses)					
Equity Transfer to Retirement Fund	-	-	-	(1,000,000)	-
<b>GRAND TOTAL</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ (764,070)</b>	<b>\$ 167,692</b>

**BOND REDEMPTION & INTEREST FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

**ASSETS**

	<u>2016</u>		<u>2015</u>	
	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>
<b><u>CURRENT ASSETS</u></b>				
Cash & Investments	\$ 102,566,469	\$ 102,566,469	\$ 94,603,913	\$ 94,603,913
Restricted Cash	-	-	-	-
Deposits with Escrow Agent	-	-	-	-
Taxes Receivable	220,723,299	222,058,562	210,678,180	211,999,539
<b>Total Current Assets</b>	<b>\$ 323,289,768</b>	<b>\$ 324,625,031</b>	<b>\$ 305,282,093</b>	<b>\$ 306,603,452</b>

**LIABILITIES & FUND EQUITY**

**CURRENT LIABILITIES**

Bonds Payable	\$ 100,311,969	\$ 99,963,281
Interest Payable	115,735,161	116,537,900
Program Expense Payable	-	-
Equity Transfer	-	-
<b>Total Current Liabilities</b>	<b>\$ 216,047,130</b>	<b>\$ 216,501,181</b>

**ASSETS APPROPRIABLE FOR 2016 AND 2015**

Net Assets Appropriable	\$ 324,625,031	\$ 306,603,452
Equity Transfer from Stormwater Management Fund	3,269,300	-
Estimated Revenue	700,000	1,500,000
Total Assets Available	\$ 328,594,331	\$ 308,103,452
Liabilities Payable from Restricted Assets	-	-
Less: Assets Available for Future Years (Principal & Interest Payments)	(112,547,243)	(91,602,271)
<b>Total Assets Appropriable</b>	<b>\$ 216,047,088</b>	<b>\$ 216,501,181</b>

**FUND EQUITY**

Undesignated	\$ 107,242,638	\$ 88,780,912
<b>TOTAL FUND EQUITY</b>	<b>\$ 107,242,638</b>	<b>\$ 88,780,912</b>
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 323,289,768</b>	<b>\$ 305,282,093</b>

**BOND REDEMPTION & INTEREST FUND  
 APPROPRIABLE REVENUE  
 2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Taxes					
Real Estate					
Current	\$ 223,010,587	\$ 212,861,373	\$ 212,861,373	\$ 194,660,105	\$ 196,434,252
Prior	(952,025)	(952,025)	(952,025)	1,087,327	(4,176,660)
<b>Total</b>	<b>\$ 222,058,562</b>	<b>\$ 211,909,348</b>	<b>\$ 211,909,348</b>	<b>\$ 195,747,432</b>	<b>\$ 192,257,592</b>
Revenue from Money & Property					
Investment Income	\$ 700,000	\$ 965,000	\$ 1,500,000	\$ 1,060,763	\$ 1,361,400
Build America Bond Subsidy	-	-	-	11,141,130	10,967,000
Revenue from Miscellaneous Sources					
Cash Available	102,566,469	107,833,839	94,603,913	108,094,576	104,200,614
Other	-	-	-	-	-
Other Financing Sources (Uses)					
Refunding (Net)	-	-	-	-	-
Transfer-in	-	-	-	-	-
Bond Premium	-	-	-	-	-
Sale of Capital Improvement Bonds (CIB)	-	-	-	-	-
Bond Redemption	-	-	-	-	-
Refunding Transaction Costs	-	-	-	-	-
Gain on Swap	-	-	-	-	-
Equity Transfer From Stormwater Management Fund	3,269,300	2,123,920	-	-	-
Equity Transfer To Retirement Fund	-	-	-	(3,000,000)	-
Equity Transfer From CIB Fund	-	-	-	-	-
Less: Amount to Be Expended After Budget Year	(112,547,243)	(106,330,927)	(91,602,271)	(118,138,187)	(115,802,216)
<b>GRAND TOTAL</b>	<b>\$ 216,047,088</b>	<b>\$ 216,501,180</b>	<b>\$ 216,410,990</b>	<b>\$ 194,905,714</b>	<b>\$ 192,984,390</b>

**RESERVE CLAIM FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

<u>CURRENT ASSETS</u>	<u>ASSETS</u>			
	<u>2016</u>		<u>2015</u>	
	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>
Cash & Investments	\$ 24,488,886	\$ 24,488,886	\$ 27,653,831	\$ 27,653,831
Taxes Receivable	5,500,500	5,487,014	2,895,000	2,914,588
Replacement Tax	-	-	-	-
<b>Total Current Assets</b>	<b>\$ 29,989,386</b>	<b>\$ 29,975,900</b>	<b>\$ 30,548,831</b>	<b>\$ 30,568,419</b>
 <u>LIABILITIES &amp; FUND EQUITY</u>				
<u>ACCOUNTS PAYABLE &amp; OTHER LIABILITIES</u>	\$ 200,000	\$ 200,000	\$ 268,419	\$ 268,419
 <u>ASSETS APPROPRIABLE FOR 2016 AND 2015</u>				
Net Assets Appropriable		\$ 29,775,900		\$ 30,300,000
Equity Transfer from Capital Improvements Bond Fund		-		-
Estimated Revenue		400,000		400,000
<b>Total Assets Appropriable</b>		<b>\$ 30,175,900</b>		<b>\$ 30,700,000</b>
<u>FUND EQUITY</u>	\$ 29,789,386		\$ 30,280,412	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 29,989,386</b>		<b>\$ 30,548,831</b>	

**RESERVE CLAIM FUND  
APPROPRIABLE REVENUE  
2016 - 2013**

<u>REVENUE DESCRIPTION</u>	<u>ESTIMATED</u>			<u>ACTUAL</u>	
	<u>2016 BUDGET</u>	<u>2015 ADJUSTED</u>	<u>2015 BUDGET</u>	<u>2014</u>	<u>2013</u>
Revenue from Taxes					
Real Estate - Current	\$ 5,557,500	\$ 2,925,000	\$ 2,925,000	\$ 5,964,647	\$ 6,444,338
Real Estate - Prior	(70,486)	(10,412)	(10,412)	40,124	(34,327)
Replacement Tax	-	-	-	-	-
<b>SUBTOTAL</b>	<b>\$ 5,487,014</b>	<b>\$ 2,914,588</b>	<b>\$ 2,914,588</b>	<b>\$ 6,004,771</b>	<b>\$ 6,410,011</b>
Equity Transfer from Capital Improvements Bond Fund	\$ -	\$ -	\$ -	\$ -	\$ -
Investment Income & Miscellaneous	400,000	400,000	400,000	545,158	729,915
<b>GRAND TOTAL</b>	<b>\$ 5,887,014</b>	<b>\$ 3,314,588</b>	<b>\$ 3,314,588</b>	<b>\$ 6,549,929</b>	<b>\$ 7,139,926</b>

**RETIREMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2016 AND 2015**

**ASSETS**

	2016		2015	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Taxes Receivable	\$ 55,973,600	\$ 55,973,600	\$ 48,762,150	\$ 48,762,100
Replacement Tax	14,798,400	14,798,400	12,891,900	12,891,900
<b>Total Current Assets</b>	<b>\$ 70,772,000</b>	<b>\$ 70,772,000</b>	<b>\$ 61,654,050</b>	<b>\$ 61,654,000</b>

**LIABILITIES & FUND EQUITY**

**ASSETS APPROPRIABLE FOR 2016 AND 2015**

Net Assets Appropriable	\$ 70,772,000	\$ 61,654,000
Equity Transfer from Stormwater Working Cash Fund	-	-
Equity Transfer from Capital Improvements Bond Fund	-	-
Equity Transfer from Bond Redemption & Interest Fund	-	-
Equity Transfer from Corporate Fund	-	-
<b>Total Assets Appropriable Due to Retirement Fund</b>	<b>\$ 70,772,000</b>	<b>\$ 61,654,000</b>

**FUND EQUITY**

<b>Total Fund Equity</b>	<b>\$ 70,772,000</b>	<b>\$ 61,654,050</b>
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**RETIREMENT FUND  
APPROPRIABLE REVENUE  
2016 - 2013**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2016 BUDGET	2015 ADJUSTED	2015 BUDGET	2014	2013
Revenue from Taxes					
Real Estate - Current	\$ 55,973,600	\$ 48,762,100	\$ 48,762,100	\$ 50,067,365	\$ 27,452,870
Real Estate - Prior	-	-	-	-	-
Replacement Tax	14,798,400	12,891,900	12,891,900	13,170,000	7,268,500
<b>GRAND TOTAL</b>	<b>\$ 70,772,000</b>	<b>\$ 61,654,000</b>	<b>\$ 61,654,000</b>	<b>\$ 63,237,365</b>	<b>\$ 34,721,370</b>
Equity Transfer from Corporate Fund	\$ -	\$ -	\$ -	\$ -	\$ -
Equity Transfer from Stormwater Working Cash Fund	-	-	-	1,000,000	-
Equity Transfer from Capital Improvements Bond Fund	-	-	-	8,000,000	-
Equity Transfer from Bond Redemption & Interest Fund	-	-	-	3,000,000	30,000,000
<b>GRAND TOTAL</b>	<b>\$ 70,772,000</b>	<b>\$ 61,654,000</b>	<b>\$ 61,654,000</b>	<b>\$ 75,237,365</b>	<b>\$ 64,721,370</b>

# SECTION IV

## CORPORATE FUND

The Corporate Fund provides for day-to-day staff services as well as the operations and maintenance of treatment plants, pumping stations, collection sewers, tunnels, and related facilities. This section provides appropriation detail for the operations and support departments.

Graphs indicate staffing, appropriations, and expenditures budgeted from 2007 through 2016. The structure of sub-units and sections, the number of actual 2014 full-time equivalent (FTE) positions, as well as FTE positions budgeted for 2015 and 2016 are shown in the organization chart. In this section, and throughout the Budget, actual expenditures are used for 2014 with estimated costs for 2015 and budgeted costs for 2016. Additional information for each department includes:

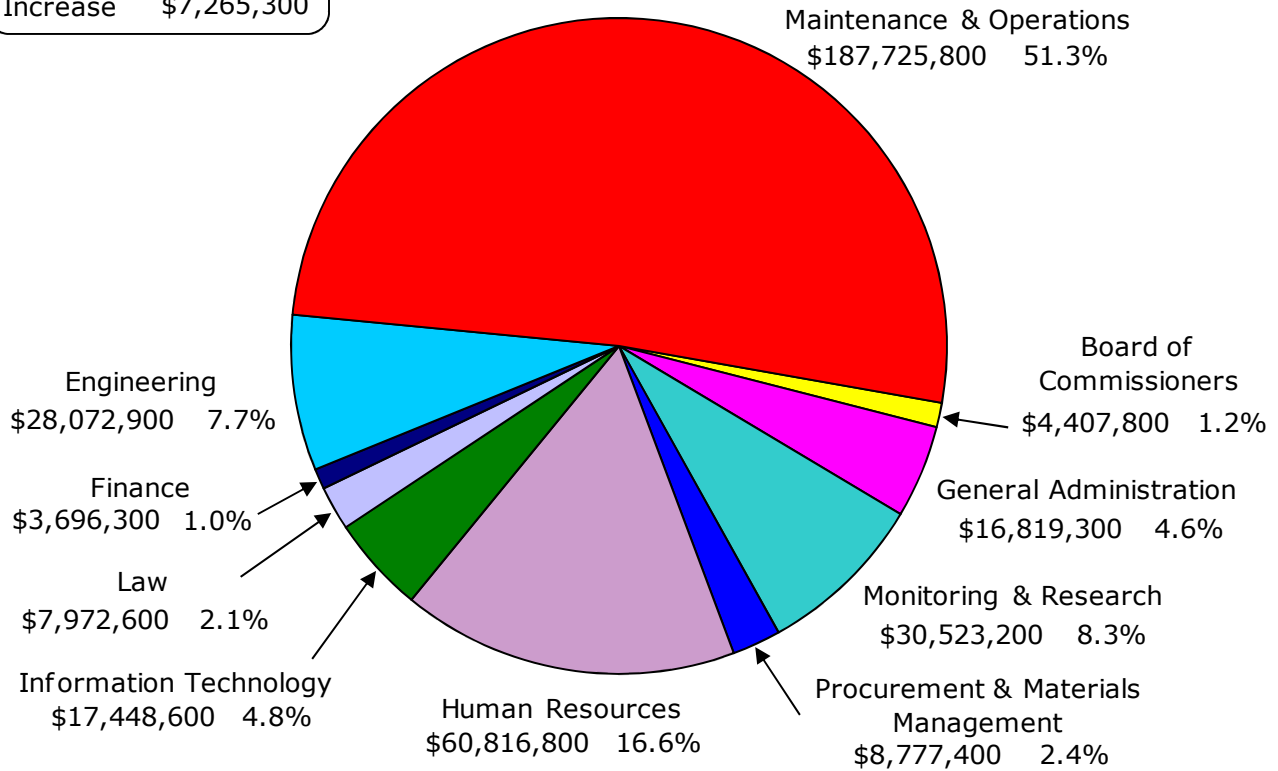
- A *Narrative* explanation of the responsibilities of the department, changes in appropriations from the 2015 Budget, accomplishments during 2015, and significant features for the 2016 Budget. The mission statement, major goals, and initiatives are also provided.
- A list of *Objectives by Priority* describes each objective, assigns the costs associated with it, and indicates its percentage of the total department budget.
- *Programs by Priority* includes major department functions and projected costs and staffing levels with comparison to budgeted 2015. Actual costs are shown for 2014.
- *Performance Data* measures specific department activities by cost and, where possible, measurable units, and compares budgeted costs for 2016 and 2015 with actual costs for 2014.
- The *Line Item Analysis* provides detailed line item appropriations over a three-year period. Appropriations for 2016 are shown as proposed by the Executive Director, subsequently recommended by the Committee on Budget and Employment, and ultimately adopted and amended by the Board of Commissioners. Original and adjusted appropriations and estimated expenditures are shown for 2015. Actual 2014 expenditures are provided.
- The *Position Analysis* provides comparative departmental personnel position information for the previous, current, and budget years. Position counts and appropriations for the current and budget years are provided as totals by section or unit, division, and department. The pay plan and grade for each class title is provided and can be used to reference the salary schedules contained in the appendix to determine the applicable salary range. The 2016 salary appropriation is adjusted for vacancies in the Line Item Analysis.

Corporate Fund Appropriations, Expenditures, and Budgeted FTE Positions, 2007-2016 .....	105
Corporate Fund Organization Chart .....	106
Corporate Fund Line Item Analysis .....	107
Detailed Appropriations by Department:	
Board of Commissioners.....	111
General Administration.....	119
Monitoring & Research.....	135
Procurement & Materials Management .....	161
Human Resources .....	175
Information Technology .....	191
Law .....	209
Finance.....	223
Maintenance & Operations	
Summary of All Divisions .....	235
General Division.....	247
North Service Area .....	262
Calumet Service Area .....	280
Stickney Service Area.....	294
Engineering .....	311

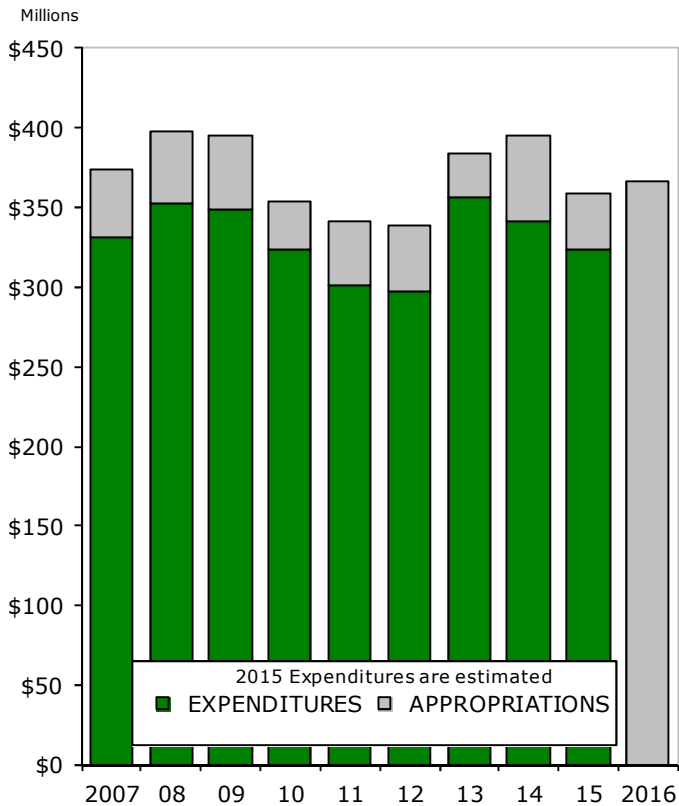
# CORPORATE FUND

## FUNCTIONS

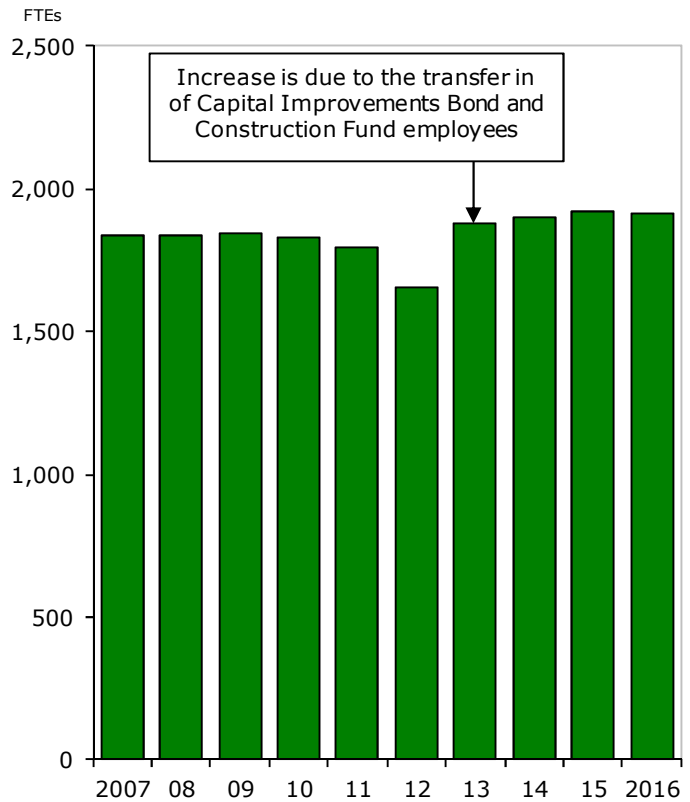
2016	\$366,260,700
2015	\$358,995,400
Increase	\$7,265,300



## APPROPRIATIONS & EXPENDITURES

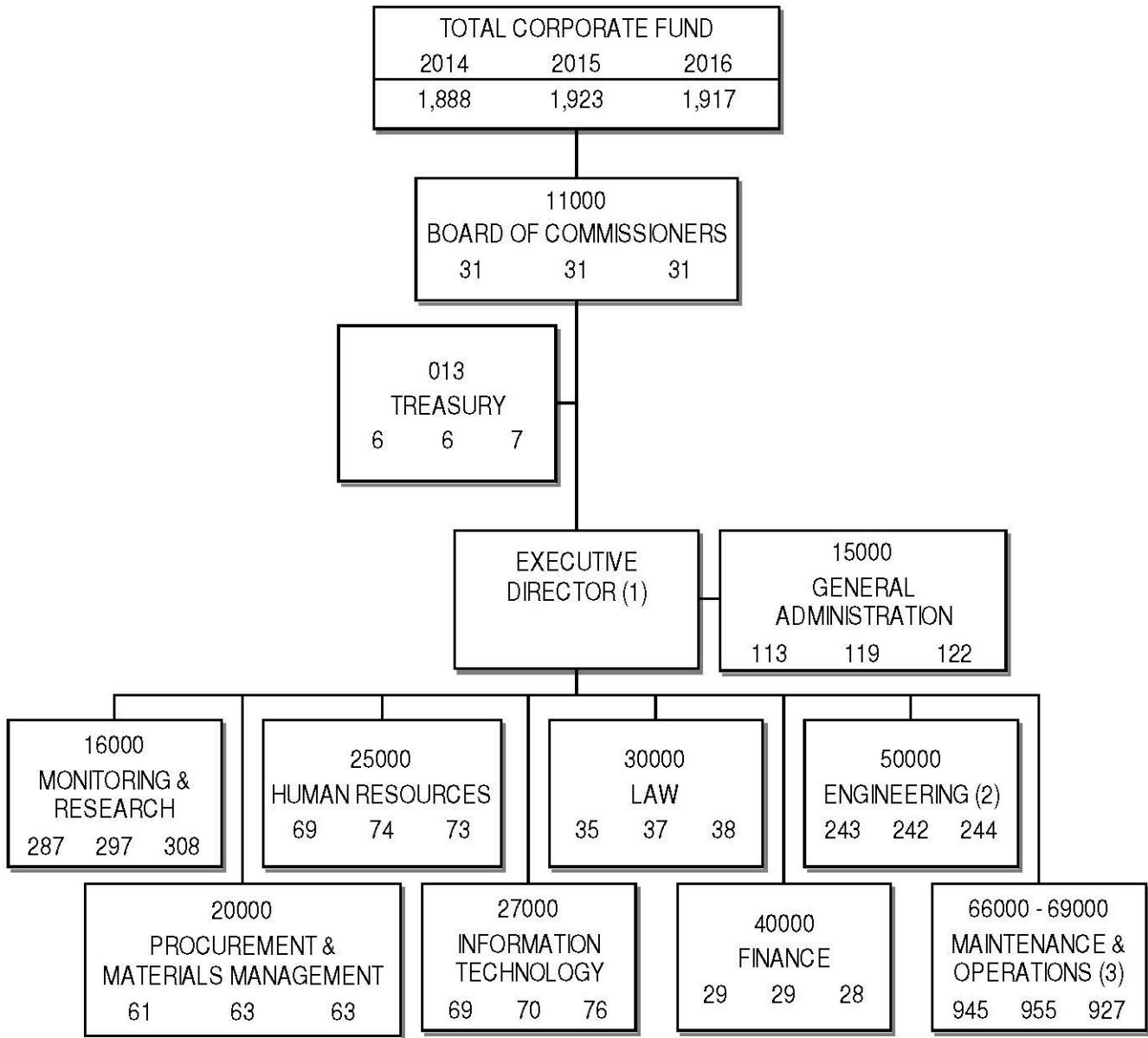


## BUDGETED FTE POSITIONS





# CORPORATE FUND



- (1) Personnel count for the Executive Director’s Office is reflected in General Administration.
- (2) 32 positions are funded by the Stormwater Management Fund, the management of which remains in the Engineering Department.
- (3) 27 positions are funded by the Stormwater Management Fund, the management of which remains in the Maintenance & Operations Department.

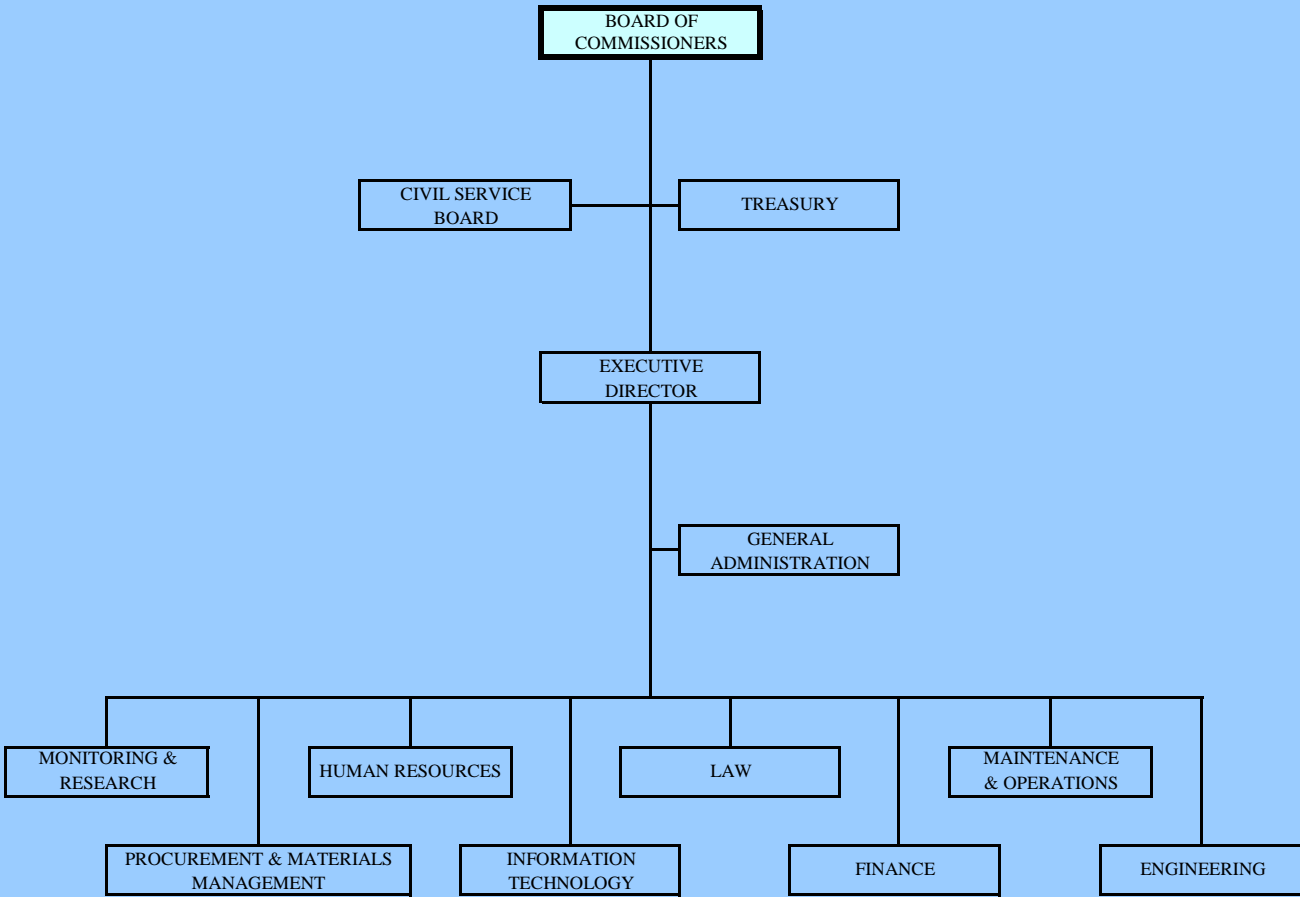
101 11000 - 69000	Fund: Corporate Department: All Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$166,929,944	\$179,757,500	\$177,615,900	\$170,016,100	\$180,273,900	\$180,115,700	\$183,289,100
601060	Compensation Plan Adjustments	6,786,555	6,900,100	8,104,300	7,487,500	7,330,600	7,325,600	7,404,200
601070	Social Security & Medicare Contributions	2,427,579	2,692,800	2,692,800	2,640,200	2,610,500	2,610,500	2,610,500
601080	Salaries of Nonbudgeted Employees	237,086	24,800	126,200	62,400	23,400	23,400	23,400
601090	Employee Claims	23,814	60,200	60,200	60,000	47,900	47,900	47,900
601100	Tuition and Training Payments	867,064	1,263,900	1,312,400	927,200	1,188,200	1,180,200	1,180,200
601170	Payments for Professional Services	5,467,031	6,655,300	6,710,700	5,405,100	-	-	-
601250	Health and Life Insurance Premiums	59,014,899	44,526,600	44,526,600	42,081,100	48,226,600	48,226,600	48,226,600
601270	General Salary Adjustments	-	-	-	-	1,125,000	1,125,000	-
601300	Personal Services, N.O.C.	273,881	450,300	450,300	438,000	418,800	418,800	518,800
601410	Personal Services Exp for Prelim Engineering Rpts & Studies	174,070	50,000	141,100	141,100	-	-	-
100	<b>TOTAL PERSONAL SERVICES</b>	<b>242,201,921</b>	<b>242,381,500</b>	<b>241,740,500</b>	<b>229,258,700</b>	<b>241,244,900</b>	<b>241,073,700</b>	<b>243,300,700</b>
612010	Travel	66,500	123,600	122,400	61,200	128,100	124,100	124,100
612030	Meals and Lodging	159,864	224,900	229,400	144,600	226,800	210,800	210,800
612040	Postage, Freight, and Delivery Charges	110,891	131,400	120,200	116,300	127,400	127,400	127,900
612050	Compensation for Personally-Owned Automobiles	271,174	290,100	292,300	264,300	267,000	267,000	267,000
612080	Motor Vehicle Operating Services	76,099	86,500	86,500	75,900	79,200	79,200	81,200
612090	Reprographic Services	34,009	111,800	111,800	75,900	166,300	166,300	167,500
612150	Electrical Energy	33,476,914	33,359,100	33,369,100	29,634,400	36,603,400	36,603,400	36,603,400
612160	Natural Gas	3,705,620	2,432,500	2,432,500	1,746,500	2,863,200	2,863,200	2,863,200
612170	Water and Water Services	1,568,879	1,592,700	1,592,700	1,526,200	1,738,600	1,738,600	1,738,600
612210	Communication Services	1,688,870	1,963,500	1,963,500	1,623,100	1,954,900	1,954,900	1,954,900
612240	Testing and Inspection Services	75,386	162,400	262,400	69,100	181,400	181,400	181,400
612250	Court Reporting Services	78,859	120,000	115,500	87,000	103,400	103,400	103,400
612260	Medical Services	128,788	227,000	227,000	212,800	180,000	180,000	180,000
612280	Subscriptions and Membership Dues	477,296	486,600	567,300	529,700	535,000	535,000	572,300
612290	Insurance Premiums	3,346,307	3,500,600	3,500,600	3,500,600	3,500,600	3,500,600	3,500,600
612330	Rental Charges	251,489	549,700	538,100	488,400	571,700	571,700	567,400

101 11000 - 69000	Fund: Corporate Department: All Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612360	Advertising	144,368	125,000	155,500	141,700	137,000	137,000	137,000
612370	Administration Building Operation	962,863	1,030,000	1,021,800	1,021,800	1,120,500	1,120,500	1,120,500
612390	Administration Building Mc Pav Operation	654,285	750,000	718,500	703,700	750,000	750,000	750,000
612410	Governmental Service Charges	3,662,639	3,299,300	3,299,300	3,187,100	3,240,500	3,240,500	3,240,500
612420	Maintenance of Grounds and Pavements	1,635,720	1,937,600	1,937,600	1,342,200	949,900	1,049,900	1,049,900
612430	Payments for Professional Services	-	-	-	-	6,119,800	6,249,800	6,317,800
612440	Personal Services Exp for Prelim Engineering Rpts & Studies	-	-	-	-	-	-	40,000
612490	Contractual Services, N.O.C.	1,204,939	2,223,500	1,910,700	1,420,600	2,061,000	2,061,000	2,044,800
612520	Waste Material Disposal Charges	9,007,144	14,395,000	12,737,400	9,677,000	10,791,800	10,659,800	10,659,800
612530	Farming Services	24,000	22,000	29,600	22,000	29,600	29,600	29,600
612590	Sludge Disposal	3,879,922	5,522,100	5,522,100	2,453,900	5,000,000	5,000,000	5,000,000
612600	Repairs to Collection Facilities	3,128,226	3,249,000	3,489,000	2,622,000	3,876,000	3,821,000	3,796,000
612620	Repairs to Waterway Facilities	167,550	111,000	111,000	24,700	222,500	222,500	98,300
612650	Repairs to Process Facilities	3,675,095	6,252,500	6,737,500	5,456,200	5,675,900	5,675,900	5,643,700
612670	Repairs to Railroads	79,689	323,900	323,900	260,300	478,700	478,700	478,700
612680	Repairs to Buildings	1,292,889	1,843,700	1,810,000	702,800	1,335,400	1,335,400	1,335,400
612760	Repairs to Material Handling and Farming	275,546	330,700	470,700	344,500	315,200	315,200	315,200
612780	Safety Repairs and Services	270,981	444,900	490,000	326,200	360,900	365,300	365,300
612790	Repairs to Marine Equipment	102,932	141,300	141,300	88,500	118,400	118,400	118,400
612800	Repairs to Office Furniture & Equipment	79,280	107,100	108,800	106,800	107,300	107,300	107,300
612810	Computer Equipment Maintenance	550,615	642,500	642,500	610,000	651,000	651,000	651,000
612820	Computer Software Maintenance	3,095,474	3,677,100	3,636,600	3,608,500	3,678,300	3,678,300	3,678,300
612840	Communications Equipment Maintenance (Includes Software)	740,657	775,200	775,200	716,000	819,000	819,000	820,800
612860	Repairs to Vehicle Equipment	514,882	525,900	560,700	489,700	559,500	559,500	559,500
612970	Repairs to Testing and Laboratory Equipment	390,291	465,500	465,500	352,700	446,600	446,600	448,100
612990	Repairs, N.O.C.	31,853	35,900	35,900	16,400	71,600	71,500	72,800
200	TOTAL CONTRACTUAL SERVICES	81,088,783	93,593,100	92,662,400	75,851,300	98,143,400	98,170,700	98,122,400
623030	Metals	174,818	164,100	164,100	154,600	165,000	\$ 165,000	165,000

101 11000 - 69000	Fund: Corporate Department: All Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
		Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director
623070	Electrical Parts and Supplies	1,928,601	1,754,400	1,754,400	1,397,900	1,706,000	1,706,000	1,749,600
623090	Plumbing Accessories and Supplies	1,225,808	1,059,600	1,039,600	853,500	1,055,200	1,055,200	1,055,200
623110	Hardware	79,277	88,100	88,100	75,100	83,600	83,600	83,600
623130	Buildings, Grounds, Paving Materials, and Supplies	264,706	404,100	409,100	179,700	308,300	308,300	316,300
623170	Fiber, Paper, and Insulation Materials	68,478	54,300	54,300	48,200	54,200	54,200	54,200
623190	Paints, Solvents, and Related Materials	53,305	44,800	44,800	42,800	52,000	52,000	52,000
623250	Vehicle Parts and Supplies	219,166	189,900	199,500	73,200	186,400	186,400	186,400
623270	Mechanical Repair Parts	2,116,212	3,049,300	3,051,300	1,851,100	2,266,400	2,264,000	2,264,000
623300	Manhole Materials	20,515	11,000	11,000	9,900	10,600	10,600	10,600
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	379,468	351,400	372,600	339,000	358,800	365,800	397,900
623530	Farming Supplies	7,447	39,000	39,000	39,000	7,700	7,700	29,700
623560	Processing Chemicals	5,798,187	8,950,000	10,203,000	6,833,600	12,545,700	12,545,700	12,448,900
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	939,424	960,700	988,000	910,100	956,400	956,400	956,400
623660	Cleaning Supplies	255,585	250,800	250,800	247,300	250,900	250,900	250,900
623680	Tools and Supplies	283,818	280,800	280,800	255,000	313,500	303,500	303,500
623700	Wearing Apparel	204,476	183,200	199,200	197,000	195,500	195,500	196,500
623720	Books, Maps, and Charts	34,418	39,400	36,300	30,400	35,200	35,200	37,300
623780	Safety and Medical Supplies	476,672	662,300	575,800	461,400	365,900	365,900	365,900
623800	Computer Software	267,456	259,400	251,900	237,700	256,700	256,700	256,700
623810	Computer Supplies	619,229	940,000	942,500	757,200	592,000	592,000	592,000
623820	Fuel	725,190	859,200	786,500	523,500	810,400	808,500	808,500
623840	Gases	44,030	57,000	88,200	74,100	53,000	53,000	53,000
623850	Communications Supplies	140,898	112,000	112,000	100,900	135,300	135,300	135,300
623860	Lubricants	249,093	263,500	263,500	253,100	265,200	265,200	265,200
623990	Materials and Supplies, N.O.C.	241,853	264,000	291,500	232,500	264,400	254,400	262,200
300	TOTAL MATERIALS AND SUPPLIES	16,818,129	21,292,300	22,497,800	16,177,800	23,294,300	23,277,000	23,296,800
634600	Equipment for Collection Facilities	11,022	106,000	110,000	36,100	20,000	50,000	50,000

101 11000 - 69000	Fund: Corporate Department: All Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634650	Equipment for Process Facilities	94,700	128,000	150,700	132,300	186,000	161,000	161,000
634760	Material Handling and Farming Equipment	-	-	5,700	5,000	-	-	-
634810	Computer Equipment	15,661	52,000	52,000	45,000	20,000	20,000	20,000
634820	Computer Software	82,308	25,500	44,700	29,200	14,800	14,800	14,800
634840	Communications Equipment (Includes Software)	285,081	121,300	121,300	121,300	112,000	112,000	112,000
634860	Vehicle Equipment	-	-	-	-	7,000	7,000	7,000
634970	Testing and Laboratory Equipment	460,863	435,700	430,300	355,400	346,000	346,000	346,000
634990	Machinery and Equipment, N.O.C.	194,172	90,000	80,000	80,000	10,000	10,000	10,000
400	TOTAL MACHINERY AND EQUIPMENT	1,143,806	958,500	994,700	804,300	715,800	720,800	720,800
656010	Land	-	-	330,000	320,800	-	-	-
600	TOTAL LAND	-	-	330,000	320,800	-	-	-
667130	Taxes on Real Estate	703,572	770,000	770,000	760,000	820,000	820,000	820,000
700	TOTAL FIXED AND OTHER CHARGES	703,572	770,000	770,000	760,000	820,000	820,000	820,000
<b>TOTAL CORPORATE FUND</b>		<b>\$341,956,212</b>	<b>\$358,995,400</b>	<b>\$358,995,400</b>	<b>\$323,172,900</b>	<b>\$364,218,400</b>	<b>\$364,062,200</b>	<b>\$366,260,700</b>

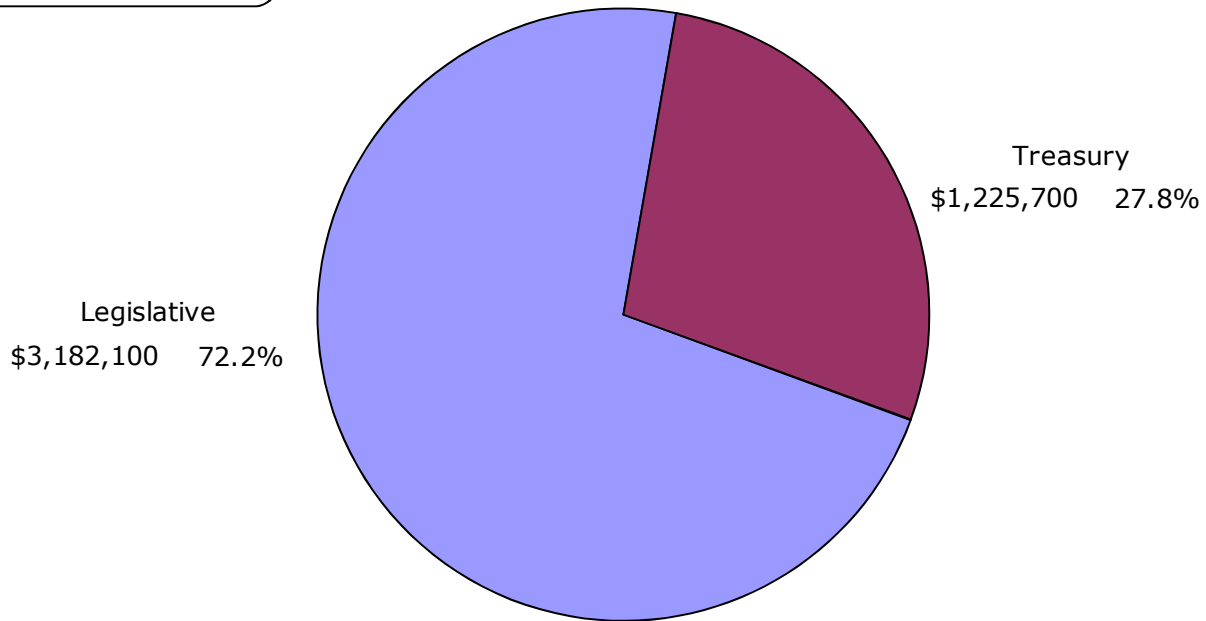
NOTES: 1. Amounts may not add up due to rounding.  
 2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).



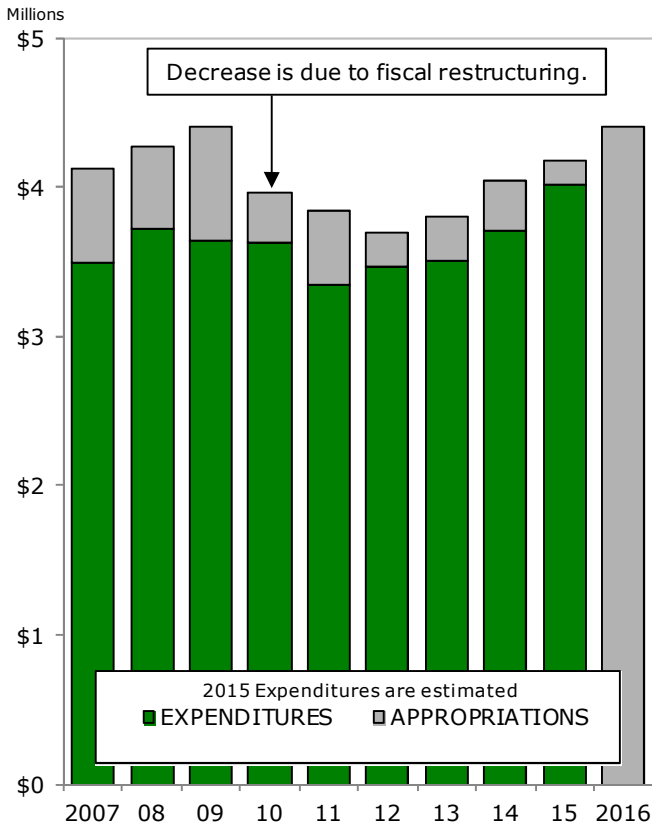
# BOARD OF COMMISSIONERS

## FUNCTIONS

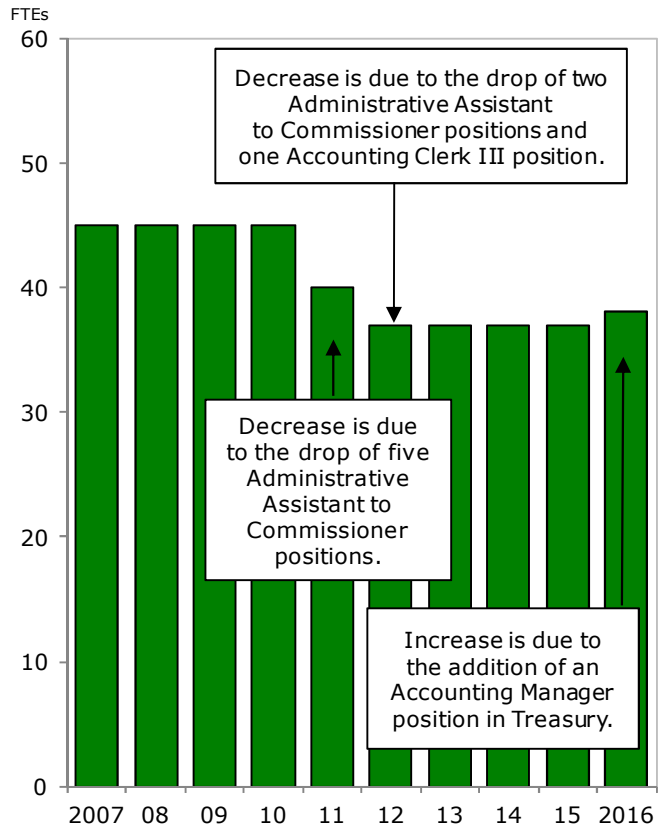
2016	\$4,407,800
2015	\$4,177,600
Increase	\$230,200



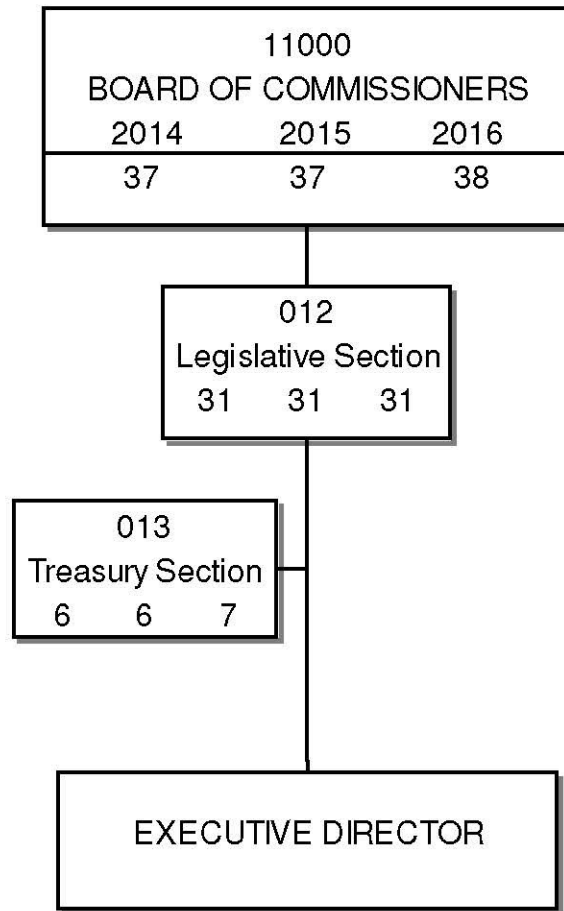
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# BOARD OF COMMISSIONERS





## BOARD OF COMMISSIONERS

**The mission of the Board of Commissioners is the mission of the District: to protect the health and safety of the public in its service area, protect the quality of the water supply source (Lake Michigan), improve the quality of waterways in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area.**

**The mission of the Treasury Section is to provide quality management of the District's financial resources by maximizing income on investments with minimal risk, issuing bonds to finance the wastewater collection, treatment, and flood control facilities' capital needs, cost-effectively meeting the cash requirements of the District's operations through the utilization of appropriate technology and efficient banking practices, and maintaining the District's outstanding bond rating.**

### Departmental Summary

The Board of Commissioners comprises two sections: Legislative and Treasury. The Legislative Section is the policy-making entity of the District, responsible for establishing policies and procedures consistent with the District's mission of protecting the water environment for the citizens of Cook County, and providing a forum to facilitate community involvement. The Treasury Section is responsible for the collection and investment of District revenues, the issuance of bonds to meet District capital requirements, the payment of principal and interest on outstanding bonds as required, and the maintenance of the District's bond ratings.

### Summary of 2015 Accomplishments

- In January 2015, the District closed on the sale of \$295.8 million of General Obligation Capital Improvement Bonds to fund projects included in the District's Capital Improvement Plan and to refund certain maturities of outstanding general obligation bonds. The Bond sale included \$225 million of bonds issued with a "Green Bond" designation to allow investors to invest directly in projects which the District has identified as environmentally beneficial projects;
- Investment interest income earned for the year was approximately \$5.8 million. The severe economic downturn in the financial markets, which began in 2008, continues to present significant challenges for earning higher yields on short-term interest-bearing investments. The District experienced no loss on investments;
- For the third consecutive year, the District had access to \$200 million in low-interest loans made available from the Illinois Environmental Protection Agency's State Revolving Fund (SRF) loan that will be used for wastewater and stormwater capital improvement projects. The Clean Water Initiative was put forth to aid communities in complying with the U.S. Environmental Protection Agency's guidelines and standards, address critical infrastructure needs, and stimulate local economic development;
- In October 2014, the District officially adopted a formal Pension Funding Policy developed by the Board of Commissioners designed to better provide for the long-term financial health of the pension program while balancing the interests of employees, retirees, taxpayers, and the District. The funding goal is to contribute annually an amount that, over time, will increase the ratio of fund assets to accrued liabilities to 100 percent by the year 2050. Additionally, the Advance Funding Policy of the Other Postemployment Benefits (OPEB) Trust was amended to reflect a 100 percent funding goal to be achieved within 12 years or by 2026. Both funding policies will ensure the District achieves its strategic goal of maintaining a solid financial foundation sustainable for the long-term, while maintaining high quality bond credit ratings. In 2015, there was continued progress toward both funding policy goals;
- The District was presented with the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting for the 2014 Retiree Health Care Trust Comprehensive Annual Financial Report. This marks the eighth consecutive year that the Trust has been presented with the award;
- The Treasury Section collaborated with the Information Technology Department to automate the SRF preliminary loan accounting and reporting process for use by the Treasury Section and Finance Department.

### Budget Highlights

The 2016 appropriation request for the Board of Commissioners is \$4,407,800, an increase of \$230,200, or 5.5 percent, above the 2015 appropriation. The 2016 staffing level has increased from 37 to 38, reflecting the addition of one Accounting Manager position in Treasury.

The significant feature of the Treasury Section 2016 budget is:

- Investment Interest Income Estimate: \$5.0 million or less – 2016 will be another difficult year for investing due to very low interest rates forecasted for the fixed income market.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

The Treasury Section will engage professional service providers selected through the Request for Proposal process that can most significantly assist the District in efficiently utilizing taxpayers’ assets.

The Treasury Section will explore new and different ideas on investment and debt management to maximize returns and cost efficiency for the District’s residents while adhering to District policies.

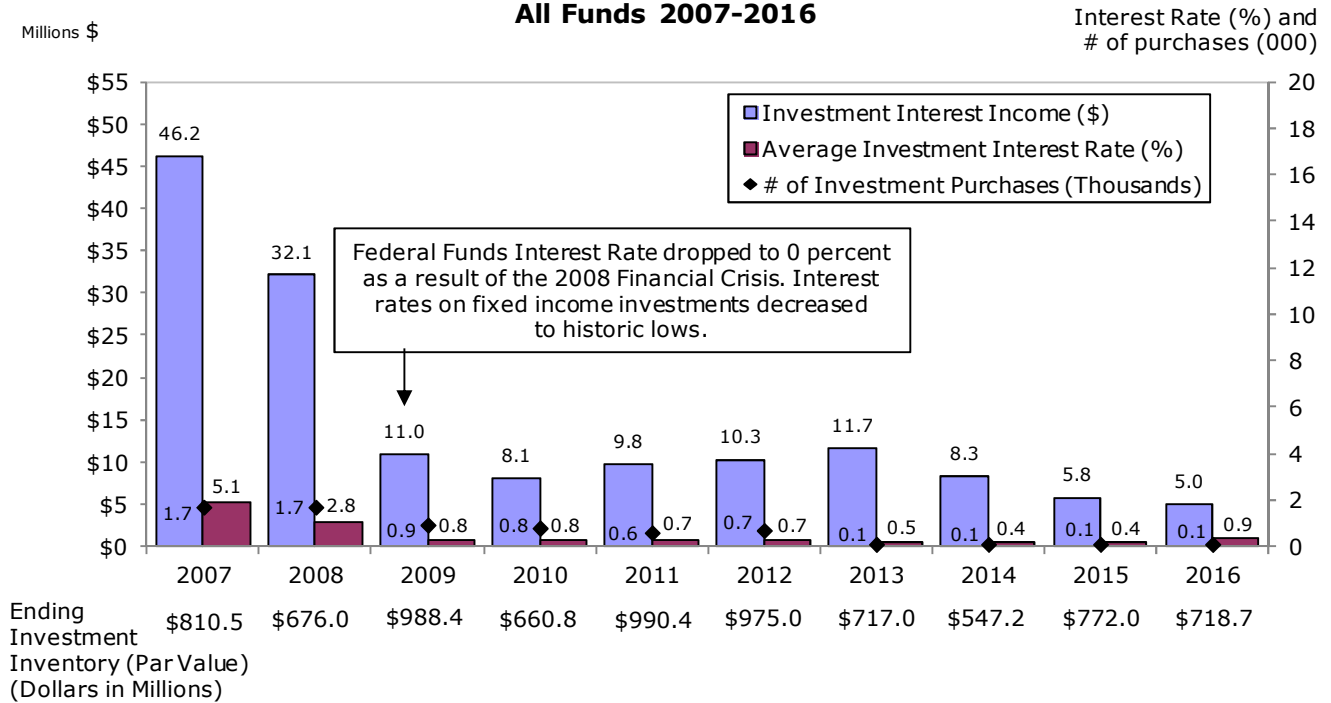
• **Excellence**

The Treasury Section will continue to provide excellent customer service to the District’s residents through the responsible management of cash, investments, and debt to ensure financial stability targets are met.

The Treasury Section will maintain sufficient liquidity to meet the District’s payment requirements for operations, payroll, and capital expenditures; fund all expenditures in compliance with federal law and state statute; and maintain pension and OPEB funding strategies to ensure the long-term health of the retirement programs.

The Treasury Section will maximize investment yield on District investments while protecting principal, by investing excess cash to maximize investment returns within the statutory and investment policy guidelines; and safeguarding the principal of District investments.

**Investment Interest Income / Average Investment Interest Rate  
All Funds 2007-2016**



The Treasury Section will complete the creation of procedures, which were drafted in 2015, to define disclosure requirements for bond issues and adhere to post-issuance compliance regulations as required by the IRS. The Treasury Section will continue to focus the Capital Finance program on the prudent use of debt financing for capital needs and debt service savings, and issue debt financings in compliance with federal securities laws and state statutory authorization.

The Treasury Section will complete the creation of administrative procedures and legal and financing documents that define the Local Government Loan Program according to District Statutory Authorization (70 ILCS 2605/9.6c). This project began in 2015 in collaboration with the Engineering and Law Departments. The project plan will be presented to the Board of Commissioners for approval in 2016, at which time the majority of the project will be executed.

• **Develop Employees**

Treasury employees will continue to attend seminars and conferences in 2016 to develop knowledge and skills in the areas of investment, treasury, and debt management. Employees will also continue to cross-train to ensure business continuity at all times.

**11000 BOARD OF COMMISSIONERS**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:		Cost	Percent
1.	Establish policies and priorities to guide the Executive Director in meeting the District's responsibilities, ensuring the protection of the environment, and the health and welfare of people in the community in the most responsive, efficient, and economical manner.	\$ 3,182,100	72.2%
2.	Provide cash management services to maximize investment interest return without sacrifice of principal or required liquidity measured by exceeding the benchmark 90-day Treasury bill rate and investment on average of over 99 percent of available funds.	\$ 1,225,700	27.8%
Enhance the District's image in national financial markets through the prudent use of debt financing for capital needs and debt service savings.			
Total		\$ 4,407,800	100.0%

MEASURABLE GOALS:		2014 Actual	2015 Estimated	2016 Proposed
1.	Maximize investment earnings by exceeding the interest rate benchmark monthly.	100%	100%	100%
2.	Invest 99 percent of available funds on a daily basis.	100%	100%	100%
3.	Achieve AAA bond rating with all three major rating agencies.	67%	67%	67%
4.	Maintain minority broker/dealer investment participation at 30 percent or more of applicable investment purchases.	30%	30%	30%

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
7110	Legislative	\$ 2,769,016	2016	31	\$ 3,113,600	\$ 54,800	1.8
			2015	31	\$ 3,058,800		
7210	Treasury Activities	\$ 643,061	2016	4	\$ 735,300	\$ 63,700	9.5
			2015	4	\$ 671,600		
7316	OPEB Trust Management and Report Preparation	\$ 111,390	2016	1	\$ 137,800	\$ 22,600	19.6
			2015	1	\$ 115,200		
7601	Capital Financing Program and Other Related Costs	\$ 186,256	2016	2	\$ 352,600	\$ 20,600	6.2
			2015	1	\$ 332,000		
7604	Social Security and Medicare Contributions	\$ -	2016	-	\$ 68,500	\$ 68,500	100.0
			2015	-	\$ -		
Totals		\$ 3,709,723	2016	38	\$ 4,407,800	\$ 230,200	5.5%
			2015	37	\$ 4,177,600		

a) Increase is due to the allocation of an Accounting Manager position added in 2016.

b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**11000 BOARD OF COMMISSIONERS**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7110	Legislative	Cost	\$ 2,769,016	\$ 3,058,800	\$ 3,113,600	
7210	Treasury Activities					
	Treasury Administration	Cost	\$ 643,061	\$ 671,600	\$ 735,300	
7316	OPEB Trust Management and Report Preparation	Cost	\$ 111,390	\$ 115,200	\$ 137,800	a)
7601	Capital Financing Program and Other Related Costs	Cost	\$ 186,256	\$ 332,000	\$ 352,600	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 68,500	b)
		Totals	\$ 3,709,723	\$ 4,177,600	\$ 4,407,800	

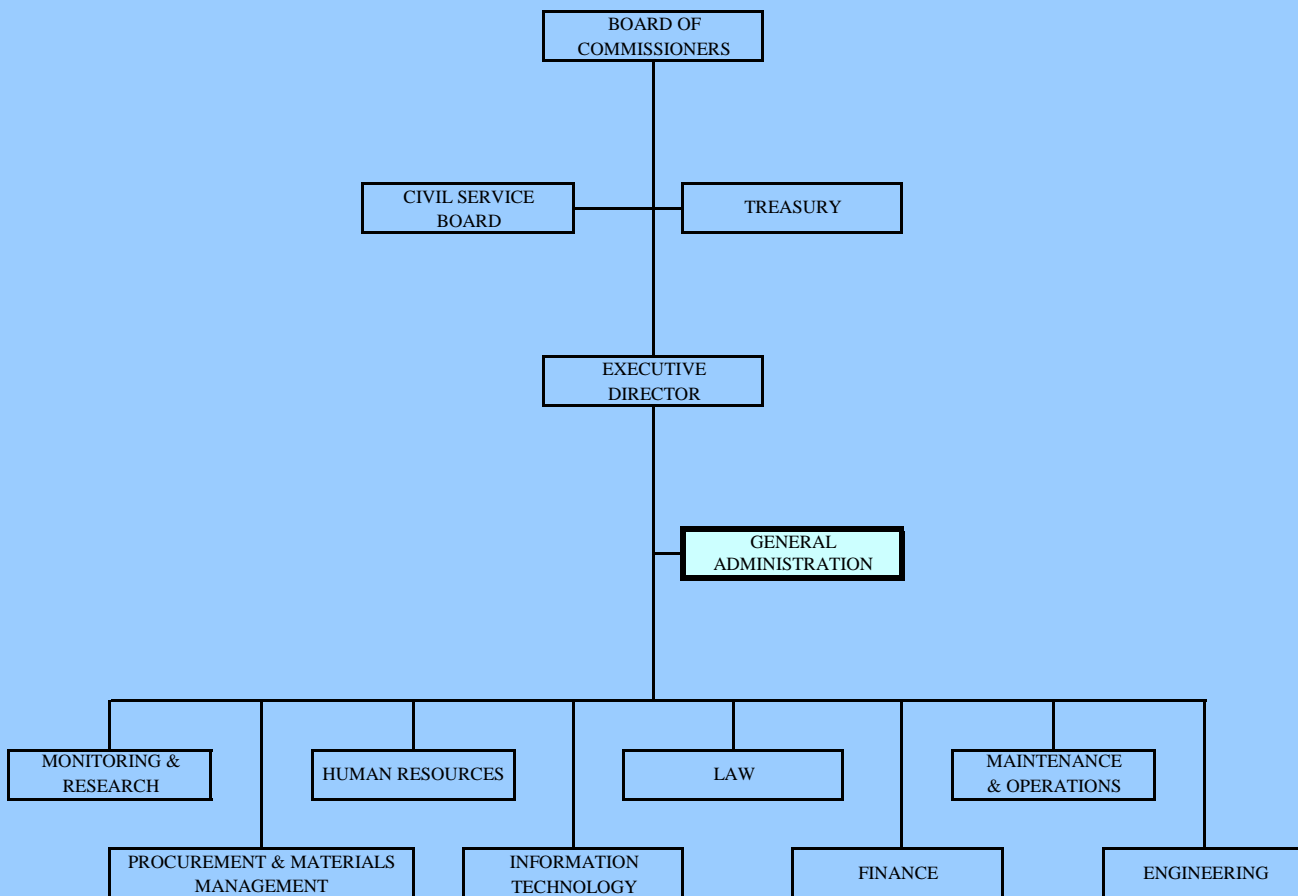
- a) Increase is due to the allocation of an Accounting Manager position added in 2016.
- b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 11000	Fund: Corporate Department: Board of Commissioners Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 3,196,119	\$ 3,400,500	\$ 3,400,500	\$ 3,250,500	\$ 3,508,200	\$ 3,508,200	\$ 3,633,800
601060	Compensation Plan Adjustments	29,539	45,200	45,200	39,700	26,500	26,500	28,700
601070	Social Security & Medicare Contributions	-	-	-	-	68,500	68,500	68,500
601100	Tuition and Training Payments	7,362	15,000	15,000	15,000	10,000	10,000	10,000
601170	Payments for Professional Services	207,368	355,000	355,000	355,000	-	-	-
601300	Personal Services, N.O.C.	217,640	288,000	288,000	288,000	288,000	288,000	288,000
100	TOTAL PERSONAL SERVICES	3,658,029	4,103,700	4,103,700	3,948,200	3,901,200	3,901,200	4,029,000
612010	Travel	6,525	10,000	10,000	10,000	10,000	10,000	10,000
612030	Meals and Lodging	10,235	20,000	19,900	19,900	15,000	15,000	15,000
612050	Compensation for Personally-Owned Automobiles	-	-	100	100	-	-	-
612280	Subscriptions and Membership Dues	30,048	32,700	32,700	32,700	35,000	35,000	35,000
612430	Payments for Professional Services	-	-	-	-	290,000	290,000	310,000
612490	Contractual Services, N.O.C.	655	1,000	1,000	500	700	700	700
200	TOTAL CONTRACTUAL SERVICES	47,463	63,700	63,700	63,200	350,700	350,700	370,700
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	4,209	10,000	10,000	10,000	8,000	8,000	8,000
623990	Materials and Supplies, N.O.C.	22	200	200	100	100	100	100
300	TOTAL MATERIALS AND SUPPLIES	4,230	10,200	10,200	10,100	8,100	8,100	8,100
TOTAL BOARD OF COMMISSIONERS		\$ 3,709,723	\$ 4,177,600	\$ 4,177,600	\$ 4,021,500	\$ 4,260,000	\$ 4,260,000	\$ 4,407,800

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Corporate Dept: Board of Commissioners Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>012</b>	<b>Legislative Section</b>					
EX22	President	1	1		1	
EX21	Vice President	1	1		1	
EX01	Commissioner (Chairman, Committee on Finance)	1	1		1	
EX02	Commissioner	6	6		6	
EX03	Administrative Aide to President	1	1		1	
EX04	Administrative Assistant to Commissioner (Secretary)	21	21		21	
TOTAL	Legislative Section	31	31	2,640,992.38	31	2,723,620.90
<b>013</b>	<b>Treasury Section</b>					
EX05	Treasurer	1	1		1	
HP20	Assistant Treasurer	1	1		1	
HP18	Accounting Manager	-	-		1	
HP16	Financial Analyst	3	3		3	
EX06	Secretary to Officer	1	1		1	
TOTAL	Treasury Section	6	6	771,199.00	7	928,418.40
TOTAL	Board of Commissioners	37	37	3,412,191.38	38	3,652,039.30

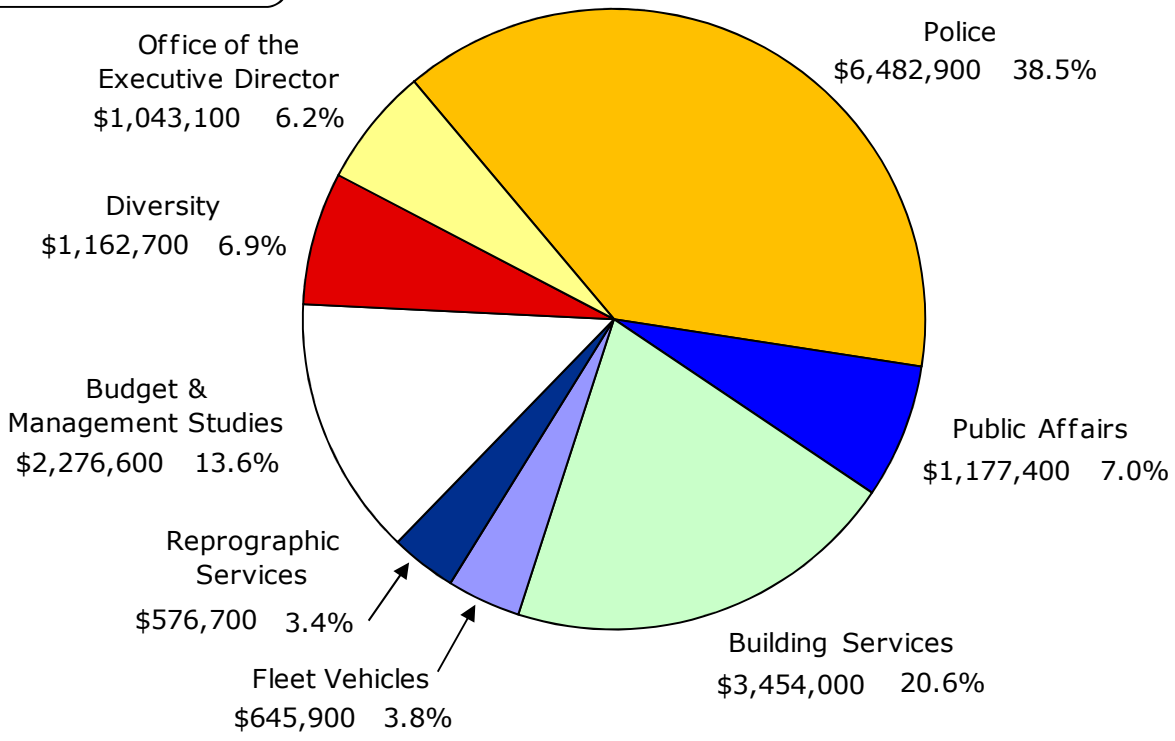
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.



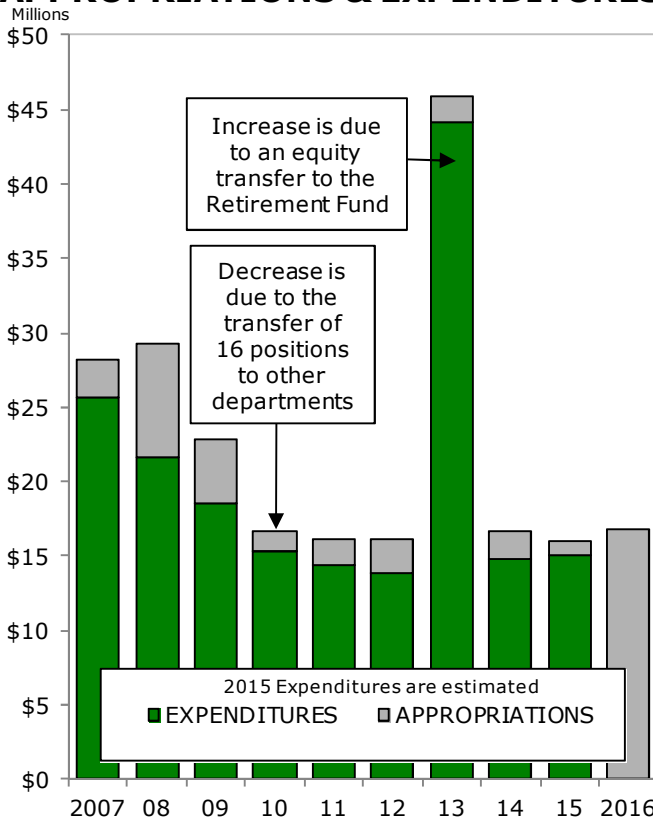
# GENERAL ADMINISTRATION

2016	\$16,819,300
2015	\$16,042,000
Increase	\$777,300

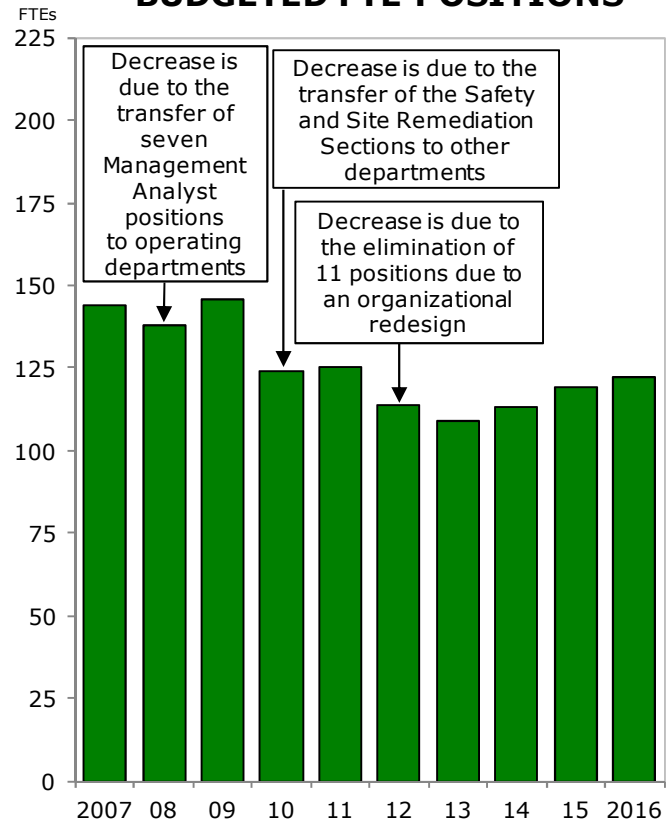
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

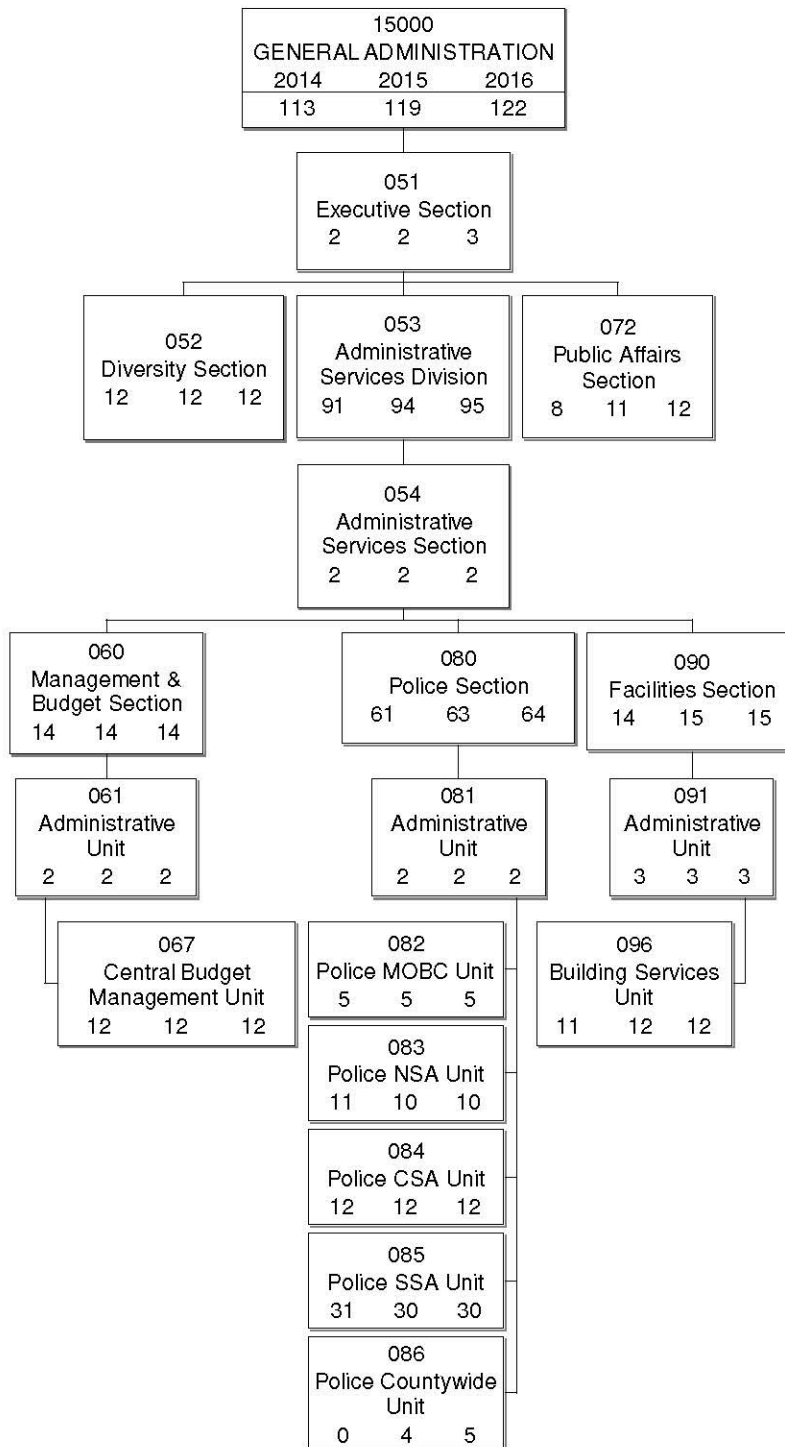


## BUDGETED FTE POSITIONS





# GENERAL ADMINISTRATION



## **GENERAL ADMINISTRATION**

**The mission of the Administrative Services Division is to prepare and administer the annual budget, provide a secure work environment for all employees, visitors, contractors, and citizens, and provide support services to maintain the Main Office Building Complex (MOBC).**

**The mission of the Diversity Section is to ensure that minority (MBE), women (WBE), and small business (SBE) enterprises are given equal opportunity to participate in the performance of the District's construction program and professional service contracts in excess of \$100,000, in accordance with case law and the District's policies.**

**The mission of the Public Affairs Section is to promote a broader understanding and appreciation of the District and the valuable services it provides, present clear and accurate information about the work of the District and its areas of responsibility, cultivate relationships and facilitate communication with all stakeholders, and plan and implement targeted promotional efforts and social marketing campaigns.**

### **Departmental Summary**

General Administration supports the office of the Executive Director in implementing Board policies. General Administration includes the Office of the Executive Director, the Administrative Services Division, the Diversity Section, and the Public Affairs Section.

### **Summary of 2015 Accomplishments**

- The 2015 Budget received the 31st consecutive Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA);
- Trained in-house staff on several topics intended to increase the efficiency of the budgeting process;
- Coordinated a District-wide review of budget coding to simplify the classification of budget requests;
- Conducted an internal customer satisfaction survey of the Budget Office to evaluate services provided;
- Increased the number of Protected Class Enterprise vendors included on the District's vendor list;
- Received a 2015 Partner Award from the Chatham Business Association;
- Participated in the Federal Drug Administration's Drug Take Back Program in the Fall at three plants;
- Completed the carpet replacement and painting project on the 4th floor of the Main Office Building (MOB), completed the rehabilitation of the two remaining elevator mechanical systems at the Main Office Building Annex (MOBA), and replaced three air conditioning units, two in the Elevator Mechanical room and one in the Computer Aided Drafting and Design room at the MOBA;
- Hosted the District's African American History Celebration honoring African American Chicago living legends;
- Hosted tours at the Thornton Composite Reservoir for thousands of guests prior to the reservoir coming online as an integral part of the Tunnel and Reservoir Plan;
- Researched and prepared press releases, organized press events, tours, community outreach and presentations, partnered with municipalities and non-governmental organizations to facilitate rain barrel agreements and produced a rain barrel installation video. Increased communications through email blasts to hundreds of stakeholders, coordinated media responses and interviews, assisted cable and television recordings, and generated hundreds of social media postings.

### **Budget Highlights**

The 2016 appropriation for General Administration is \$16,819,300, an increase of \$777,300, or 4.8 percent, from 2015. The staffing level has increased from 119 to 122 positions, which includes the addition of two Secretary to Officer positions and one Police Officer position.

Significant features of the 2016 budget are:

- Major projects for the MOB include rehabilitation of elevators, and carpet replacement and painting of the 3rd floor;
- Major projects for the MOBA include replacement of the mixed air heating unit, installation of an additional heating unit and ductwork reconfiguration, and replacement of an electric water heater;
- The Building Automated System will be expanded in the MOBC to achieve greater energy efficiency;
- Continue the reduction of fleet inventory and the replacement of vehicles at 10 years or 100,000 miles. Vehicles not meeting the minimum usage criteria may be designated as pool vehicles for better utilization;
- Continue the management of the District's positive public image through proactive communications and by hosting ribbon cutting ceremonies as major projects are completed.

## **2016 Administrative Services Division Initiatives in Support of the Strategic Business Plan Include the Following:**

The Administrative Services Division is comprised of three distinct support service functions, consisting of the Management & Budget, Police, and Facilities Sections. It is focused on the goals established in the Strategic Business Plan and is committed to continuous improvement in 2016.

### **• Add Value**

The Administrative Services Division will provide efficient and cost-effective business services to all departments in support of the overall District mission.

The Management & Budget Section will continue to plan and monitor revenues and expenditures to ensure compliance with tax cap limitations, facilitate sound financial management, and identify and implement efficiencies in the budget process. The section continually strives to improve points of communication and increase transparency for our constituents.

The Police Section will continue to patrol plants and property, interact with employees, visitors, contractors, the public, and other police agencies in a professional and service-oriented manner.

The Facilities Section will continue to provide a professional, clean, safe, and comfortable environment for employees, contractors, visitors, and the general public.

### **• Excellence**

The Management & Budget Section continually strives to produce a budget that provides transparency to the public. The section's goals include earning special capital recognition and special performance measure recognition from the GFOA.

The Police Section protects employees, contractors, visitors, and the District's assets through access control and patrolling and monitoring District land and facilities in a professional and service-oriented manner.

The Facilities Section is responsible for the maintenance and operations of the MOBC, which includes building operations, automotive fleet services, mailroom, and print services. It is committed to providing a functional and cost-effective office environment for staff and delivering efficient and cost-effective automotive fleet services, mailroom, and print services. The Facilities Section will continue to support the MOBC through the careful management of our physical assets and staff services.

### **• Resource Recovery**

The Administrative Services Division will support and provide the necessary services for the District's resource recovery initiatives by providing a corporate office environment for staff, facilitating the financial plan needed to move forward as quickly as possible, and protecting the infrastructure and assets used to recover resources.

The Police Section will continue to participate in the Federal Drug Administration's Drug Take Back program. The program, sponsored by the Drug Enforcement Agency, prevents and reduces the accidental contamination of streams, rivers, and lakes by disposing of pharmaceuticals in an environmentally friendly manner.

The Facilities Section will continue the ongoing dual-stream recycling program at the MOBC, reducing waste by removing recyclable materials and containers from the waste stream. Moreover, in 2016, the food waste for compost recycling produced by the MOB cafeteria will continue. The program, started in January of 2013, includes separating organic waste from all other wastes into separate waste streams by depositing it in biodegradable bags and transferring it to a compost-producing facility.

### **• Develop Employees**

The Administrative Services Division will continue to develop employees through participation in training seminars and conferences to increase professional knowledge and skills. In-house training, webinars, and eLearning opportunities are utilized whenever possible to extend training to multiple employees in a cost-effective manner.

### **• Leading Partnerships**

The Administrative Services Division will foster partnerships and develop strategic relationships with organizations and agencies in our community in support of the District's mission.

The Management & Budget Section will work with the GFOA, the Civic Federation, and other agencies to promote best practices and continuous improvement in our Budget document.

The Police Section will participate as a member of the Law Enforcement Mutual Aid Agreement, and work with other agencies and municipalities to protect people and assets.

The Facilities Section will work closely with our neighbors, especially when street closures are necessary for building maintenance.

### **• Technology**

The Administrative Services Division will continue to use technology effectively to provide transparency in budgeting, financial support, communications, and to provide useful data and information necessary to make good decisions.

**2016 Diversity Section Initiatives in Support of the Strategic Business Plan Include the Following:**

The Diversity Section will continue to fulfill our role in support of the District’s Strategic Business Plan.

**• Add Value**

The Diversity Section will continue to fulfill our community leadership role regarding contract and employment diversity in our service communities by establishing and monitoring goals for construction related projects, as well as participating in and hosting vendor outreach activities, including trade shows, conferences, and contractor training sessions covering District business practices. These activities directly impact the development of MBE, WBE, and SBE vendors.

Construction & Consulting Contracts	2011	2012	2013	2014 **	3rd Qtr. 2015
Minority Business Enterprises	\$20,940,125	\$25,801,878	\$42,692,505	\$75,053,441	\$18,034,321
Women Business Enterprises	\$10,820,165	\$14,903,225	\$22,032,830	\$39,870,628	\$6,423,336
Small Business Enterprises *	\$11,989,964	\$2,202,104	\$2,549,686	\$857,220	\$125,118
Total Contracts Awarded	\$95,398,665	\$135,299,419	\$222,211,307	\$386,198,534	\$49,179,323

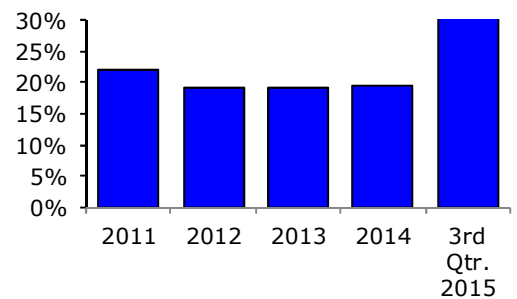
\* 2012 - 2015 SBE contract award amount only includes non-MBE and non-WBEs.

\*\* \$236,000,000 contract awarded in 2014 for 04-128-3P, Westside Primary Settling Tanks at Stickney Water Reclamation Plant.

**• Excellence**

The Diversity Section, in cooperation with the Law, Procurement & Materials Management, Maintenance & Operations, and Engineering Departments will continue working with our consultants to complete the disparity study begun in 2014 to provide a legal foundation for maintaining racial and gender diversity in District contracting. In 2016, the Diversity Section will implement the recommendations and changes resulting from the study. By meeting or exceeding the participation targets, the diversity program will ensure that bona fide minority, women, and small business enterprises are given an equal and increasing opportunity to participate in the performance of District construction and consultant contracts.

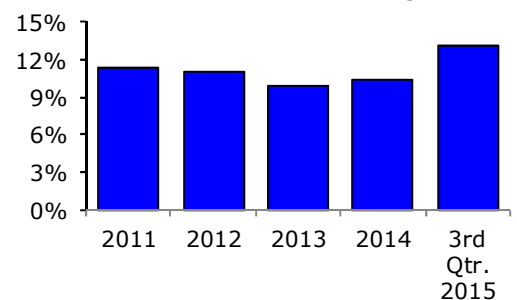
**Minority Business Enterprises**



**• Develop Employees**

The Diversity Section will continue the development of our performance management metrics to better measure the performance of our staff. In 2015, the Diversity staff was trained in interpersonal communication techniques and data capture methods. In 2016, the Diversity staff will be trained in teambuilding techniques. These skills are vital to the continued success of our program.

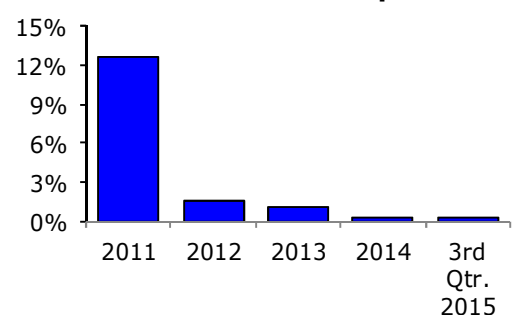
**Women Business Enterprises**



**• Leading Partnerships**

The Diversity Section will continue to partner with sister government agencies to discover more efficient methods to help vendors become successful government contractors, and develop sustainable relationships with prime contractors and financial institutions. We will continue to co-host workshops and other meetings with our sister agencies to train their members on how to do business with the District and provide information on new District contract opportunities.

**Small Business Enterprises \***



\*2012 – 2015 SBE contract award percentage only includes non-MBE and non-WBEs

**• Technology**

In 2015, the Diversity Section continued development of the District’s subcontracting database in the Affirmative Action Compliance Software System, PRISM, which will provide accountability, greater public transparency, and accuracy in reporting on MBE, WBE, and SBE participation in District contracting. In 2016, we will complete and present PRISM to the public, and include information from PRISM on our website. We will also change the website created to support the disparity study to accommodate any changes resulting from the study. We will continue improvement of the e-Library of forms and documents on the District’s website and update the MBE, WBE, and SBE vendor list smart-search database to make it more user-friendly.

## **2016 Public Affairs Section Initiatives in Support of the Strategic Business Plan Include the Following:**

The Office of Public Affairs has embraced the goals established in the Strategic Business Plan and is committed to maintaining the District's public image as we forge a new path in 2016.

### **• Add Value**

Public Affairs staff will work to inform the public about the value the District adds to our community and to our stakeholders. Public Affairs will continue to produce resources such as fact packs (containing fact sheets, talking points, photos, and other materials) that will help District staff educate the public about the value of the District's work and areas of responsibility. We will continue to provide PowerPoint presentations, exhibits, and displays that can enhance speaking engagements. We will research and prepare press releases, utilize social media, participate in and support community events with presenters and handouts, host tours and open houses, and provide photos and imagery to targeted audiences that help to educate the public on the value and importance of the District's work. We will also add value to the scholars and reporters interested in past and present imagery by making photo files and imagery freely available. We will add value as the District promotes its real estate portfolio by promoting properties and their varied uses.

### **• Excellence**

The Public Affairs Section exhibits a sense of urgency in all activities. We are determined to enthusiastically achieve excellence in all of our work products and in our interactions with our colleagues and members of the public. Quality communications will continue to feature professionally written and designed materials that reflect the organization's important role and history of excellence. We will strive to produce deliverables that are 100 percent error-free.

### **• Resource Recovery**

The Public Affairs Section will educate and inform the public about the District's resource recovery work by producing targeted, audience-appropriate materials that clearly explain this subject. The completion of the phosphorus recovery facility offers the opportunity to educate the public about the impact phosphorus has on the waterways, and the positive impact the new facility will have on improving our water environment locally as well as nationally. The Public Affairs Section will also continue to support biosolids marketing efforts.

### **• Develop Employees**

Public Affairs staff will continue to learn new skills and techniques in order to keep up-to-date with current communication practices and technology. Staff will be encouraged to pursue classroom training, online training, webinars, and to read industry publications and books. Public Affairs staff will also continue to keep abreast of changes and new developments within the District and our industry. The Public Affairs Section is aware that all employees influence the public image of the District. Therefore, the Public Affairs Section will continue to produce resources, such as fact sheets, that will help educate staff about the District's work and areas of responsibility.

The Public Affairs Section will continue to send out daily "MWRD in the News" emails that help all employees remain knowledgeable about new developments at the District and in the water industry. These daily reminders also help cultivate a sense of urgency and immediacy among staff.

### **• Leading Partnerships**

The Public Affairs Section will foster partnerships and engagement with organizations, communities, and individuals who share our commitment to the water environment, and an interest in our work and areas of responsibility. We will develop strategic relationships with the public through participation in local events, by development of communication materials, and by providing requested resources, such as photos and brochures.

### **• Technology**

The Public Affairs Section will continue to use technology to efficiently and effectively educate the public and the District's stakeholders about the value and importance of our work. We will continue to use technology both as a tool for creating communications by using appropriate and up-to-date software, hardware, and technical processes, and as a medium of communication, using social media, email, and databases. We will update the District's website with fresh, current information, utilize social media as an interactive communications tool, continue to update and send e-mail blasts and mailings to targeted officials, stakeholders and the media, and develop a user-friendly online photo archive which will include current photos and scanned historical imagery.

**15000 GENERAL ADMINISTRATION**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Physically protect and secure District personnel, facilities, and outlying properties through access control, police patrol, and proactive crime prevention.	\$ 6,482,900	38.5%
2. Carry out policies established by the elected Board of Commissioners for the protection of the water environment of the District.	\$ 1,043,100	6.2%
3. Reach participation goals established by the Board of Commissioners for Minority Business Enterprise, Women Business Enterprise, and Small Business Enterprise for construction and professional services contracts.	\$ 1,162,700	6.9%
4. Prepare and administer the District's annual budget to be used as a policy, financial, operations, and communications plan in the furtherance of the District's mission and statutory requirements.	\$ 2,045,200	12.2%
5. Operate and maintain the Main Office Building Complex to provide a functional and cost-effective office environment for staff, contractors, and visitors.	\$ 3,454,000	20.6%
6. Provide public understanding of District functions and activities through media, publications, and tours.	\$ 1,177,400	7.0%
7. Provide fleet management services by administering the operation, maintenance, repair, and procurement of the District's fleet.	\$ 645,900	3.8%
8. Reproduce and distribute materials used for the District's internal and external communications and records purposes in a timely, efficient, and cost-effective manner.	\$ 576,700	3.4%
9. Perform organization and management research studies and compliance audits to evaluate the District's various business activities for cost-saving opportunities, compliance with legal mandates, and policies established by the Board of Commissioners.	\$ 231,400	1.4%
<b>Total</b>	<b>\$16,819,300</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Actual	2016 Proposed
1. Receive the Government Finance Officers Association Distinguished Budget Presentation Award annually.	Yes	Yes	Yes
2. Increase public awareness of the District and its mission through growth in social media followers of at least 10 percent per year among the principal social media sites including Facebook, Twitter, and LinkedIn.			

Year	Facebook		Twitter		LinkedIn	
	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year
2016 - Proposed	2,776	50%	1,557	20%	1,432	20%
2015 - Actual	1,851	85%	1,298	16%	1,194	18%
2014 - Actual	1,000	88%	1,117	171%	1,009	123%

**15000 GENERAL ADMINISTRATION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
7100	Office of the Executive Director	\$ 380,959	2016 3	\$ 422,100	\$ 39,200	10.2	
			2015 2	\$ 382,900			
7110	Legislative	\$ 598,967	2016 -	\$ 621,000	\$ 400	0.1	
			2015 -	\$ 620,600			
7220	Reprographic Services	\$ 601,018	2016 3	\$ 576,700	\$ 35,800	6.6	
			2015 3	\$ 540,900			
7240	Public Affairs	\$ 729,989	2016 12	\$ 1,177,400	\$ (35,600)	(2.9)	
			2015 11	\$ 1,213,000			
7251	Corporate Budget Preparation, Monitoring, and Administration	\$ 1,627,045	2016 12	\$ 1,950,100	\$ 295,600	17.9	a)
			2015 12	\$ 1,654,500			
7252	Management and Organization Studies	\$ 192,816	2016 2	\$ 231,400	\$ (6,000)	(2.5)	
			2015 2	\$ 237,400			
7254	Enterprise Systems	\$ 63,304	2016 1	\$ 95,100	\$ (400)	(0.4)	
			2015 1	\$ 95,500			
7340	Security of Plants and Property	\$ 5,681,304	2016 64	\$ 6,335,400	\$ 298,700	4.9	b)
			2015 63	\$ 6,036,700			
7460	Main Office Building Complex Services	\$ 3,234,417	2016 11	\$ 3,454,000	\$ 3,100	0.1	
			2015 11	\$ 3,450,900			
7470	Contract Diversity	\$ 1,042,940	2016 12	\$ 1,162,700	\$ (22,200)	(1.9)	
			2015 12	\$ 1,184,900			
7490	Automotive Fleet Operations	\$ 641,759	2016 2	\$ 645,900	\$ 21,200	3.4	
			2015 2	\$ 624,700			
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 147,500	\$ 147,500	100.0	c)
			2015 -	\$ -			
Totals		\$ 14,794,518	2016 122	\$ 16,819,300	\$ 777,300	4.8%	
			2015 119	\$ 16,042,000			

- a) Increase is due to the transfer and consolidation of severance and retirement payments in the Administrative Services Section from the Police Section (\$50,000), additional planned retirements (\$75,000), District-wide subscriptions and memberships (\$87,300), and District-wide analyst training (\$60,000).
- b) Increase is due to compensation plan adjustments (\$156,500), the addition of one Police Officer position (\$78,800), police overtime (\$9,900), and the transfer of the Drug Take Back Program to the Police Section (\$100,000), offset by the transfer and consolidation of severance and retirement payments in the Administrative Services Section (\$50,000).
- c) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7100	Office of the Executive Director	Cost	\$ 380,959	\$ 382,900	\$ 422,100	
7110	Legislative	Cost	\$ 598,967	\$ 620,600	\$ 621,000	
7220	Reprographic Services					
7221	Copy and Print	# of Impressions	7,776,450	7,500,000	6,500,000	
		Cost	\$ 572,853	\$ 512,800	\$ 546,400	
		Cost/Impression	\$ 0.07	\$ 0.07	\$ 0.08	
7224	Consult, Design, and Prepare Graphics	Cost	\$ 28,165	\$ 28,100	\$ 30,300	
7240	Public Affairs					
7247	Internal Public Affairs					
	Inter-Departmental Support	Cost	\$ 141,478	\$ 281,600	\$ 294,500	
7248	External Public Affairs					
	Respond to Public Inquiries; Furnish Public Information Pamphlets	# of Responses	37,000	40,000	44,000	
		Cost	\$ 196,473	\$ 277,014	\$ 294,754	
		Cost/Response	\$ 5.31	\$ 6.93	\$ 6.70	
	Coordinate District Communications with Public, Civic, and Social Groups	# of Contacts	20,000	20,154	22,169	
		Cost	\$ 107,354	\$ 151,362	\$ 161,055	
		Cost/Contact	\$ 5.37	\$ 7.51	\$ 7.26	
	Monitor Public Hearings, Board Meetings, Internet, Media, and Issue Press Releases	Cost	\$ 138,615	\$ 195,438	\$ 207,954	
	Special Public Events	Cost	\$ 146,069	\$ 205,949	\$ 219,137	
	Drug Take Back Program	Cost	\$ -	\$ 101,637	\$ -	a)
7250	Budget Preparation and Management Studies					
7251	Corporate Budget Preparation, Monitoring, and Administration	Cost	\$ 1,627,045	\$ 1,654,500	\$ 1,950,100	b)
7252	Management and Organization Studies	Cost	\$ 192,816	\$ 237,400	\$ 231,400	
7254	Enterprise Systems	Cost	\$ 63,304	\$ 95,500	\$ 95,100	

a) Decrease is due to the transfer of the Drug Take Back Program to the Police Section.

b) Increase is due to the transfer and consolidation of severance and retirement payments in the Administrative Services Section from the Police Section (\$50,000), additional planned retirements (\$75,000), District-wide subscriptions and memberships (\$87,300), and District-wide analyst training (\$60,000).



**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7340	Security of Plants and Property					
	Patrol of District Facilities	# of Miles	84,508	105,907	106,362	
		Cost	\$ 1,099,826	\$ 1,168,626	\$ 1,226,450	
		Cost/Mile	\$ 13.01	\$ 11.03	\$ 11.53	
	Patrol of District Real Estate	# of Miles	228,486	205,583	206,468	c)
		Cost	\$ 3,110,118	\$ 3,304,673	\$ 3,468,190	
		Cost/Mile	\$ 13.61	\$ 16.07	\$ 16.80	
	Access Control to Facilities	# of Hours	46,968	48,137	48,611	
		Cost	\$ 1,471,360	\$ 1,563,401	\$ 1,640,760	
		Cost/Hour	\$ 31.33	\$ 32.48	\$ 33.75	
7460	Main Office Building Complex (MOBC) Services					
7461	Annual Operation and Maintenance (Cost per square foot per year)	Area (Sq. Ft.)	198,901	198,901	198,901	
		Cost	\$ 2,817,567	\$ 3,023,000	\$ 2,994,100	
		Cost/Sq. Ft.	\$ 14.17	\$ 15.20	\$ 15.05	
7463	Collect and Distribute Mail	# of Pieces	1,010,509	1,150,000	1,100,000	
		Cost	\$ 305,069	\$ 323,900	\$ 349,500	
		Cost/Piece	\$ 0.30	\$ 0.28	\$ 0.32	
7464	Telephone Switchboard Operations at MOB	Cost	\$ 111,781	\$ 104,000	\$ 110,400	
7470	Contract Diversity					
7471	Contract Compliance	Cost	\$ 479,958	\$ 541,900	\$ 509,600	
7472	Community Activity	Cost	\$ 330,809	\$ 384,600	\$ 379,700	
7473	Contract Diversity Support	Cost	\$ 232,173	\$ 258,400	\$ 273,400	
7490	Automotive Fleet Operations					
7491	Automotive Fleet Procurement	Cost	\$ 9,449	\$ 10,100	\$ 7,900	d)
7496	Automotive Fleet Disposal	Cost	\$ 7,515	\$ 8,200	\$ 7,200	
7499	Automotive Fleet Operations	Cost	\$ 624,795	\$ 606,400	\$ 630,800	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 147,500	e)
Totals			\$ 14,794,518	\$ 16,042,000	\$ 16,819,300	

c) Increase is due to the addition of one Police Officer position (\$78,800), police overtime (\$9,900), and the transfer of the Drug Take Back Program to the Police Section (\$100,000), offset by the transfer and consolidation of severance and retirement payments in the Administrative Services Section (\$50,000).

d) Decrease is due to the retitle and downgrade of a position.

e) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 15000	Fund: Corporate Department: General Administration Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 8,908,477	\$ 10,106,000	\$ 9,606,000	\$ 9,091,500	\$ 10,255,200	\$ 10,218,800	\$ 10,393,700
601060	Compensation Plan Adjustments	1,067,076	846,200	1,346,200	1,200,000	1,004,500	999,600	1,006,400
601070	Social Security & Medicare Contributions	-	-	-	-	147,500	147,500	147,500
601080	Salaries of Nonbudgeted Employees	3,425	-	-	-	-	-	-
601100	Tuition and Training Payments	101,368	50,000	50,000	17,000	125,000	125,000	125,000
601170	Payments for Professional Services	581,600	603,600	627,600	603,300	-	-	-
601270	General Salary Adjustments	-	-	-	-	1,125,000	1,125,000	-
100	TOTAL PERSONAL SERVICES	10,661,947	11,605,800	11,629,800	10,911,800	12,657,200	12,615,900	11,672,600
612010	Travel	5,442	10,000	10,000	7,600	15,000	15,000	15,000
612030	Meals and Lodging	18,038	20,000	17,000	14,500	17,500	17,500	17,500
612040	Postage, Freight, and Delivery Charges	99,077	116,900	107,500	107,500	115,000	115,000	115,000
612050	Compensation for Personally-Owned Automobiles	6,516	5,900	7,900	7,900	5,900	5,900	5,900
612080	Motor Vehicle Operating Services	73,300	80,000	80,000	73,000	75,000	75,000	77,000
612090	Reprographic Services	21,413	53,000	53,000	50,000	118,500	118,500	118,500
612150	Electrical Energy	351,712	365,500	375,500	375,500	365,000	365,000	365,000
612160	Natural Gas	37,551	35,000	35,000	35,000	38,000	38,000	38,000
612170	Water and Water Services	5,202	5,000	5,000	5,000	5,500	5,500	5,500
612210	Communication Services	3,000	3,000	3,000	3,000	3,000	3,000	3,000
612280	Subscriptions and Membership Dues	442,399	450,000	530,700	495,000	500,000	500,000	537,300
612330	Rental Charges	12,809	35,000	22,700	21,000	21,900	21,900	21,900
612360	Advertising	9,006	15,000	15,000	11,700	10,000	10,000	10,000
612370	Administration Building Operation	962,863	1,030,000	1,021,800	1,021,800	1,120,500	1,120,500	1,120,500
612390	Administration Building Mc Pav Operation	654,285	750,000	718,500	703,700	750,000	750,000	750,000
612430	Payments for Professional Services	-	-	-	-	623,600	623,600	623,600
612490	Contractual Services, N.O.C.	188,792	381,400	378,600	265,000	350,000	350,000	355,800
612680	Repairs to Buildings	303,488	241,900	206,000	97,000	100,000	100,000	100,000
612800	Repairs to Office Furniture & Equipment	72,946	99,600	99,600	98,000	100,000	100,000	100,000
612840	Communications Equipment Maintenance (Includes Software)	15,960	16,000	16,000	16,000	16,000	16,000	17,800

101 15000	Fund: Corporate Department: General Administration Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612860	Repairs to Vehicle Equipment	424,059	400,000	431,000	400,000	440,000	440,000	440,000
612990	Repairs, N.O.C.	85	-	-	-	-	-	-
200	TOTAL CONTRACTUAL SERVICES	3,707,945	4,113,200	4,133,800	3,808,200	4,790,400	4,790,400	4,837,300
623070	Electrical Parts and Supplies	20,476	17,500	17,500	14,900	15,000	15,000	15,000
623090	Plumbing Accessories and Supplies	12,328	17,500	17,500	17,100	13,400	13,400	13,400
623110	Hardware	13,677	17,000	17,000	15,000	15,700	15,700	15,700
623250	Vehicle Parts and Supplies	-	-	9,600	8,000	-	-	-
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	129,949	144,900	148,000	145,000	150,000	157,000	165,500
623660	Cleaning Supplies	2,048	2,000	2,000	1,300	1,500	1,500	1,500
623700	Wearing Apparel	28,130	40,000	36,000	36,000	36,900	36,900	36,900
623720	Books, Maps, and Charts	7,541	5,000	1,900	300	4,000	4,000	4,000
623990	Materials and Supplies, N.O.C.	50,145	69,100	69,100	39,000	47,400	47,400	47,400
300	TOTAL MATERIALS AND SUPPLIES	264,295	313,000	318,600	276,600	283,900	290,900	299,400
634990	Machinery and Equipment, N.O.C.	160,331	10,000	-	-	10,000	10,000	10,000
400	TOTAL MACHINERY AND EQUIPMENT	160,331	10,000	-	-	10,000	10,000	10,000
<b>TOTAL GENERAL ADMINISTRATION</b>		<b>\$ 14,794,518</b>	<b>\$ 16,042,000</b>	<b>\$ 16,082,200</b>	<b>\$ 14,996,600</b>	<b>\$ 17,741,500</b>	<b>\$ 17,707,200</b>	<b>\$ 16,819,300</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

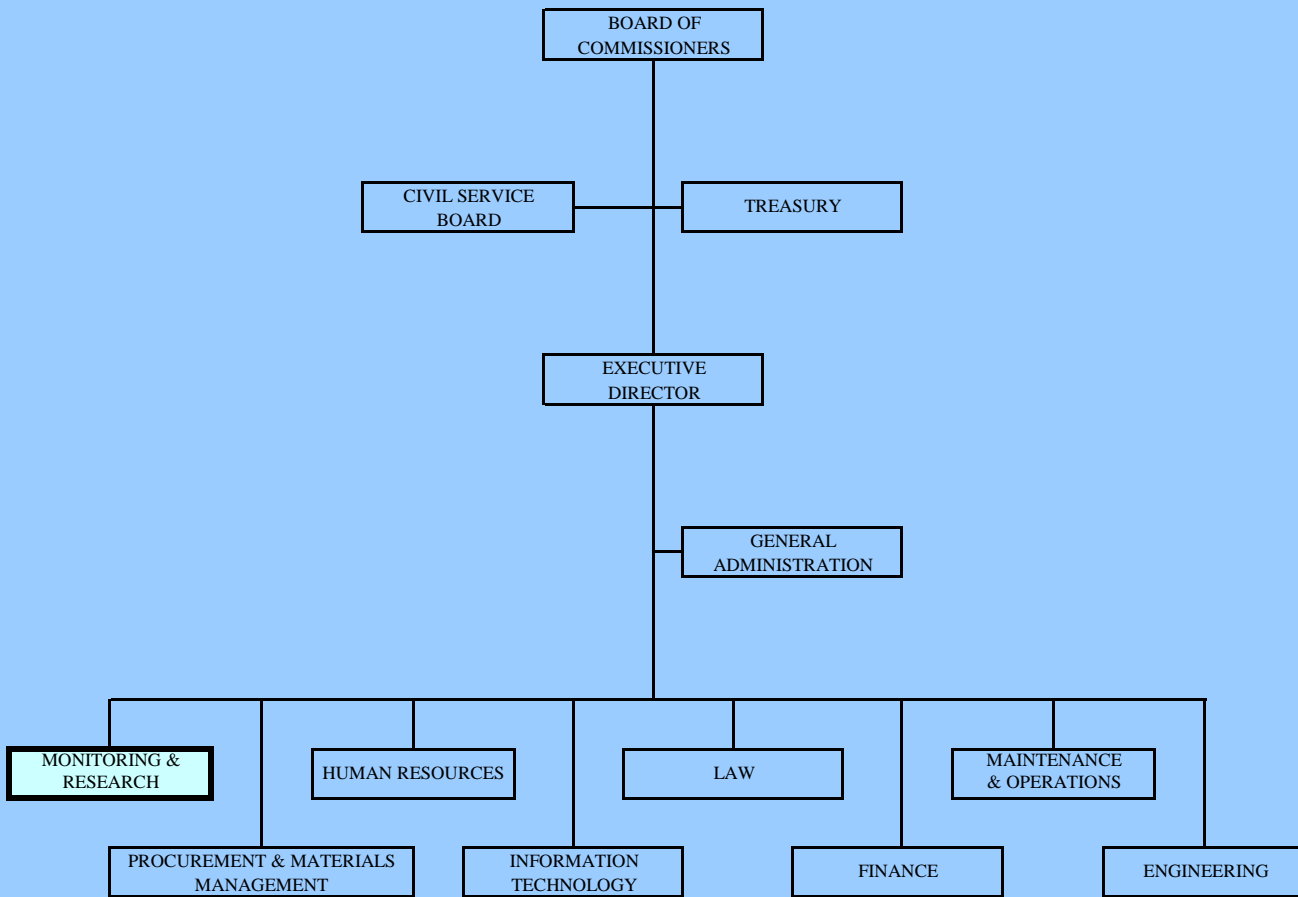
Fund: Corporate Dept: General Administration Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>051</b>	<b>Executive Section</b>					
EX07	Executive Director	1	1		1	
EX06	Secretary to Officer	1	1		2	
TOTAL	Executive Section	2	2	376,176.58	3	460,127.98
<b>052</b>	<b>Diversity Section</b>					
HP18	Diversity Administrator	1	1		1	
HP16	Senior Diversity Officer	2	2		2	
HP15	Compliance Officer #2 (Diversity Officer) (New Grade HP14)	5	5		4	
HP14	Diversity Officer	1	1		2	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	-	1		1	
HP09	Administrative Clerk #4	1	-		-	
TOTAL	Diversity Section	12	12	1,121,517.80	12	1,066,479.96
<b>053</b>	<b>Administrative Services Division</b>					
<b>054</b>	<b>Administrative Services Section</b>					
HP22	Administrative Services Manager	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Administrative Services Section	2	2	300,341.86	2	309,352.16
<b>060</b>	<b>Management &amp; Budget Section</b>					
<b>061</b>	<b>Administrative Unit</b>					
HP20	Budget Officer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	-		1	
HP11	Administrative Specialist	1	1		-	
TOTAL	Administrative Unit	2	2	235,183.00	2	229,038.16
<b>067</b>	<b>Central Budget Management Unit</b>					
HP18	Supervising Budget & Management Analyst	1	1		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	2	2		-	
HP16	Senior Budget & Management Analyst	2	2		4	

Fund: Corporate Dept: General Administration Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	-		-	
HP14	Budget & Management Analyst	5	6		6	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	-	-		1	
TOTAL	Central Budget Management Unit	12	12	1,130,283.18	12	1,107,544.36
TOTAL	Management & Budget Section	14	14	1,365,466.18	14	1,336,582.52
<b>080</b>	<b>Police Section</b>					
<b>081</b>	<b>Administrative Unit</b>					
HP18	Chief of Police	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Administrative Unit	2	2	225,695.34	2	232,466.26
<b>082</b>	<b>Police Main Office Building Complex Unit</b>					
NR2483	Police Officer	5	5		5	
TOTAL	Police Main Office Building Complex Unit	5	5	382,200.00	5	393,640.00
<b>083</b>	<b>Police North Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	9		9	
TOTAL	Police North Service Area Unit	11	10	782,035.02	10	805,449.32
<b>084</b>	<b>Police Calumet Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	11	10		10	
NR2483	Police Officer #1	-	1		1	
TOTAL	Police Calumet Service Area Unit	12	12	939,496.74	12	967,624.32
<b>085</b>	<b>Police Stickney Service Area Unit</b>					
HP16	Police Lieutenant	2	2		2	
HP14	Police Sergeant	5	5		5	
NR2483	Police Officer	24	23		23	
TOTAL	Police Stickney Service Area Unit	31	30	2,433,669.16	30	2,516,919.60

Fund: Corporate Dept: General Administration Division:			POSITION ANALYSIS				
			2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS	
<b>086</b>	<b>Police Countywide Unit</b>						
NR2483	Police Officer	-	4		5		
TOTAL	Police Countywide Unit	-	4	305,760.00	5	393,640.00	
TOTAL	Police Section	61	63	5,068,856.26	64	5,309,739.50	
<b>090</b>	<b>Facilities Section</b>						
<b>091</b>	<b>Administrative Unit</b>						
HP17	Facilities Administrator	1	1		1		
HP11	Administrative Specialist	2	2		2		
TOTAL	Administrative Unit	3	3	245,473.80	3	255,049.34	
<b>096</b>	<b>Building Services Unit</b>						
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	1		-		
HP14	Budget & Management Analyst	-	-		1		
HP14	Chief Printing Press Operator	1	1		1		
HP12	Printing Press Operator	1	1		1		
HP11	Motor Vehicle Dispatcher Supervisor	1	1		1		
HP11	Administrative Specialist	2	2		2		
HP09	Motor Vehicle Dispatcher	1	2		2		
HP09	Administrative Clerk	4	4		4		
TOTAL	Building Services Unit	11	12	734,947.98	12	747,827.08	
TOTAL	Facilities Section	14	15	980,421.78	15	1,002,876.42	
TOTAL	Administrative Services Division	91	94	7,715,086.08	95	7,958,550.60	
<b>072</b>	<b>Public Affairs Section</b>						
EX18	Public & Intergovernmental Affairs Officer	1	1		1		
EX06	Secretary to Officer	-	-		1		
HP17	Senior Public Affairs Specialist	-	1		-		
HP17	Senior Public Affairs Specialist #2 (New Grade HP16)	-	-		1		
HP15	Community Education Specialist #2 (Public Affairs Specialist) (New Grade HP14)	1	1		1		
HP15	Public Affairs Specialist	1	3		-		

Fund: Corporate Dept: General Administration Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Public Affairs Specialist #2 (New Grade HP14)	-	-		3	
HP13	Assistant Public Affairs Specialist #2 (Senior Administrative Specialist)	1	1		-	
HP13	Senior Administrative Specialist	-	-		1	
HP13	Graphic Artist	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	-	-		1	
HP09	Administrative Clerk	1	1		1	
TOTAL	Public Affairs Section	8	11	944,283.34	12	1,031,208.10
TOTAL	General Administration	113	119	10,157,063.80	122	10,516,366.64

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

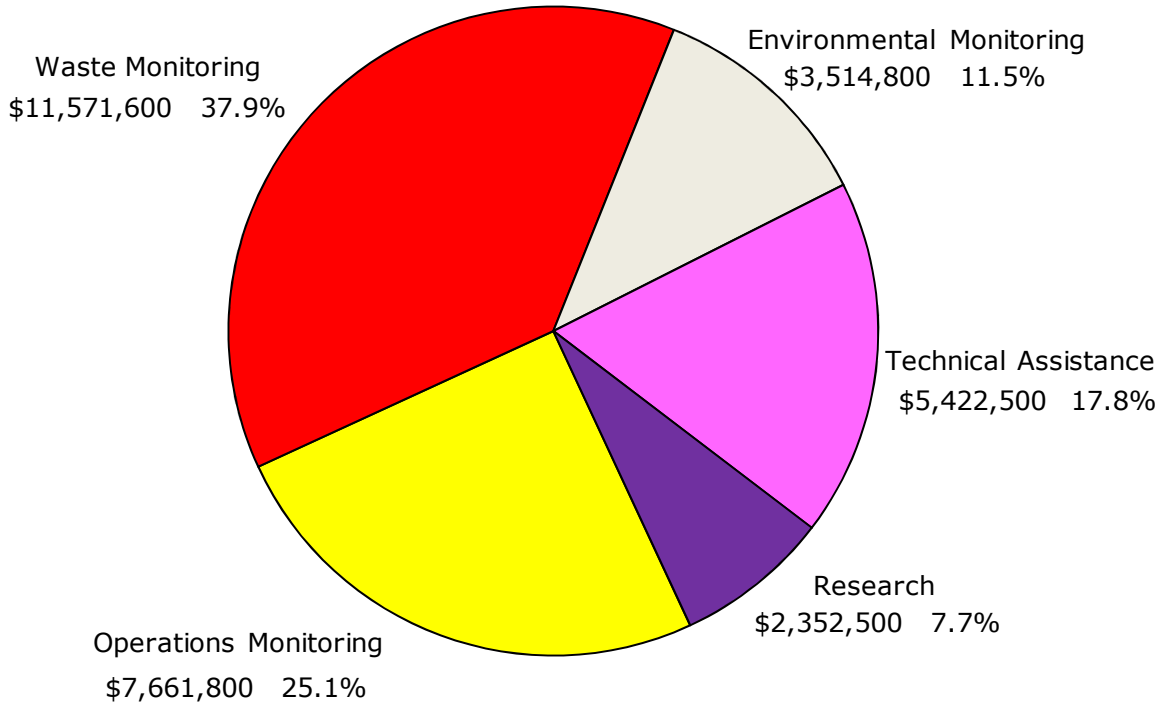




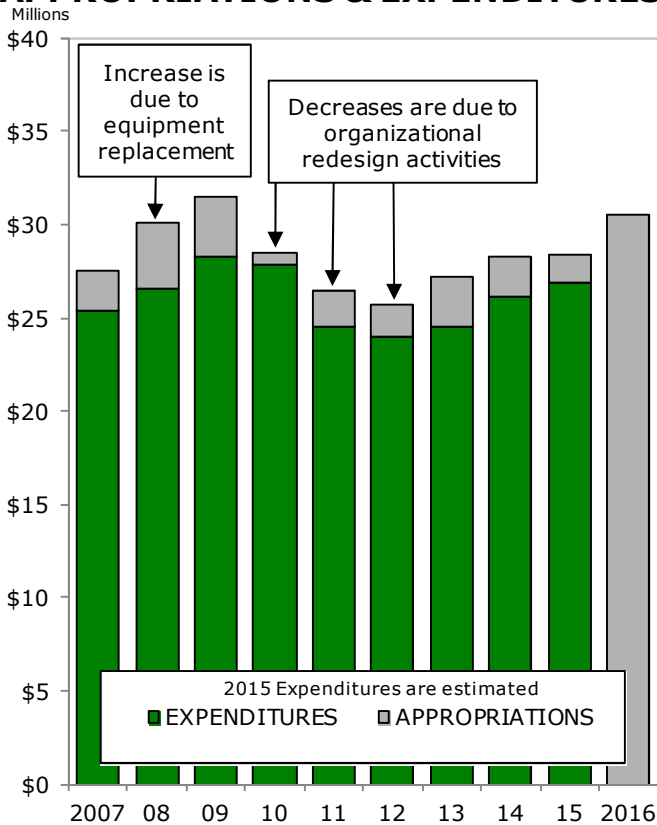
# MONITORING & RESEARCH

2016	\$30,523,200
2015	\$28,432,700
Increase	\$2,090,500

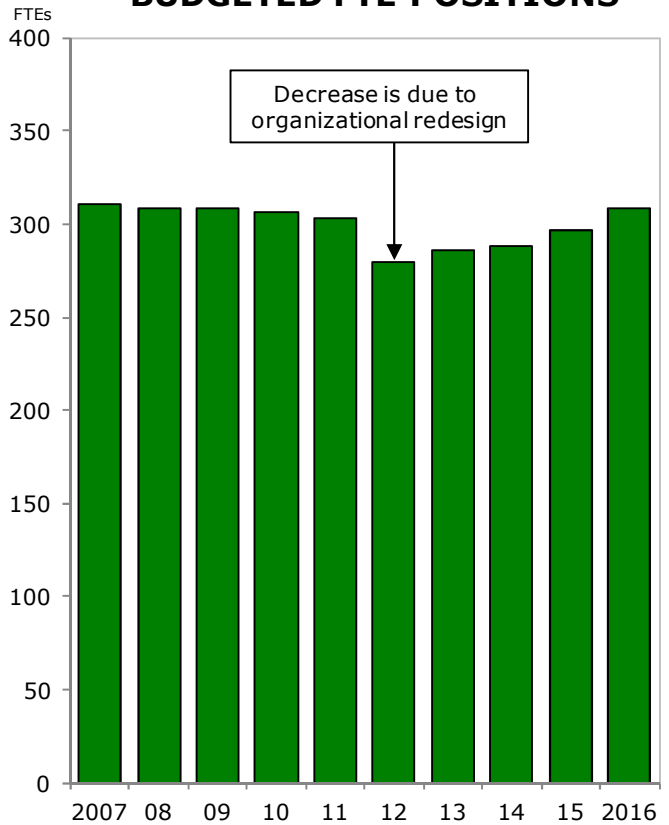
## FUNCTIONS



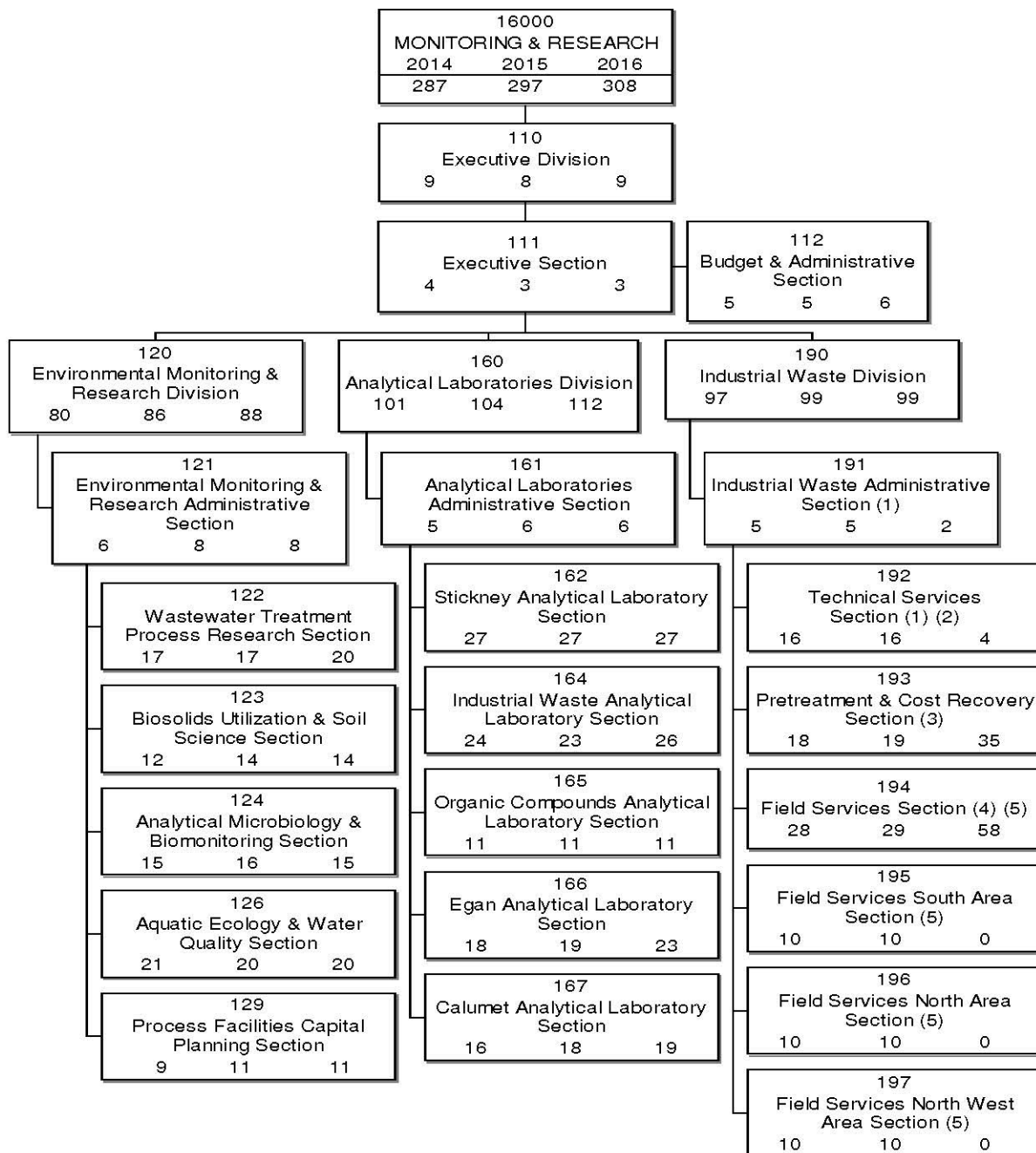
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MONITORING & RESEARCH



- (1) Effective 01/01/16, four positions from Section 191 and 14 positions from Section 192 were transferred to Section 193.
- (2) Effective 01/01/16, Section 192 Enforcement was retitled Technical Services.
- (3) Effective 01/01/16, Section 193 User Charge & Technical Services was retitled Pretreatment & Cost Recovery.
- (4) Effective 01/01/16, Section 194 Field Services Central Area was retitled Field Services.
- (5) Effective 01/01/16, Sections 195, 196, and 197 were merged with Section 194.

## **MONITORING & RESEARCH**

**The Monitoring and Research (M&R) Department's mission is to dependably provide industrial waste program ordinance administration, cost-effective monitoring and surveillance, high quality analytical data, technical support, long-term planning, and research to protect and improve District facilities, operations, and the environment.**

### **Departmental Summary**

The department's primary responsibilities include:

- Monitoring liquid and solids process trains for operational control and regulatory compliance;
- Administering the Pretreatment and User Charge programs in compliance with federal regulations;
- Monitoring improvements in the water quality of area rivers, canals, and groundwater for regulatory compliance;
- Process facility capital planning and technical assistance to address operations and regulatory issues;
- Conducting applied research to improve and reduce the cost of District operations and to improve water quality.

### **Summary of 2015 Accomplishments**

- Merged the Enforcement and User Charge Sections establishing individual industrial account representatives;
- Redesigned the Industrial Waste Division Field Services Section by converting five area teams into four;
- Supported the development of a Resource Recovery Ordinance;
- Continued the development of an Odor Master Plan and installed a monitoring system at the Calumet Water Reclamation Plant (WRP);
- Continued the development of a District-wide Biosolids Master Plan with an early focus on the Calumet WRP;
- Completed the initial iteration of Long Term Capital Planning for the District's process facilities;
- Supported pilot-scale testing of a covered aerated static pile system for composting biosolids with woodchips;
- Partnered with the city of Chicago and dozens of suburban entities for the beneficial use of biosolids;
- Supported successful legislation to allow the unrestricted use of exceptional quality biosolids in the state of Illinois;
- Completed phosphorus removal testing at the Stickney WRP and continued studies at four other WRPs;
- Initiated projects to evaluate mainstream shortcut biological nitrogen removal at District facilities;
- Established agricultural partnerships and field-scale research at the Fulton County site on best management practices for reducing nutrient loss from agricultural land;
- Completed a project to develop a linked three-dimensional Chicago Area Waterway System (CAWS) and Tunnel and Reservoir Plan (TARP) model to inform planning;
- Completed a hydrological study of the TARP tunnel groundwater impacts and a request for monitoring reductions.

### **Budget Highlights**

The 2016 appropriation for M&R is \$30,523,200, an increase of \$2,090,500, or 7.4 percent, from the 2015 request. The staffing level has increased from 297 to 308 positions. Dropped positions are a Patrol Boat Operator, Associate Environmental Microbiologist, Administrative Specialist, and Laboratory Assistant. Added positions are a Deputy Director of M&R, a Supervising Environmental Specialist, two Senior Environmental Research Technicians, one Environmental Research Technician (offset by a #1 to a Laboratory Technician I position), two Laboratory Assistants (one of which was a former Administrative Clerk in the Human Resources Department, and the other was reclassified from a Laboratory Technician I position), and eight Laboratory Technician II positions, each of which will be complemented by the addition of a #1 to a Laboratory Technician I position, as part of the redesign of the Laboratory Technician series.

Significant features of the 2016 budget include:

- Lead the Phosphorus Task Force to study and implement biological phosphorus removal at four WRPs over the next four to nine years;
- Continue to develop a District-wide Odor Master Plan and complete the Calumet and O'Brien WRP portions;
- Conduct hydraulic and process modeling of the Calumet WRP;
- Continue to develop a District-wide Biosolids Master Plan completing the Calumet portion;
- Conduct the fourth year of a seven-year microbial source tracking study for primary contact reaches of the CAWS;
- Update the long-term capital plan addressing community vision and regulatory developments;
- Continue to lead the Mainstream Shortcut Biological Nitrogen Removal Task Force to study four approaches at the lab and field level over the next four years for potential implementation at District facilities;
- Support the Engineering Department's ZeeLung Project for energy efficient nutrient removal at the O'Brien WRP;
- Complete the development of the Resource Recovery Program and lead its administration.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

M&R has continuously sought to make improvements to its business practices and to maintain a clear focus on its mission, and as a result, decreased the number of budgeted positions in a 15-year period from 355 positions in 2000 to 297 at the end of 2015. This was completed while maintaining all essential technical support, analytical laboratory, and industrial waste program ordinance administration functions. This is a testament to M&R’s highly skilled, professional, and dedicated staff.

M&R generates an important revenue stream through the recovery of operations, maintenance, and replacement costs incurred from treating discharges from Large Commercial/Industrial and Tax-Exempt Users of the sewerage system and the costs of administering the District’s Pretreatment and User Charge Programs. The User Charge Program assesses charges to recover costs, beyond those recovered through payment of ad valorem property taxes, based on the volume of water discharged and the concentration of waste it contains. Estimated 2016 User Charge revenue, based on 2015 rates and a five-year (2010-2014) average of user clearing data, is \$49 million. The User Charge rates take into account the costs budgeted in the Construction Fund for the required replacement of District facilities.

**Five-Year Trend in User Charge Revenue**

<b>Year</b>	<b>User Charge Receipts</b>
2012	\$77,937,606
2013	\$53,801,653
2014	\$44,964,848
2015 Estimated	\$51,300,000
2016 Projected	\$49,000,000

In 2016, M&R will administer approximately 3,800 User Charge accounts. Of these accounts, about 2,000 Commercial/Industrial and Tax-Exempt Users will be processed manually. M&R will conduct approximately 1,000 inspection and sampling events, and anticipates processing about 2,600 reports and filings to reconcile User Charge liabilities for these manual accounts. The remaining 1,800 accounts, which are all Tax-Exempt Users, were approved by M&R for automated processing. M&R remains vigilant in identifying and classifying new users, and in 2016, has a goal of identifying and classifying 50 new Large Commercial/Industrial and Tax-Exempt Users and 30 Small Nonresidential Commercial/Industrial User accounts. The District’s User Charge Ordinance allows for automated filing and clearing of User Charge accounts which reduces costs for the District and the users. M&R will continue to encourage users who are eligible for reduced reporting and self-monitoring to migrate to automated processing.

M&R will continue to implement some of the approved findings from the review of the interdepartmental long-term process facility capital planning process. The review included District business initiatives, anticipated regulatory requirements, and community service level expectations. In addition, the District’s capital plan was updated over a 20-year time frame. In 2016, M&R will continue to address issues associated with competing interests, as well as, reducing the gaps in knowledge necessary to move forward with the approved planning strategy. Knowledge gaps to be addressed include updating the plant process and hydraulic models, as well as incorporating findings from the ongoing development of the District’s Biosolids and Odor Master Plans.

M&R has developed a collaborative research project with Argonne National Laboratory to develop microbial source tracking tools, methodologies, and assessments for the reaches of the CAWS that have been designated for primary contact recreation use recently by the Illinois Pollution Control Board. This is a multi-year project, and M&R has \$281,000 in the Construction Fund, under research projects, to support it in 2016.

• **Excellence**

M&R is committed to automating and streamlining its business practices. Staff from M&R and the Information Technology (IT) Department have worked together to further improve the Laboratory Information Management System (LIMS) to increase data processing and reporting and to enhance data acquisition from automated instruments. M&R will seek to further streamline operations by consolidating staffing and analyses. This is made possible in large part by reductions in discretionary monitoring of WRP processes, industrial users, and environmental impacts of District operations through a series of service level agreements between M&R and other departments and permitting authorities.

M&R is also committed to stopping pollution at its source by operating an effective Industrial Waste Pretreatment and Source Control Program in full compliance with all federal and state statutes. During 2016, the administration of the District’s Industrial Waste Pretreatment Program will require the issuance or renewal of Discharge Authorizations for approximately 70 Significant Industrial Users and the review of approximately 714 Continued Compliance Reports and 24 Spill Prevention, Containment, and Countermeasure Plans. During 2016, M&R will conduct approximately 6,400 inspections associated with administering the District’s Sewage and Waste Control Ordinance and will randomly sample and analyze at least 50 percent of the anticipated 1,800 chemical toilet disposals at the Stickney WRP. During 2016, M&R is not anticipating any substantial variation in the number of enforcement activities. As a result of the District’s Industrial Pretreatment Program, during 2016,

all of the biosolids produced by the District are expected to meet the highest quality criteria in the United States Environmental Protection Agency (USEPA) Part 503 Regulation and the WRP effluents are expected to meet all National Pollution Discharge Elimination System (NPDES) permit limits for regulated industrial pollutants.

M&R provides first-response services for hazardous materials emergencies and complaints of pollution and will conduct approximately 150 investigations in response to requests from federal, state, and local agencies, municipalities, private citizens, self-reported industrial activities, and requests from the Maintenance and Operations (M&O) Department in 2016.

In 2016, M&R will collect and analyze approximately 1,000 samples from 164 TARP groundwater monitoring wells and two reservoirs and will compile six annual monitoring reports for the four TARP tunnel systems, including the Mainstream, Calumet, Des Plaines (below Weller Creek), and Upper Des Plaines (above Weller Creek – O’Hare) systems and two reservoirs, the Gloria Alitto Majewski Chicagoland Underflow Plan Reservoir and the Thornton Composite Reservoir, to meet the operating permit requirements of these facilities. M&R will also conduct groundwater monitoring at six biosolids management facilities, including the Hanover Park Fischer Farm, in accordance with permits issued by the Illinois Environmental Protection Agency (IEPA). In 2016, a total of 24 monitoring reports will be submitted to the IEPA.

M&R monitors the liquid and solids process trains daily at multiple critical control points at each of the seven WRPs to inform process control and to improve operations and the quality of effluents and biosolids, which will generate 528,197 projected analyses in 2016. This includes chemical and microbiological monitoring such as characterization of changes in microbial communities associated with operations and performance metrics to assess process stability and provide early warning of process upset such as the appearance of excess filamentous bacteria in mixed liquor. Whole effluent toxicity tests with fish (*Pimephales promelas*) and daphnids (*Ceriodaphnia dubia*) will be conducted as required by NPDES permits. M&R provides support to M&O by making non-proprietary reagents that are needed to operate online ammonia and chlorine analysis systems.

**• Resource Recovery**

In 2016, M&R will continue to implement plant-specific monitoring plans to evaluate the aeration requirement and nitrification capacity of each plant’s batteries in an effort to identify areas where energy and cost savings could be achieved.

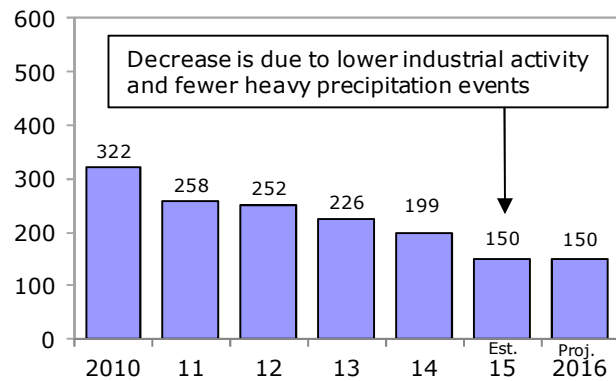
Nutrient enrichment of the water environment has become a national concern. M&R is leading the District’s Phosphorus Removal and Recovery Task Force that will assist the M&O Department in optimizing Enhanced Biological Phosphorus Removal (EBPR) at the Stickney, Calumet, Kirie, and Hanover Park WRPs. The District is working with various industries to investigate using high strength waste at the Calumet WRP to improve biological phosphorus removal. M&R is in the preliminary stages of investigating technologies to reduce energy costs such as mainstream shortcut biological nitrogen removal, membrane aerated bioreactors, ammonia aeration control, co-digestion, and an anoxic zone in the aeration process. Additionally, M&R will begin demonstration testing of EBPR at the Kirie WRP with a focus on generating carbon needs internally for the process. In collaboration with academic institutions, the M&R Department is also evaluating and developing molecular methods for monitoring nutrient removal processes. M&R will also continue work with the Engineering and M&O

**Five-Year Trend in Enforcement Activities**

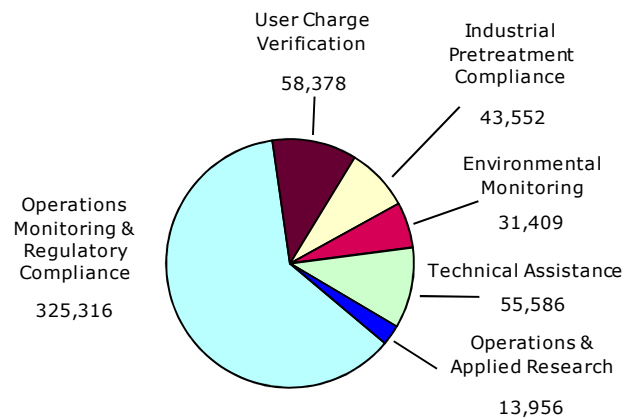
Year	Cease and Desist Orders	Board Orders	Legal Actions
2012	118 <sup>1</sup>	0	0
2013	90	0	0
2014	75	0	0
2015 Estimated	85	0	0
2016 Projected	83	0	0

1. Restated to add 37 violations not reported in 2012.

**Number of Emergency Responses**



**2016 Projected Laboratory Analyses by Program**



Departments to evaluate phycoremediation strategies to reduce nutrients in WRP effluent and to reduce the District's energy footprint.

The Biosolids Master Plan focuses on reviewing the current operations and practices for sustainable biosolids management that is within the best interests of the District and its constituents and continues to be developed. The M&R Department will also continue working with the M&O Department to begin full-scale production of a value-added product by co-composting biosolids and wood chips and other vegetative wastes for distribution under the Controlled Solids Distribution Program.

M&R will continue to collaborate with M&O in 2016 to implement a full-scale operation of composting biosolids with wood chips and other vegetative wastes generated in the city of Chicago to produce exceptional quality biosolids compost. The production of compost will potentially reduce the cost of managing biosolids, increase public acceptance, and will have greater economic value compared to air-dried, exceptional quality biosolids currently distributed under the Controlled Solids Distribution Program. The biosolids compost will be marketed to generate revenue through local park districts, golf courses, school districts, the District's land application contractors, lessees of District land, and other land managers under the District's Controlled Solids Distribution Program. M&R will also evaluate techniques to reduce biosolids production and operating costs, and increase digester gas production. M&R has \$75,000 in the Construction Fund, under research projects, to support these projects in 2016.

The long-term process facility capital planning effort incorporates the District's long-term financial model to help ensure that the District is addressing its goals with a financially responsible approach. The development of a long-term plan allows the District to focus on synergies using data-driven solutions, while providing time to concentrate on reducing knowledge gaps.

As part of its efforts to promote the use of biosolids within Cook County and by all the communities serviced by the District, M&R has been increasing its biosolids marketing activities by hosting a sustainability workshop.

M&R will continue to provide support to the District's efforts to recover phosphorus at the Stickney WRP.

### • **Develop Employees**

M&R is committed to providing continuing education and professional development to all of its employees. M&R conducts a monthly environmental issues and research seminar series at the Lue-Hing Research and Development Complex which is video conferenced to more than five other facilities and is archived in streaming online video format through the web portal. The seminar series is approved by the Illinois Society of Professional Engineers for professional development credits and is available to all employees and the local community. Based on the 2,088 attendees in 2015, it is anticipated that attendance throughout the facilities for 2016 will be approximately 2,000.

M&R employees benefit from participation at local, regional, and national professional society meetings and workshops as speakers, session chairs and moderators, or committee chairs or members. M&R economizes where possible by providing its employees access to webinars which are presented by the Water Environment Federation, Water Environment Research Foundation, USEPA, National Environmental Laboratory Accreditation Conference Institute, American Chemical Society, and others. In 2016, M&R will continue to encourage professional staff to attend relevant conferences and view webinars to promote professional growth and request all staff to utilize the District's eLearning resources to enhance working knowledge and job skills. M&R continues to develop employees through cross-training and job shadowing opportunities.

M&R emphasizes employee safety in their working environment. M&R maintains a Chemical Hygiene Plan to ensure employee safety at its laboratories and conducts monthly safety training. Also, M&R plans to have its quality assurance staff, the Chemical Hygiene Officer, and Assistant Chemist Hygiene Officers attend Occupational Safety and Health Administration seminars.

### • **Leading Partnerships**

The District conducts an Odor Monitoring Program to minimize or eliminate nuisance odors in the communities surrounding its facilities. In 2016, M&R will continue to lead the development of a District Odor Master Plan for the District's facilities, collection systems, and biosolids drying areas to target odor problem areas and reduce odors that may affect the communities that the District serves. The initial efforts in the development of the plan included a focus on known odorous processes and facilities and developing conceptual designs to address the issues that are prioritized to responsibly improve our operations. Findings from the Odor Master Plan will be incorporated into the District's Capital Plan.

The District has developed a sound biosolids Controlled Solids Distribution Program under a permit issued by the IEPA. Under this program, exceptional quality air-dried biosolids and composted biosolids are used as a soil amendment and fertilizer in the Chicago metropolitan area. This program reduces landscape management costs for local park districts and school districts that participate. M&R will continue the promotion of biosolids, sustainability practices, and biosolids beneficial reuse awards to improve public awareness of the benefits of utilizing biosolids as a fertilizer and soil amendment through a sustainability workshop and other public events.

As part of the District's public image improvement efforts, M&R will continue to work with Public Affairs to develop talking points and fact sheets regarding important issues on water quality in the area waterways, public health risks of recreation on the waterways, risk of exposure to pathogens in wastewater-to-wastewater treatment plant operations, and utilizing biosolids for land application. M&R will continue to provide support to outreach activities such as school science fair projects, District laboratory tours, local public meetings, and parades.

In support of the District's Stormwater Management Program, M&R will continue its collaboration with the United States Geological Survey and Chicago Department of Transportation in 2016 to evaluate the effect of best management practices such as permeable pavements, bioswales, and planters on stormwater flow and pollutant load reduction in the Sustainable Streetscape Project, located on Cermak Road between Halsted Street and Ashland Avenue and Blue Island Avenue between Ashland Avenue and Western Avenue. A parking lot with permeable pavement will be installed at the Egan WRP in 2016. There is funding in the 2016 Construction Fund budget to support this project.

M&R has been providing assistance to oversight agencies studying and controlling the migration of invasive aquatic species for decades. In 2016, M&R will continue to assist the United States Fish and Wildlife Service and the United States Army Corps of Engineers with surveillance for the presence of Asian carp (*Hypophthalmichthys spp.*) in the CAWS and the Great Lakes Mississippi River Interbasin Study, respectively.

M&R will also continue to provide support to the IEPA in 2016 by participating in various working groups for implementing the Illinois Nutrient Reduction Strategy and developing nutrient water quality standards for Illinois. M&R is also continuing to work through the Illinois Association of Wastewater Agencies in 2016 to partner with a consortium of agricultural industry organizations to investigate watershed approaches to improving water quality in the Illinois River basin. The activities under this partnership will include research and demonstration projects at the District's Fulton County site and collaborations under the United States Department of Agriculture's Regional Conservation Partnership Program.

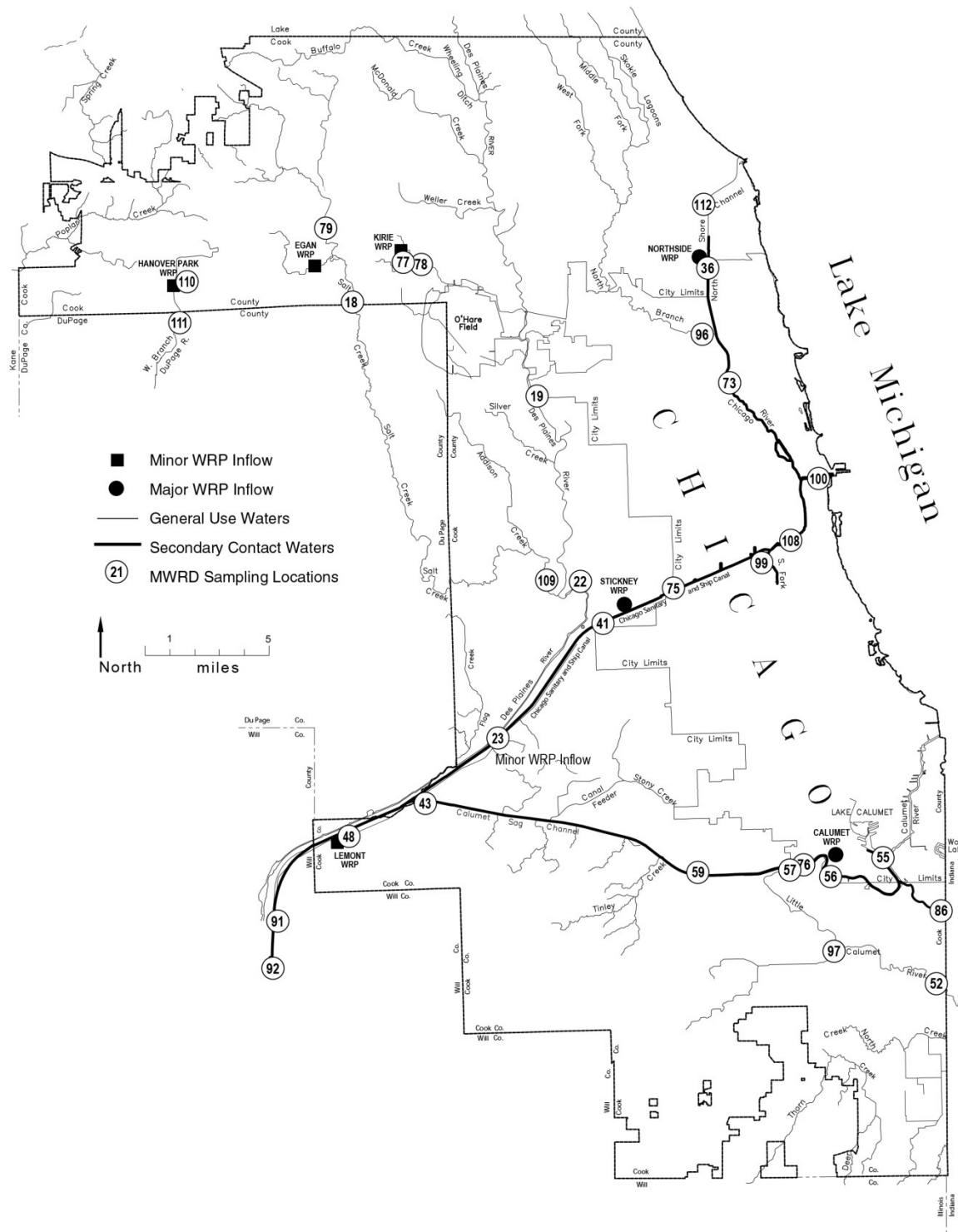
- **Technology**

The internet-based Publicly owned treatment works Administration and Compliance System (iPACS) is used to monitor Commercial/Industrial User compliance with USEPA regulations. A new version of iPACS, completed in 2014, has increased staff efficiency and maintains all Industrial Pretreatment Program data in a single database. In 2016, more enhancements to iPACS will allow M&R to continue implementing electronic management of assignment scheduling and reporting, as well as Industrial User self-reporting. In 2016, M&R and the IT Department will use consultants and in-house expertise to make enhancements to the LIMS V10 upgrade that will support the continued attainment of laboratory accreditation.

M&R will partner with the IT Department to develop a software system to support program and project management related to process facility capital planning and wastewater treatment process research. The software will enable M&R managers to better track projects, allocate resources effectively, and deliver project results to meet customer needs.

# Monitoring & Research

## Environmental Monitoring Program 4672 – Waterways Sampling Stations



Operations of the District meet stringent standards contained in NPDES permits issued for each WRP. Processing and disposal of solids are regulated by IEPA permits. M&R monitors water quality at 31 sampling locations in Chicago area shallow and deep-draft waterways within the District’s service area. The environmental information is also used to demonstrate the beneficial effects of advanced treated discharges from the District’s seven WRPs on instream water quality.



**16000 MONITORING & RESEARCH**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:		Cost	Percent
<b>1. PLANT OPERATIONS MONITORING:</b>			
Monitor the District's collection, treatment, and disposal operations to ensure compliance with National Pollution Discharge Elimination System, Illinois Environmental Protection Agency (IEPA), and other regulations.	Liquid Process Analyses	\$ 4,906,800	16.0%
	Solid Process Analyses	\$ 2,579,500	8.5%
	Air Quality Monitoring	\$ 175,500	0.6%
		<b>\$ 7,661,800</b>	<b>25.1%</b>
<b>2. INDUSTRIAL WASTE PROGRAMS:</b>			
Administer the Sewage and Waste Control Ordinance (Pretreatment Program), User Charge Ordinance (User Charge Program), Environmental Remediation Wastewater Ordinance, and Chemical Toilet Wastes Disposal Ordinance.  * Note: "SIUs" refers to Significant Industrial Users.	Residential Users	\$ 147,700	0.5%
	Tax-Exempt Users	\$ 1,413,800	4.6%
	Large Commercial/Industrial Users	\$ 3,690,600	12.1%
	Environmental Remediation	\$ 107,600	0.4%
	Chemical Toilet Waste	\$ 60,400	0.2%
	SIUs* - Pretreatment Program	\$ 3,492,700	11.4%
	SIUs* - Extraordinary Monitoring/Enforcement	\$ 1,714,400	5.6%
	Other Industrial Users	\$ 603,400	2.0%
	All Other - General	\$ 341,000	1.1%
		<b>\$ 11,571,600</b>	<b>37.9%</b>
<b>3. ENVIRONMENTAL MONITORING:</b>			
Monitor the quality of Lake Michigan and the waterways in order to detect and reduce the incidence of pollution.	Lake Michigan Monitoring	\$ 85,300	0.3%
	Waterways Monitoring	\$ 2,421,400	7.9%
	Inspection Events	\$ 251,200	0.8%
	Groundwater Monitoring	\$ 756,900	2.5%
	<b>\$ 3,514,800</b>	<b>11.5%</b>	
<b>4. TECHNICAL ASSISTANCE:</b>			
Conduct a program of independent review of plant operations and regular consultation and assistance for the solution of operating problems, provide technical assistance to other agencies upon request, provide review and response to proposed regulations issued by federal, state, and local governments, and provide long-term facility planning.	M&O Assistance	\$ 1,749,900	5.8%
	General Assistance	\$ 612,200	2.0%
	Regulatory Review and Response	\$ 888,800	2.9%
	Engineering Process Design Support	\$ 1,284,100	4.2%
	Regulatory Compliance Reporting	\$ 262,300	0.9%
	Facility Capital Planning	\$ 625,200	2.0%
	<b>\$ 5,422,500</b>	<b>17.8%</b>	
<b>5. OPERATIONS AND APPLIED RESEARCH:</b>			
Conduct operations and applied research for process improvement and cost reduction in District operations.		\$ 2,352,500	7.7%
	<b>Total</b>	<b>\$ 30,523,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Submit all required environmental monitoring reports on time.	100%	100%	100%
2. Maintain laboratory accreditation.	100%	100%	100%
3. Continue a seven-year microbiome microbial source monitoring study of the Chicago area waterways.	25%	40%	50%
4. Provide sample data for IEPA monitoring compliance reports by the 13th of the following month 100 percent on time.	100%	100%	100%
5. Provide sample data for industrial surveillance and User Charge and Technical Services Section by the 15th of the following month 100 percent on time.	100%	100%	100%
6. Provide water quality sample data by the 15th of the following month 100 percent on time.	100%	100%	100%

**16000 MONITORING & RESEARCH**

**OBJECTIVES AND PROGRAM SUMMARY**

MEASURABLE GOALS:		2014 Actual	2015 Estimated	2016 Proposed
7.	Issue Discharge Authorizations in response to all SIU requests and enforcement actions within the timeframes established under the Sewage and Waste Control Ordinance.	100%	100%	100%
8.	Process User Charge Annual Certified Statements submitted by Commercial/Industrial Users by September 30th.	100%	100%	100%
9.	Respond to emergency assistance requests from fire and police departments, citizens, state and federal agencies, municipalities, industries, and the District.	199	150	150

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change	
Number	Name		FTEs	Dollars	Dollars	Percent
4650	Operations Monitoring	\$ 7,825,084	2016 81	\$ 7,661,800	\$ 349,900	4.8
			2015 74	\$ 7,311,900		
4660	Waste Monitoring	\$ 9,949,215	2016 116	\$ 11,230,600	\$ 508,900	4.7
			2015 115	\$ 10,721,700		
4670	Environmental Monitoring	\$ 2,707,664	2016 31	\$ 3,514,800	\$ 742,800	26.8
			2015 28	\$ 2,772,000		
4680	Technical Assistance	\$ 4,327,284	2016 56	\$ 5,422,500	\$ 103,600	1.9
			2015 56	\$ 5,318,900		
4690	Operations and Applied Research	\$ 1,315,634	2016 24	\$ 2,352,500	\$ 44,300	1.9
			2015 24	\$ 2,308,200		
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 341,000	\$ 341,000	100.0
			2015 -	\$ -		
Totals		\$ 26,124,881	2016 308	\$ 30,523,200	\$ 2,090,500	7.4%
			2015 297	\$ 28,432,700		

- a) Increase is due to the addition of eight Laboratory Technician II positions (\$258,900) and the reallocation of salaries to the newly added Air Monitoring Program (\$175,500), offset by the drop of one FTE position (\$62,800).
- b) Increase is due to the reallocation of salaries from other M&R programs (\$165,800), funding for laboratory equipment (\$134,000), the addition of a Supervising Environmental Specialist (\$69,800), the replacement of flowmeters and huts for the Industrial Waste Division (\$65,000), and the addition of a Deputy Director of M&R (\$25,600).
- c) Increase is due to TARP well sampling (\$410,800), the reallocation of salaries from other M&R programs (\$241,400), the addition of a Senior Environmental Research Technician (\$47,200), a Director of M&R (\$25,600), and four Laboratory Technician II positions (\$19,700).
- d) Increase is due to the reallocation of salaries to better reflect current activities (\$175,400), offset by the drop of a Patrol Boat Operator position (\$44,800) and a reduction in microbial source tracking services (\$20,000).
- e) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4650	Operations Monitoring: Monitoring of treatment plant operations to inform operations and comply with permits and regulations					
4652	Liquid Monitoring	Liquid Process Analyses	662,201	647,842	-	a)
		Cost	\$ 5,352,453	\$ 4,818,900	\$ -	
		Cost/Analysis	\$ 8.08	\$ 7.44	\$ -	b)
	- Liquid Process Treatment Analyses by Location:	North Service Area Lab	226,695	273,285	-	c)
		Stickney Lab	252,626	205,421	-	c)
		Calumet Lab	182,880	168,976	-	c)
	- Analyses for Tunnel and Reservoir Plan (TARP) Reservoirs		-	160	-	
	Liquid Monitoring: Monitoring of the District's liquid process trains (primarily effluent) to inform operations and comply with permits and regulations	Liquid Process Analyses	-	-	234,122	a)
		Program Cost	\$ -	\$ -	\$ 4,906,800	
		Program Cost/Analysis	\$ -	\$ -	\$ 20.96	b)
4653	Solids Monitoring	Solids Process Analyses	198,309	209,380	-	a)
		Cost	\$ 2,472,631	\$ 2,493,000	\$ -	
		Cost/Analysis	\$ 12.47	\$ 11.91	\$ -	b)
	- Solids Process Treatment Analyses by Location:	North Service Area Lab	49,532	65,771	-	c)
		Stickney Lab	89,429	83,386	-	c)
		Calumet Lab	44,956	44,223	-	c)
	- Analyses for Required IEPA Reporting by Location of Processing/Utilization Site	Stickney Lab	7,366	7,000	-	c)
		Calumet Lab	7,026	9,000	-	c)
	Solids Monitoring: Monitoring of the District's sludge and biosolids generated from the wastewater treatment process to inform operations and comply with permits and regulations	Number of Analyses	-	-	91,194	a)
		Program Cost	\$ -	\$ -	\$ 2,579,500	
		Program Cost/Analysis	\$ -	\$ -	\$ 28.29	b)
4654	Air Monitoring: Air quality monitoring at the District's WRPs and solids management areas to comply with regulations, and identify odors affecting surrounding areas resulting in citizen complaints	Number of Analyses	-	-	8,580	d)
		Sampling Events	-	-	2,860	d)
		Program Cost	\$ -	\$ -	\$ 175,500	d)
		Program Cost/Analysis	\$ -	\$ -	\$ 20.45	d)
4660	Waste Monitoring: Activities associated with sampling, analysis, enforcement, and administration of Users so classified below to monitor compliance with the User Charge and Pre-treatment Programs					
4661	User Charge Ordinance - Residential and Small Non-Residential Commercial/Industrial Users (6,028 Small Nonresidential Commercial/Industrial Users)	Administration Costs	\$ 29,686	\$ 138,000	\$ -	
		Number of Users	-	-	6,300	
	User Charge Ordinance - Residential and Small Non-Residential Commercial/Industrial Users	Program Cost	\$ -	\$ -	\$ 147,700	
		Program Cost/User	\$ -	\$ -	\$ 23.44	e)

- a) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters.
- b) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in an increase in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- c) Analyses in these programs are no longer tracked by location because most of them are now being done at one laboratory location or combined with another program. Starting with Budget Year 2016, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- d) Increase is due to the reallocation of salaries to the newly added Air Monitoring Program (\$175,500), which also includes new measurable activities.
- e) Increase is due to the introduction of a new measurable activity.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated		
4662	User Charge Ordinance - Tax-Exempt Users	Administration Costs	\$ 1,200,126	\$ 1,371,200	\$ -		
		Number of Users	3,085	3,085	-		
		Revenue	\$ 17,133,436	\$ 15,000,000	\$ -	f)	
		Revenue/User	\$ 5,553.79	\$ 4,862.24	\$ -	f)	
	User Charge Ordinance - Tax-Exempt Users	Number of Users	-	-	3,082		
		Program Cost	\$ -	\$ -	\$ 1,413,800		
		Program Cost/User	\$ -	\$ -	\$ 458.73		
		Revenue	\$ -	\$ -	\$ 18,800,000	f)	
		Revenue/User	\$ -	\$ -	\$ 6,099.94	f)	
4663	User Charge Ordinance - Large Commercial/Industrial Users	Number of Users	695	700	-		
		Waste Monitoring Analyses	58,315	58,453	-		
		Revenue	\$ 27,531,412	\$ 36,000,000	\$ -	g)	
		Monitoring Cost	\$ 3,258,169	\$ 3,463,700	\$ -	h)	
		Revenue/User	\$ 39,613.54	\$ 51,428.57	\$ -		
		Monitoring Cost/User	\$ 4,688.01	\$ 4,948.14	\$ -		
	User Charge Ordinance - Large Commercial/Industrial Users	Accounts	3,780	3,785	-		
		Number of Users	-	-	686		
		Program Cost	\$ -	\$ -	\$ 3,690,600	h)	
		Program Cost/User	\$ -	\$ -	\$ 5,379.88		
Environmental Remediation	Revenue	\$ -	\$ -	\$ 30,200,000	g)		
	Revenue/User	\$ -	\$ -	\$ 44,023.32			
	Industrial Waste Monitoring Analyses	-	-	58,378			
	Program Cost/Analysis	\$ -	\$ -	\$ 0.02			
	4664	Environmental Remediation	Permits	15	15	-	
			Cost	\$ 52,352	\$ 45,300	\$ -	i)
Cost/Permit			\$ 3,490.13	\$ 3,020.00	\$ -	i)	
Environmental Remediation Wastewater Ordinance	Permits Issued	-	-	15			
	Program Cost	\$ -	\$ -	\$ 107,600	i)		
	Program Cost/Permit	\$ -	\$ -	\$ 7,173.33	i)		
4665	Septic Tank and Chemical Toilet Wastes Administration	Permits	3	3	-		
		Cost	\$ 127,823	\$ 42,000	\$ -	j)	
		Cost/Permit	\$ 42,607.67	\$ 14,000.00	\$ -	j)	
	Chemical Toilet Wastes Disposal Ordinance	Permits Issued	-	-	3		
		Program Cost	\$ -	\$ -	\$ 60,400	j)	
	Program Cost/Permit	\$ -	\$ -	\$ 20,133.33	j)		

f) Increase is based on the projected 2015 revenue.

g) Decrease is based on the projected 2015 revenue.

h) Increase is due to laboratory equipment (\$70,000), the addition of two Laboratory Technician II positions (\$62,000), the reallocation of salaries from other M&R programs (\$60,000), the addition of a Laboratory Assistant (\$17,800), and the addition of a Supervising Environmental Specialist (\$17,500).

i) Increase is due to the reallocation of salaries from other M&R programs (\$36,700) and the addition of a Deputy Director of M&R (\$25,600).

j) Increase is due to the addition of a Supervising Environmental Specialist (\$18,000).

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4666	Sewage and Waste Control Ordinance - Significant Industrial Users (SIUs) Minimum Regulatory Requirement Activities	Administration Costs	\$ 3,263,231	\$ 3,348,400	\$ -	k)
		Number of SIUs	354	360	-	
	Waste Monitoring Analyses	Cost/SIU	\$ 9,218.17	\$ 9,301.11	\$ -	
			404,926	390,000	-	
	Sewage and Waste Control Ordinance - Significant Industrial Users (SIUs) Minimum Regulatory Requirement Activities: Annual sampling and inspection of SIU facilities, as required by federal regulation	Number of SIUs	-	-	360	
		Waste Monitoring Analyses	-	-	43,552	
		Program Cost	\$ -	\$ -	\$ 3,492,700	k)
		Program Cost/Analysis	\$ -	\$ -	\$ 80.20	
		Program Cost/SIU	\$ -	\$ -	\$ 9,701.94	
	4667	Sewage and Waste Control Ordinance - Significant Industrial Users (SIUs) Extraordinary Monitoring and Enforcement Activities	Administration Costs	\$ 1,436,065	\$ 1,682,900	\$ -
Number of SIUs			103	120	-	
Cost/SIU			\$ 13,942.38	\$ 14,024.17	\$ -	
Sewage and Waste Control Ordinance - Significant Industrial Users (SIUs) Extraordinary Monitoring and Enforcement Activities: of SIUs that have been the subject of violation-related enforcement actions to verify compliance through inspection and/or sampling		Number of SIUs	-	-	120	
		Program Cost	\$ -	\$ -	\$ 1,714,400	
4668	Other Industrial Users	Administration Costs	\$ 536,931	\$ 587,700	\$ -	
		Number of IUs	341	356	-	
		Cost/IU	\$ 1,574.58	\$ 1,650.84	\$ -	
Sewage and Waste Control Ordinance - Other Industrial Users: Inspection and/or sampling for surveillance	Number of IUs	-	-	326		
	Program Cost	\$ -	\$ -	\$ 603,400		
	Program Cost/IU	\$ -	\$ -	\$ 1,850.92		
4669	Waste Monitoring - All Other - General	Administration Costs	\$ 44,832	\$ 42,500	\$ -	l)
4670	Environmental Monitoring: Regulatory required monitoring or discretionary sampling and analysis to address or evaluate the impact of wastewater conveyance, treatment, and discharge of treated effluent on local surface water and groundwater					
4671	Lake Michigan Monitoring	Sampling Events	110	140	-	
		Environmental Analyses	42	150	-	k)
		Cost	\$ 110,926	\$ 90,800	\$ -	
	Lake Michigan Monitoring: Sampling and analysis to determine the impact of CSO backflow, due to storm events, on the water quality of Lake Michigan	Sampling Events	-	-	140	
		Environmental Analyses	-	-	93	k)
Number of Backflows		-	-	5	m)	
Program Cost	\$ -	\$ -	\$ 85,300			
Program Cost/Analysis	\$ -	\$ -	\$ 917.20	k)		

k) Starting with Budget Year 2016, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.

l) Decrease is due to the discontinuation of the grease-trap monitoring program.

m) Increase is due to the introduction of a new measurable activity.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4672	Waterways Monitoring	Sampling Events	567	1,000	-	
		Environmental Analyses	147,802	150,216	-	n)
		Cost	\$ 2,103,620	\$ 2,087,400	\$ -	n)
	Waterways Monitoring: Sampling and analysis of Chicago Area Waterways to assess the impact of treated effluent discharge and comply with regulations	Sampling Events	-	-	976	
		Environmental Analyses	-	-	23,404	n)
		Program Cost	\$ -	\$ -	\$ 2,421,400	n)
		Program Cost/Analysis	\$ -	\$ -	\$ 103.46	n)
4673	Inspection Events	Inspection Events	268	500	-	o)
		Cost	\$ 253,839	\$ 267,600	\$ -	
	Inspection Events: Inspections in response to complaints from citizens and requests from fire and police departments, and municipal and regulatory agencies. Also activities related to enforcement of the Sewage and Waste Control Ordinance for direct discharges to waterways	Inspection Events	-	-	140	o)
		Program Cost	\$ -	\$ -	\$ 251,200	
		Program Cost/Inspection	\$ -	\$ -	\$ 1,794.29	o)
4674	Groundwater Monitoring	Number of Analyses	15,976	10,558	-	p)
		Sampling Events	1,090	800	-	p)
		Cost	\$ 239,279	\$ 326,200	\$ -	p)
		Cost/Analysis	\$ 14.98	\$ 30.90	\$ -	p)
	Groundwater Monitoring: Sampling and analysis conducted at various sites such as wells and reservoirs associated with the TARP System, and lysimeters and wells at solids management areas to comply with IEPA permits	Number of Analyses	-	-	7,912	p)
		Sampling Events	-	-	1,200	p)
		Number of Sites	-	-	196	q)
		Program Cost	\$ -	\$ -	\$ 756,900	p)
		Program Cost/Analysis	\$ -	\$ -	\$ 95.66	p)
4680	Technical Assistance					
4681	Assistance to Maintenance & Operations Department	Number of Responses	1,367	700	-	r)
		Number of Analyses	74,555	73,482	-	r)
		Number of Sampling Events	1,063	8,000	-	r)
		Cost	\$ 1,111,841	\$ 1,826,400	\$ -	
	Assistance to Maintenance & Operations Department: Troubleshoot problems in plant operations or evaluate options to improve the effectiveness and cost efficiencies in plant operations	Responses Completed	-	-	574	r)
		Number of Analyses	-	-	14,808	r)
		Sampling Events	-	-	324	r)
		Program Cost	\$ -	\$ -	\$ 1,749,900	
		Program Cost/Analysis	\$ -	\$ -	\$ 118.17	r)
		Program Cost/Sampling Event	\$ -	\$ -	\$ 5,400.93	r)

- n) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in an increase in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations. Increase in cost is due to the reallocation of salaries from other M&R programs (\$238,700) and the addition of one FTE position (\$94,800).
- o) Starting with Budget Year 2016, the method of accounting for Inspection and Sampling Events was changed to track one event per site.
- p) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in an increase in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations. Increase in cost is due to TARP well sampling (\$410,800).
- q) Increase is due to the introduction of a new measurable activity.
- r) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in a decrease in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4682	General Assistance to All Other Departments	Number of Responses	266	100	-	s)
		Number of Analyses	11,144	14,212	-	s)
		Number of Sampling Events	34	550	-	s)
		Cost	\$ 1,169,789	\$ 678,000	\$ -	
	General Assistance to All Other Departments: Technical assistance based on requests, primarily to the Law Department	Responses Completed	-	-	278	s)
		Number of Analyses	-	-	6,089	s)
		Sampling Events	-	-	40	s)
		Program Cost	\$ -	\$ -	\$ 612,200	
		Program Cost/Analysis	\$ -	\$ -	\$ 100.54	s)
		Program Cost/Sampling Event	\$ -	\$ -	\$ 15,305.00	s)
4683	Regulatory Review and Response	Number of Responses	278	200	-	
		Sampling Events	-	25	-	t)
		Cost	\$ 1,088,863	\$ 907,000	\$ -	
	Regulatory Review and Response: Review of current or pending federal, state, and local regulations to determine the impact and cost on District operations	Responses Completed	-	-	222	
	Program Cost	\$ -	\$ -	\$ 888,800		
4684	Engineering Process Design Support	Number of Analyses	51,092	46,552	-	u)
		Number of Responses	148	200	-	
		Sampling Events	314	100	-	u)
		Cost	\$ 652,644	\$ 1,285,800	\$ -	
		Cost/Analysis	\$ 12.77	\$ 27.62	\$ -	u)
	Engineering Process Design Support: Technical assistance to the Engineering Department to improve District facilities and optimize process design	Number of Analyses	-	-	34,682	u)
		Responses Completed	-	-	176	
		Sampling Events	-	-	270	u)
		Program Cost	\$ -	\$ -	\$ 1,284,100	
		Program Cost/Analysis	\$ -	\$ -	\$ 37.02	u)
4685	Regulatory Compliance Reporting	Reports	50	60	-	
		Number of Analyses	6	25	-	v)
		Cost	\$ 304,147	\$ 328,700	\$ -	w)
		Cost/Analysis	\$ 50,691.17	\$ 13,148.00	\$ -	v)
	Regulatory Compliance Reporting: Preparation of reports and letters required by regulatory agencies, such as USEPA and IEPA, to comply with permits and other regulatory requirements or to justify modifications of regulatory requirements	Reports/ Data Transmittal Letters	-	-	65	
		Number of Analyses	-	-	7	v)
		Program Cost	\$ -	\$ -	\$ 262,300	w)
		Program Cost/Analysis	\$ -	\$ -	\$ 37,471.43	v)

- s) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in a decrease in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- t) Starting with Budget Year 2016, the method of accounting for Inspection and Sampling Events was changed to track one event per site.
- u) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in an increase in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- v) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters and the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- w) Starting with Budget Year 2016, the descriptions of some activities were changed to enhance clarity, consistency, and better reflect current field and laboratory operations. Decrease in cost is due to the reallocation of salaries to other M&R programs (\$66,400).

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4686	Facility Capital Planning and Capital/Maintenance Project Evaluations	Cost	\$ -	\$ 293,000	\$ -	x)
	Facility Capital Planning and Capital/Maintenance Project Evaluations: Activities to develop, facilitate, rank and document the District's capital plan alternatives to improve the District's treatment plant processes and infrastructure	Program Cost	\$ -	\$ -	\$ 625,200	x)
4690	Operations and Applied Research	Research Projects	175	120	-	y)
		Laboratory Analyses	59,118	57,392	-	y)
		Cost	\$ 1,315,634	\$ 2,308,200	\$ -	
		Sampling Events	-	-	800	z)
	Operations and Applied Research: Basic and applied research to generate information to improve District operations, evaluate the impact of District activities on the environment, and to address the potential impact of regulations on District operations	Research Projects	-	-	160	y)
		Laboratory Analyses	-	-	13,956	y)
		Program Cost	\$ -	\$ -	\$ 2,352,500	
		Program Cost/Analysis	\$ -	\$ -	\$ 168.57	y)
7604	Social Security and Medicare Contributions	Program Cost	\$ -	\$ -	\$ 341,000	aa)
<b>Totals</b>			<b>\$ 26,124,881</b>	<b>\$ 28,432,700</b>	<b>\$ 30,523,200</b>	

- x) Starting with Budget Year 2016, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect field and laboratory operations. Increase is due to the reallocation of salaries from other M&R programs (\$265,100) and the addition of a Deputy Director of M&R (\$59,800) and a Senior Environmental Research Technician (\$7,300).
- y) Starting with Budget Year 2016, the method of accounting for the number of analyses was changed to track the number of tests instead of individual parameters, which resulted in an increase in the Program Cost/Analysis. In addition, the descriptions of some activities and costs were changed to enhance clarity, consistency, and better reflect current field and laboratory operations.
- z) Increase is due to the introduction of a new measurable activity.
- aa) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.



101 16000	Fund: Corporate Department: Monitoring & Research Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 23,368,134	\$ 25,238,700	\$ 25,238,700	\$ 24,431,300	\$ 26,071,200	\$ 26,055,100	\$ 26,703,000
601060	Compensation Plan Adjustments	672,005	929,300	895,400	687,200	949,500	949,500	970,900
601070	Social Security & Medicare Contributions	-	-	-	-	341,000	341,000	341,000
601080	Salaries of Nonbudgeted Employees	113,149	-	33,900	30,000	-	-	-
601100	Tuition and Training Payments	38,343	50,000	52,500	45,000	50,000	50,000	50,000
601170	Payments for Professional Services	36,631	202,300	134,800	125,000	-	-	-
100	<b>TOTAL PERSONAL SERVICES</b>	<b>24,228,263</b>	<b>26,420,300</b>	<b>26,355,300</b>	<b>25,318,500</b>	<b>27,411,700</b>	<b>27,395,600</b>	<b>28,064,900</b>
612010	Travel	12,389	11,200	12,000	10,000	15,000	15,000	15,000
612030	Meals and Lodging	27,110	27,900	35,900	27,000	30,000	30,000	30,000
612040	Postage, Freight, and Delivery Charges	3,732	6,600	6,600	4,000	5,500	5,500	5,500
612050	Compensation for Personally-Owned Automobiles	42,013	45,000	45,000	35,000	30,000	30,000	30,000
612080	Motor Vehicle Operating Services	1,064	2,700	2,700	1,100	1,200	1,200	1,200
612090	Reprographic Services	263	1,400	1,400	500	900	900	900
612170	Water and Water Services	462	600	600	500	500	500	500
612330	Rental Charges	2,983	3,300	3,800	3,000	5,000	5,000	5,000
612410	Governmental Service Charges	17,000	17,000	17,000	17,000	17,000	17,000	17,000
612430	Payments for Professional Services	-	-	-	-	163,500	163,500	163,500
612490	Contractual Services, N.O.C.	300,283	398,100	403,800	275,000	850,000	850,000	828,000
612790	Repairs to Marine Equipment	48,398	61,300	61,300	45,000	65,400	65,400	65,400
612820	Computer Software Maintenance	103,970	-	-	-	-	-	-
612970	Repairs to Testing and Laboratory Equipment	388,717	462,800	462,800	350,000	444,100	444,100	444,100
612990	Repairs, N.O.C.	950	1,300	1,300	1,000	-	-	-
200	<b>TOTAL CONTRACTUAL SERVICES</b>	<b>949,334</b>	<b>1,039,200</b>	<b>1,054,200</b>	<b>769,100</b>	<b>1,628,100</b>	<b>1,628,100</b>	<b>1,606,100</b>
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	55,296	31,000	29,400	27,000	37,700	37,700	37,700
623530	Farming Supplies	2,500	34,000	34,000	34,000	2,700	2,700	24,700
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	324,567	371,600	368,900	300,000	350,000	350,000	350,000
623700	Wearing Apparel	29,371	16,600	23,800	23,800	22,900	22,900	22,900

101 16000	Fund: Corporate Department: Monitoring & Research Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623720	Books, Maps, and Charts	3,882	1,000	1,000	500	2,000	2,000	2,000
623800	Computer Software	118	-	-	-	-	-	-
623810	Computer Supplies	2,680	2,700	2,700	2,600	3,000	3,000	3,000
623820	Fuel	17,843	35,000	29,500	15,000	21,600	21,600	21,600
623850	Communications Supplies	335	1,000	1,000	200	-	-	-
623990	Materials and Supplies, N.O.C.	54,776	60,300	58,300	45,000	50,300	50,300	50,300
300	TOTAL MATERIALS AND SUPPLIES	491,369	553,200	548,600	448,100	490,200	490,200	512,200
634970	Testing and Laboratory Equipment	455,915	420,000	415,000	350,000	340,000	340,000	340,000
400	TOTAL MACHINERY AND EQUIPMENT	455,915	420,000	415,000	350,000	340,000	340,000	340,000
<b>TOTAL MONITORING &amp; RESEARCH</b>		<b>\$ 26,124,881</b>	<b>\$ 28,432,700</b>	<b>\$ 28,373,100</b>	<b>\$ 26,885,700</b>	<b>\$ 29,870,000</b>	<b>\$ 29,853,900</b>	<b>\$ 30,523,200</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>110</b>	<b>Executive Division</b>					
<b>111</b>	<b>Executive Section</b>					
EX11	Director of Monitoring & Research	1	1		1	
HP17	Quality Assurance Coordinator	1	-		-	
EX06	Secretary to Officer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	Executive Section	4	3	391,044.16	3	410,483.58
<b>112</b>	<b>Budget &amp; Administrative Section</b>					
HP22	Deputy Director of Monitoring & Research	-	-		1	
HP18	Supervising Budget & Management Analyst	1	1		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		1	
HP14	Budget & Management Analyst	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	1		1	
HP11	Administrative Specialist	1	-		-	
TOTAL	Budget & Administrative Section	5	5	535,179.06	6	721,141.20
TOTAL	Executive Division	9	8	926,223.22	9	1,131,624.78
<b>120</b>	<b>Environmental Monitoring &amp; Research Division</b>					
<b>121</b>	<b>Environmental Monitoring &amp; Research Administrative Section</b>					
HP21	Assistant Director of Monitoring & Research	1	1		1	
HP20	Environmental Monitoring & Research Manager	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP18	Biostatistician	1	1		1	
HP17	Senior Environmental Research Scientist	-	1		1	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	-	1		1	
TOTAL	Environmental Monitoring & Research Administrative Section	6	8	1,003,697.76	8	1,052,772.76

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>122</b>	<b>Wastewater Treatment Process Research Section</b>					
HP18	Supervising Environmental Research Scientist	1	1		1	
HP17	Senior Environmental Research Scientist	4	3		3	
HP15	Associate Environmental Research Scientist	4	4		4	
HP13	Senior Environmental Research Technician	-	-		1	
HP11	Administrative Specialist	1	1		1	
HP11	Environmental Research Technician	-	-		1	
HP11	Laboratory Technician II	2	2		1	
HP11	Laboratory Technician II #1	-	-		1	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	-	-		1	
HP10	Laboratory Technician I	4	5		3	
HP10	Laboratory Technician I #1	-	-		2	
HP10	Laboratory Technician I #4	1	1		1	
TOTAL	Wastewater Treatment Process Research Section	17	17	1,406,848.56	20	1,633,459.36
<b>123</b>	<b>Biosolids Utilization &amp; Soil Science Section</b>					
HP18	Supervising Environmental Soil Scientist	1	1		1	
HP17	Senior Environmental Soil Scientist	2	2		2	
HP15	Associate Environmental Soil Scientist	3	3		3	
HP14	Assistant Environmental Chemist	1	1		1	
HP11	Administrative Specialist	1	1		1	
HP11	Field & Laboratory Technician	-	2		-	
HP11	Environmental Research Technician	-	-		2	
HP11	Laboratory Technician II	2	2		-	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	-	-		2	
HP10	Laboratory Technician I	1	1		1	
HP09	Laboratory Assistant	1	1		1	
TOTAL	Biosolids Utilization & Soil Science Section	12	14	1,145,393.60	14	1,180,568.22
<b>124</b>	<b>Analytical Microbiology &amp; Biomonitoring Section</b>					
HP18	Supervising Environmental Microbiologist	1	1		1	

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Environmental Microbiologist	1	1		1	
HP16	Associate Environmental Microbiologist	1	2		1	
HP14	Assistant Environmental Microbiologist	1	1		1	
HP13	Senior Laboratory Technician	-	-		1	
HP11	Laboratory Technician II	2	2		1	
HP11	Laboratory Technician II #4	2	2		2	
HP11	Administrative Specialist	1	1		1	
HP10	Laboratory Technician I	4	4		4	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Analytical Microbiology & Biomonitoring Section	15	16	1,173,867.24	15	1,101,863.36
<b>126</b>	<b>Aquatic Ecology &amp; Water Quality Section</b>					
HP18	Supervising Aquatic Biologist	1	1		1	
HP17	Senior Aquatic Biologist	1	1		1	
HP16	Associate Aquatic Biologist	2	2		2	
HP14	Assistant Aquatic Biologist	1	1		1	
HP13	Senior Environmental Research Technician	-	-		1	
HP11	Environmental Research Technician	-	-		1	
HP11	Laboratory Technician II	3	4		-	
HP11	Laboratory Technician II #1	-	-		1	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	-	-		2	
HP11	Laboratory Technician II #4	1	-		-	
HP10	Laboratory Technician I	1	2		2	
HP10	Laboratory Technician I #4	1	-		-	
NR6441	Patrol Boat Operator	3	3		2	
NR3642	Pollution Control Technician II	2	2		2	
NR3641	Pollution Control Technician I	5	4		4	
TOTAL	Aquatic Ecology & Water Quality Section	21	20	1,511,940.04	20	1,543,784.58
<b>129</b>	<b>Process Facilities Capital Planning Section</b>					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	2	2		2	

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Electrical Engineer	1	1		1	
HP17	Senior Environmental Research Scientist	1	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	2		2	
HP15	Associate Electrical Engineer	-	1		1	
HP15	Associate Environmental Research Scientist	1	1		1	
HP15	Associate Mechanical Engineer	-	1		1	
HP11	Administrative Specialist	1	-		-	
TOTAL	Process Facilities Capital Planning Section	9	11	1,147,904.94	11	1,259,362.52
TOTAL	Environmental Monitoring & Research Division	80	86	7,389,652.14	88	7,771,810.80
<b>160</b>	<b>Analytical Laboratories Division</b>					
<b>161</b>	<b>Analytical Laboratories Administrative Section</b>					
HP21	Assistant Director of Monitoring & Research	1	1		1	
HP17	Quality Assurance Coordinator	-	1		1	
HP17	Senior Environmental Chemist	1	1		1	
HP15	Associate Environmental Chemist	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
TOTAL	Analytical Laboratories Administrative Section	5	6	736,935.94	6	709,249.58
<b>162</b>	<b>Stickney Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		1	
HP15	Associate Environmental Chemist	2	2		2	
HP14	Assistant Environmental Chemist	4	4		4	
HP13	Laboratory Technician III	2	2		-	
HP13	Senior Laboratory Technician	-	-		3	
HP11	Administrative Specialist	1	1		1	

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Laboratory Technician II	5	5		4	
HP10	Laboratory Technician I	9	9		8	
HP09	Laboratory Assistant	2	2		3	
TOTAL	Stickney Analytical Laboratory Section	27	27	2,006,836.26	27	1,986,660.00
<b>164</b>	<b>Industrial Waste Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		1	
HP15	Associate Environmental Chemist	2	2		2	
HP14	Assistant Environmental Chemist	3	3		3	
HP13	Laboratory Technician III	2	2		-	
HP13	Senior Laboratory Technician	-	-		3	
HP11	Laboratory Technician II	6	7		8	
HP11	Laboratory Technician II #4	1	-		-	
HP11	Administrative Specialist	1	1		1	
HP10	Laboratory Technician I	7	6		4	
HP10	Laboratory Technician I #1	-	-		2	
HP09	Laboratory Assistant	-	-		1	
TOTAL	Industrial Waste Analytical Laboratory Section	24	23	1,784,601.52	26	2,000,186.24
<b>165</b>	<b>Organic Compounds Analytical Laboratory Section</b>					
HP18	Instrumentation Chemist IV	1	1		1	
HP17	Instrumentation Chemist III	2	2		2	
HP16	Instrumentation Chemist II	2	2		2	
HP15	Instrumentation Chemist I	2	2		2	
HP13	Senior Laboratory Technician	-	-		1	
HP11	Laboratory Technician II	3	3		2	
HP11	Administrative Specialist	1	1		1	
TOTAL	Organic Compounds Analytical Laboratory Section	11	11	1,085,103.24	11	1,160,947.32
<b>166</b>	<b>Egan Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	

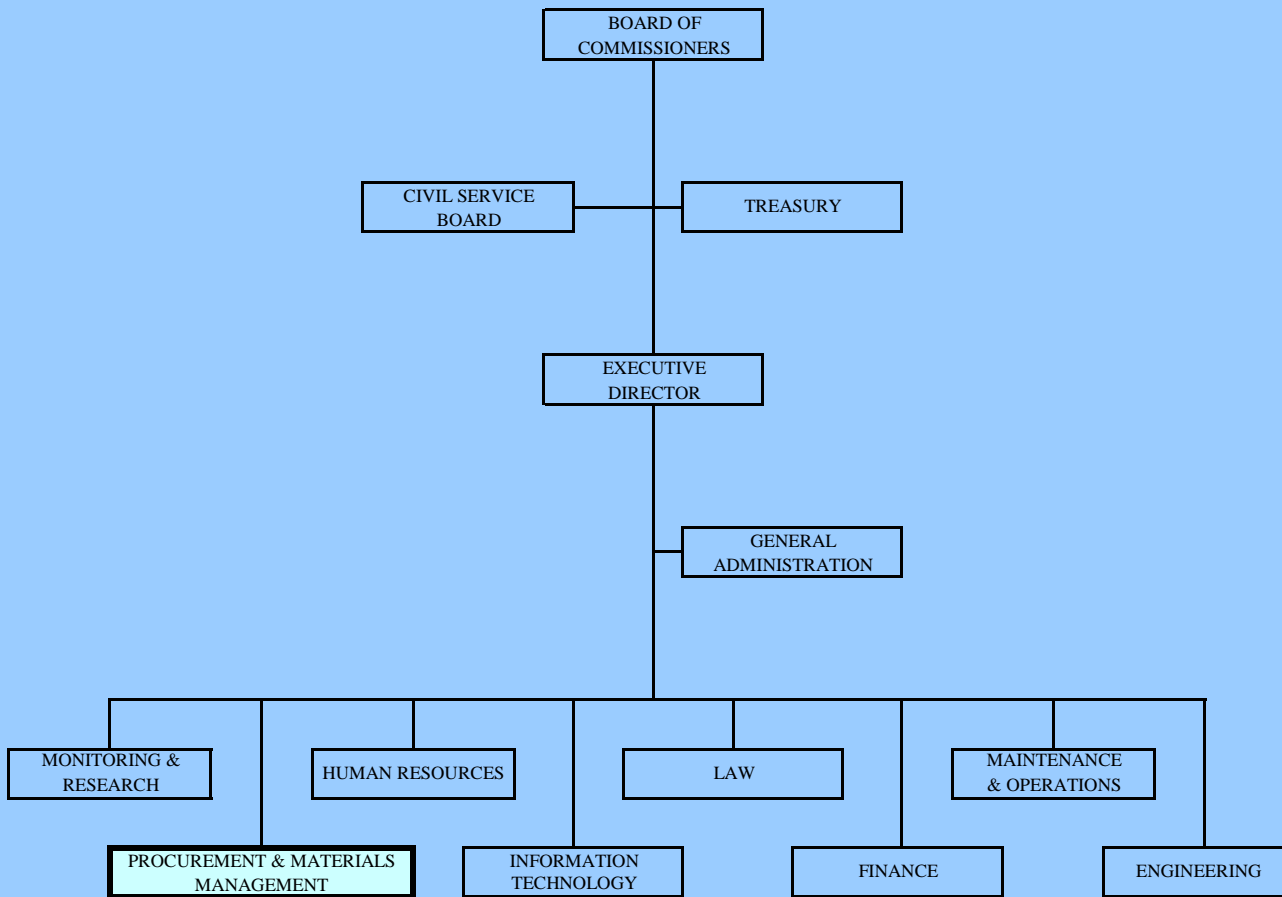
Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Environmental Chemist	1	1		1	
HP15	Associate Environmental Chemist	1	1		1	
HP14	Assistant Environmental Chemist	2	3		3	
HP13	Laboratory Technician III	1	-		-	
HP13	Senior Laboratory Technician	-	-		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	-		1	
HP11	Administrative Specialist	-	1		-	
HP11	Laboratory Technician II	2	2		4	
HP11	Laboratory Technician II #4	1	1		1	
HP10	Laboratory Technician I	7	7		3	
HP10	Laboratory Technician I #1	-	-		4	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Egan Analytical Laboratory Section	18	19	1,406,990.78	23	1,753,982.36
<b>167</b>	<b>Calumet Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		1	
HP15	Associate Environmental Chemist	1	1		1	
HP14	Assistant Environmental Chemist	2	3		3	
HP13	Laboratory Technician III	2	1		-	
HP13	Senior Laboratory Technician	-	-		2	
HP11	Laboratory Technician II	3	3		3	
HP11	Administrative Specialist	1	1		1	
HP10	Laboratory Technician I	3	5		4	
HP10	Laboratory Technician I #1	-	-		1	
HP10	Laboratory Technician I #4	1	-		-	
HP09	Laboratory Assistant	1	1		2	
HP09	Laboratory Assistant #1	-	1		-	
TOTAL	Calumet Analytical Laboratory Section	16	18	1,309,621.82	19	1,427,306.92
TOTAL	Analytical Laboratories Division	101	104	8,330,089.56	112	9,038,332.42



Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>190</b>	<b>Industrial Waste Division</b>					
<b>191</b>	<b>Industrial Waste Administrative Section</b>					
HP21	Assistant Director of Monitoring & Research	1	1		1	
HP17	Senior Environmental Specialist	1	1		-	
HP15	Environmental Specialist	2	2		-	
HP11	Administrative Specialist	1	1		1	
TOTAL	Industrial Waste Administrative Section	5	5	577,149.82	2	264,511.00
<b>192</b>	<b>Technical Services Section (formerly Enforcement Section)</b>					
HP18	Supervising Environmental Specialist	1	1		1	
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Environmental Specialist	1	1		1	
HP15	Associate Civil Engineer	4	4		-	
HP15	Environmental Specialist	6	6		2	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	1	1		-	
HP09	Administrative Clerk	1	1		-	
TOTAL	Technical Services Section (formerly Enforcement Section)	16	16	1,628,945.76	4	463,122.14
<b>193</b>	<b>Pretreatment &amp; Cost Recovery Section (formerly User Charge &amp; Technical Services Section)</b>					
HP18	Supervising Environmental Specialist	1	1		2	
HP17	Senior Civil Engineer	-	-		1	
HP17	Senior Environmental Specialist	2	2		3	
HP15	Associate Civil Engineer	3	4		8	
HP15	Environmental Specialist	10	10		16	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	-	-		1	
HP11	Administrative Specialist	1	1		2	
HP09	Administrative Clerk	1	1		2	
TOTAL	Pretreatment & Cost Recovery Section (formerly User Charge & Technical Services Section)	18	19	1,706,266.90	35	3,434,062.32

Fund: Corporate Dept: Monitoring & Research Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>194</b>	<b>Field Services Section (formerly Field Services Central Area Section)</b>					
HP18	Supervising Environmental Specialist	1	1		1	
HP17	Senior Environmental Specialist	2	2		5	
HP15	Environmental Specialist	14	14		29	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	1		-	
HP11	Administrative Specialist	1	-		-	
NR3642	Pollution Control Technician II	1	1		1	
NR3641	Pollution Control Technician I	8	9		21	
TOTAL	Field Services Section (formerly Field Services Central Area Section)	28	29	2,671,633.38	58	5,336,582.42
<b>195</b>	<b>Field Services South Area Section</b>					
HP17	Senior Environmental Specialist	1	1		-	
HP15	Environmental Specialist	5	5		-	
NR3641	Pollution Control Technician I	4	4		-	
TOTAL	Field Services South Area Section	10	10	892,467.42	-	-
<b>196</b>	<b>Field Services North Area Section</b>					
HP17	Senior Environmental Specialist	1	1		-	
HP15	Environmental Specialist	5	5		-	
NR3641	Pollution Control Technician I	4	4		-	
TOTAL	Field Services North Area Section	10	10	911,628.90	-	-
<b>197</b>	<b>Field Services North West Area Section</b>					
HP17	Senior Environmental Specialist	1	1		-	
HP15	Environmental Specialist	5	5		-	
NR3641	Pollution Control Technician I	4	4		-	
TOTAL	Field Services North West Area Section	10	10	852,110.22	-	-
TOTAL	Industrial Waste Division	97	99	9,240,202.40	99	9,498,277.88
TOTAL	Monitoring & Research	287	297	25,886,167.32	308	27,440,045.88

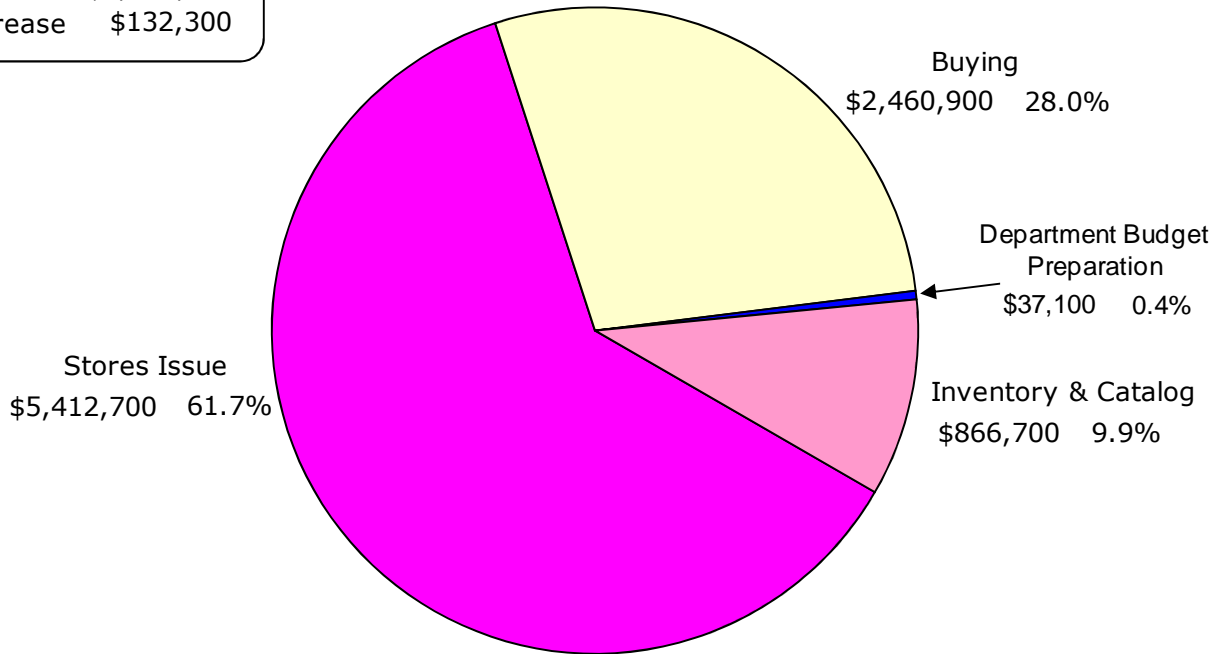
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.



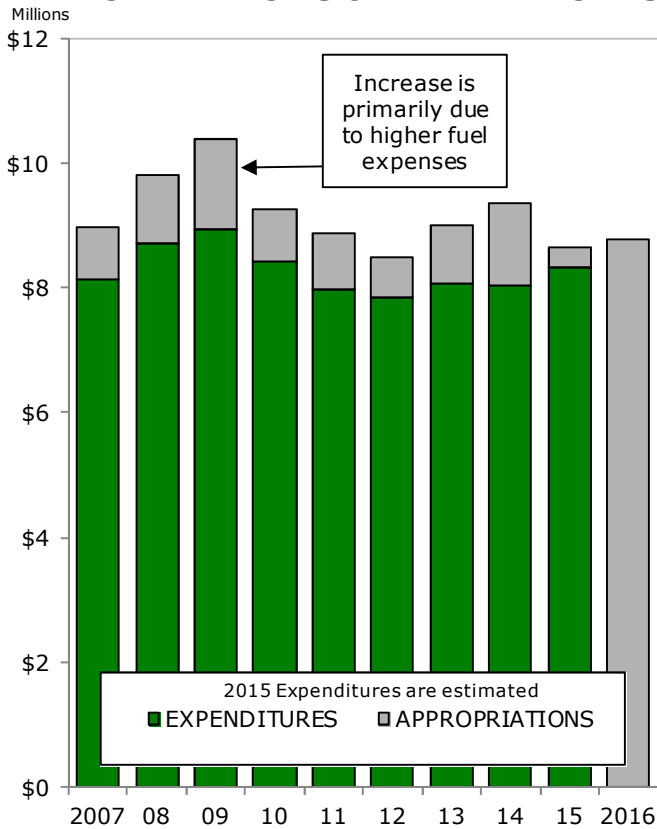
# PROCUREMENT & MATERIALS MANAGEMENT

2016	\$8,777,400
2015	\$8,645,100
Increase	\$132,300

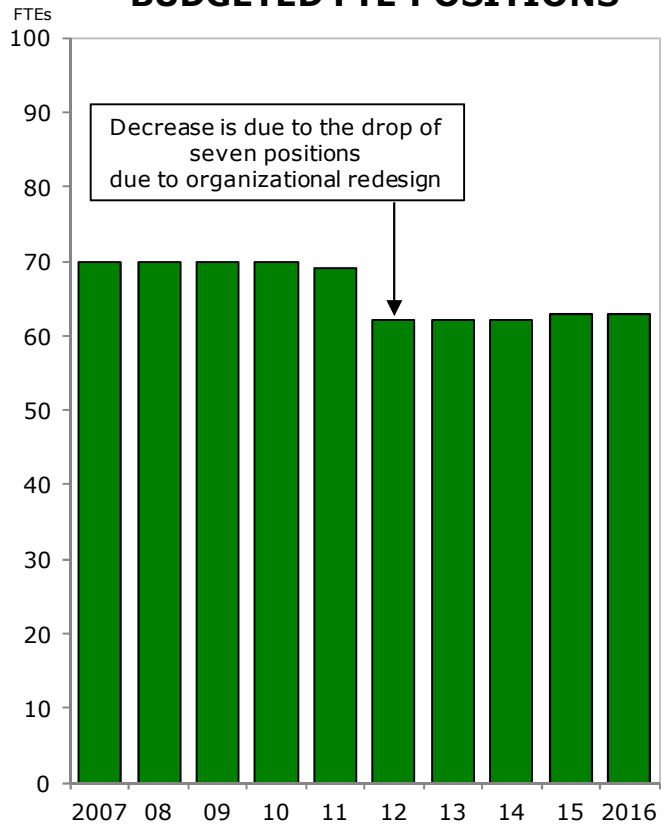
## FUNCTIONS



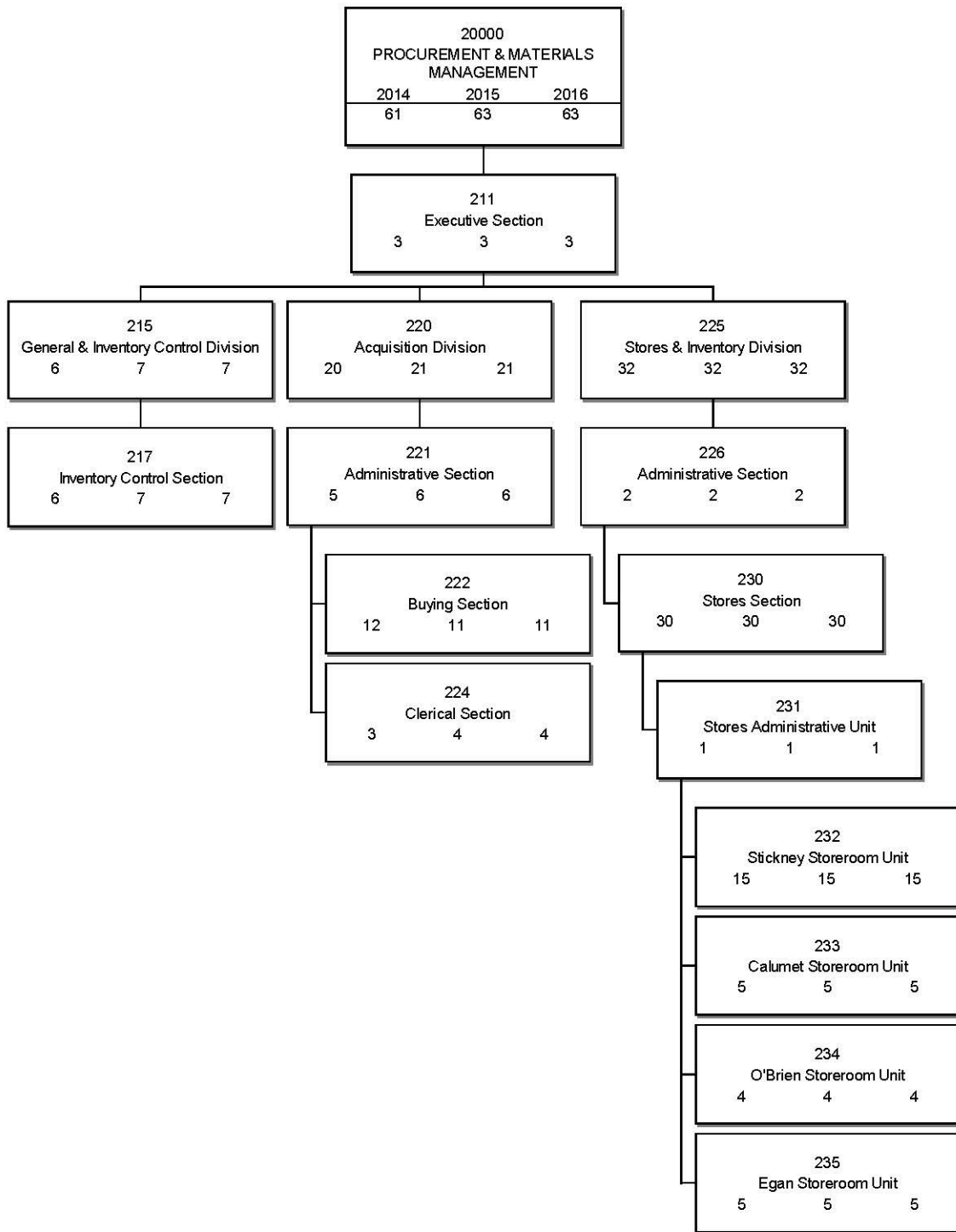
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# PROCUREMENT & MATERIALS MANAGEMENT



# PROCUREMENT & MATERIALS MANAGEMENT

**The mission of the Procurement & Materials Management Department (P&MM) is to procure goods and services required for District operations in compliance with the Purchasing Act.**

## Departmental Summary

P&MM is charged with the responsibility of procuring all of the materials and services that are used by the Metropolitan Water Reclamation District of Greater Chicago (District). The Purchasing Act for the District delineates both the authority and operating regulations. This Act outlines the duties and responsibilities of the Director of Procurement & Materials Management in the various areas of purchasing supplies and services, requesting and receiving bids, determining control and operation of the storerooms, disposing of obsolete, surplus, and unusable materials, and verifying quality and testing of materials.

## Summary of 2015 Accomplishments

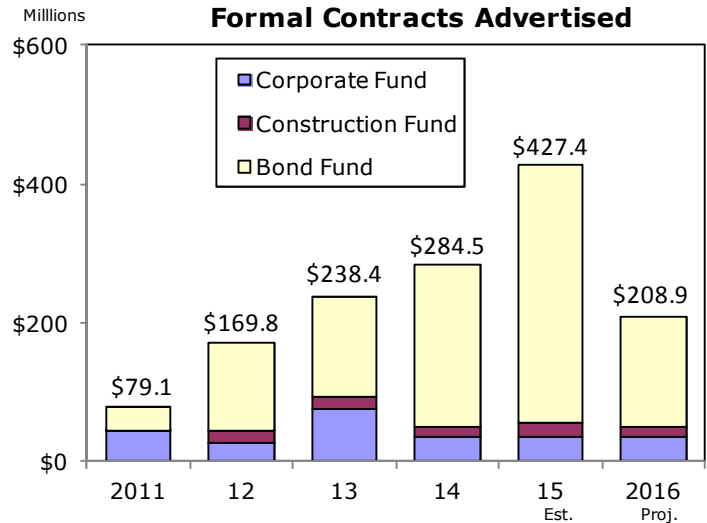
- In collaboration with the Maintenance and Operations (M&O) and Law Departments the District locked in the price for electricity for December 2017 to December 2018 at a price of \$.03643 per kWh RTC for a cost savings of approximately \$1.7 million from the December 2016 to December 2017 pricing;
- In 2014, the District did the first online auction for demand response and curtailment service. As a result of the auction, in 2015 the District received approximately \$1.29 million for the demand response event and curtailment of electricity;
- The expansion of the O'Brien storeroom was completed. Operationally, this storeroom expansion provides more functionality and efficiency along with a better working environment for the staff;
- Established a picture catalog for engineering spare parts. This effort will continue over the next three years;
- Implemented modifications for the processing of requisitions under \$25,000 for materials and supplies and under \$10,000 for services to reduce the turnaround time. The goal is five days.

## Budget Highlights

The 2016 appropriation for P&MM is \$8,777,400, an increase of 132,300, or 1.5 percent, from 2015. Staffing requirements remain unchanged at 63 positions.

Significant features of the 2016 Budget are:

- Establish contract turnaround time frames for all contract classes including the capital improvements projects;
- Review the modifications implemented in 2015 for the processing of requisitions under \$25,000 for materials and supplies and under \$10,000 for services to ensure that a reduction of the turnaround time to five days was achieved or any additional modifications that need to be implemented;
- Reevaluate the organizational structure of the Procurement divisions to support succession planning;
- In collaboration with M&O, P&MM will evaluate alternatives to market electricity generation capacity at the Lockport Powerhouse to maximize return on investment to the District;
- Continue efforts to simplify the SAP procurement process to increase utilization;
- Purchase recyclable plastic pallets for the storerooms.



**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

The 2016 initiatives focus on improving P&MM’s level of services to our internal and external customers. In 2015, P&MM reviewed the processing of requisitions under \$25,000 for materials and supplies and under \$10,000 for services to reduce the turnaround time to five days. Modifications were made to the process. Every six months we will review the data to determine if other modifications need to be implemented in order to reach the goal of a five day turnaround time from requisition to purchase order.

In 2016, P&MM will focus on establishing contract turnaround time frames for all agreements and contract classes including the capital improvements projects. The goal for all purchases greater than \$100,000 is a turnaround time of ninety days. The goal for all purchases greater than \$25,000 and under \$100,000 for materials and supplies and for services greater than \$10,000 and under \$100,000 is a turnaround time of thirty days. In order to ensure that P&MM is adhering to these goals, dashboards are being developed that will indicate the performance of the department to its customers.

• **Excellence**

As in the past, P&MM does a green initiative project as part of their budget. This year’s green initiative project is to replace wooden pallets, as needed, with plastic pallets in the District’s storerooms. The wooden pallets have a useful life of five years while the plastic pallets have a useful life of 20 years. This replacement process will continue over five years.

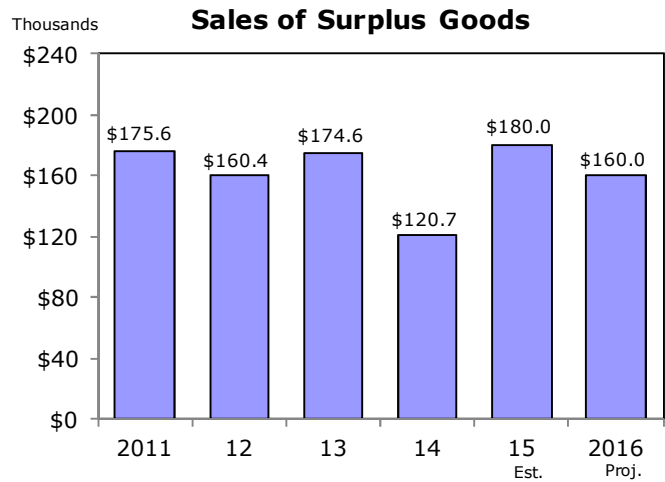
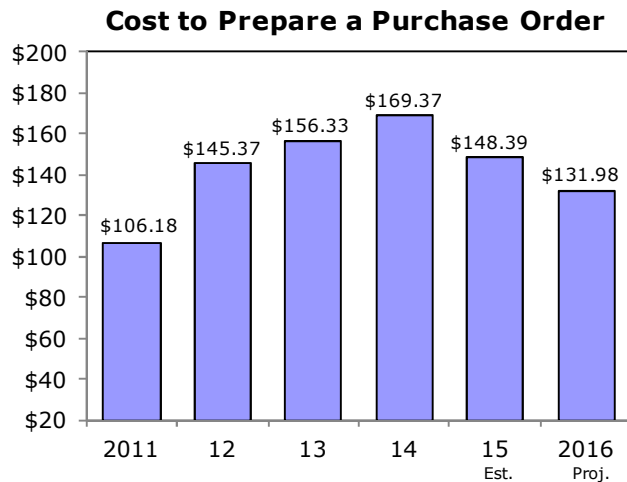
• **Resource Recovery**

In collaboration with M&O, P&MM will evaluate alternatives to market electricity generating capacity at the Lockport Powerhouse to maximize return on investment to the District as part of the resource recovery strategies. P&MM will also monitor the prices for electricity for 2019 in efforts to obtain a price for electricity that is equal to or less than the 2018 price.

• **Develop Employees**

The development of employees is important to P&MM. Due to promotions and retirements P&MM reevaluated the organizational structure of the Procurement division. In 2016, we reclassified a senior buyer to a head buyer which will support P&MM’s succession plan.

As always, P&MM is committed to supporting the strategic plan.



**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Provide purchasing services for all outside labor, materials, services, and equipment through contracts and purchase orders with an estimated value of \$238,908,575. The estimated number of contracts and purchase orders is 157 and 5,500, respectively. Maximize participation in District purchases by administering the Minority, Small, and Women-Owned Business programs.	\$ 2,460,900	28.0%
2. Service the District's user departments' material and supply requirements by operating and maintaining an effective and economical storeroom function by ordering, receiving, storing, and issuing inventory valued at \$38,500,000.	\$ 5,412,700	61.7%
3. Support the material and supply requirements of the District by planning, monitoring, cataloging, and controlling \$38,500,000 of inventory consisting of 61,000 items.	\$ 866,700	9.9%
4. Support for the department's budget preparation.	\$ 37,100	0.4%
<b>Total</b>	<b>\$ 8,777,400</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Process all requisitions and issue related purchase orders within 25 days.			
Percent of Purchase Orders Processed within 25 days	69%	92%	92%
Percent of Purchase Orders Processed within 10 days	32%	65%	65%
Percent of Purchase Orders (Board approved) Processed within 120 days	100%	100%	100%
2. Maintain an inventory level of at least 97 percent for operating supplies and engineering material in stock.			
Total Inventory (Number of stock items at all storerooms)	61,979	61,000	61,000
Total Stock-outs (Storeroom stock items only)	603	550	600
Total Issues	14,709	14,800	14,800
Total Items Issued and Stock Transports	51,824	51,500	51,000
Percent of Stock-outs (Maintain a level below three percent)	1.2%	1.1%	1.2%
3. Achieve inventory accuracy of 98 percent of operating supplies.			
Total Cycle Count	32,763	43,000	47,300
Total Errors	236	270	283
Percent Accuracy	99.3%	99.4%	99.4%
4. Maximize participation in District purchases under \$10,000 by pursuing Minority, Small, and Women-Owned Business solicitation initiatives.			
Minority Business Enterprises Solicited	3.8%	6.0%	6.0%
Women-Owned Business Enterprises Solicited	5.0%	6.0%	6.0%
Small Business Enterprises Solicited	1.0%	1.0%	1.0%
Total Percent Solicited	9.8%	13.0%	13.0%



**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted		Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
7253	Department Budget Preparation	\$ -	2016 -	\$ 37,100	\$ 37,100	100.0	a)
			2015 -	\$ -			
7260	Buying Procedures	\$ 2,251,730	2016 23	\$ 2,460,900	\$ 38,900	1.6	
			2015 23	\$ 2,422,000			
7270	Inventory and Cataloging	\$ 714,703	2016 9	\$ 866,700	\$ (42,600)	(4.7)	
			2015 9	\$ 909,300			
7280	Stores Operation and Issue	\$ 5,079,526	2016 31	\$ 5,342,500	\$ 28,700	0.5	
			2015 31	\$ 5,313,800			
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 70,200	\$ 70,200	100.0	b)
			2015 -	\$ -			
Totals		\$ 8,045,959	2016 63	\$ 8,777,400	\$ 132,300	1.5%	
			2015 63	\$ 8,645,100			

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities.
- b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7253	Department Budget Preparation	Cost	\$ -	\$ -	\$ 37,100	a)
7260	Buying Procedures					
7261	Prepare, Issue, and Maintain Purchase Orders to Appropriate Suppliers	Purchase Orders	4,653	5,500	5,500	
		Cost	\$ 574,722	\$ 603,500	\$ 528,200	
		Cost/Purchase Order	\$ 123.52	\$ 109.73	\$ 96.04	
7262	Process Requisition Requirements into Inquiries for Competitive Purchases	Requisitions	6,903	8,500	8,000	
		Cost	\$ 241,699	\$ 252,000	\$ 247,300	
		Cost/Requisition	\$ 35.01	\$ 29.65	\$ 30.91	
7263	Purchase all Labor, Materials, Services, and Equipment through Formal Contracts	Contracts Advertised	152	250	157	b)
		Cost	\$ 809,345	\$ 844,000	\$ 905,900	
		Cost/Contract	\$ 5,324.64	\$ 3,376.00	\$ 5,770.06	
7264	Prepare, Receive, and Evaluate Quotations from Various Suppliers	Inquiries	30,279	38,000	34,000	
		Cost	\$ 328,346	\$ 342,400	\$ 334,600	
		Cost/Inquiry	\$ 10.84	\$ 9.01	\$ 9.84	
7265	Advertise, Evaluate Bids, and Award the Sale of Scrap, Surplus Materials, and Document Fees	Revenue	\$ 120,723	\$ 180,000	\$ 160,000	
		Cost	\$ 12,836	\$ 13,500	\$ 13,800	
		Cost/\$1,000 Revenue	\$ 106.33	\$ 75.00	\$ 86.25	
7269	General Buying Procedures	Cost	\$ 284,782	\$ 366,600	\$ 431,100	c)
7270	Inventory and Cataloging					
	Plan and Control Inventory to Support Material and Supply Requirements of the District					
7271	Accurately Identify, Classify, Code, and Maintain Catalog for Equipment, Materials, and Supplies in District Storerooms	Inventory	\$ 39,847,749	\$ 39,500,000	\$ 38,500,000	
		Cost	\$ 129,819	\$ 192,300	\$ 186,400	
		Cost/Million	\$ 3,257.88	\$ 4,868.35	\$ 4,841.56	
7272	Plan and Control Systems to Ensure Optimum Levels of Inventory and Accountability of District Stock	Inventory	39,847,749	39,500,000	38,500,000	
		Cost	\$ 358,824	\$ 404,700	\$ 383,700	
		Cost/Million	\$ 9,004.88	\$ 10,245.57	\$ 9,966.23	
7273	Requirement Planning, Controlling, Monitoring, and Analyzing Commodity Index Coded Items from a Central Location	Cost	\$ 105,639	\$ 158,100	\$ 153,900	
7279	General Inventory Procedures	Cost	\$ 120,421	\$ 154,200	\$ 142,700	

a) Increase is due to the reallocation of salaries to more accurately reflect current activities.

b) Decrease is due to a change in the Maintenance & Operations Department's reporting system which indicates fewer contracts.

c) Increase is due to the installation of new lights and racking at the Egan and Calumet WRPs (\$40,000) and advertising by Human Resources (\$20,000).

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7280	Stores Operation and Issue					
	Operate and Maintain an Effective and Economical Storeroom Function					
7282	Initiate and Prepare Requisitions in Accordance with Established Policies and Rules	Requisitions	6,570	6,500	6,700	
		Cost	\$ 254,344	\$ 266,900	\$ 274,800	
		Cost/Requisition	\$ 38.71	\$ 41.06	\$ 41.01	
7283	Receive, Inspect, and Move Purchased Materials, Both Stock and Non-Stock Items, to Ensure Compliance with Quantity and Quality Specifications of Purchase Orders	Receipts	14,613	11,500	14,500	d)
		Cost	\$ 684,500	\$ 734,800	\$ 761,200	
		Cost/Receipt	\$ 46.84	\$ 63.90	\$ 52.50	
7284	Provide for the Proper Storage Facilities, People, and Equipment to Effectively Store Materials and Supplies to Protect Against Damage, Malfunction or Loss, and to Move Materials in a Safe and Economical Manner	Inventory	\$ 39,847,749	\$ 39,500,000	\$ 38,500,000	
		Cost	\$ 570,376	\$ 673,900	\$ 615,500	
		Cost/Million	\$ 14,313.88	\$ 17,060.76	\$ 15,987.01	
7285	Provide Controlled Disbursement of Stored Materials and Supplies to Requesting Departments	Issue Slips	14,709	14,800	14,800	
		Cost	\$ 550,519	\$ 602,700	\$ 624,100	
		Cost/Issue Slip	\$ 37.43	\$ 40.72	\$ 42.17	
7286	General Stores Operations and Issue	Cost	\$ 77,174	\$ 83,300	\$ 85,900	
7289	Inventory Purchases	Cost	\$ 2,942,613	\$ 2,952,200	\$ 2,981,000	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 70,200	e)
		Total	\$ 8,045,959	\$ 8,645,100	\$ 8,777,400	

d) Increase is due to the inclusion of non-inventory receipts which are received and processed accordingly.

e) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 20000		Fund: Corporate Department: Procurement & Materials Management		LINE ITEM ANALYSIS				
Division:		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 4,873,291	\$ 5,360,600	\$ 5,314,600	\$ 5,037,600	\$ 5,299,600	\$ 5,299,600	\$ 5,393,200
601060	Compensation Plan Adjustments	21,040	72,000	118,000	118,000	67,800	67,800	69,500
601070	Social Security & Medicare Contributions	-	-	-	-	70,200	70,200	70,200
601100	Tuition and Training Payments	-	4,500	4,500	800	4,000	4,000	4,000
100	TOTAL PERSONAL SERVICES	4,894,331	5,437,100	5,437,100	5,156,400	5,441,600	5,441,600	5,536,900
612010	Travel	378	1,400	-	-	1,400	1,400	1,400
612030	Meals and Lodging	230	3,000	300	300	2,500	2,500	2,500
612050	Compensation for Personally-Owned Automobiles	2,400	2,200	2,700	2,500	2,200	2,200	2,200
612080	Motor Vehicle Operating Services	93	100	100	100	100	100	100
612360	Advertising	135,361	110,000	140,500	130,000	127,000	127,000	127,000
612490	Contractual Services, N.O.C.	-	5,000	400	400	-	-	-
612680	Repairs to Buildings	2,366	800	3,000	1,000	4,800	4,800	4,800
612800	Repairs to Office Furniture & Equipment	1,241	2,200	3,900	3,500	2,100	2,100	2,100
612820	Computer Software Maintenance	1,625	2,900	2,900	2,900	2,900	2,900	2,900
612860	Repairs to Vehicle Equipment	8,308	7,500	11,300	11,300	10,000	10,000	10,000
612990	Repairs, N.O.C.	-	-	-	-	40,000	40,000	40,000
200	TOTAL CONTRACTUAL SERVICES	152,003	135,100	165,100	152,000	193,000	193,000	193,000
623030	Metals	120,674	121,100	121,100	121,100	125,000	125,000	125,000
623070	Electrical Parts and Supplies	323,470	310,900	310,900	310,900	311,400	311,400	311,400
623090	Plumbing Accessories and Supplies	321,866	282,100	262,100	262,100	309,400	309,400	309,400
623110	Hardware	43,953	39,800	39,800	39,800	42,900	42,900	42,900
623130	Buildings, Grounds, Paving Materials, and Supplies	116,202	104,100	109,100	108,300	124,800	124,800	124,800
623170	Fiber, Paper, and Insulation Materials	36,914	39,300	39,300	39,300	39,200	39,200	39,200
623190	Paints, Solvents, and Related Materials	42,172	39,300	39,300	39,300	42,000	42,000	42,000
623250	Vehicle Parts and Supplies	9,549	9,900	9,900	9,900	10,100	10,100	10,100
623270	Mechanical Repair Parts	135,821	117,000	119,000	119,000	126,300	126,300	126,300

101 20000		Fund: Corporate Department: Procurement & Materials Management		LINE ITEM ANALYSIS				
Division:		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	17,072	16,700	25,600	22,600	16,800	16,800	16,800
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	573,523	565,800	595,800	593,500	583,800	583,800	583,800
623660	Cleaning Supplies	248,862	243,700	243,700	243,700	244,400	244,400	244,400
623680	Tools and Supplies	78,980	66,000	66,000	66,000	72,100	72,100	72,100
623700	Wearing Apparel	141,133	118,200	131,000	130,000	127,700	127,700	127,700
623780	Safety and Medical Supplies	91,513	122,600	59,900	59,900	85,000	85,000	85,000
623810	Computer Supplies	66,525	80,000	80,000	80,000	85,000	85,000	85,000
623820	Fuel	323,858	369,200	302,000	290,600	351,100	351,100	351,100
623840	Gases	38,820	45,000	76,200	71,500	45,000	45,000	45,000
623850	Communications Supplies	7,351	10,000	10,000	10,000	10,000	10,000	10,000
623860	Lubricants	226,450	238,900	238,900	238,900	240,000	240,000	240,000
623990	Materials and Supplies, N.O.C.	34,918	53,300	83,300	83,300	55,500	55,500	55,500
300	TOTAL MATERIALS AND SUPPLIES	2,999,625	2,992,900	2,962,900	2,939,700	3,047,500	3,047,500	3,047,500
634990	Machinery and Equipment, N.O.C.	-	80,000	80,000	80,000	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	-	80,000	80,000	80,000	-	-	-
TOTAL PROCUREMENT & MATERIALS MGMT		\$ 8,045,959	\$ 8,645,100	\$ 8,645,100	\$ 8,328,100	\$ 8,682,100	\$ 8,682,100	\$ 8,777,400

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

Fund: Corporate Dept: Procurement & Materials Management Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>211</b>	<b>Executive Section</b>					
EX08	Director of Procurement & Materials Management	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	416,621.14	3	429,119.60
<b>215</b>	<b>General &amp; Inventory Control Division</b>					
<b>217</b>	<b>Inventory Control Section</b>					
HP17	Supervising Stores Specialist	-	1		-	
HP17	Supervising Stores Specialist #2 (New Grade HP16)	-	-		1	
HP16	Materials Planning Supervisor #2 (Senior Stores Specialist) (New Grade HP15)	1	1		1	
HP12	Stores Specialist	5	5		5	
TOTAL	Inventory Control Section	6	7	566,189.00	7	538,677.10
TOTAL	General & Inventory Control Division	6	7	566,189.00	7	538,677.10
<b>220</b>	<b>Acquisition Division</b>					
<b>221</b>	<b>Administrative Section</b>					
HP20	Assistant Director of Procurement & Materials Management	1	1		1	
HP14	Budget & Management Analyst	-	1		1	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	3	2		1	
HP11	Administrative Specialist	-	1		2	
TOTAL	Administrative Section	5	6	543,960.56	6	537,451.72
<b>222</b>	<b>Buying Section</b>					
HP18	Head Buyer	1	1		2	
HP17	Buyer III #2 (Senior Buyer) (New Grade HP16)	2	2		1	
HP16	Senior Buyer	4	4		4	
HP14	Buyer	4	4		4	
HP11	Administrative Specialist	1	-		-	
TOTAL	Buying Section	12	11	1,203,696.78	11	1,195,314.12
<b>224</b>	<b>Clerical Section</b>					
HP11	Administrative Specialist	1	2		2	

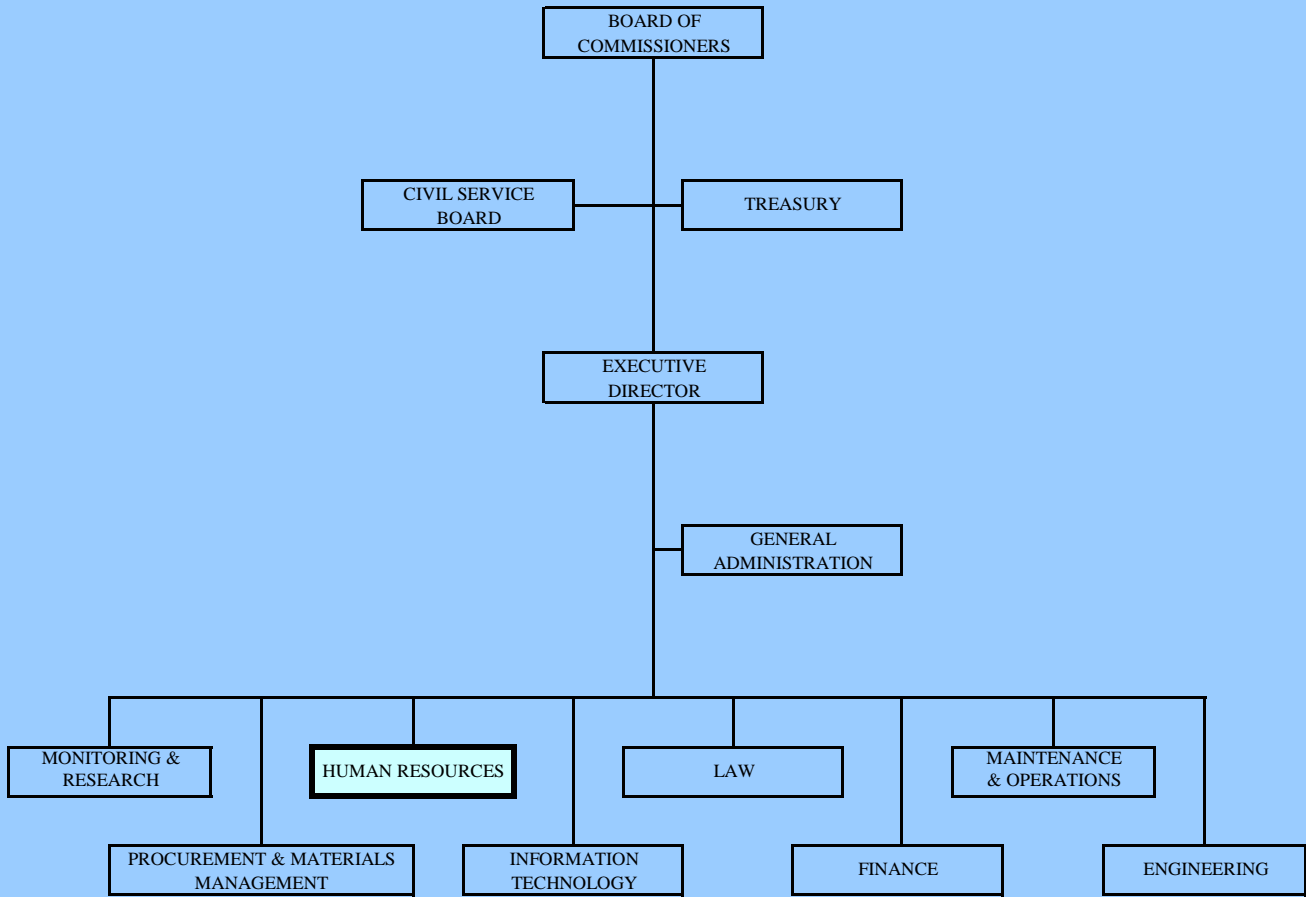
Fund: Corporate Dept: Procurement & Materials Management Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP09	Administrative Clerk	2	2		2	
TOTAL	Clerical Section	3	4	218,500.36	4	221,046.80
TOTAL	Acquisition Division	20	21	1,966,157.70	21	1,953,812.64
	<b>225 Stores &amp; Inventory Division</b>					
	<b>226 Administrative Section</b>					
HP19	Stores & Inventory Manager	1	1		-	
HP19	Stores & Inventory Manager #2 (New Grade HP18)	-	-		1	
HP15	Senior Stores Specialist	1	1		-	
HP15	Senior Stores Specialist #2 (New Grade HP14)	-	-		1	
TOTAL	Administrative Section	2	2	263,275.48	2	256,397.18
	<b>230 Stores Section</b>					
	<b>231 Stores Administrative Unit</b>					
HP17	Supervising Stores Specialist	1	1		-	
HP17	Supervising Stores Specialist #2 (New Grade HP16)	-	-		1	
TOTAL	Stores Administrative Unit	1	1	122,474.56	1	126,148.88
	<b>232 Stickney Storeroom Unit</b>					
HP11	Administrative Specialist	1	1		1	
HP09	Administrative Clerk	2	2		2	
NR1857	Principal Storekeeper	2	2		2	
NR1853	Storekeeper	8	8		8	
NR8651	Maintenance Laborer Class A	1	1		1	
NR1835	Materials Handler Laborer	1	-		-	
NR1835	Materials Handler Laborer #1	-	1		1	
TOTAL	Stickney Storeroom Unit	15	15	1,087,458.32	15	1,120,067.26
	<b>233 Calumet Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	2	2		2	

Fund: Corporate Dept: Procurement & Materials Management Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Calumet Storeroom Unit	5	5	347,941.10	5	360,805.90
<b>234</b>	<b>O'Brien Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	1	1		1	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	O'Brien Storeroom Unit	4	4	271,501.10	4	277,224.74
<b>235</b>	<b>Egan Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	2	2		2	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Egan Storeroom Unit	5	5	345,585.50	5	358,379.06
TOTAL	Stores Section	30	30	2,174,960.58	30	2,242,625.84
TOTAL	Stores & Inventory Division	32	32	2,438,236.06	32	2,499,023.02
TOTAL	Procurement & Materials Management	61	63	5,387,203.90	63	5,420,632.36

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.



**NOTE PAGE**

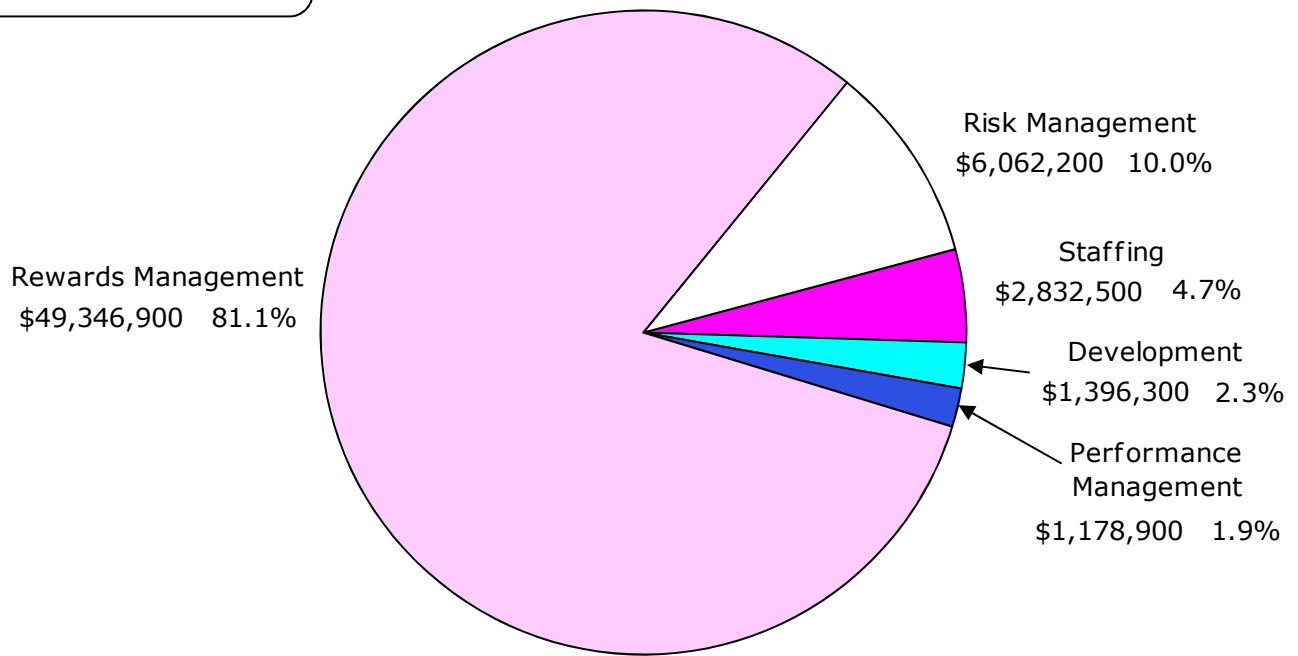


HUMAN RESOURCES

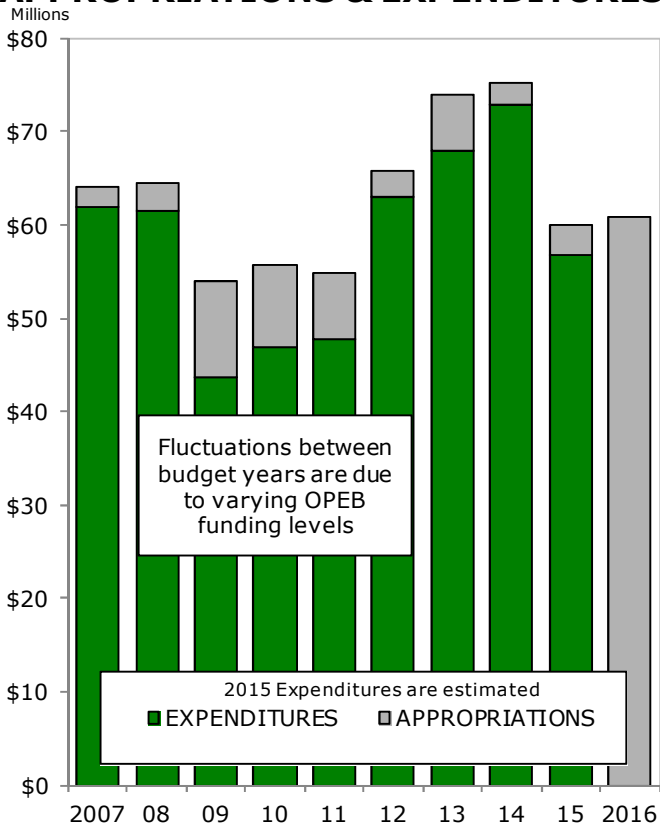
# HUMAN RESOURCES

2016	\$60,816,800
2015	\$60,072,100
Increase	\$744,700

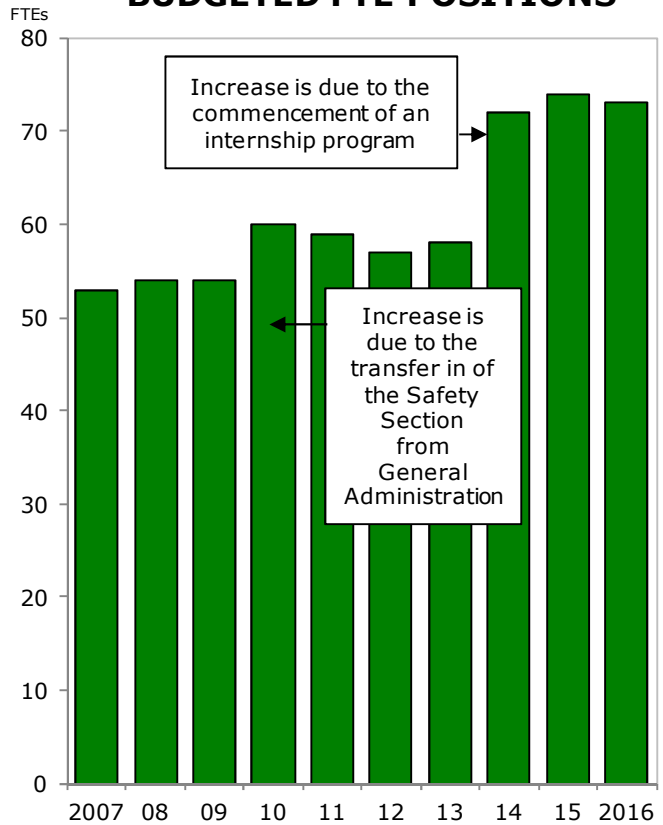
## FUNCTIONS



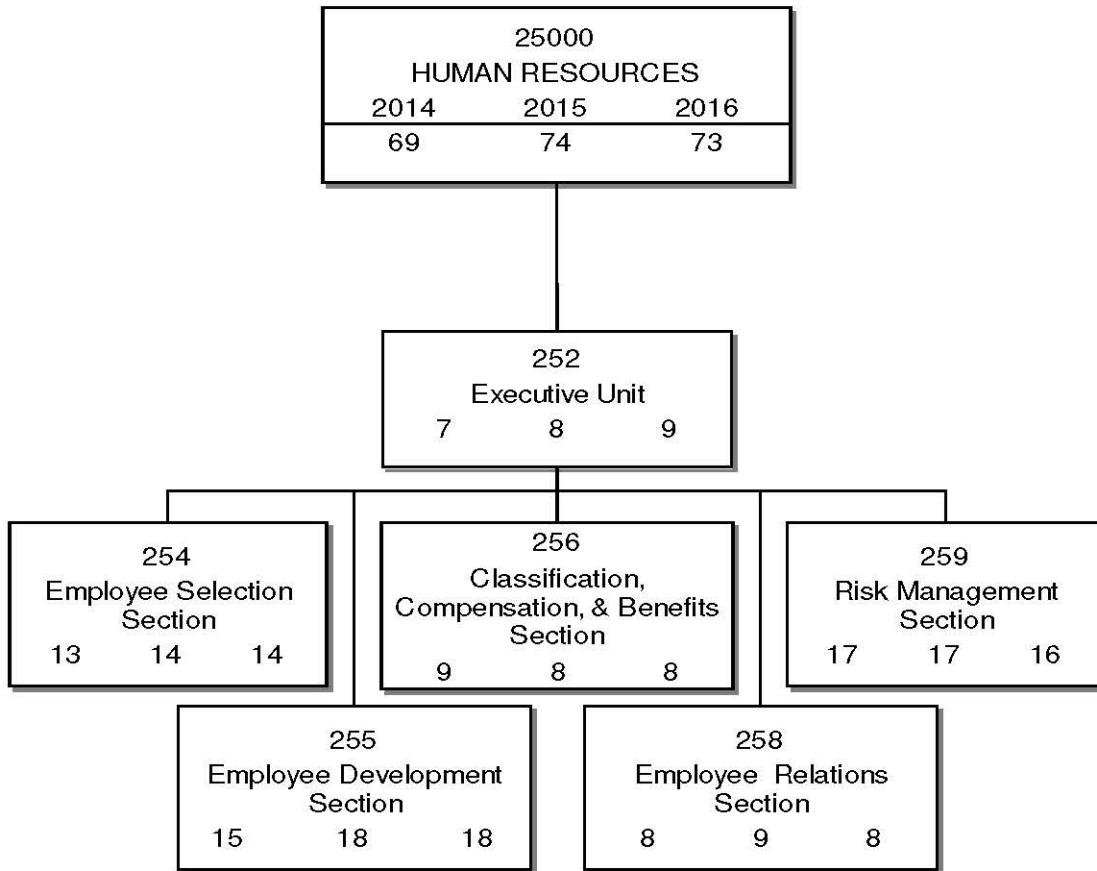
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# HUMAN RESOURCES



## HUMAN RESOURCES

**Through strategic partnerships, the Human Resources Department develops and delivers innovative, efficient, and cost effective programs and services that are aligned with the District's core business strategies.**

### Departmental Summary

The department's primary responsibilities include:

- Staffing: ensure that the District plans for, recruits, hires, and retains the diverse talent needed to meet its organizational goals;
- Development: guide staff in acquiring and maintaining the skills needed to properly perform their roles within the organization;
- Performance Management: assist managers and employees by developing and implementing a performance management system that supports the goals of the organization;
- Rewards Management: develop and implement appropriate incentives to aid in recruiting and retaining the highest quality staff;
- Risk Management: develop and administer a comprehensive risk management program that protects the assets of the District and the safety of employees.

### Summary of 2015 Accomplishments

- The District's Emergency Operations Plan was developed, implemented, and successfully tested in a statewide exercise;
- Implementation of the District's first risk management information system was completed. This system facilitates the aggregation and analysis of all risk-related data;
- The Safety group revised the District's Lockout/Tagout procedures to ensure practices are more closely aligned with Occupational Safety and Health Administration (OSHA) regulations, provide greater clarity on system status, and ensure safe operations for employees;
- The Safety staff conducted approximately 1,200 OSHA-focused training sessions, including ARC Flash training, to ensure that employees are prepared to perform their jobs safely within their work environment;
- The District transitioned its 457 Deferred Compensation Plan to Prudential Retirement in early 2015. This change resulted in lower fees for plan participants, and access to more education and retirement planning resources;
- The District continued its organizational redesign project with the goal of improving the efficiency of its operations and allowing for more flexibility in the utilization of its staff;
- Twenty-five managers and supervisors completed the five-day leadership development program called LEAD (leading, engaging, acting, and developing), bringing the grand total to 135 graduates;
- All employees received workplace ethics training through eLearning;
- Specialized in-house training included: advanced Microsoft Excel skills for power users, project management, conducting investigations, interviewing at the MWRD, technical writing, office management, and proofreading skills;
- The initial supervisory skills training through eLearning was completed by approximately 475 supervisors and new courses were added to supplement the core offering;
- The internship program continued to provide meaningful educational and training experiences for students interested in wastewater management and District operations, and was expanded to include two interns from the Best Buddies Program for people with intellectual and developmental disabilities;
- Continuing its commitment to employee health and wellness, the District conducted on-site health fairs and provided flu shots. The District also sponsored its first 5K walk/run for employees and family members at the employee picnic;
- The District participated in the Financial Fitness Challenge for its third consecutive year. The District has had a total of 776 participants in this free financial education program over the three year period;
- Civil Service examinations were administered for 55 classifications.

### Budget Highlights

The 2016 Human Resources Department appropriation is \$60,816,800, an increase of \$744,700, or 1.2 percent, from 2015. Staffing decreased from 74 to 73 positions with the drop of one Administrative Clerk position. The number of employees budgeted in the Human Resources Department includes 12 Interns, one Apprentice assigned to the Maintenance & Operations Department, and three Civil Service Board members.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

In 2016, the Risk Management Section will continue its focus on the development of a comprehensive and sustainable risk management program. Key areas of focus include use of the risk management information system for risk analysis and enhanced communication on risk issues across the organization, further development of the return-to-work program, and additional development of a continuity of operations plan.

Working within the Risk Management Section, the Safety group will continue to focus on safe work procedures, a safe work environment, preventive health measures, life protection, accident prevention and investigations, and record keeping. Greater emphasis will be placed on targeting programs to address the District’s key cost drivers. The Safety staff will work more closely with the Claims staff to reduce overall workers’ compensation costs for the District.

The Human Resources Department’s merit-based selection practices provide the District with a pool of candidates who have demonstrated the essential job-related knowledge, skills, and abilities to perform effectively. The Human Resources Department plans to administer 45 examinations in 2016. Approximately 95 percent of employment applications are now received online.

• **Excellence**

The District’s benefits program plays an integral part in its ability to attract and retain a high quality work force. The District offers health care benefits to employees and eligible dependents, as well as approximately 1,955 retirees. The core components of the program are a PPO and HMO medical plan, prescription drug coverage, dental coverage, and an integrated vision benefit.

<b>Health Plan Contribution Rates</b>					
	2012	2013	2014	2015	2016
Represented Employees	13%	13%	14%	14%	14%
Non-Represented Employees	14%	15%	16%	14%	14%
Retirees	27.5%	30.0%	32.5%	35.0%	37.5%

The cost of health benefits is partially offset by employee and retiree contributions. In 2011, the Board of Commissioners approved a contribution rate policy incrementally increasing retiree contribution rates over a 10 year period to help control the cost of retiree health care. The contribution rates for employees and retirees are shown in the table above. Employee and retiree contributions to health care benefits are projected to be \$12.7 million in 2016.

The District is currently developing a multi-year benefits strategy for its employee health care benefits. It is also working on a separate strategy for its retiree health care plans. The goal is to develop a strategy that will allow the District to continue offering high quality health care benefits at an affordable cost. It will consider factors such as plan design, funding strategies, new product offerings on the marketplace, health consumer education, and new technology.

The benefits strategy will also continue the District’s commitment to building a culture of health as another means of controlling health care costs. Annual on-site health fairs will continue to be conducted at each of the District locations. These events include a free biometric screening for participating employees. Flu shot events will be conducted annually at each location. The 5K walk/run will continue to be held as part of the employee picnic activities. The goal is to build a work environment that promotes health and wellness for all District employees.

The District continues to feel the impact of the Patient Protection and Affordable Care Act. In 2015, the Patient Centered Outcomes Research Institute and Transitional Reinsurance fees added approximately \$400,000 to the overall cost of providing health care to employees and retirees. In addition, the District is monitoring its potential exposure to the Excise (Cadillac) tax coming online in 2018.

The Labor Management Committee on Health Care meets semiannually with union leadership to discuss health care utilization, cost trends, and cost containment strategies. This creates a forum for open communication between the District and the unions on important health care issues. The goal is to develop strategies to contain future health care costs, while continuing to provide affordable health care benefits to employees.

**• Develop Employees**

The District provides its employees with training and development opportunities through tuition reimbursement, seminars and conferences, in-house training, and online eLearning courses.

<b>Employee Development Participation</b>			
	<b>Tuition Reimbursement *</b>	<b>In-House Training</b>	<b>eLearning Courses Accessed</b>
<b>2013</b>	61	4,024 **	1,368
<b>2014</b>	55	2,227	2,089
<b>Estimated 2015</b>	60	2,319	2,112
<b>Projected 2016</b>	60	2,300	2,200

\*Number of participants who were reimbursed.

\*\*Includes two, all-employee, mandatory compliance trainings.

To ensure the ongoing professional development of all District employees in 2016, the Human Resources Department will continue to offer in-house training programs in areas such as business and technical writing and financial management, and will provide specialized training as requested by departments. Other training programs will address competencies identified by class series that will help employees in their career development. Executive coaching services will continue to be used for succession planning and to conduct individual assessments of employee talents, skills, and career objectives that will help identify developmental needs to prepare employees for leadership roles.

The Human Resources Department administers collective bargaining agreements for the District’s approximately 760 represented employees, and provides advice and counseling to managers and supervisors regarding investigations and disciplinary matters for both represented and non-represented employees. The Human Resources Department will continue to promote the use of proactive and timely discussions between managers, employees, and their representatives to address grievance and complaint activity.

The Human Resources Department also ensures the District’s compliance with the Family and Medical Leave Act and the Americans with Disabilities Act, and is responsible for receiving and investigating complaints of workplace violence, discrimination, sexual harassment, and other types of harassment and complaints.

The Human Resources Department will continue to develop competency-based job classifications and build new measures of employee performance, while providing a basis for individual development plans.

**• Leading Partnerships**

As of October 1, 2013, the District began using the revised external labor rates for females and minorities, based on published data from the 2010 census. The District’s minority workforce representation, as of September 30, 2015, was 40 percent, which compares favorably with the Cook County minority labor force availability rate of 36 percent. The District’s female workforce representation as of September 30, 2015, was 27 percent, compared to the Cook County female labor force availability rate of 41 percent, when adjusted for District-specific occupations.

<b>Percentage of District Employees Who Are Minorities or Females</b>							<b>2000 Census External Availability</b>	<b>2010 Census External Availability</b>
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016 Proj.</b>		
Minorities	40.0%	39.0%	40.0%	40.0%	40.0%	41.0%	33.0%	36.0%
Females	28.0%	27.0%	27.0%	26.0%	27.0%	27.0%	25.0%	41.0%

It is important to note that a majority of the District’s job categories include classifications that are nontraditional for women. Nontraditional occupations, as defined by the U.S. Department of Labor, are those occupations wherein 25 percent or fewer women have the requisite skills or work in that occupation. Consequently, the external female labor force rates are adjusted for District-specific occupations. They include only job classifications found at the District, and exclude occupations such as teachers, registered nurses, and social workers.

The Human Resources Department coordinates the District-wide recruitment program. Ongoing advertising in print and electronic media assists the District in attracting a diverse and qualified applicant pool for current and future examinations. In 2016, the District will target its recruitment efforts on increasing minority and female representation in specific job categories in which they are underrepresented. A large part of the public image of the District is dependent on employee behaviors and interactions with the public. To assist employees in representing the District well, various training programs will continue. Uniform application of disciplinary processes and the Civil Service Board forum, will provide unambiguous expectations of employees and will assure employees that good work is rewarded.

**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Review employment applications and develop and administer 45 examinations to meet Civil Service requirements and current operational needs. Oversee the certification process to fill positions. Develop and maintain a targeted advertising program necessary to establish recruitment resources, administer college and campus recruitment activities, and diversity outreach activities.	\$ 1,716,500	2.8%
2. Develop and administer a comprehensive risk management program and provide a safe work environment for District employees through training, accident prevention initiatives, and workplace monitoring.	\$ 6,062,200	10.0%
3. Maintain comparative wage and salary data, administer non-represented and management compensation systems, and recommend changes to the Civil Service Board and the Board of Commissioners in order to ensure internal pay equity and external competitiveness. Establish a highly competitive employee benefits package, including health, life, and dental insurance, a vision plan, and a deferred compensation plan, as well as administer other related benefit programs, such as Employee Assistance Program services, flexible spending account plan, and voluntary insurance products.	\$ 29,738,300	49.0%
4. Administer six collective bargaining agreements, covering 760 employees, and manage employee relations programs, which include investigation of employee complaints and performance rating reviews on behalf of the Director of Human Resources, and administer the unemployment compensation and performance management programs.	\$ 798,300	1.3%
5. Provide health insurance benefits and administration for retirees and annuitants, which include Other Postemployment Benefits (OPEB) pre-funding for retiree health care expenses.	\$ 19,608,600	32.2%
6. Implement the District's equal employment opportunity and affirmative action objectives through targeted recruitment, counseling, and complaint investigation.	\$ 380,600	0.6%
7. Provide the necessary administrative support to the District and Human Resources Department sections by maintaining centralized files on all employees; overseeing the hiring, promotion, transfer, termination, return-to-work, or any other action affecting an employee's status; and managing computerized information to perform departmental functions with greater efficiency at a lower cost. Comply with state Civil Service statutes by arranging for hearing of complaints from employees or other persons, the hearing of charges against employees for discharge, and the ratification of amendments to the Personnel Rules and the compensation and classification plan.	\$ 1,116,000	1.8%
8. Provide educational opportunities for employees through professional development, technical training, and tuition reimbursement.	\$ 1,396,300	2.3%
<b>Total</b>	<b>\$ 60,816,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Minimize the number of days between an original entrance appointment and the start date for the new employee.	32	30	29
2. Reduce the number of Occupational Safety and Health Administration recordables. (Number of workers' compensation claims per 100 employees)	6.89	6.58	6.00
3. Reduce the number of lost time accidents. (Number of lost time claims per 100 employees)	2.06	2.03	1.80



**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
7290	Examinations and Employment Activities	\$ 1,652,915	2016 13	\$ 1,716,500	\$ (3,000)	(0.2)		
			2015 13	\$ 1,719,500				
7295	Equal Employment Opportunity Activities	\$ 399,500	2016 3	\$ 380,600	\$ (2,800)	(0.7)		
			2015 3	\$ 383,400				
7310	Training and Development Activities	\$ 1,113,827	2016 18	\$ 1,396,300	\$ (127,400)	(8.4)	a)	
			2015 18	\$ 1,523,700				
7315	Retiree Benefits	\$ 13,613,001	2016 1	\$ 14,608,600	\$ 1,940,100	15.3	b)	
			2015 1	\$ 12,668,500				
7316	OPEB Trust Contributions	\$ 20,000,000	2016 -	\$ 5,000,000	\$ -	-		
			2015 -	\$ 5,000,000				
7320	Employee Benefits	\$ 26,164,203	2016 4	\$ 29,649,500	\$ 1,956,200	7.1	c)	
			2015 5	\$ 27,693,300				
7325	Labor and Employee Relations	\$ 796,245	2016 7	\$ 798,300	\$ 25,100	3.2		
			2015 7	\$ 773,200				
7330	Human Resources Administration	\$ 816,529	2016 11	\$ 1,116,000	\$ 69,100	6.6		
			2015 10	\$ 1,046,900				
7480	Safety Program	\$ 1,590,073	2016 11	\$ 1,508,500	\$ (368,500)	(19.6)	d)	
			2015 12	\$ 1,877,000				
7500	Risk Management Operations	\$ 4,281,529	2016 5	\$ 4,553,700	\$ (140,100)	(3.0)	e)	
			2015 5	\$ 4,693,800				
7604	Social Security and Medicare Contributions	\$ 2,427,579	2016 -	\$ 88,800	\$ (2,604,000)	(96.7)	f)	
			2015 -	\$ 2,692,800				
	Totals	\$ 72,855,401	2016 73	\$ 60,816,800	\$ 744,700	1.2%		
			2015 74	\$ 60,072,100				

- a) Decrease is due to a reduced need for application software training such as FileMaker Pro, Microsoft Excel/Pivot Table, Crystal Reports, and SAP (\$220,000), ethics training (\$62,500), and eLearning licenses and courses (\$61,200), offset by Workplace Violence Awareness training (\$100,000), the internship program (\$68,500), and project management training (\$50,000).
- b) Increase reflects current projections for retiree medical benefits (\$2,425,400), offset by an anticipated reduction in HMO medical claim expenses (\$480,700).
- c) Increase reflects current projections for employee medical benefits, primarily pharmacy (\$1,452,300), HMO premiums (\$342,800), and health and welfare consulting (\$102,500).
- d) Decrease reflects the purchase cycle for the replacement of gas meters (\$180,000), ARC Flash personal protective equipment and self-contained breathing apparatus (\$47,000), and the schedule for safety equipment maintenance (\$37,500), as well as the transfer of the responsibility for the maintenance of the fire suppression systems to the Maintenance & Operations Department (\$40,900).
- e) Decrease reflects current projections for third party services for workers' compensation cases (\$175,000), offset by an increase in broker and administration services (\$9,000).
- f) Decrease is due to the reallocation of budgeting for the required employer contributions for Social Security and Medicare to the departments where the positions are actually budgeted.

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7290	Examination and Employment Activities					
		Candidates	2,400	2,000	3,000	
		Examinations	60	40	45	
		Applications	5,043	4,250	7,000	a)
		Requisitions	328	300	315	
		Cost	\$ 1,512,915	\$ 1,581,800	\$ 1,578,900	
	Recruitment and Marketing Activities					
	Diversity/Outreach Recruitment	Cost	\$ 74,200	\$ 72,600	\$ 71,500	
	Campus Recruitment	Cost	\$ 65,800	\$ 65,100	\$ 66,100	
7295	Equal Employment Opportunity Activities					
	Provide Counseling and Investigate Complaints	Actions	1,000	1,000	1,000	
		Cost	\$ 399,500	\$ 383,400	\$ 380,600	
		Cost/Action	\$ 399.50	\$ 383.40	\$ 380.60	
7310	Training and Development Activities					
	In-House Training and Professional Development	Courses	2,227	2,250	2,300	
		Cost	\$ 628,803	\$ 839,400	\$ 747,200	
		Cost/Course	\$ 282.35	\$ 373.07	\$ 324.87	
	Seminars and Conferences Costs	Cost	\$ 10,628	\$ 17,300	\$ 6,600	b)
	eLearning	Participants	2,089	2,100	2,200	
		Cost	\$ 69,422	\$ 81,200	\$ 20,000	c)
		Cost/Participant	\$ 33.23	\$ 38.67	\$ 9.09	
	Apprenticeship Program	Cost	\$ 52,780	\$ 60,000	\$ 58,100	
	Administer and Finance the Tuition Reimbursement Program for the Entire District	Participants	55	95	60	d)
		Cost	\$ 295,953	\$ 363,500	\$ 333,600	
		Cost/Participant	\$ 5,380.96	\$ 3,826.32	\$ 5,560.00	
	Internship Program	Cost	\$ 56,241	\$ 162,300	\$ 230,800	e)
7315	Retiree Benefits					
	Health Insurance - Corporate Fund Retirees	Retirees	1,963	1,975	1,955	
		Cost	\$ 9,344,415	\$ 8,792,200	\$ 9,593,300	f)
		Cost/Retiree	\$ 4,760.27	\$ 4,451.75	\$ 4,907.06	
	Prescription Drug Retirees	Participants	1,963	1,975	1,950	
		Cost	\$ 4,268,586	\$ 3,876,300	\$ 5,015,300	g)
		Cost/Participant	\$ 2,174.52	\$ 1,962.68	\$ 2,571.95	

- a) Increase is due to examinations scheduled for classifications that attract a large number of applicants, such as Pollution Control Technician I, Administrative Clerk, and Administrative Specialist.
- b) Decrease reflects the current year plan for employee attendance at conferences and seminars.
- c) Decrease is due to an anticipated cost savings for eLearning courses (\$37,000) and licenses (\$24,200).
- d) Decrease is due to participation being tabulated to include only the projected number of participants that will be reimbursed through the program, rather than all who apply to the program.
- e) Increase is due to an expansion of the program to provide more learning opportunities at the District.
- f) Increase reflects current projections for medical benefits (\$1,286,400), offset by an anticipated reduction in HMO medical claim expense (\$480,700).
- g) Increase is due to an anticipated rise in retiree pharmacy claims.

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7316	OPEB Trust Contributions	Cost	\$ 20,000,000	\$ 5,000,000	\$ 5,000,000	
7320	Employee Benefits					
	Health Insurance - Corporate Fund Employees (includes vision care) <sup>1</sup>	Participants	1,727	1,760	1,760	
		Cost	\$ 20,405,210	\$ 21,895,600	\$ 22,402,900	h)
		Cost/Participant	\$ 11,815.41	\$ 12,440.68	\$ 12,728.92	
	Prescription Drugs <sup>1</sup>	Participants	1,727	1,760	1,760	
		Cost	\$ 4,030,894	\$ 4,043,100	\$ 5,495,300	i)
		Cost/Participant	\$ 2,334.04	\$ 2,297.22	\$ 3,122.33	
	Dental Insurance - Corporate Fund Employees <sup>1</sup>	Participants	1,718	1,705	1,750	
		Cost	\$ 1,212,076	\$ 1,406,000	\$ 1,408,700	
		Cost/Participant	\$ 705.52	\$ 824.63	\$ 804.97	
	Life Insurance - Corporate Fund Employees <sup>1</sup>	Employees	1,786	1,920	1,840	
		Cost	\$ 93,735	\$ 83,500	\$ 85,700	
		Cost/Employee	\$ 52.48	\$ 43.49	\$ 46.58	
	Deferred Compensation Administration	Cost	\$ 88,633	\$ 37,500	\$ 37,500	
	Other Benefits					
	Employee Assistance Program	Cost	\$ 61,848	\$ 72,000	\$ 72,000	
	Flexible Spending Accounts Program	Cost	\$ 30,507	\$ 33,800	\$ 35,000	
	Compensation and Classification Activities	Cost	\$ 241,300	\$ 121,800	\$ 112,400	
7325	Labor and Employee Relations					
	Labor and Employee Relations Activities	Employees	1,962	1,982	1,976	
		Cost	\$ 655,631	\$ 613,000	\$ 640,400	
	Compliance with Unemployment Compensation Requirements	Claims	\$ 10	\$ 15	\$ 10	
		Cost	\$ 23,814	\$ 60,200	\$ 47,900	j)
		Cost/Claim	\$ 2,381.40	\$ 4,013.33	\$ 4,790.00	
	Employee Performance Management	Cost	\$ 116,800	\$ 100,000	\$ 110,000	
7330	Human Resources Administration					
	Personnel Activity Administration	Employees Served	1,962	1,982	1,976	
		Cost	\$ 522,649	\$ 629,000	\$ 783,600	k)
		Cost/Employee	\$ 266.39	\$ 317.36	\$ 396.56	
	Medical Services Payments and Record Maintenance	Examinations	500	250	500	
		Cost	\$ 133,280	\$ 307,700	\$ 167,400	l)
		Cost/Examination	\$ 266.56	\$ 1,230.80	\$ 334.80	

h) Increase reflects the current projections for employee medical benefits.

i) Increase is due to an anticipated rise in employee pharmacy claims.

j) Decrease is due to a downward trend for unemployment compensation.

k) Increase is due to the reallocation of salaries within the program number from Medical Services Payments and Records Maintenance to more accurately reflect the division of resources.

l) Decrease is due to the reallocation of salaries within the program number to Personnel Activity Administration and Civil Service Board Procedures to more accurately reflect the division of resources.

<sup>1</sup> Additional funds are budgeted in the Stormwater Management Fund.

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
	Civil Service Board Procedures					
	Hear and Render Decisions on Appeals from Employees,	Actions	38	55	38	
	Ratify Amendments to the Personnel Rules, Hear and	Cost	\$ 160,600	\$ 110,200	\$ 165,000	m)
	Render Decisions on Discharges	Cost/Action	\$ 4,226.32	\$ 2,003.64	\$ 4,342.11	
7480	Safety Program					
	Occupational Health and Safety Administration (OSHA) Compliance, OSHA Inspections, Reporting, Accident Investigation	Cost	\$ 686,867	\$ 676,516	\$ 646,116	
	Contract Review for Compliance with Safety Standards	# of Reviews	20	142	30	
		Cost	\$ 4,800	\$ 34,100	\$ 7,200	n)
		Cost/Review	\$ 240.00	\$ 240.14	\$ 240.00	
	Safety Equipment					
	New/Rental	Cost	\$ 67,650	\$ 133,000	\$ 72,000	o)
	Replacement	Cost	\$ 214,500	\$ 200,000	\$ 20,000	p)
	Maintenance	Cost	\$ 42,300	\$ 52,300	\$ 17,600	q)
	Medical Health Surveillance					
	First Aid Assistance	Cost	\$ 22,800	\$ 35,000	\$ 35,000	
	Hearing Tests	People Tested	459	535	450	
		Cost	\$ 7,400	\$ 15,000	\$ 9,500	r)
		Cost/Test	\$ 16.12	\$ 28.04	\$ 21.11	
	Spirometry Tests	People Tested	46	54	54	
		Cost	\$ 6,800	\$ 7,500	\$ 7,500	
		Cost/Test	\$ 147.83	\$ 138.89	\$ 138.89	
	Safety Training					
	CPR and First Aid	People Trained	341	198	400	
		Cost	\$ 47,520	\$ 45,700	\$ 46,100	
		Cost/Trainee	\$ 139.35	\$ 230.81	\$ 115.25	
	Confined Spaces	People Trained	261	173	150	
		Cost	\$ 10,380	\$ 10,380	\$ 10,380	
		Cost/Trainee	\$ 39.77	\$ 60.00	\$ 69.20	
	Lockout/Tagout	People Trained	50	106	200	
		Cost	\$ 4,240	\$ 4,240	\$ 4,240	
		Cost/Trainee	\$ 84.80	\$ 40.00	\$ 21.20	
	General Safety	People Trained	8,659	12,441	10,340	
		Cost	\$ 313,436	\$ 434,434	\$ 434,434	
		Cost/Trainee	\$ 36.20	\$ 34.92	\$ 42.01	

m) Increase is due to the reallocation of salaries within the program number from Medical Services Payments and Records Maintenance to more accurately reflect the division of resources.

n) Decrease is due to the exclusion of furnish and deliver contracts in compliance reviews for the Maintenance & Operations Department.

o) Decrease reflects the purchase cycle for ARC Flash personal protective equipment (\$28,000) and self self-contained breathing apparatus (\$19,000).

p) Decrease reflects the purchase cycle for replacement gas meters.

q) Decrease is due to the schedule for safety equipment maintenance.

r) Decrease is due to a reevaluation of the cost of hearing tests to more accurately reflect current expenditures.

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
	Professional Safety	Cost	\$ 5,100	\$ 19,800	\$ 19,800	
	Industrial Hygiene/Right to Know	People Trained	366	981	800	
		Cost	\$ 10,980	\$ 29,430	\$ 29,430	
		Cost/Trainee	\$ 30.00	\$ 30.00	\$ 36.79	
	Fire Prevention and Protection	Cost	\$ 79,800	\$ 76,100	\$ 35,200	s)
	Hazardous Materials Abatement	Cost	\$ 65,500	\$ 103,500	\$ 114,000	
7500	Risk Management Operations					
	Administration	Cost	\$ 382,870	\$ 492,200	\$ 518,100	
	Asset Appraisal and Other Services	Cost	\$ 329,552	\$ 475,000	\$ 300,000	t)
	Broker Services	Cost	\$ 222,800	\$ 226,000	\$ 235,000	
	Insurance Premiums (such as property insurance)	Cost	\$ 3,346,307	\$ 3,500,600	\$ 3,500,600	
7604	Social Security and Medicare Contributions	Cost	\$ 2,427,579	\$ 2,692,800	\$ 88,800	u)
	<b>Total</b>		<b>\$ 72,855,401</b>	<b>\$ 60,072,100</b>	<b>\$ 60,816,800</b>	

- s) Decrease is due to the transfer of maintenance of the fire suppression systems to the Maintenance & Operations Department.
- t) Decrease is due to reduced expenditures for third party administrators (\$75,000) and legal counsel for workers' compensation cases (\$100,000).
- u) Decrease is due to the reallocation of budgeting for the required employer contributions for Social Security and Medicare to the departments where the positions are actually budgeted.

101 25000	Fund: Corporate Department: Human Resources Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,405,320	\$ 5,920,800	\$ 5,920,800	\$ 5,584,100	\$ 5,973,700	\$ 5,973,700	\$ 6,114,600
601060	Compensation Plan Adjustments	170,238	153,600	151,100	113,000	303,500	303,500	314,000
601070	Social Security & Medicare Contributions	2,427,579	2,692,800	2,692,800	2,640,200	88,800	88,800	88,800
601080	Salaries of Nonbudgeted Employees	39,478	-	2,500	1,700	-	-	-
601090	Employee Claims	23,814	60,200	60,200	60,000	47,900	47,900	47,900
601100	Tuition and Training Payments	309,716	667,600	667,600	494,500	440,800	440,800	440,800
601170	Payments for Professional Services	1,275,307	1,323,900	1,323,900	1,238,100	-	-	-
601250	Health and Life Insurance Premiums	59,014,899	44,526,600	44,526,600	42,081,100	48,226,600	48,226,600	48,226,600
601300	Personal Services, N.O.C.	56,241	162,300	162,300	150,000	130,800	130,800	230,800
100	TOTAL PERSONAL SERVICES	68,722,592	55,507,800	55,507,800	52,362,700	55,212,100	55,212,100	55,463,500
612010	Travel	5,024	4,200	4,200	4,000	7,000	7,000	7,000
612030	Meals and Lodging	7,997	8,000	9,600	9,600	12,000	12,000	12,000
612040	Postage, Freight, and Delivery Charges	2,574	2,500	900	600	1,000	1,000	1,000
612050	Compensation for Personally-Owned Automobiles	5,425	8,100	8,100	4,100	5,000	5,000	5,000
612080	Motor Vehicle Operating Services	-	100	100	100	100	100	100
612250	Court Reporting Services	24,239	20,000	20,000	17,000	15,600	15,600	15,600
612260	Medical Services	128,788	227,000	227,000	212,800	180,000	180,000	180,000
612280	Subscriptions and Membership Dues	2,738	3,900	3,900	2,000	-	-	-
612290	Insurance Premiums	3,346,307	3,500,600	3,500,600	3,500,600	3,500,600	3,500,600	3,500,600
612330	Rental Charges	27,063	19,800	19,800	19,800	30,000	30,000	30,000
612430	Payments for Professional Services	-	-	-	-	1,205,700	1,205,700	1,205,700
612490	Contractual Services, N.O.C.	47,623	56,800	56,800	54,200	50,700	50,700	50,700
612780	Safety Repairs and Services	155,844	224,000	269,100	233,000	220,000	220,000	165,200
612820	Computer Software Maintenance	79,780	91,800	51,300	25,200	20,000	20,000	20,000
200	TOTAL CONTRACTUAL SERVICES	3,833,400	4,166,800	4,171,400	4,083,000	5,247,700	5,247,700	5,192,900
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	31,620	18,100	18,600	11,500	20,000	20,000	20,000
623720	Books, Maps, and Charts	2,339	6,400	6,400	6,000	5,000	5,000	5,000
623780	Safety and Medical Supplies	263,447	365,000	341,200	340,200	131,500	131,500	131,500

101 25000	Fund: Corporate Department: Human Resources Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623990	Materials and Supplies, N.O.C.	2,003	8,000	7,500	4,300	3,900	3,900	3,900
300	TOTAL MATERIALS AND SUPPLIES	299,408	397,500	373,700	362,000	160,400	160,400	160,400
634820	Computer Software	-	-	19,200	19,200	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	-	-	19,200	19,200	-	-	-
<b>TOTAL HUMAN RESOURCES</b>		<b>\$ 72,855,401</b>	<b>\$ 60,072,100</b>	<b>\$ 60,072,100</b>	<b>\$ 56,826,900</b>	<b>\$ 60,620,200</b>	<b>\$ 60,620,200</b>	<b>\$ 60,816,800</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

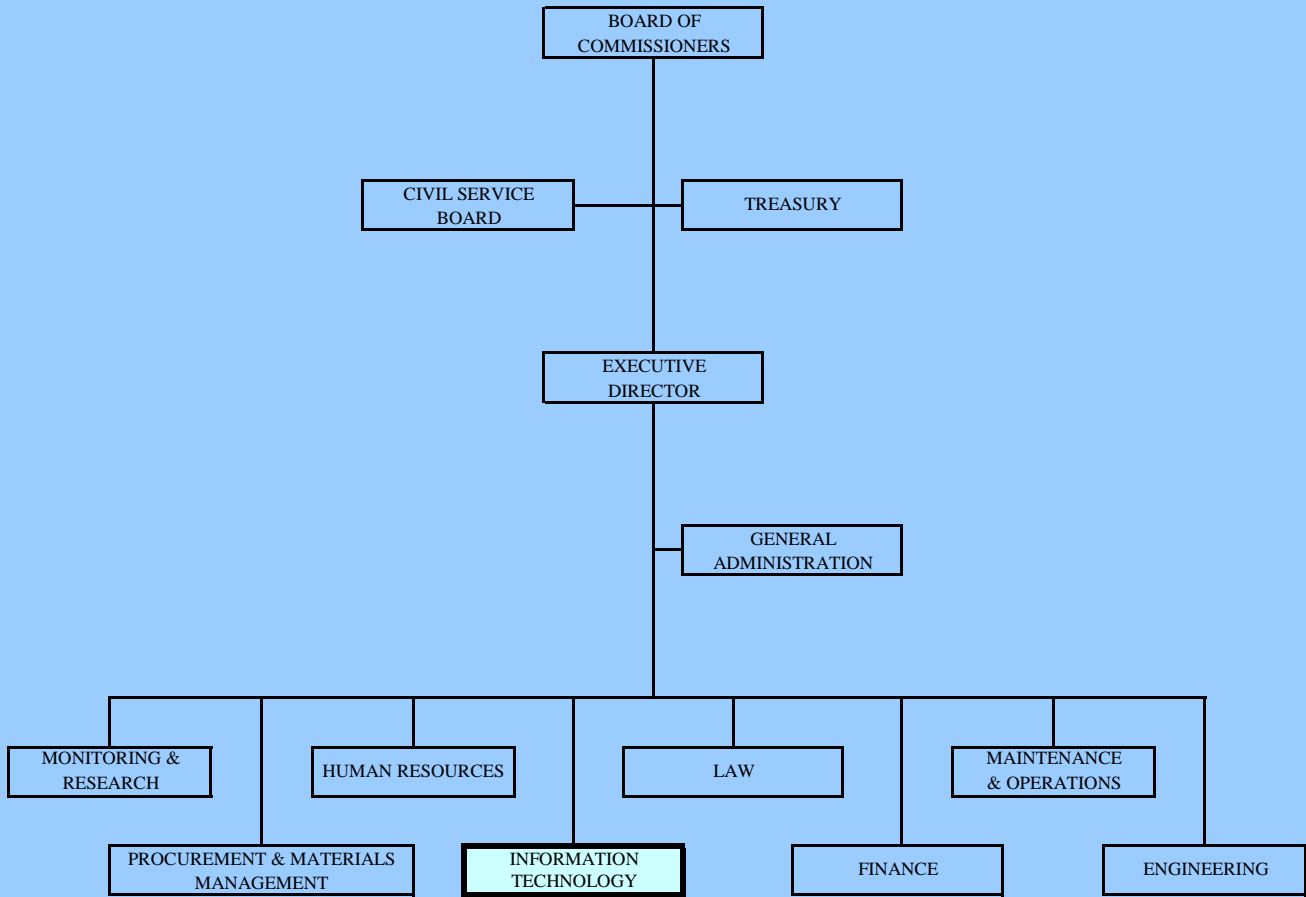
Fund: Corporate Dept: Human Resources Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>252</b>	<b>Executive Unit</b>					
EX10	Director of Human Resources	1	1		1	
HP20	Assistant Director of Human Resources	1	2		2	
EX06	Secretary to Officer	1	1		1	
EX16	Civil Service Board Chairman	1	1		1	
EX09	Civil Service Board Member	2	2		2	
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	1		1	
HP11	Administrative Specialist	-	-		1	
TOTAL	Executive Unit	7	8	763,286.42	9	879,534.24
<b>254</b>	<b>Employee Selection Section</b>					
HP19	Human Resources Manager	1	1		-	
HP19	Human Resources Manager #2 (New Grade HP18)	-	-		1	
HP17	Senior Human Resources Analyst	2	2		-	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	-	-		2	
HP16	Senior Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	-	-		1	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	3	1		1	
HP14	Human Resources Analyst	3	5		4	
HP13	Senior Administrative Specialist	2	2		2	
HP11	Administrative Specialist	2	3		3	
TOTAL	Employee Selection Section	13	14	1,315,952.30	14	1,357,067.66
<b>255</b>	<b>Employee Development Section</b>					
HP19	Human Resources Manager	1	1		-	
HP19	Human Resources Manager #2 (New Grade HP18)	-	-		1	
HP17	Senior Human Resources Analyst	1	1		-	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	-	-		1	
HP14	Human Resources Analyst	1	1		1	
HP12	Human Resources Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	



Fund: Corporate Dept: Human Resources Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	1		1	
TM01	Intern	9	12		12	
PR1025	Apprentice	1	1		1	
TOTAL	Employee Development Section	15	18	903,282.12	18	943,044.18
<b>256</b>	<b>Classification, Compensation, &amp; Benefits Section</b>					
HP19	Human Resources Manager	1	1		-	
HP19	Human Resources Manager #2 (New Grade HP18)	-	-		1	
HP17	Senior Human Resources Analyst	2	2		-	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	-	-		2	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		1	
HP14	Human Resources Analyst	2	2		2	
HP11	Administrative Specialist	3	2		2	
TOTAL	Classification, Compensation, & Benefits Section	9	8	796,432.00	8	830,524.24
<b>258</b>	<b>Employee Relations Section</b>					
HP19	Human Resources Manager	1	1		-	
HP19	Human Resources Manager #2 (New Grade HP18)	-	-		1	
HP17	Senior Human Resources Analyst	2	2		-	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	-	-		2	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		1	
HP14	Human Resources Analyst	2	2		2	
HP12	Human Resources Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	1	2		2	
HP09	Administrative Clerk	-	1		-	
TOTAL	Employee Relations Section	8	9	872,793.22	8	862,598.36
<b>259</b>	<b>Risk Management Section</b>					
HP19	Risk Manager	1	1		-	

Fund: Corporate Dept: Human Resources Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP19	Risk Manager #2 (New Grade HP18)	-	-		1	
HP17	Claims Administrator	1	1		-	
HP17	Claims Administrator #2 (New Grade HP16)	-	-		1	
HP17	Senior Risk Analyst	1	1		-	
HP17	Senior Risk Analyst #2 (New Grade HP16)	-	-		1	
HP17	Senior Safety Specialist	1	1		-	
HP17	Senior Safety Specialist #2 (New Grade HP16)	-	-		1	
HP15	Safety Coordinator #2 (Safety Specialist) (New Grade HP14)	4	4		4	
HP14	Human Resources Analyst	1	1		1	
HP14	Safety Specialist	5	5		5	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	2	2		2	
TOTAL	Risk Management Section	17	17	1,623,221.60	16	1,596,938.98
TOTAL	Human Resources	69	74	6,274,967.66	73	6,469,707.66

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

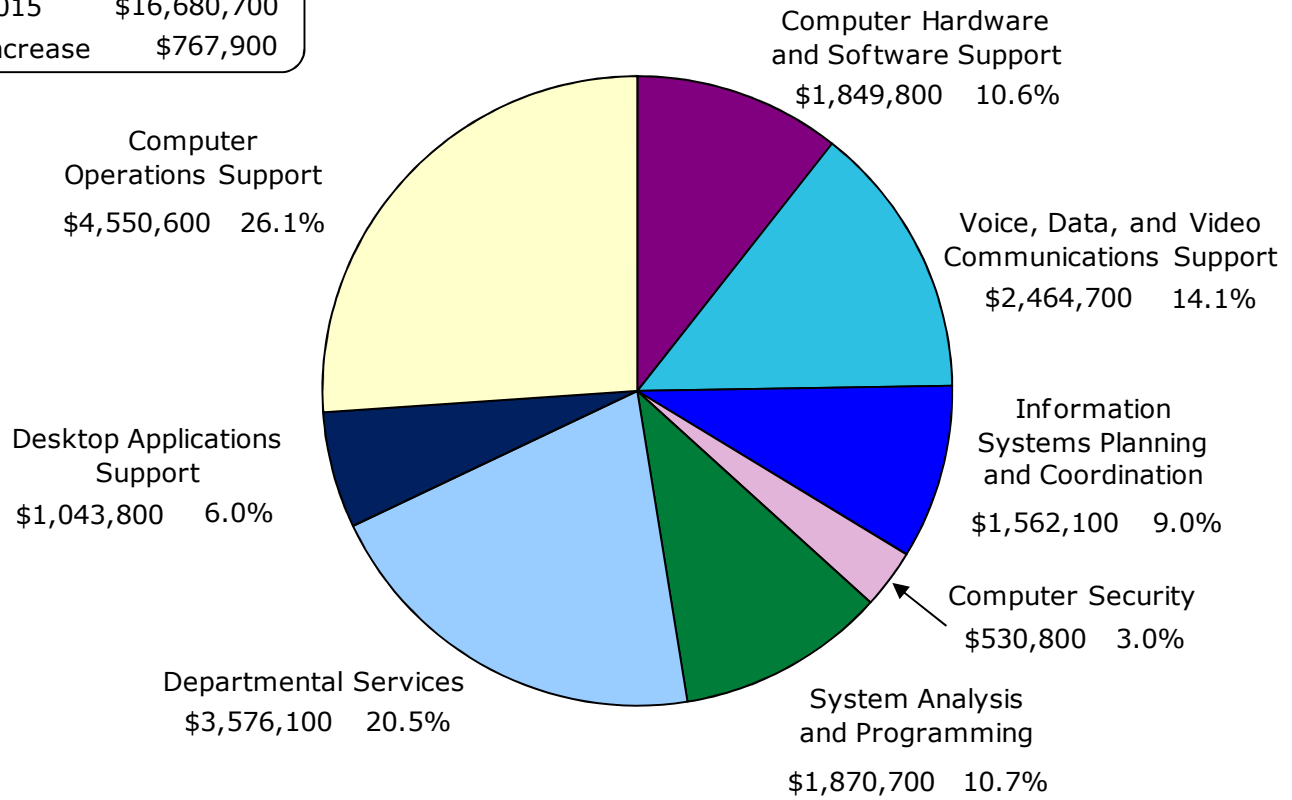


INFORMATION  
TECHNOLOGY

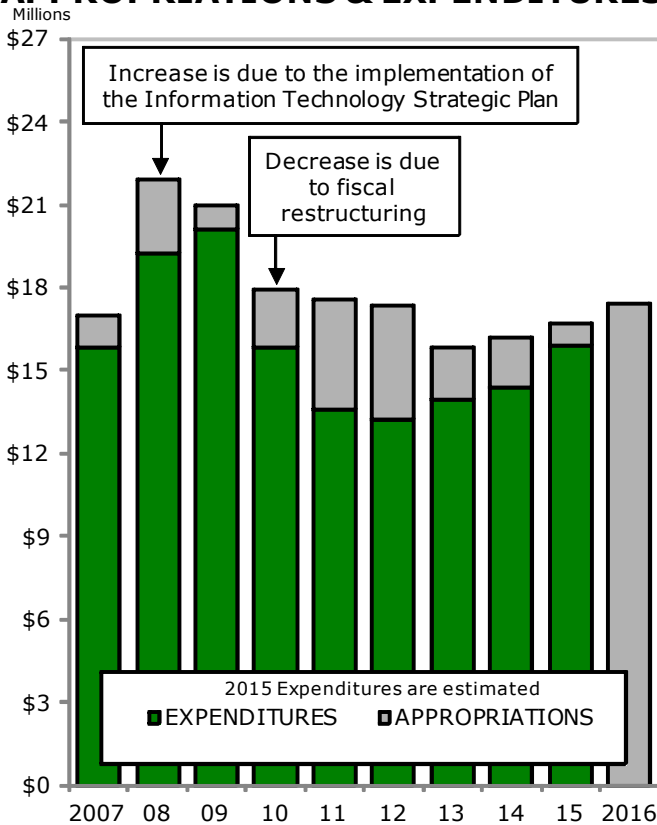
# INFORMATION TECHNOLOGY

2016	\$17,448,600
2015	\$16,680,700
Increase	\$767,900

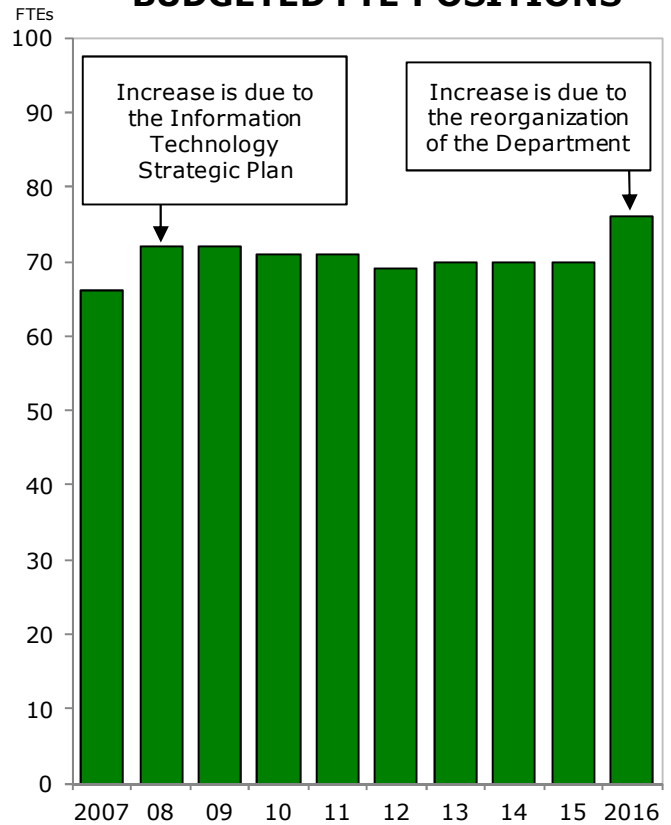
## FUNCTIONS



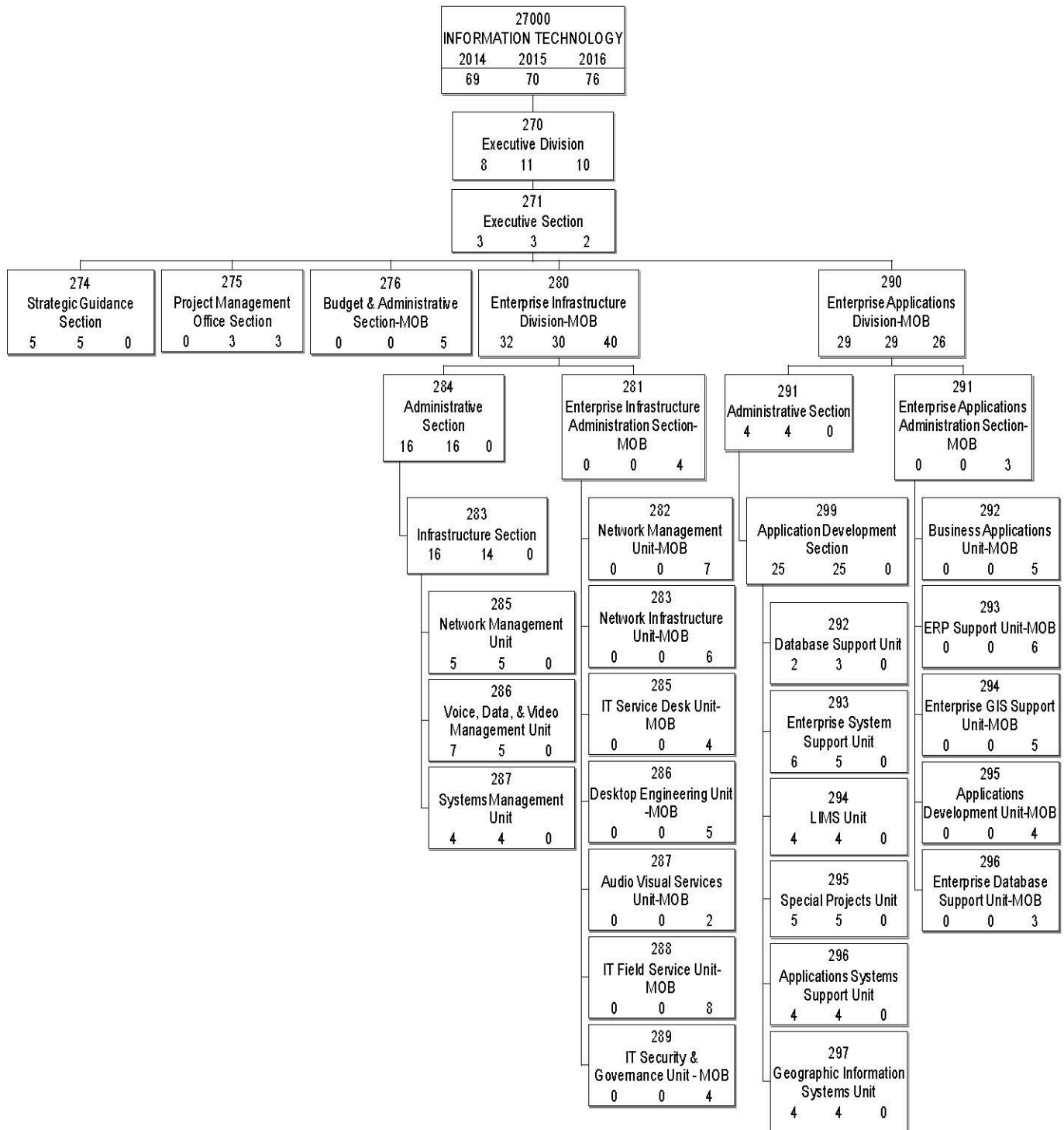
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# INFORMATION TECHNOLOGY



Effective 01/01/2016, the Information Technology Department was reorganized.

## INFORMATION TECHNOLOGY

**The mission of the Information Technology Department (ITD) is to promote successful achievement of the District's Strategic Business Plan through targeted information technology (IT) investments and services and to maintain technology infrastructures and architectures at levels that promote efficacy, efficiency, and sustainable practices throughout the District.**

### Departmental Summary

In pursuit of its mission, the ITD coordinates the planning and implementation of IT throughout the District. The ITD establishes District-wide computer standards and provides services in the following key areas: IT planning and program management, design and implementation, applications development and support, infrastructure operations and maintenance, user support, security, and disaster recovery.

### Summary of 2015 Accomplishments

- Continued the implementation of performance management dashboards;
- Continued the implementation of a new Real Estate/Global Information System (GIS) for the Law Department to manage leases and property;
- Continued the implementation of the newly developed IT Infrastructure Strategy, including upgraded firewalls and the implementation of continuous threat prevention and mobile device management platforms;
- Completed the replacement of existing low-capacity printing devices with higher capacity multi-functional devices;
- Upgraded the Polycom high-definition video conferencing system, adding functionality for additional sites to join from locations inside and outside the District;
- Completed the migration from AT&T OPT-E-MAN® to AT&T Switched Ethernet, which provides reliable high-speed data communications with the flexibility to meet the performance and bandwidth required by the District;
- Completed the migration of the District's email system to Microsoft's Business Productivity Online Suite (Office 365);
- Completed the installation of two Hewlett Packard Storage Area Networks (SANs), which replaced multiple existing SANs that were in excess of six years in age and were no longer supported for many current District applications;
- Completed the installation of a multimodal messaging platform that provides reliable high-volume broadcast, narrowcast and group text, voice, and email messages to employees, staff, and other members of a campus community;
- Completed the datacenter consolidation and relocation to a new co-location facility, resulting in cost and physical footprint reduction;
- Upgraded the Kofax Network Fax software, which is utilized by many of the District's departments, including Procurement & Materials Management, Maintenance & Operations, Monitoring & Research, and Engineering, for sending and receiving electronic faxes;
- Completed the installation of new server equipment, replacing existing servers that were in excess of six years in age and were not supported for many of the applications currently running.

### Budget Highlights

The 2016 appropriation for the ITD is \$17,448,600, an increase of \$767,900, or 4.6 percent, from 2015. The proposed 2016 staffing level is 76, an increase of six from 2015. Three IT Managers, one IT Support Coordinator, one IT Security Analyst, and one Application Analyst positions were added.

Significant features of the 2016 budget are:

- Evaluate and align ITD's existing strategic plan to promote the achievement of the District's Strategic Business Plan;
- Implement an agile application development platform that will improve the efficiency of application development;
- Expand the use of GIS applications, continued implementation of the Real Estate Portfolio Management System, performance dashboards, and the SAP enterprise system evaluation will contribute to increased business efficiencies;
- Continue development and deployment of mobile applications that will improve the efficiency of District personnel and provide greater transparency to the public regarding District operations;
- Facilitate continuous improvement including areas such as management of the District's IT assets, project management methodology, and IT support function;
- Implement a standardized project management methodology for all IT-related projects;
- Instill best practices for managing IT investments by implementing a standardized IT incident response framework;
- Delineate the key strategies for organizational and staffing structures to support the ITD.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:****• Add Value**

The ITD supports the various systems that are used by the departments to implement their strategies. Among these are the internet-based Publicly owned treatment works Administration and Compliance System (iPACS), Laboratory Information Management System (LIMS), the Combined Sewer Overflow Notification System, Small Streams Maintenance Reporting System, Incident Reporting System, Stormwater Inundation Mapping Application, the Stormwater Management Reporting Application, and others.

The ITD will continue to pursue green initiatives both in its own support environment and by assisting with other departments' initiatives. In conjunction with the Human Resources Department, the use of electronic message boards will be improved and expanded by the end of the fourth quarter of 2016 to improve communications to internal staff while reducing the volume of memos and paper. The ITD completed the implementation of the Print Management Strategy of replacing older print technology with higher capacity multi-functional devices in order to reduce energy consumption, provide improved electronic distribution of scanned documents, and to promote a green, paperless environment. The ITD will continue to explore ways to make printing physical documents more efficient.

**• Excellence**

The development and implementation of performance management dashboards will continue during 2016. This project will provide executives and managers with the ability to monitor the performance of various key business performance indicators.

The ITD will assist the Monitoring & Research Department by providing an enterprise project program management software suite by the end of the third quarter of 2016.

The ITD will continue to assist the Office of Public Affairs in improving the delivery and maintenance of the District's website content at [mwrdd.org](http://mwrdd.org), to provide easy and transparent access to reports and data, and clear, consistent, accurate, and accessible information about the District and our areas of responsibility.

Development and use of current technologies such as mobile applications will facilitate interaction with the public and deliver reliable and useful information. The first District-developed mobile application, the MWRD Citizen Incident Reporting System available at [mwrdd.org](http://mwrdd.org), was developed for use by the public to report odor, water pollution, waterway blockage, and other incidents.

**• Resource Recovery**

The ITD supports the various systems that are used by the departments to implement their strategies to pursue the recovery of natural resources. Among these are iPACS, LIMS, the Scales application, and many others. In addition, the ITD is committed to maintaining a reliable, flexible technology infrastructure to support new initiatives as they are introduced.

**• Develop Employees**

The ITD will continue to develop a culture that moves beyond a silo environment to a collaborative environment where the contributions of every employee are recognized. The ITD will continue to develop process and people-focused skill sets to meet the challenges of the changing demands of user departments and current technology platforms. When projects require highly specialized subject matter expertise, the department may partner with outside resources. Management will work with staff to develop competency-based individual development plans and ensure that employees recognize and understand their accountabilities.

The ITD will continue to facilitate the overall development of employees by providing the audio and video infrastructure to prepare in-house training sessions, which will be available to employees via the District's portal. The portal supports other training materials as well.

The ITD will continue to support the use of videoconferencing technologies and webinars to facilitate meetings and on-site training. Infrastructure improvements will facilitate the anticipated increased use of web-based training managed by the Human Resources Department from employee workstations.

**• Leading Partnerships**

The ITD continues to seek strategic partnerships with water, wastewater, and regional agencies. This provides the District with opportunities to network and share cross-agency best practices. The ITD GIS program has an established relationship with Cook County.

The ITD also continues to maintain its relationship with the Water and Wastewater Chief Information Officer (CIO) Forum which is the only water and wastewater agency-focused organization for Information Technology Executives in the industry. The Water and Wastewater CIO Forum provides its members with the unique opportunity to discuss specific IT leadership challenges and solutions with their industry counterparts. It also provides an opportunity for members to engage with industry leaders from global technology companies regarding the future state of systems relevant to the District.

ITD staff will continue to attend the Water Environment Federation's Annual Technical Exhibition and Conference to stay abreast of IT developments in water quality.

- **Technology**

The ITD will continue efforts of simplifying the SAP enterprise system to increase utilization and maximize effectiveness by reducing the amount of customization and leveraging standard built-in functionality. The formalized SAP Evaluation project includes an evaluation of the SAP enterprise system with the Total Cost of Operations initiative. This initiative will result in a roadmap to cost reduction, release of capacity, and budgets for innovation, while maintaining business continuity and consolidation of the SAP enterprise system landscape for the future, leveraging on-premise and/or cloud computing. The roadmap will be used to update the SAP enterprise system to provide a simplified, user-friendly system that maximizes the use of the capabilities offered in the core system. This project may extend to 2017.

The ITD will continue to evaluate infrastructure and software technologies to streamline administration, reduce costs, and optimize performance. Improvement of the ITD's facilities management and asset management will reduce maintenance expenditures. This will include evaluating the usage and distribution of printers, scanners, and copiers and improving strategies to provide cost-efficient print services to the departments.

Upgrades to technology infrastructure such as SANs, servers, VMware, Citrix, and desktops will provide higher reliability and availability, as well as reduce power and cooling requirements. Completion is scheduled for the end of the fourth quarter of 2016.

The ITD will continue to pursue opportunities for enterprise solutions to ensure that efforts can be shared across agency resources. Efforts are currently underway in the areas of document management, project management, and the use of Microsoft Office 365. The move to the use of Microsoft Office 365 by the end of the fourth quarter of 2016 will not only provide employees with the latest versions of Microsoft Office software at the office, but will also move them into the mobile workspace by providing access to District email and documents on up to five different devices (including Windows Phone, iOS, and Android devices). The ITD expects considerable savings over time in infrastructure, administration, and licensing costs due to the Microsoft Office 365 implementation.

The GIS program will continue to grow via data development, application development, and continued systems integration. Application and data development will continue to focus on providing District staff with the richest geographic information available while integrating it with the current business systems to support various business decisions. Also in 2016, the GIS program will continue to deliver data and applications to District field staff via mobile devices providing them with a more streamlined and efficient mechanism to enter data at the point of origin.



**27000 INFORMATION TECHNOLOGY**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. <b>COMPUTER HARDWARE AND SOFTWARE SUPPORT:</b> The Information Technology Department (ITD) provides maintenance and operations of all hardware, including Sun/UNIX SAP servers, storage area networks/thin-client central computer hardware, and software for nine major locations.	\$ 1,849,800	10.6%
2. <b>VOICE, DATA, AND VIDEO COMMUNICATIONS SUPPORT:</b> The Enterprise Infrastructure Division maintains the District's wide-area network as well as the Main Office Building Complex local area networks. Staff is responsible for planning, installing, and maintaining of voice, data, and video communications for the entire District.	\$ 2,464,700	14.1%
3. <b>INFORMATION SYSTEMS PLANNING AND COORDINATION:</b> Provides a strategic perspective used to align the ITD with the stated goals and objectives of the District and its departments. The staff is responsible for services such as strategic planning of technology and communications, as well as disaster recovery planning.	\$ 1,562,100	9.0%
4. <b>SYSTEMS ANALYSIS AND PROGRAMMING:</b> The Enterprise Applications Division will be responsible for the system management of the Enterprise Financial System applications which includes ongoing database maintenance, system configuration, and enhancement using Advanced Business Application Programming techniques. Internet/intranet services will continue to expand to meet the District's needs.	\$ 1,870,700	10.7%
5. <b>COMPUTER OPERATIONS SUPPORT:</b> The ITD operates two computer rooms which house the District's Sun and ALPHA systems, storage area networks, network servers, and ancillary equipment.	\$ 4,550,600	26.1%
6. <b>DEPARTMENTAL SERVICES:</b> The ITD provides direct consulting, planning, and maintenance assistance to all departments as well as the administration of storage area networks/thin-clients and necessary networking. Additional services include support of department-specific software such as Laboratory Information Management System, Maintenance Management System, the internet-based Publicly owned treatment works Administration and Compliance System, along with Treasury and real estate applications.	\$ 3,576,100	20.5%
7. <b>COMPUTER SECURITY:</b> The ITD is responsible for the security of all District information systems, disaster recovery system, and data, which includes monitoring and enforcing compliance with software licensing agreements, District security directives, and the disaster recovery plan. The staff is also responsible for auditing remaining workstations to verify compliance.	\$ 530,800	3.0%
8. <b>DESKTOP APPLICATIONS SUPPORT:</b> The assigned staff will continue to provide applications and technical support to over 2,000 computer system users.	\$ 1,043,800	6.0%
<b>Total</b>	<b>\$ 17,448,600</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Call Center - Timeframe: Response time to call center requests for assistance.	< 24 Hrs.	< 24 Hrs.	< 24 Hrs.
2. Call Center - Total Repeats: Reduce number of repeat calls for service.	Reduced 10%	Reduce 20%	Reduce 20%
3. Project Schedule: Ensure project completion consistent with Request For Proposal/Budget requests.	On Time	On Time	On Time
4. Project Budget: Ensure the completion of ITD projects at or below budget.	At Budget	At Budget	At Budget
5. Customer Satisfaction: Ensure user satisfaction with ITD systems, applications, and infrastructure. On a scale of 1 to 5 where 5 is the highest.	3	4	4

**27000 INFORMATION TECHNOLOGY**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
7381	Systems Analysis and Programming	\$ 2,397,237	2016 17	\$ 1,870,700	\$ (278,000)	(12.9)	a)	
			2015 16	\$ 2,148,700				
7382	Desktop Applications Support	\$ 452,686	2016 6	\$ 1,043,800	\$ 602,800	136.7	b)	
			2015 5	\$ 441,000				
7383	Voice, Data, and Video Communications Support	\$ 3,189,283	2016 9	\$ 2,464,700	\$ (683,900)	(21.7)	c)	
			2015 8	\$ 3,148,600				
7384	Central Computer Hardware and Proprietary Software Support	\$ 2,493,153	2016 8	\$ 1,849,800	\$ (1,239,300)	(40.1)	d)	
			2015 7	\$ 3,089,100				
7385	Computer Operations, Maintenance, and Support	\$ 1,260,966	2016 8	\$ 4,550,600	\$ 2,399,300	111.5	e)	
			2015 7	\$ 2,151,300				
7387	Computer Security	\$ 275,991	2016 4	\$ 530,800	\$ 240,200	82.7	f)	
			2015 2	\$ 290,600				
7388	Information Systems Planning	\$ 521,096	2016 6	\$ 781,000	\$ 178,300	29.6	g)	
			2015 5	\$ 602,700				
7389	Information Systems Coordination	\$ 552,458	2016 4	\$ 781,100	\$ (76,100)	(8.9)	h)	
			2015 4	\$ 857,200				
7800	Information Technology Services Provided Directly to Other Departments	\$ 3,225,528	2016 14	\$ 3,469,900	\$ (481,600)	(12.2)	i)	
			2015 16	\$ 3,951,500				
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 106,200	\$ 106,200	100.0	j)	
			2015 -	\$ -				
Totals		\$ 14,368,398	2016 76	\$ 17,448,600	\$ 767,900	4.6%		
			2015 70	\$ 16,680,700				

- a) Decrease is due to the transfer of professional services for the following applications to other Program Numbers: SAP to 7384 (\$200,000) and Laboratory Information Management System to 7802 (\$50,000), reductions in professional services for software support (\$84,500), offset by the reallocation of salaries to more accurately reflect current activities (\$12,700) and the addition of one FTE position (\$70,600).
- b) Increase is due to the assignment of the workstation replacement project (\$338,800) and interdepartmental hardware requests (\$120,000) to Program Number 7382, and the addition of one FTE position (\$128,000).
- c) Decrease is due to the transfer of the following communication equipment maintenance items to Program Number 7385: Avaya (\$350,000), Commvault (\$125,000), and Cisco routers and switches (\$175,000), point to point communication costs (\$100,700), and the reclassification of teleconferencing equipment from current expense to fixed asset (\$98,000), offset by the reallocation of salaries to more accurately reflect current activities (\$111,400).
- d) Decrease is due to the transfer of the interdepartmental request project to Program Number 7382 (\$459,000) and the transfer of departmental maintenance to Program Number 7385 (\$815,000).
- e) Increase is due to the consolidation of departmental maintenance under Program Number 7385.
- f) Increase is due to the addition of two FTE positions (\$167,500) to the IT Security and Governance Unit and the reallocation of salaries to more accurately reflect current activities (\$91,100).
- g) Increase is due to the addition of one FTE position (\$135,300) and office supplies (\$16,100).
- h) Decrease is due to the transfer of multifunctional photocopier leasing to Program Number 7384 (\$310,000), offset by compensation plan adjustments (\$154,500) and the request for an organization-wide security assessment (\$75,000).
- i) Decrease is due to the transfer of Microsoft license support (\$525,000) and Laboratory Information Management System maintenance (\$106,000) to Program Number 7385, and compensation plan adjustments (\$80,500), offset by internet-based Publicly owned treatment works Administration and Compliance System maintenance (\$260,000).
- j) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**27000 INFORMATION TECHNOLOGY**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7380	Information Technology and Telecommunications					
7381	Acquire, Develop, and Maintain Computer Programs and Systems	Application Modules Supported	80	92	90	a)
		Cost	\$ 1,419,387	\$ 2,148,700	\$ 1,870,700	
		Cost/Module	\$ 17,742.34	\$ 23,355.43	\$ 20,785.56	
	Strategic Plan Projects	Cost	\$ 977,850	\$ -	\$ -	
7382	Desktop Applications Support	# of Service Calls	12,126	10,000	13,002	b)
		Cost	\$ 452,686	\$ 441,000	\$ 1,043,800	
		Cost/Service Call	\$ 37.33	\$ 44.10	\$ 80.28	
7383	Voice, Data, and Video Communications Support	Cost	\$ 3,189,283	\$ 3,148,600	\$ 2,464,700	c)
7384	Central Computer Hardware and Proprietary Software Support	Cost	\$ 2,493,153	\$ 3,089,100	\$ 1,849,800	d)
7385	Computer Operations, Maintenance, and Support	Cost	\$ 1,260,966	\$ 2,151,300	\$ 4,550,600	e)
7387	Computer Security	Cost	\$ 275,991	\$ 290,600	\$ 530,800	f)
7388	Information Systems Planning	Cost	\$ 521,096	\$ 602,700	\$ 781,000	g)
7389	Information Systems Coordination	Cost	\$ 552,458	\$ 857,200	\$ 781,100	h)
7800	Information Technology Services Provided Directly to Other Departments	# of Users	1,874	1,947	2,000	i)
		Cost	\$ 3,225,528	\$ 3,951,500	\$ 3,469,900	
		Cost/User	\$ 1,721.20	\$ 2,029.53	\$ 1,734.95	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 106,200	j)
		Total	\$ 14,368,398	\$ 16,680,700	\$ 17,448,600	

- a) Decrease is due to the transfer of professional services for the following applications to other Program Numbers: SAP to 7384 (\$200,000) and Laboratory Information Management System to 7802 (\$50,000), reductions in professional services for software support (\$84,500), offset by the reallocation of salaries to more accurately reflect current activities (\$12,700) and the addition of one FTE position (\$70,600).
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- j) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 27000	Fund: Corporate Department: Information Technology Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 7,020,194	\$ 7,923,500	\$ 7,773,500	\$ 7,560,000	\$ 8,558,500	\$ 8,460,300	\$ 8,686,300
601060	Compensation Plan Adjustments	151,147	141,500	291,500	276,500	179,200	179,200	186,300
601070	Social Security & Medicare Contributions	-	-	-	-	106,200	106,200	106,200
601100	Tuition and Training Payments	108,803	90,000	90,000	80,000	90,000	90,000	90,000
601170	Payments for Professional Services	301,166	435,000	435,000	270,000	-	-	-
100	TOTAL PERSONAL SERVICES	7,581,310	8,590,000	8,590,000	8,186,500	8,933,900	8,835,700	9,068,800
612010	Travel	2,533	5,000	5,000	2,000	1,500	1,500	1,500
612030	Meals and Lodging	3,701	10,000	10,000	1,000	2,000	2,000	2,000
612050	Compensation for Personally-Owned Automobiles	5,474	5,000	5,000	4,900	5,100	5,100	5,100
612080	Motor Vehicle Operating Services	-	100	100	100	100	100	100
612210	Communication Services	1,229,501	1,390,600	1,390,600	1,300,000	1,304,400	1,304,400	1,304,400
612280	Subscriptions and Membership Dues	1,812	-	-	-	-	-	-
612330	Rental Charges	68,894	310,000	310,000	310,000	310,000	310,000	310,000
612430	Payments for Professional Services	-	-	-	-	640,300	640,300	640,300
612490	Contractual Services, N.O.C.	3,867	32,000	32,000	10,000	2,700	2,700	2,700
612810	Computer Equipment Maintenance	550,615	642,500	642,500	610,000	651,000	651,000	651,000
612820	Computer Software Maintenance	2,910,098	3,577,400	3,577,400	3,577,400	3,650,200	3,650,200	3,650,200
612840	Communications Equipment Maintenance (Includes Software)	699,930	719,200	719,200	700,000	788,000	788,000	788,000
200	TOTAL CONTRACTUAL SERVICES	5,476,425	6,691,800	6,691,800	6,515,400	7,355,300	7,355,300	7,355,300
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	21,598	18,500	23,500	18,000	19,100	19,100	19,100
623720	Books, Maps, and Charts	663	400	400	400	400	400	400
623800	Computer Software	261,562	252,800	245,300	232,000	250,700	250,700	250,700
623810	Computer Supplies	529,517	838,300	840,800	660,000	485,200	485,200	485,200
623850	Communications Supplies	132,235	90,000	90,000	89,000	122,300	122,300	122,300
623990	Materials and Supplies, N.O.C.	53	100	100	100	-	-	-
300	TOTAL MATERIALS AND SUPPLIES	945,628	1,200,100	1,200,100	999,500	877,700	877,700	877,700
634810	Computer Equipment	15,661	52,000	52,000	45,000	20,000	20,000	20,000

101 27000	Fund: Corporate Department: Information Technology Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634820	Computer Software	39,348	25,500	25,500	10,000	14,800	14,800	14,800
634840	Communications Equipment (Includes Software)	285,081	121,300	121,300	121,300	112,000	112,000	112,000
634990	Machinery and Equipment, N.O.C.	24,946	-	-	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	365,036	198,800	198,800	176,300	146,800	146,800	146,800
TOTAL INFORMATION TECHNOLOGY		\$ 14,368,398	\$ 16,680,700	\$ 16,680,700	\$ 15,877,700	\$ 17,313,700	\$ 17,215,500	\$ 17,448,600

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>270</b>	<b>Executive Division</b>					
<b>271</b>	<b>Executive Section</b>					
EX17	Director of Information Technology	1	1		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		-	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Section	3	3	453,340.42	2	329,826.90
<b>274</b>	<b>Strategic Guidance Section</b>					
HP19	Computer Technology Supervisor	1	1		-	
HP18	Computer Security Analyst	1	1		-	
HP18	Senior Network Analyst	1	1		-	
HP17	Computer Systems Administrator	1	1		-	
HP11	Word Processing Coordinator #2 (Administrative Specialist)	1	1		-	
TOTAL	Strategic Guidance Section	5	5	623,179.18	-	-
<b>275</b>	<b>Project Management Office Section</b>					
HP19	Project Management Office Manager	-	1		1	
HP17	Senior Business Analyst	-	1		-	
HP17	Senior Business Analyst #2 (New Grade HP16)	-	-		1	
HP15	Business Analyst	-	1		-	
HP15	Business Analyst #2 (New Grade HP14)	-	-		1	
TOTAL	Project Management Office Section	-	3	311,404.60	3	320,746.66
<b>276</b>	<b>Budget &amp; Administrative Section - MOB</b>					
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	-	-		1	
HP11	Administrative Specialist	-	-		3	
HP11	Administrative Specialist #4	-	-		1	
TOTAL	Budget & Administrative Section - MOB	-	-	-	5	435,184.10
TOTAL	Executive Division	8	11	1,387,924.20	10	1,085,757.66

Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>280</b>	<b>Enterprise Infrastructure Division - MOB (formerly IT Infrastructure / User Support Division)</b>					
<b>281</b>	<b>Enterprise Infrastructure Administration Section - MOB</b>					
HP20	Assistant Director of Information Technology	-	-		1	
HP19	Information Technology Manager	-	-		3	
TOTAL	Enterprise Infrastructure Administration Section - MOB	-	-	-	4	520,033.02
<b>282</b>	<b>Network Management Unit - MOB</b>					
HP18	Senior Network Engineer #1	-	-		1	
HP18	Senior Systems Administrator	-	-		1	
HP18	Senior Systems Administrator #1	-	-		1	
HP17	Computer Systems Administrator #2 (Systems Administrator) (New Grade HP16)	-	-		3	
HP17	Senior Systems Programmer #2 (Systems Administrator) (New Grade HP16)	-	-		1	
TOTAL	Network Management Unit - MOB	-	-	-	7	946,998.78
<b>283</b>	<b>Network Infrastructure Unit - MOB</b>					
HP18	Senior Network Engineer	-	-		1	
HP16	Network Engineer	-	-		4	
NR1541	Telecommunications Specialist	-	-		1	
TOTAL	Network Infrastructure Unit - MOB	-	-	-	6	659,744.02
<b>285</b>	<b>IT Service Desk Unit - MOB</b>					
HP15	IT Support Coordinator	-	-		1	
HP12	Systems Support Specialist II #2 (IT Support Analyst I) (New Grade HP11)	-	-		1	
HP11	IT Support Analyst I	-	-		2	
TOTAL	IT Service Desk Unit - MOB	-	-	-	4	299,873.86
<b>286</b>	<b>Desktop Engineering Unit - MOB</b>					
HP18	Senior Desktop Engineer	-	-		1	
HP17	Computer Systems Administrator #2 (Desktop Engineer) (New Grade HP16)	-	-		3	
HP15	Computer Systems Coordinator #2 (Desktop Analyst) (New Grade HP14)	-	-		1	
TOTAL	Desktop Engineering Unit - MOB	-	-	-	5	629,358.60
<b>287</b>	<b>Audio Visual Services Unit - MOB</b>					
HP16	A/V Administrator	-	-		1	

Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	A/V Analyst	-	-		1	
TOTAL	Audio Visual Services Unit - MOB	-	-	-	2	192,660.78
<b>288</b>	<b>IT Field Service Unit - MOB</b>					
HP18	Senior Computer Systems Administrator #2 (IT Support Coordinator) (New Grade HP15)	-	-		1	
HP17	Computer Systems Administrator #2 (IT Support Analyst II) (New Grade HP13)	-	-		3	
HP15	Computer Systems Coordinator #2 (IT Support Analyst II) (New Grade HP13)	-	-		1	
HP15	Computer Systems Coordinator #2 (IT Support Analyst I) (New Grade HP11)	-	-		2	
HP11	IT Support Analyst I	-	-		1	
TOTAL	IT Field Service Unit - MOB	-	-	-	8	902,252.52
<b>289</b>	<b>IT Security &amp; Governance Unit - MOB</b>					
HP18	Senior IT Security Administrator	-	-		1	
HP17	Computer Systems Administrator #2 (IT Security Analyst) (New Grade HP14)	-	-		1	
HP17	IT Security Administrator #2 (New Grade HP16)	-	-		1	
HP14	IT Security Analyst	-	-		1	
TOTAL	IT Security & Governance Unit - MOB	-	-	-	4	470,717.78
<b>284</b>	<b>Administrative Section</b>					
HP20	Assistant Director of Information Technology	1	1		-	
HP18	Senior Computer Systems Administrator	1	1		-	
HP17	Computer Systems Administrator	5	5		-	
HP15	Computer Systems Coordinator	3	3		-	
HP12	Systems Support Specialist II	2	2		-	
HP11	Systems Support Specialist I	2	2		-	
HP11	Administrative Specialist	2	2		-	
TOTAL	Administrative Section	16	16	1,682,870.54	-	-
<b>283</b>	<b>Infrastructure Section</b>					
<b>285</b>	<b>Network Management Unit</b>					
HP18	Senior Network Analyst	1	1		-	
HP16	Network Analyst	4	4		-	
TOTAL	Network Management Unit	5	5	553,110.22	-	-



Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>286</b>	<b>Voice, Data, &amp; Video Management Unit</b>					
HP18	Senior Computer Systems Administrator	1	1		-	
HP17	Computer Systems Administrator	2	2		-	
HP16	Network Analyst	1	-		-	
HP16	Senior Telecommunications Specialist	1	1		-	
HP15	Computer Systems Coordinator	1	-		-	
NR1541	Telecommunications Specialist	1	1		-	
TOTAL	Voice, Data, & Video Management Unit	7	5	561,655.12	-	-
<b>287</b>	<b>Systems Management Unit</b>					
HP18	Senior Network Analyst	1	1		-	
HP17	Computer Systems Administrator	2	2		-	
HP15	Computer Systems Coordinator	1	1		-	
TOTAL	Systems Management Unit	4	4	477,908.60	-	-
TOTAL	Infrastructure Section	16	14	1,592,673.94	-	-
TOTAL	Enterprise Infrastructure Division - MOB (formerly IT Infrastructure / User Support Division)	32	30	3,275,544.48	40	4,621,639.36
<b>290</b>	<b>Enterprise Applications Division - MOB (formerly IT Application Development Division)</b>					
<b>291</b>	<b>Enterprise Applications Administration Section - MOB</b>					
HP20	Assistant Director of Information Technology	-	-		1	
HP19	Information Technology Manager	-	-		2	
TOTAL	Enterprise Applications Administration Section - MOB	-	-	-	3	442,526.50
<b>292</b>	<b>Business Applications Unit - MOB</b>					
HP18	Senior Applications Administrator	-	-		1	
HP17	Webmaster #1	-	-		1	
HP16	Applications Administrator	-	-		2	
HP14	Applications Analyst	-	-		1	
TOTAL	Business Applications Unit - MOB	-	-	-	5	585,625.30

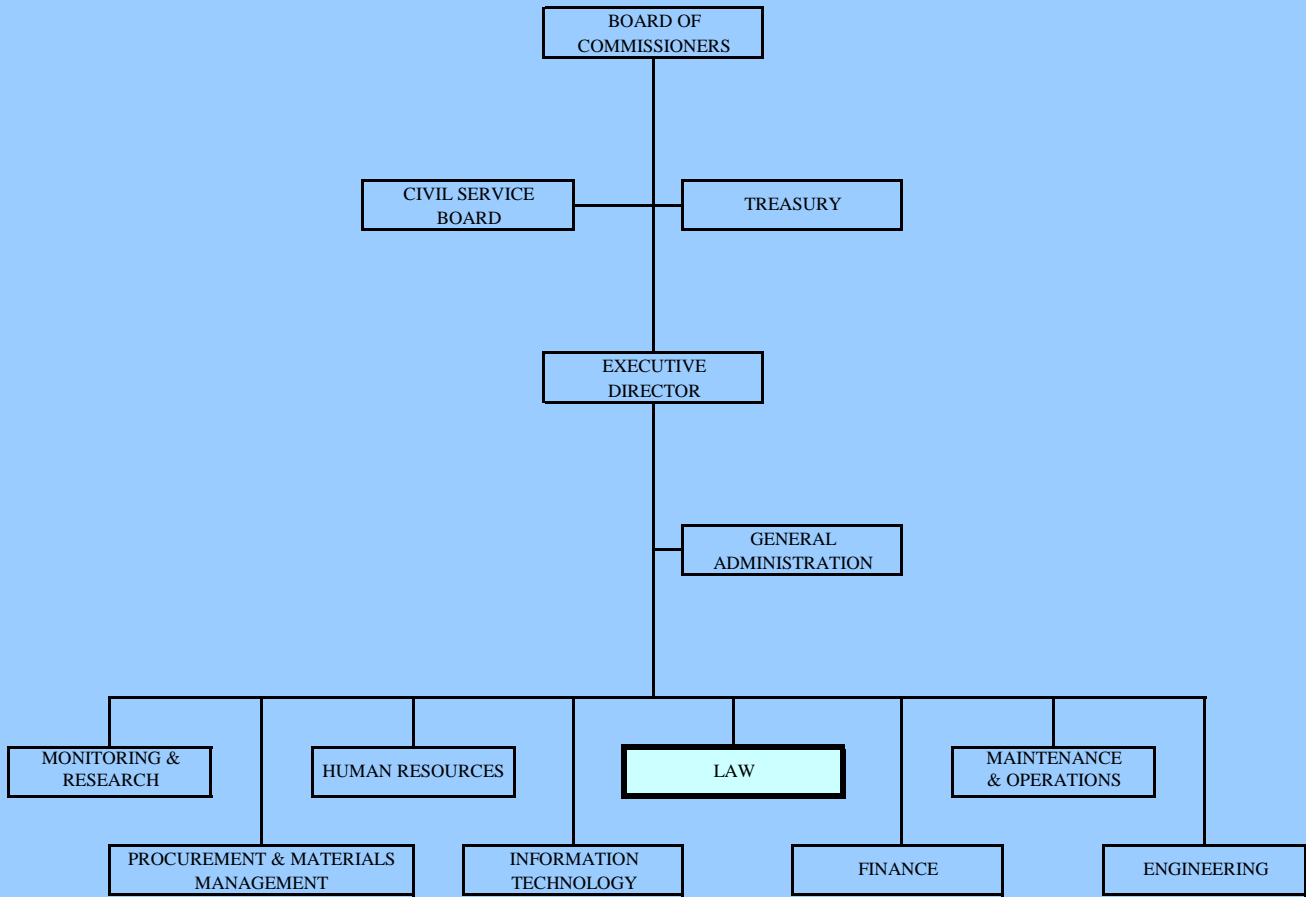
Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>293</b>	<b>ERP Support Unit - MOB</b>					
HP18	Senior Applications Administrator	-	-		1	
HP17	Senior Systems Programmer #1	-	-		2	
HP16	Applications Administrator	-	-		1	
HP14	Applications Analyst	-	-		2	
TOTAL	ERP Support Unit - MOB	-	-	-	6	688,143.82
<b>294</b>	<b>Enterprise GIS Support Unit - MOB</b>					
HP18	Senior Applications Administrator	-	-		1	
HP16	Applications Administrator #2 (GIS Analyst) (New Grade HP14)	-	-		2	
HP14	GIS Analyst	-	-		2	
TOTAL	Enterprise GIS Support Unit - MOB	-	-	-	5	553,971.60
<b>295</b>	<b>Applications Development Unit - MOB</b>					
HP18	Senior Applications Developer	-	-		1	
HP16	Applications Administrator	-	-		1	
HP16	Applications Developer	-	-		1	
HP14	Applications Analyst	-	-		1	
TOTAL	Applications Development Unit - MOB	-	-	-	4	382,190.12
<b>296</b>	<b>Enterprise Database Support Unit - MOB</b>					
HP18	Senior Database Administrator	-	-		1	
HP16	Data Base Analyst II	-	-		2	
TOTAL	Enterprise Database Support Unit - MOB	-	-	-	3	370,265.22
<b>291</b>	<b>Administrative Section</b>					
HP20	Assistant Director of Information Technology	1	1		-	
HP18	Systems Analyst	2	2		-	
HP11	Administrative Specialist	1	1		-	
TOTAL	Administrative Section	4	4	484,683.68	-	-
<b>299</b>	<b>Application Development Section</b>					
<b>292</b>	<b>Database Support Unit</b>					
HP16	Database Analyst	1	1		-	

Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP16	Senior Programmer Analyst	-	1		-	
HP14	Programmer	1	1		-	
TOTAL	Database Support Unit	2	3	286,936.52	-	-
<b>293</b>	<b>Enterprise System Support Unit</b>					
HP19	Supervising Systems Analyst	1	-		-	
HP18	Systems Analyst	1	1		-	
HP17	Webmaster	1	1		-	
HP16	Senior Programmer Analyst	1	1		-	
HP14	Programmer	2	2		-	
TOTAL	Enterprise System Support Unit	6	5	512,267.08	-	-
<b>294</b>	<b>LIMS Unit</b>					
HP16	Database Analyst	1	1		-	
HP16	Senior Programmer Analyst	2	2		-	
HP14	Programmer	1	1		-	
TOTAL	LIMS Unit	4	4	413,772.32	-	-
<b>295</b>	<b>Special Projects Unit</b>					
HP19	Supervising Systems Analyst	1	1		-	
HP18	Systems Analyst	1	1		-	
HP16	Senior Programmer Analyst	3	3		-	
TOTAL	Special Projects Unit	5	5	633,831.64	-	-
<b>296</b>	<b>Applications Systems Support Unit</b>					
HP18	Senior Computer Systems Administrator	1	1		-	
HP17	Senior Systems Programmer	3	3		-	
TOTAL	Applications Systems Support Unit	4	4	519,696.06	-	-
<b>297</b>	<b>Geographic Information Systems Unit</b>					
HP18	Systems Analyst	1	1		-	
HP17	Computer Systems Administrator	1	1		-	

Fund: Corporate Dept: Information Technology Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP16	Senior Programmer Analyst	1	1		-	
HP14	Programmer	1	1		-	
TOTAL	Geographic Information Systems Unit	4	4	448,874.66	-	-
TOTAL	Application Development Section	25	25	2,815,378.28	-	-
TOTAL	Enterprise Applications Division - MOB (formerly IT Application Development Division)	29	29	3,300,061.96	26	3,022,722.56
TOTAL	Information Technology	69	70	7,963,530.64	76	8,730,119.58

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

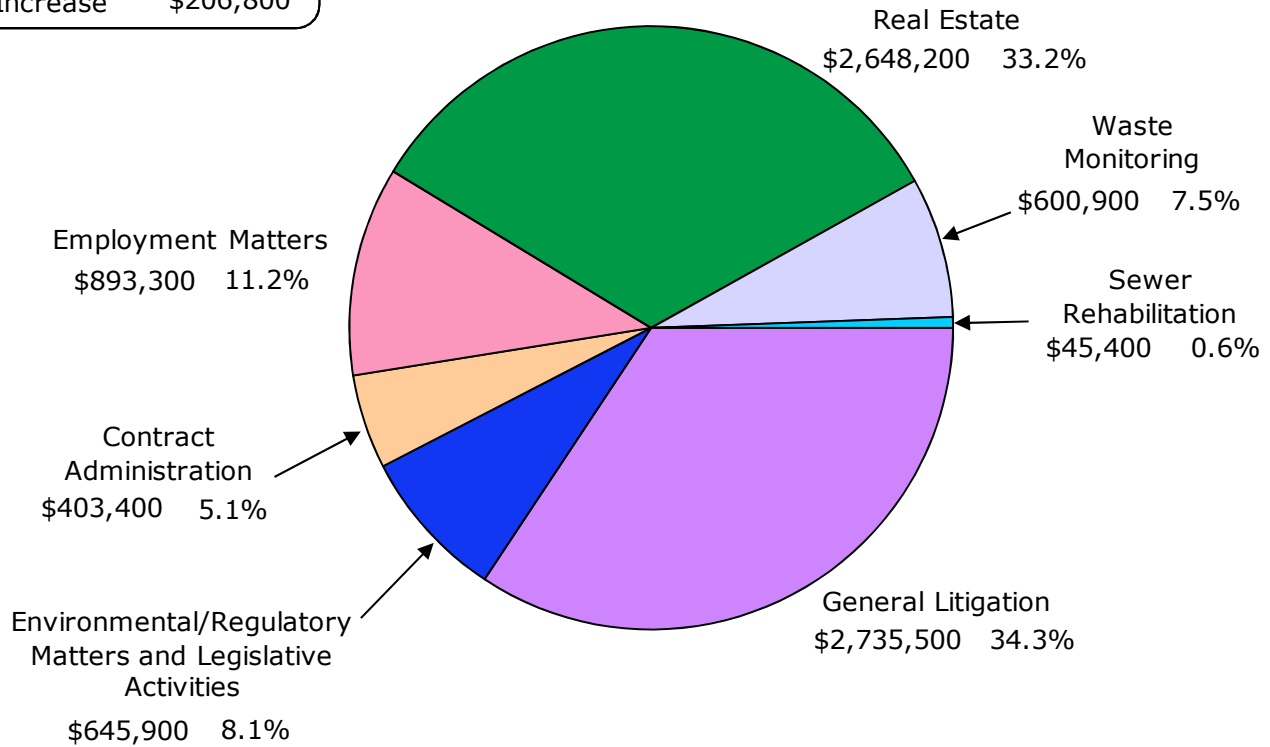
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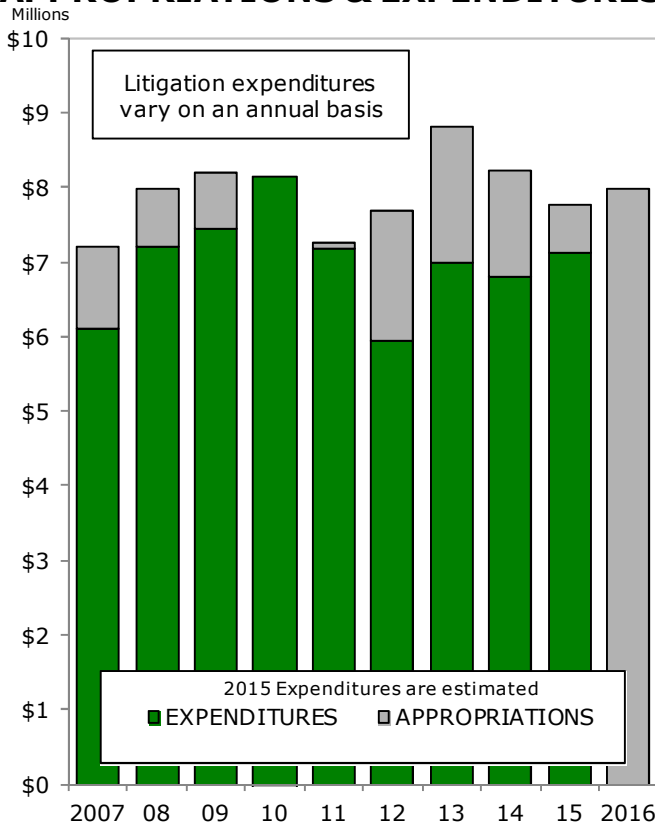
# LAW

## FUNCTIONS

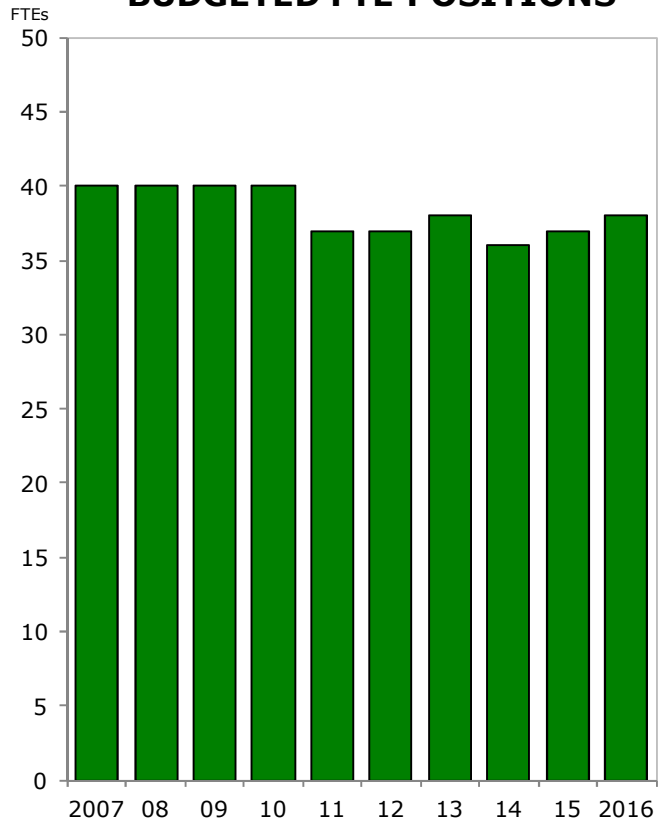
2016	\$7,972,600
2015	\$7,765,800
Increase	\$206,800



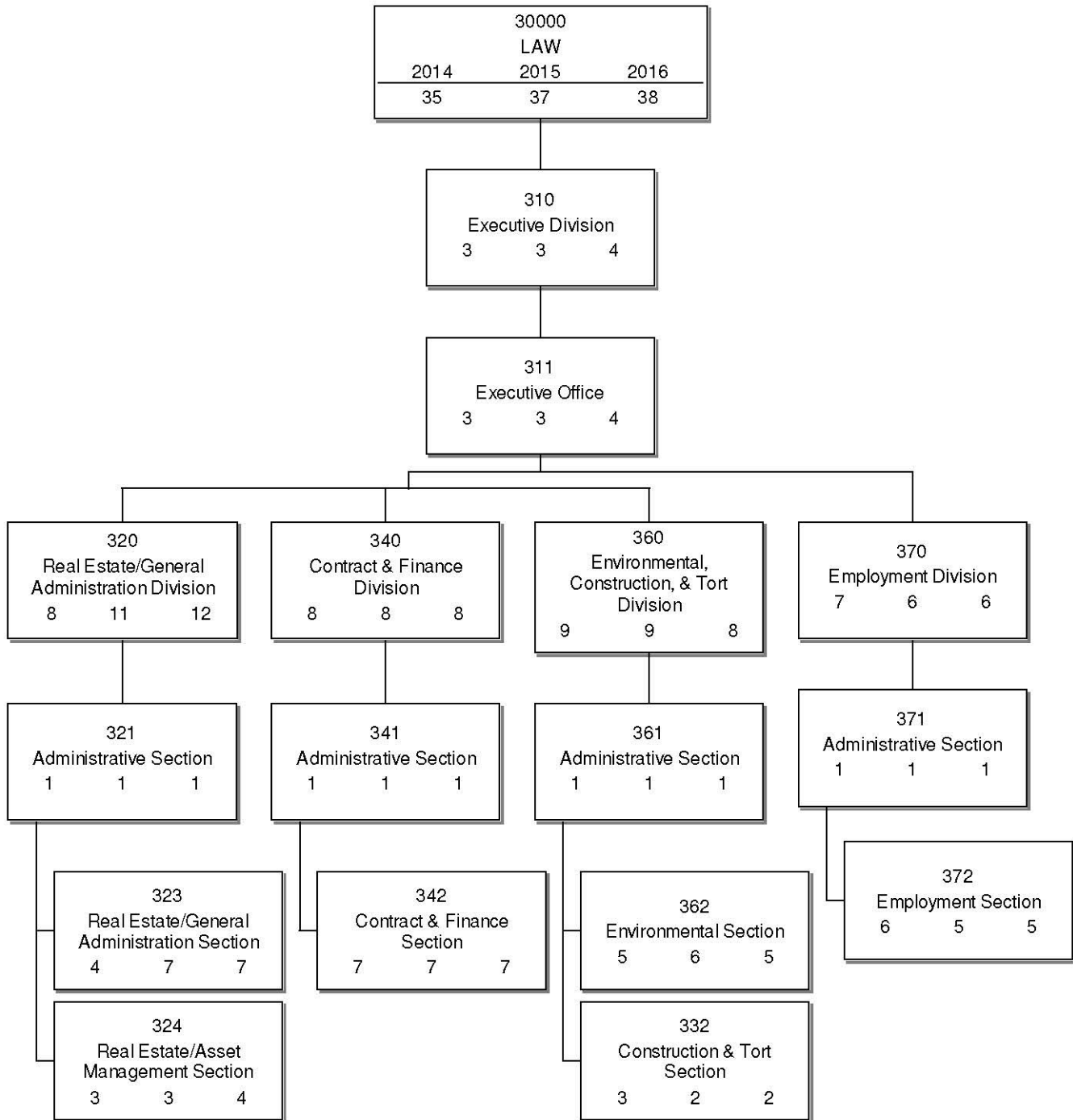
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# LAW





## LAW

**The mission of the Law Department is to provide cost-effective legal counsel, representation, litigation and transactional services, and real estate administration services to the District.**

### Departmental Summary

The department's primary responsibilities include:

- Providing legal counsel to the Board of Commissioners, Executive Director, and department heads;
- Working with other departments to implement initiatives;
- Ensuring compliance with laws, regulations, and ordinances applicable to the District;
- Performing all necessary legal actions regarding environmental, tort, contractual, financial, employment, municipal, and real estate matters, including litigation;
- Representing the District in administrative hearings, arbitration, and litigation at the trial and appellate levels in the state;
- Administering approximately 24,000 acres of District real estate.

### Summary of 2015 Accomplishments

- Established the Local Governmental Law Consortium to build relationships with other local governmental in-house counsel in Cook County, while supporting policy development and encouraging innovation in resolving difficult issues by sharing ideas and common experience;
- Processed 419 Freedom of Information Act requests;
- Advised and assisted the Deferred Compensation Committee with a comprehensive technical review and amendments to the Plan Document;
- Oversaw implementation of the District's Ethics Commission;
- Completed the inaugural intradepartmental seminar series that provided cross-training and interdisciplinary exchanges among the four Divisions and their multiple legal practice areas, successfully enhancing employee knowledge;
- Conducted District-wide supervisory training on various legal subjects;
- Successfully defended an appeal before the Illinois Pollution Control Board by several environmental groups that challenged the renewed National Pollutant Discharge Elimination System permits issued by the Illinois Environmental Protection Agency for the Stickney, Calumet, and O'Brien Water Reclamation Plants. The environmental groups have now filed an appeal of the Illinois Pollution Control Board's decision to the Illinois Appellate Court;
- Obtained affirmance in the Seventh Circuit Court of Appeals of a Consent Decree pertaining to combined sewer overflows and the District's Long-Term Control Plan;
- Drafted and successfully lobbied for an amended state statute that allows more flexibility in the use of District biosolids;
- Assisted in the development of the expanded rain barrel program by drafting revised program documents, templates of an intergovernmental agreement and a memorandum of understanding, and worked closely with the Office of Public Affairs to provide interested municipalities and community groups with 90 agreements for their execution;
- Provided extensive legal counsel, drafting, and negotiation support in connection with the implementation of numerous stormwater management projects under the District's Watershed Management Ordinance and Flood-Prone Property Acquisition Policy;
- Completed the presentation of the Disparity Study and implemented an updated Revised Affirmative Action Ordinance;
- Worked with the Maintenance & Operations and Procurement & Materials Management Departments to extend and amend the current agreement with Dynegy to secure lower cost pricing to enable the District to realize \$1,700,000 in energy cost savings for Groups I and II combined.

### Budget Highlights

The 2016 appropriation for the Law Department is \$7,972,600, an increase of \$206,800, or 2.7 percent, from 2015. The 2016 staffing level increased from 37 to 38 positions. This includes the addition of one Deputy General Counsel position and one Legal Assistant position. One Administrative Specialist position was dropped.

Significant features of the 2016 budget are:

- Provide counsel and continuous support to the District's Board of Commissioners and technical and financial professionals in connection with several exciting renewable energy initiatives that will enable the District to beneficially reuse the by-products of its operations and achieve its goal of energy neutrality by 2023. The Law Department will finalize and seek the passage of a comprehensive new Resource Recovery Ordinance to provide the legal parameters of the new resource recovery initiatives;
- Implement the comprehensive land use policy approved by the United States Environmental Protection Agency;
- Increase Real estate lease and easement income to approximately \$17,500,000;
- Place the Geographic Information System into operation for real estate inventory, information, and tracking.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

The Law Department will administer a cost-effective real estate program. The Real Estate/General Administration Division has continued to pursue a multi-pronged approach to the administration of District lands not currently required for its corporate purposes. This balanced program seeks to maximize rental income in those instances where District land is made available for private use in accordance with state law, incorporate green infrastructure into leases whenever possible, improve the aesthetics of and create greater opportunity for public access and use of District land located along its waterways, and ensure the protection of District lands including, but not limited to, environmental remediation.

The District’s rental revenues continue to increase, while efforts to re-lease expired and remediated leaseholds at higher rentals continue. While maximizing rentals from private use of District land, the Real Estate/General Administration Division has remained committed to improving the aesthetics, public access, and public recreational opportunities along its waterways. Toward that end, the District continues to lease some of its land, for a nominal fee, to local park districts, the Forest Preserve District, and municipalities for the specific purpose of providing the general public with greater access to recreational opportunities along the waterways, including athletic fields, biking and jogging paths, canoe and boat launches, and nature preserves.

The Real Estate/General Administration Division will be implementing a comprehensive land use policy in addition to undertaking even more aggressive and intensive marketing and policing strategies to maximize rental income, increase public access, and ensure the aesthetics and protection of District lands. In 2015, the District received \$2,953,250 from land sales.

• **Excellence**

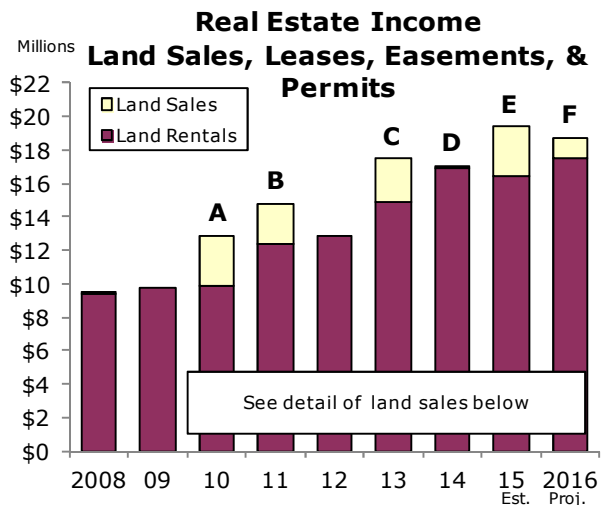
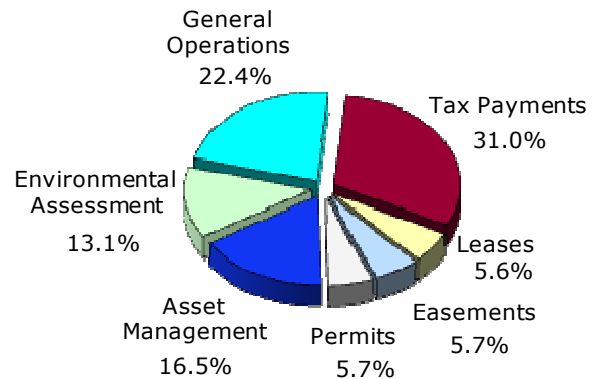
The Law Department seeks to meet deadlines on many time sensitive projects while at the same time achieving excellence in the final work product. The Law Department further strives to achieve the highest levels of expertise and ethics in its legal practice. Pursuant to the Illinois Rules of Professional Conduct, the Law Department conducts its activities in accordance with the special responsibilities incumbent upon officers of the legal system. As in-house counsel, District attorneys exemplify the ideals of public service that the legal profession upholds, and in so doing, seek to improve public respect for the law and legal process. Through continuous learning and data management, the Law Department is building collective knowledge that will serve the District for years to come.

• **Resource Recovery**

In 2016, the Law Department will continue the implementation of the District’s Resource Recovery Plan by presenting to the District’s Board of Commissioners for approval a comprehensive Resource Recovery Ordinance. The ordinance will delineate the parameters of the District’s statutory authority to sell or otherwise dispose of recovered resources or renewable energy resources resulting from the operation of District facilities. The Law Department will provide counsel and continuous support to the District’s Board of Commissioners, technical, and financial professionals in connection with various exciting renewable energy initiatives that will enable the District to achieve its goal of energy neutrality by 2023. One example of a specific resource recovery effort for which the Law Department will provide legal oversight is the Biogas Renewable Energy Project at the Calumet Water Reclamation Plant (WRP), for the design and construction of facilities for the beneficial use of digester gas. This project seeks to maximize the production of clean biogas (methane) for eventual sale to a natural gas utility. Through this legally complex resource recovery initiative, naturally occurring by-products of the District’s anaerobic digestion process will be utilized in the creation of a renewable energy resource that is economically beneficial, energy efficient, and environmentally

**2016 Real Estate Program Budget**

Total \$2,648,200



Land Sale Details	
A	60 acres sold in Will County
B	317 acres sold in Will County
C	300 acres sold in Will County
D	5.9 acres sold in Cook County
E	4.2 acres sold to the IL State Toll Authority
F	4.4 acres to be sold to the City of Chicago

responsible. A second example of a resource recovery effort that the Law Department is working to develop is the legal structure concerns of the beneficial reuse of effluent water at the Calumet WRP. In this new recovery program, the treated effluent water of the Calumet WRP that is currently discharged into the Little Calumet River and is of a quality that may be suitable for certain industrial and commercial applications that will be targeted for sale. The beneficial reuse of the effluent water will replace the use of potable water and, in turn, result in a reduction of fresh water diversion from Lake Michigan together with a reduction in the energy required to treat and convey the potable water. The Law Department will draft and negotiate an agreement with the selected proposer who will design, permit, construct, own, operate, finance, and maintain the distribution and reuse operation of this exciting new District initiative.

- **Develop Employees**

The Law Department has increased staff participation in continuous learning opportunities and will continue to do so in 2016. The Law Department encourages employees to attend professional development conferences and seminars, as well as to complete eLearning courses and wellness programs that are beneficial to the District. In addition, access to continuing legal education webinars is offered through an economical subscription package. In 2015, the Law Department completed the first year of an intradepartmental seminar program that provided cross-training and interdisciplinary exchanges among the four Divisions and their multiple legal practice areas.

- **Leading Partnerships**

In 2016, the Law Department attorneys will work with numerous local governments and non-governmental organizations and community groups in Cook County to draft, review, and negotiate various types of intergovernmental agreements for projects that fulfill the District's stormwater management and flood control legislative mandate, including both regional and local stormwater management capital projects, green infrastructure, the distribution of rain barrels, and the acquisition and removal of repetitive loss flood-prone properties. Additionally, in order to continue implementation of the Resource Recovery Act in 2016, significant cooperation with State of Illinois regulators, such as the Illinois Environmental Protection Agency, the Illinois Pollution Control Board, and the Illinois Department of Natural Resources will be required. The Law Department will partner with the technical departments and the state agencies in the development of such rules and regulations.

The Law Department has established a Local Governmental Law Consortium for the Cook County area which it will continue to provide support in 2016. The goal is to find contacts among our counterparts at other agencies and organize periodic meetings, as well as online communications, among our colleagues in local government legal departments. The Consortium will support policy development and encourage innovation in resolving difficult issues, by sharing ideas and common experiences. It will also build valuable partnership relationships with other local governments in the region.

- **Technology**

The Law Department will continue the implementation of the Geographic Information System that will provide a complete real estate inventory, information, and tracking system for District-owned real estate. It will include pertinent data and visuals for every parcel of real estate owned by the District, along with information concerning occupancy agreements, such as leases, easements, and permits. The Geographic Information System will also enable staff to efficiently track work assignments and compliance with the terms of occupancy agreements.

The Law Department has fully implemented the document management system which maintains files electronically and moves away from paper. The Law Department staff has desktop access to all documents for each file, as well as a searchable historical database that preserves all of its records in one central location.

**30000 LAW**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Provide prosecution, defense, and appellate services in litigation. Provide other direct legal services and counseling, as necessary, to the Board of Commissioners, the Executive Director, and the Officers of the District to further the corporate purposes and protect the interests of the District.	\$ 2,735,500	34.3%
2. Handle all environmental matters and monitor all state legislation and legislative activities.	\$ 645,900	8.1%
3. Work with other departments to manage legal aspects of employment-related matters and litigation before the Civil Service Board and in the state and federal courts.	\$ 893,300	11.2%
4. Provide for the administration of all vacant and unoccupied District real estate; administer the leasing and disposition or other use of District real estate when not presently needed for its corporate purposes; assist in and administer the acquisition of right-of-way for District construction and capital improvement projects and other corporate uses; administer environmental and remediation activities; supervise real estate tax litigation; provide assistance in developing and processing the real estate agenda for meetings of the Board of Commissioners.  Through its leasing and easement grant activities, the Real Estate Division will generate approximately \$17.5 million in income in 2016.	\$ 2,648,200	33.2%
5. Provide legal services to ensure the proper disposal of wastes through the sewer systems in the Chicagoland area; oversee the diversion of water from Lake Michigan for water quality services; provide legal representation, counseling, and administrative support in connection with enforcement of the Sewage and Waste Control Ordinance, Watershed Management Ordinance, and User Charge Ordinance of the District.	\$ 600,900	7.5%
6. Review proposed contracts, execute awarded contracts, review bond surety and insurance matters, and process Freedom of Information Act requests.	\$ 403,400	5.1%
7. Sewer Rehabilitation. Upon referral from the Engineering Department, the Law Department conducts administrative hearings to enforce compliance with the Watershed Management Ordinance.	\$ 45,400	0.6%
<b>Total</b>	<b>\$ 7,972,600</b>	<b>100.0%</b>

**MEASURABLE GOALS:**

	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. Revise lease procedures and policies to enhance the marketability of District real estate while increasing the use of green infrastructure.		\$16.9 million	\$16.5 million	\$17.5 million
2. Conduct training for managers and supervisors at four District locations on legal issues including record keeping and attorney-client privilege.	Training Sessions	-	5	5
3. Implement the Geographic Information Systems for Real Estate Inventory, Information, and Tracking.		Phase II	Phase III	Phase IV
4. Prepare and record liens on delinquent user charge within 10 days of referral from the Finance Department.	Percentage	-	95%	95%

**30000 LAW**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 42,613	2016	1	\$ 45,400	\$ 2,700	6.3	
			2015	1	\$ 42,700			
4660	Waste Monitoring	\$ 587,001	2016	4	\$ 600,900	\$ (60,200)	(9.1)	
			2015	4	\$ 661,100			
7350	General Litigation	\$ 3,939,439	2016	20	\$ 4,612,900	\$ (31,900)	(0.7)	
			2015	20	\$ 4,644,800			
7360	Real Estate Operations	\$ 2,017,771	2016	13	\$ 2,648,200	\$ 231,000	9.6	a)
			2015	12	\$ 2,417,200			
7370	Claims Processing and Investigation	\$ 209,127	2016	-	\$ -	\$ -	-	
			2015	-	\$ -			
7604	Social Security and Medicare Contributions	\$ -	2016	-	\$ 65,200	\$ 65,200	100.0	b)
			2015	-	\$ -			
Totals		\$ 6,795,951	2016	38	\$ 7,972,600	\$ 206,800	2.7%	
			2015	37	\$ 7,765,800			

- a) Increase is due to the addition of one FTE position (\$120,000), the reallocation of salaries to more accurately reflect current operations (\$90,800), and an increase in real estate taxes (\$50,000), offset by the drop of one Administrative Specialist position (\$61,000).
- b) Increase is due to the reallocation of budgeting for the required employer contribution for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Cases	20	20	19	
		Cost	\$ 42,613	\$ 42,700	\$ 45,400	
		Cost/Case	\$ 2,130.65	\$ 2,135.00	\$ 2,389.47	
4660	Waste Monitoring					
	Provide Legal Representation and Administrative Support for:					
4662	User Charge Ordinance - Tax-Exempt Users	Cases	3	10	6	
		Cost	\$ 52,828	\$ 55,400	\$ 48,400	
		Cost/Case	\$ 17,609.33	\$ 5,540.00	\$ 8,066.67	
4663	User Charge - Large Commercial/Industrial Users	Cases	9	30	20	a)
		Cost	\$ 308,108	\$ 329,300	\$ 262,600	
		Cost/Case	\$ 34,234.22	\$ 10,976.67	\$ 13,130.00	
4667	Sewage and Waste Control Ordinance - Significant Industrial Users (SIUs)	Cases	4	10	8	
		Cost	\$ 226,065	\$ 276,400	\$ 289,900	
		Cost/Case	\$ 56,516.25	\$ 27,640.00	\$ 36,237.50	
7350	General Litigation					
	Provide Prosecution and Defense Services to Protect the Interests of the District:					
7351	Legislative	Cost	\$ 55,697	\$ 97,900	\$ 104,100	
7352	Financial Matters	Cost	\$ 120,876	\$ 98,700	\$ 101,600	
7353	Environmental and Regulatory Matters	Cost	\$ 37,284	\$ 547,800	\$ 541,800	
7354	Contract Administration	Cost	\$ 348,088	\$ 389,600	\$ 403,400	
7355	Litigation	Cost	\$ 2,408,294	\$ 2,010,100	\$ 1,761,100	b)
7356	Employment Matters	Cost	\$ 422,602	\$ 911,200	\$ 893,300	
7359	General Legal Services	Cost	\$ 546,598	\$ 589,500	\$ 807,600	c)

- a) Decrease is due to the reallocation of salaries to more accurately reflect operational needs (\$76,200), offset by the salary allocation for the added Deputy General Counsel position (\$9,500).
- b) Decrease is due to the reduction of professional services for special counsel-environmental (\$266,400).
- c) Increase is due to the salary allocation for the added Deputy General Counsel position (\$75,700), the reclassification of an Assistant Public Affairs Specialist to a Public Affairs Specialist (\$8,700), and the reallocation of salaries to more accurately reflect current activities (\$138,700).

**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7360	Real Estate Operations					
	Provide Administration of All District Land:					
7361	Real Estate Leases - Administration of Leases and Granting of Leases	Leases	168	170	176	
		Cost	\$ 120,338	\$ 113,800	\$ 148,700	d)
		Cost/Lease	\$ 716.30	\$ 669.41	\$ 844.89	
7362	Real Estate Easements - Administration of Easements and Granting of New Easements	Easements	360	315	369	
		Cost	\$ 96,103	\$ 129,900	\$ 152,400	e)
		Cost/Easement	\$ 266.95	\$ 412.38	\$ 413.01	
7363	Real Estate Permits - Administration of Permits and Granting of New Permits	Permits	84	95	80	
		Cost	\$ 105,268	\$ 124,400	\$ 150,200	f)
		Cost/Permit	\$ 1,253.19	\$ 1,309.47	\$ 1,877.50	
7367	Real Estate Asset Management - Administer Plan to Increase Revenue by Lease/Sale of Real Estate Holdings	Cost	\$ 462,421	\$ 404,900	\$ 437,900	
7368	Real Estate Environmental Assessment - Administer Activities Related to Environmental Assessment and Remediation of Real Estate Holdings	Cost	\$ 220,939	\$ 344,600	\$ 346,900	
7369	Other Real Estate Operations, Including Development of Agenda, Providing Information, Tax Litigation, and Support Services to the Board of Commissioners	Cost	\$ 309,130	\$ 529,600	\$ 592,100	
	Payment of Real Estate Taxes	Cost	\$ 703,572	\$ 770,000	\$ 820,000	
7371	Investigate and Process All Employee Injury Claims	Claims	129	\$ -	\$ -	
		Cost	\$ 175,698	\$ -	\$ -	
		Cost/Claim	\$ 1,362.00	\$ -	\$ -	
7379	Investigate and Process Liability Claims	Claims	30	\$ -	\$ -	
		Cost	\$ 33,429	\$ -	\$ -	
		Cost/Claim	\$ 1,114.30	\$ -	\$ -	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 65,200	g)
		Total	\$ 6,795,951	\$ 7,765,800	\$ 7,972,600	

d) Increase is due to the reallocation of salaries to more accurately reflect operational needs (\$20,400) and the salary allocation for the added Legal Assistant position (\$14,500).

e) Increase is due to the salary allocation for the added Legal Assistant position (\$18,200) and the reallocation of salaries to more accurately reflect operational needs (\$4,300).

f) Increase is due to the salary allocation for the added Legal Assistant position (\$21,800) and the reallocation of salaries to more accurately reflect operational needs (\$4,000).

g) Increase is due to the reallocation of budgeting for the required employer contribution for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 30000	Fund: Corporate Department: Law Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 4,304,544	\$ 4,650,200	\$ 4,650,200	\$ 4,550,000	\$ 4,903,100	\$ 4,895,700	\$ 5,025,500
601060	Compensation Plan Adjustments	8,040	45,200	45,200	40,000	41,400	41,200	47,500
601070	Social Security & Medicare Contributions	-	-	-	-	65,200	65,200	65,200
601100	Tuition and Training Payments	9,632	14,000	14,000	13,000	14,000	14,000	14,000
601170	Payments for Professional Services	1,645,927	2,066,400	2,066,400	1,600,000	-	-	-
100	TOTAL PERSONAL SERVICES	5,968,143	6,775,800	6,775,800	6,203,000	5,023,700	5,016,100	5,152,200
612010	Travel	3,585	6,000	6,000	5,000	6,000	6,000	6,000
612030	Meals and Lodging	4,847	9,000	9,000	8,000	7,500	7,500	7,500
612040	Postage, Freight, and Delivery Charges	892	1,000	1,000	1,000	1,000	1,000	1,000
612050	Compensation for Personally-Owned Automobiles	1,101	3,000	3,000	2,500	1,200	1,200	1,200
612090	Reprographic Services	7,516	48,000	48,000	20,000	40,000	40,000	40,000
612250	Court Reporting Services	9,398	50,000	45,500	20,000	40,000	40,000	40,000
612430	Payments for Professional Services	-	-	-	-	1,800,000	1,800,000	1,800,000
612490	Contractual Services, N.O.C.	76,662	77,000	81,500	76,000	80,000	80,000	80,000
200	TOTAL CONTRACTUAL SERVICES	104,000	194,000	194,000	132,500	1,975,700	1,975,700	1,975,700
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	6,574	7,000	7,000	6,500	7,000	7,000	7,000
623720	Books, Maps, and Charts	13,544	17,000	17,000	15,000	17,000	17,000	17,000
623990	Materials and Supplies, N.O.C.	118	2,000	2,000	1,500	700	700	700
300	TOTAL MATERIALS AND SUPPLIES	20,236	26,000	26,000	23,000	24,700	24,700	24,700
667130	Taxes on Real Estate	703,572	770,000	770,000	760,000	820,000	820,000	820,000
700	TOTAL FIXED AND OTHER CHARGES	703,572	770,000	770,000	760,000	820,000	820,000	820,000
<b>TOTAL LAW</b>		<b>\$ 6,795,951</b>	<b>\$ 7,765,800</b>	<b>\$ 7,765,800</b>	<b>\$ 7,118,500</b>	<b>\$ 7,844,100</b>	<b>\$ 7,836,500</b>	<b>\$ 7,972,600</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).



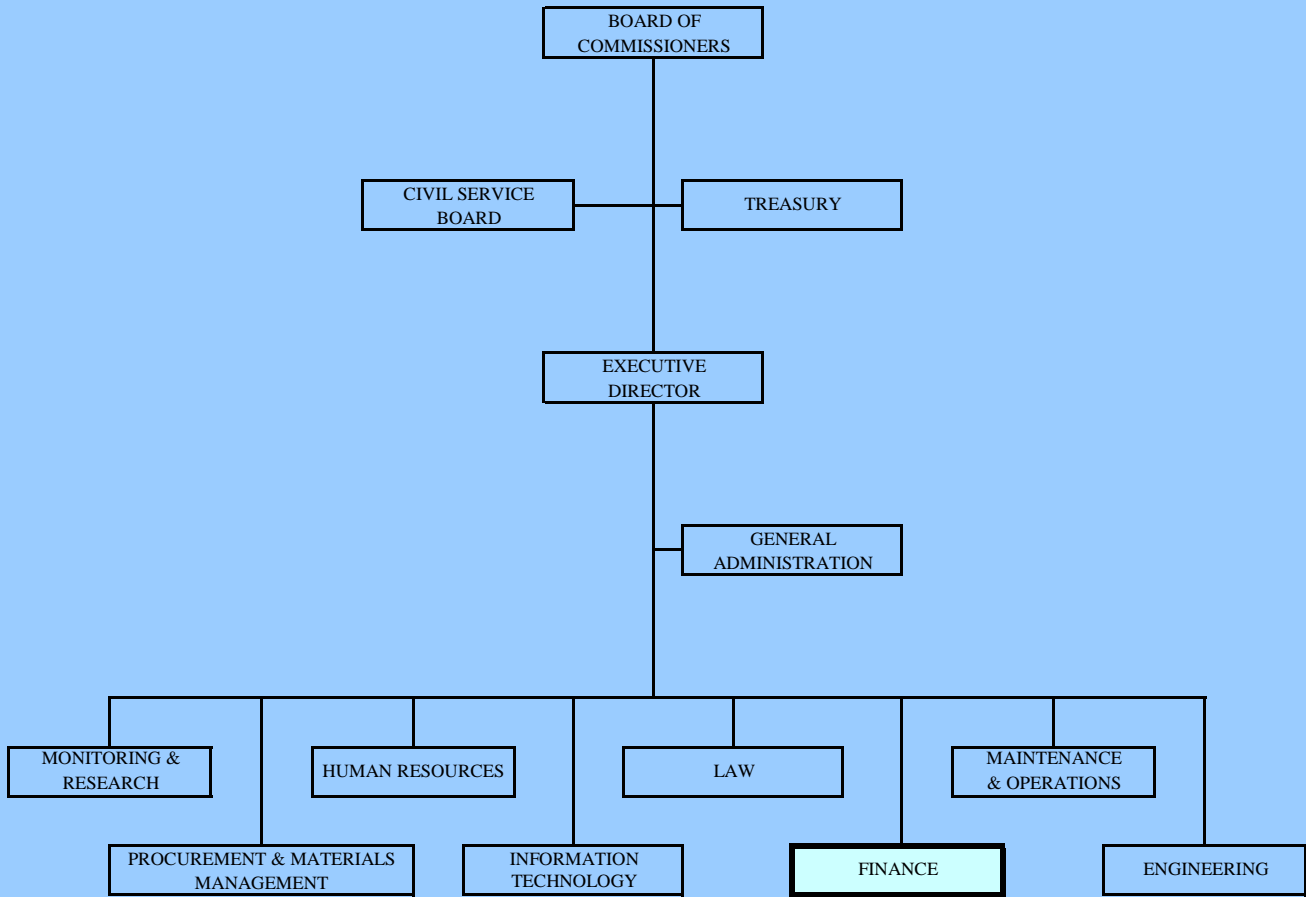
Fund: Corporate Dept: Law Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>310</b>	<b>Executive Division</b>					
<b>311</b>	<b>Executive Office</b>					
EX12	General Counsel	1	1		1	
HP23	Deputy General Counsel	-	-		1	
EX06	Secretary to Officer	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Executive Office	3	3	423,056.40	4	629,474.56
TOTAL	Executive Division	3	3	423,056.40	4	629,474.56
<b>320</b>	<b>Real Estate / General Administration Division</b>					
<b>321</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	210,670.72	1	216,990.80
<b>323</b>	<b>Real Estate / General Administration Section</b>					
HP18	Senior Attorney	-	1		1	
HP15	Senior Legal Assistant	2	2		2	
HP13	Legal Assistant	1	1		2	
HP13	Investigator #2 (Legal Assistant)	1	1		1	
HP11	Administrative Specialist	-	2		1	
TOTAL	Real Estate/General Administration Section	4	7	624,715.52	7	641,637.10
<b>324</b>	<b>Real Estate / Asset Management Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	1	1		1	
HP13	Legal Assistant	-	-		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Real Estate Asset Management Section	3	3	399,419.02	4	475,192.90
TOTAL	Real Estate/General Administration Division	8	11	1,234,805.26	12	1,333,820.80

Fund: Corporate Dept: Law Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>340</b>	<b>Contract &amp; Finance Division</b>					
<b>341</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	219,639.68	1	226,228.86
<b>342</b>	<b>Contract &amp; Finance Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	1	2		2	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		1	
HP15	Senior Legal Assistant	1	1		1	
HP14	Public Affairs Specialist	-	-		1	
HP13	Assistant Public Affairs Specialist #2 (Senior Administrative Specialist)	1	1		-	
HP13	Legal Assistant	1	-		-	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Contract & Finance Section	7	7	830,412.18	7	869,644.36
TOTAL	Contract & Finance Division	8	8	1,050,051.86	8	1,095,873.22
<b>360</b>	<b>Environmental, Construction, &amp; Tort Division</b>					
<b>361</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	219,639.68	1	226,228.86
<b>362</b>	<b>Environmental Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	3	2		2	
HP13	Legal Assistant	-	2		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Environmental Section	5	6	620,027.72	5	585,755.04
<b>332</b>	<b>Construction &amp; Tort Section</b>					
HP20	Principal Attorney	2	2		2	

Fund: Corporate Dept: Law Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	-		-	
TOTAL	Construction & Tort Section	3	2	338,979.42	2	357,269.38
TOTAL	Environmental, Construction, & Tort Division	9	9	1,178,646.82	8	1,169,253.28
<b>370</b>	<b>Employment Division (formerly Employment &amp; Claims Division)</b>					
<b>371</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	219,639.68	1	226,228.86
<b>372</b>	<b>Employment Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		2	
HP13	Legal Assistant	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	1	-		-	
TOTAL	Employment Section	6	5	567,460.92	5	596,157.64
TOTAL	Employment Division (formerly Employment & Claims Division)	7	6	787,100.60	6	822,386.50
TOTAL	Law	35	37	4,673,660.94	38	5,050,808.36

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

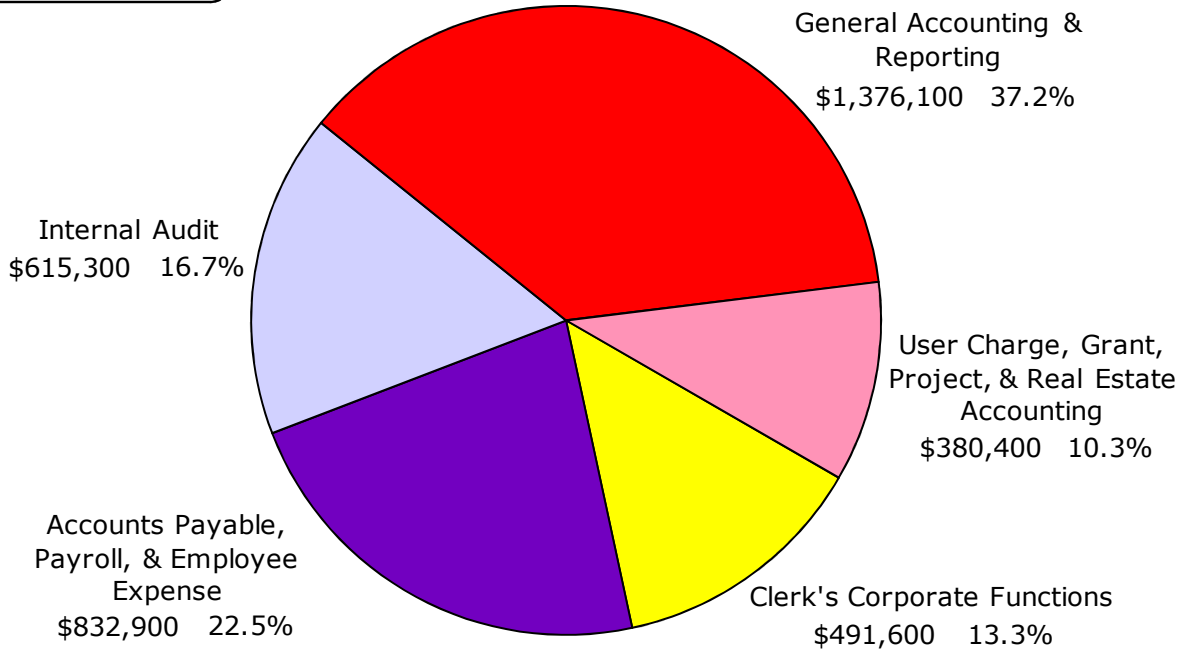
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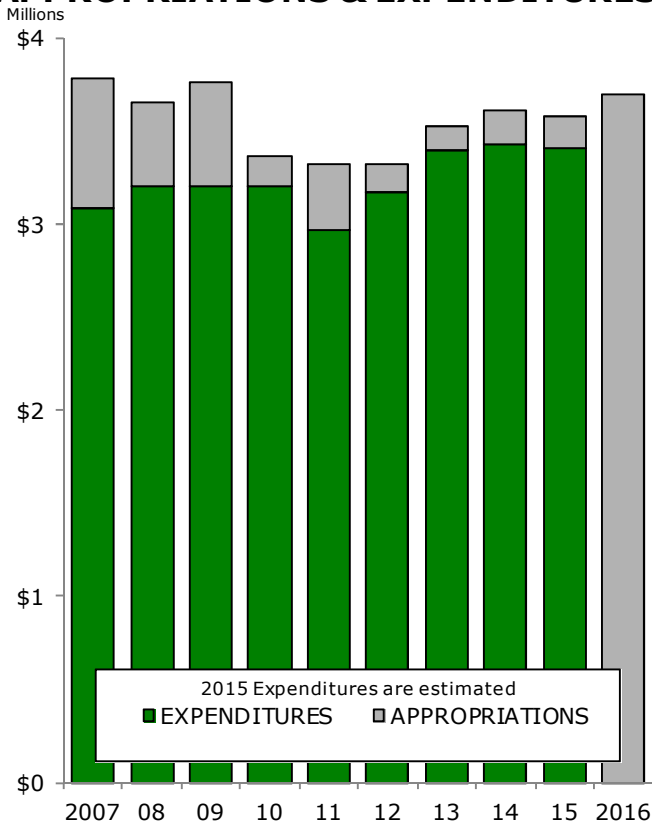
# FINANCE

## FUNCTIONS

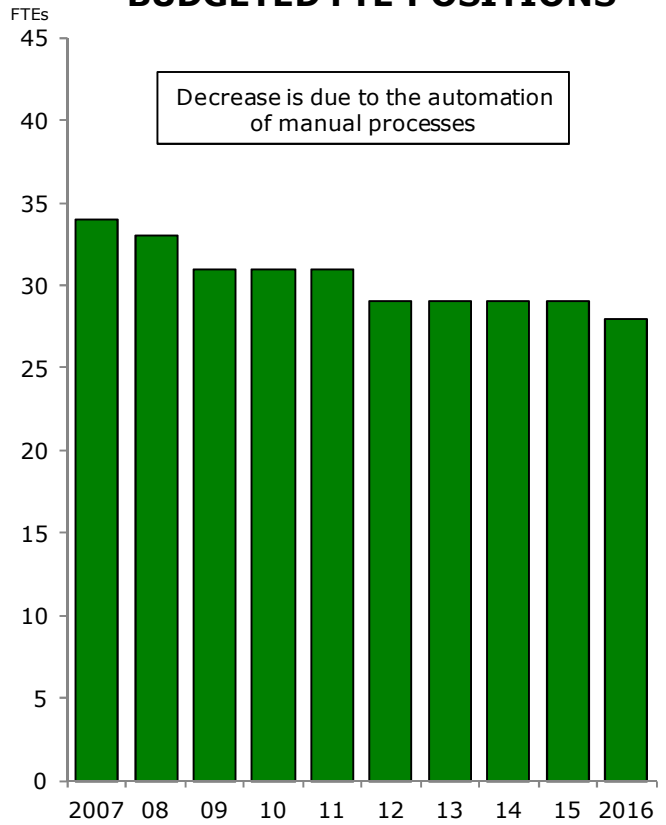
2016	\$3,696,300
2015	\$3,572,900
Increase	\$123,400



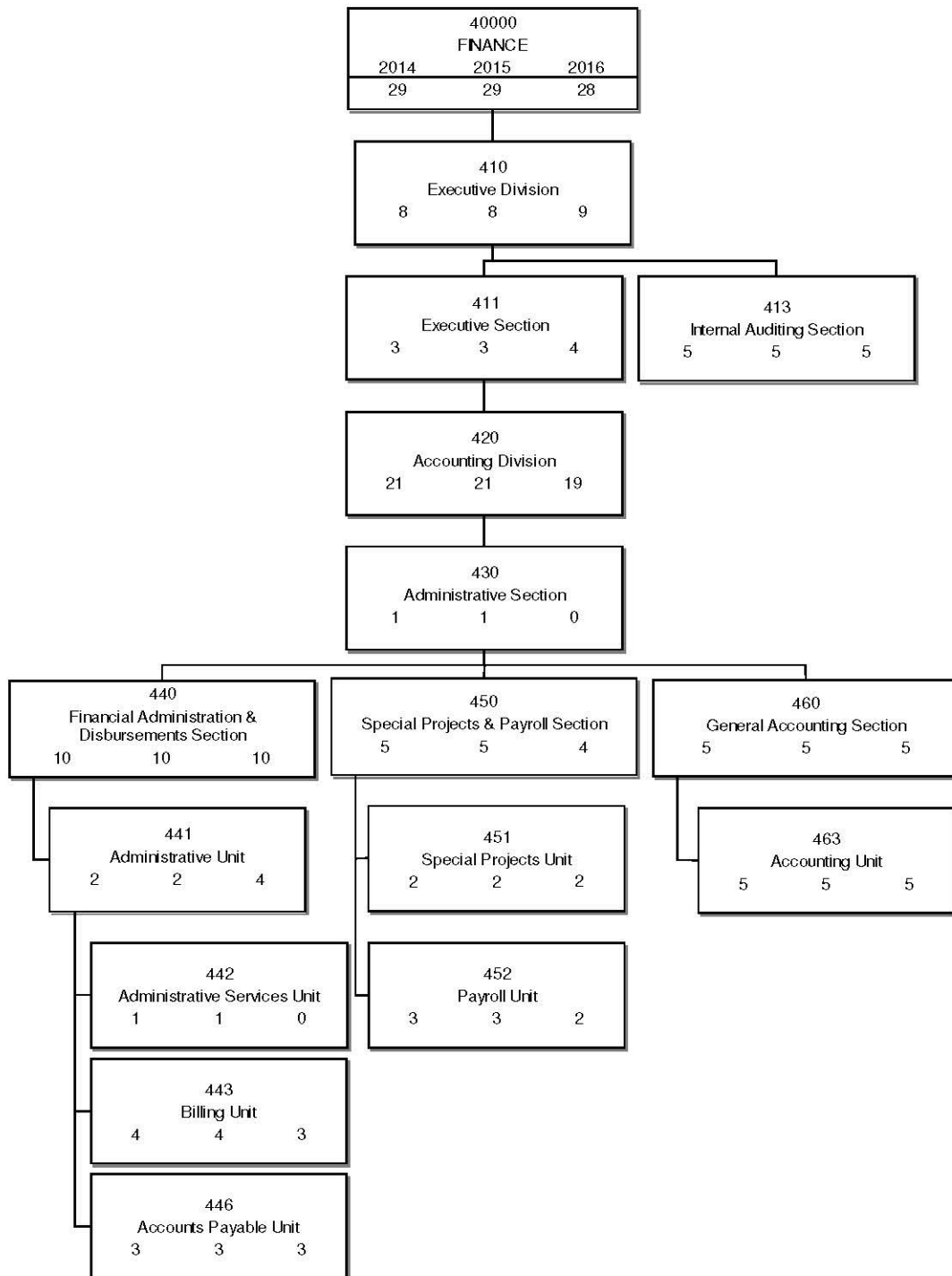
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# FINANCE



## **FINANCE**

**The mission of the Finance Department is to provide leadership in developing cost saving strategies for transaction processing, optimize operations, provide reliable financial reports, and ensure compliance with all applicable statutes, regulations, professional standards, and policies for the benefit of District stakeholders.**

### **Departmental Summary**

The Finance Department's primary responsibilities include:

- Audit and report financial information;
- Pay obligations including payroll;
- Bill and collect revenues;
- Perform internal compliance and operational audits;
- Maintain official records of the Board of Commissioners' legislative actions.

Central to the Finance Department's activities is the financial reporting function which enables diverse users to readily assess the District's financial position and the results of its operations. Excellent bond ratings, external auditors' unmodified opinions, and Certificates of Achievement for Excellence in Financial Reporting demonstrate the effectiveness of District fiscal management and financial reporting excellence.

### **Summary of 2015 Accomplishments**

- The District was presented with the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for the 2014 Comprehensive Annual Financial Report for the 40<sup>th</sup> consecutive year;
- The District received an unmodified opinion on the fair presentation, in all material aspects, of the District's 2014 financial statements from external auditors. This achievement aids in maintaining the District's excellent bond credit rating;
- Completed 13 planned internal audit projects and four unplanned audits. Internal audits included single source contracts, internal controls over master data, intergovernmental agreements, mileage reimbursement, payment discounts, and revisions to the District's Tuition Reimbursement Policy. The audits provided assurance of continued compliance, operating efficiencies, and cost-saving solutions;
- Continued to improve the newly implemented automated time management solution by installing wall clocks to additional locations, improving supervisor reports, and establishing ongoing training for new employees and supervisors. These enhancements will improve accuracy of time reporting for employees and transparency in employee hours worked;
- Modified the automated workflow approval process for board transmission letters to include department heads in the Approval Tracking System, which has led to a more efficient approval process;
- Worked with the Human Resources Department to hold various training sessions during the year and established ongoing training on board letter processing and electronic submissions;
- Continued to improve District reporting by configuring SAP reports with budget-to-actual data and completed the configuration of an enhanced balance sheet, which improves both general ledger and budget reporting;
- Integrated capital project reporting with SAP to significantly improve the efficiency and accuracy of capital projects reporting for the 2014 Comprehensive Annual Financial Report audit;
- Continued to administer the District's Whistleblower Hotline service that is used to improve accountability and transparency for District management, officials, staff, and taxpayers;
- Assisted the Monitoring and Research Department in enhancing User Charge customer service by modifying the internet-based Publicly owned treatment works Administration and Compliance System (iPACS) configuration for improved payment processing and improved reporting.

### **Budget Highlights**

The 2016 appropriation for the Finance Department is \$3,696,300, an increase of \$123,400, or 3.5 percent, from 2015. Staffing requirements will decrease to 28 positions.

Significant features of the 2016 Budget are:

- Reduce costs through the process of reengineering and implementing the SAP accounts receivable module and to provide the Treasury Department with a platform to bill, collect, and report for the new Local Government Loan Program;
- Assist in the interdepartmental implementation of a new real estate system;
- Improve efficiency by enhancing the iPACS with the addition of the eSurcharge module;
- Pursue safeguarding of the District's legislative permanent records and initiate a project to convert approximately 100,000 records to electronic images;
- Implement Government Accounting Standards Board pronouncement 68 to improve transparency of pension obligations.



**2016 Initiatives in Support of the Strategic Business Plan Include the Following:****• Add Value**

The Finance Department will focus on adding value at every level within the department to improve its interactions with customers and establish interdepartmental service-level agreements. The department plans to develop dashboard reports to provide key statistical data on transaction processing, monitor performance measures, ensure compliance with the Prompt Payment Act for District vendor payments, and ensure timely payment of payroll and other employee expenses.

**• Excellence**

The Finance Department will continue to focus on excellence in delivering services and achieving compliance. The department will continue to obtain an unmodified audit opinion on the District's financial statements, earn the Certificate of Excellence in Financial Reporting from the GFOA, and ensure that all applicable Governmental Accounting Standards Board pronouncements are implemented.

**• Develop Employees**

Employee recognition for excellence will be an ongoing focus for the Finance Department. The department will continue to develop a workforce that is competent, motivated, and adaptive to change. The Finance Department will continue its cross-training program for professional and support staff to ensure that institutional knowledge is retained and improved through ongoing training, the utilization of eLearning, the encouragement of tuition reimbursement programs, and the expansion of webinar opportunities.

**• Leading Partnerships**

The Finance Department stays updated with government financial reporting by actively participating in GFOA conferences and training. It is equally important for the Finance Department to understand the changes in our reclamation and disinfection processes to meet the reporting needs of operations. Employees are encouraged to attend the Water Environment Federation Technical Exhibition and Conference and partner with operating departments to support the District's mission.

**• Technology**

The Finance Department will continue to embrace technology to reduce transaction processing costs and optimize operations. Plans are underway for the following initiatives:

- Develop quarterly financial and dashboard reports;
- Implement the SAP accounts receivable module;
- Enhance the iPACS eSurcharge module to allow users to make payments, file RD-925 forms, and file permit applications online;
- Assist in the implementation of a new real estate module;
- Improve reporting through internal order and cost center reporting.

**40000 FINANCE**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Provide for the accounting, auditing, and payment of all District expenditures, which consist of vendor payments, employee wages, expenses, and fringe benefits. Vendor payments are made in compliance with the Prompt Payment Act.	\$ 832,900	22.5%
2. Provide for the accounting, billing, and collection of all revenue such as user charge, State Revolving Fund, real estate, and other miscellaneous billings.	\$ 380,400	10.3%
3. Provide for the independent appraisal and analysis of departmental activities approved for internal auditing by the Audit Committee.	\$ 615,300	16.7%
4. Provide for general accounting and reporting (financial statement preparation, fixed assets, cost accounting analysis, general ledger maintenance, and bank account reconciliation).	\$ 1,376,100	37.2%
5. Provide for the preparation of Board meeting agendas and minutes reports, and for the documentation, retention, and retrieval of all official records of the Board of Commissioners.	\$ 491,600	13.3%
Total	<u>\$ 3,696,300</u>	<u>100.0%</u>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Maintain 100 percent compliance with the Prompt Payment Act.	99%	100%	100%
2. Maintain a 95 percent or better collection rate for user charge and other fees.	95%	95%	95%
3. Complete 95 percent of audits proposed by Audit Committee.	98%	95%	95%
4. Maintain unmodified opinion on Financial and Single Audit statements and submit all required filings by June 1.	100%	100%	100%

**40000 FINANCE**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals		FTEs	Dollars	Dollars	Percent	
7391	Accounts Payable	\$ 342,397	2016	4	\$ 369,700	\$ 34,900	10.4	
			2015	4	\$ 334,800			
7392	Payroll and Employee Expense	\$ 429,310	2016	4	\$ 418,800	\$ (68,300)	(14.0)	
			2015	5	\$ 487,100			
7393	Billing and Collections	\$ 337,355	2016	4	\$ 380,400	\$ 18,000	5.0	
			2015	4	\$ 362,400			
7395	Internal Auditing	\$ 570,256	2016	5	\$ 615,300	\$ (23,300)	(3.6)	
			2015	5	\$ 638,600			
7398	Clerk's Corporate Functions and Administrative Services	\$ 453,598	2016	3	\$ 491,600	\$ 40,000	8.9	
			2015	3	\$ 451,600			
7399	Accounting and Financial Reporting	\$ 1,045,079	2016	6	\$ 1,065,900	\$ 35,600	3.5	
			2015	6	\$ 1,030,300			
7405	Financial System Development	\$ 246,198	2016	2	\$ 310,200	\$ 42,100	15.7	a)
			2015	2	\$ 268,100			
7604	Social Security and Medicare Contributions	\$ -	2016	-	\$ 44,400	\$ 44,400	100.0	b)
			2015	-	\$ -			
Totals		\$ 3,424,193	2016	28	\$ 3,696,300	\$ 123,400	3.5%	
			2015	29	\$ 3,572,900			

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities.
- b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**40000 FINANCE**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
7390	Accounting and Auditing					
7391	Invoices Audited and Processed for Payment	Invoices	19,540	24,100	24,100	
		Cost	\$ 342,397	\$ 334,800	\$ 369,700	
		Cost/Invoice	\$ 17.52	\$ 13.89	\$ 15.34	
7392	Payroll and Expense Accounting, Auditing, and Check Processing Operations	Checks	47,670	47,700	47,700	
		Cost	\$ 429,310	\$ 487,100	\$ 418,800	
		Cost/Check	\$ 9.01	\$ 10.21	\$ 8.78	
7393	Billing and Collections	Billings	5,600	5,880	5,880	
		Cost	\$ 337,355	\$ 362,400	\$ 380,400	
		Cost/Billing	\$ 60.24	\$ 61.63	\$ 64.69	
7395	Internal Auditing	Cost	\$ 570,256	\$ 638,600	\$ 615,300	
7398	Clerk's Corporate Functions and Administrative Services	Cost	\$ 453,598	\$ 451,600	\$ 491,600	
7399	Accounting and Financial Reporting	Cost	\$ 1,045,079	\$ 1,030,300	\$ 1,065,900	
7405	Financial System Development	Cost	\$ 246,198	\$ 268,100	\$ 310,200	a)
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 44,400	b)
<b>Total</b>			<b>\$ 3,424,193</b>	<b>\$ 3,572,900</b>	<b>\$ 3,696,300</b>	

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities.
- b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 40000	Fund: Corporate Department: Finance Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 2,894,949	\$ 3,112,500	\$ 3,112,500	\$ 2,951,600	\$ 3,127,900	\$ 3,127,900	\$ 3,146,400
601060	Compensation Plan Adjustments	89,480	42,500	42,500	16,000	60,800	60,800	61,400
601070	Social Security & Medicare Contributions	-	-	-	-	44,400	44,400	44,400
601100	Tuition and Training Payments	28,149	28,400	28,400	28,400	22,700	22,700	22,700
601170	Payments for Professional Services	267,570	310,900	310,900	310,900	-	-	-
100	TOTAL PERSONAL SERVICES	3,280,148	3,494,300	3,494,300	3,306,900	3,255,800	3,255,800	3,274,900
612010	Travel	3,561	2,900	2,300	2,300	3,100	3,100	3,100
612030	Meals and Lodging	3,337	4,800	5,700	5,700	4,300	4,300	4,300
612040	Postage, Freight, and Delivery Charges	3,229	3,400	2,200	2,200	3,400	3,400	3,400
612050	Compensation for Personally-Owned Automobiles	1,525	100	700	700	600	600	600
612090	Reprographic Services	2,145	2,400	2,400	2,400	1,900	1,900	1,900
612250	Court Reporting Services	45,223	50,000	50,000	50,000	47,800	47,800	47,800
612430	Payments for Professional Services	-	-	-	-	321,400	321,400	321,400
612490	Contractual Services, N.O.C.	71,832	900	15,300	15,200	25,900	25,900	25,900
612800	Repairs to Office Furniture & Equipment	5,093	5,300	5,300	5,300	5,200	5,200	5,200
200	TOTAL CONTRACTUAL SERVICES	135,943	69,800	83,900	83,800	413,600	413,600	413,600
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	7,627	7,400	12,700	12,700	7,200	7,200	7,200
623720	Books, Maps, and Charts	457	1,300	1,300	1,300	600	600	600
623990	Materials and Supplies, N.O.C.	18	100	100	100	-	-	-
300	TOTAL MATERIALS AND SUPPLIES	8,102	8,800	14,100	14,100	7,800	7,800	7,800
<b>TOTAL FINANCE</b>		<b>\$ 3,424,193</b>	<b>\$ 3,572,900</b>	<b>\$ 3,592,300</b>	<b>\$ 3,404,800</b>	<b>\$ 3,677,200</b>	<b>\$ 3,677,200</b>	<b>\$ 3,696,300</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Corporate Dept: Finance Division:		POSITION ANALYSIS				
		2014	2015		2016	
		ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PAY PLAN & GRADE	CLASS TITLE					
<b>410</b>	<b>Executive Division</b>					
<b>411</b>	<b>Executive Section</b>					
EX13	Clerk/Director of Finance	1	1		1	
HP21	Comptroller #4	-	-		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	408,005.26	4	634,648.30
<b>413</b>	<b>Internal Auditing Section</b>					
HP19	Accounting Manager	1	1		-	
HP19	Accounting Manager #2 (New Grade HP18)	-	-		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	1	1		2	
HP16	Financial Analyst	2	2		1	
HP12	Accounting Associate	1	1		1	
TOTAL	Internal Auditing Section	5	5	559,636.74	5	598,904.28
TOTAL	Executive Division	8	8	967,642.00	9	1,233,552.58
<b>420</b>	<b>Accounting Division</b>					
<b>430</b>	<b>Administrative Section</b>					
HP21	Comptroller #4	1	1		-	
TOTAL	Administrative Section	1	1	203,849.10	-	-
<b>440</b>	<b>Financial Administration &amp; Disbursements Section</b>					
<b>441</b>	<b>Administrative Unit</b>					
HP19	Accounting Manager	1	1		-	
HP19	Accounting Manager #2 (New Grade HP18)	-	-		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	1	1		2	
HP13	Senior Administrative Specialist	-	-		1	
TOTAL	Administrative Unit	2	2	259,209.34	4	482,509.82
<b>442</b>	<b>Administrative Services Unit</b>					
HP13	Senior Administrative Specialist	1	1		-	
TOTAL	Administrative Services Unit	1	1	87,784.84	-	-

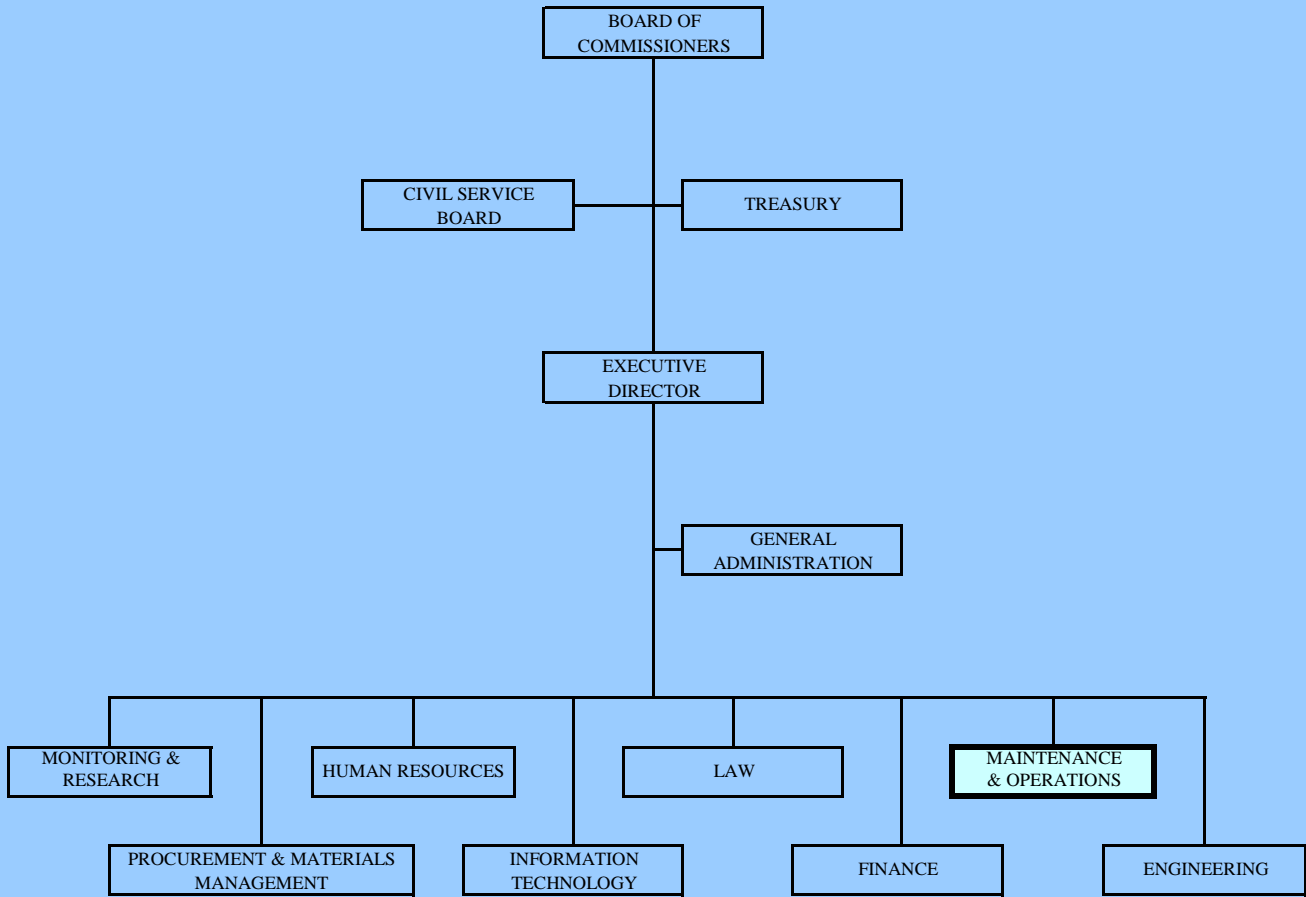
Fund: Corporate Dept: Finance Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>443</b>	<b>Billing Unit</b>					
HP16	Financial Analyst	1	1		-	
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	1		1	
HP12	Accounting Associate	2	2		2	
TOTAL	Billing Unit	4	4	322,412.74	3	237,557.32
<b>446</b>	<b>Accounts Payable Unit</b>					
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	1		1	
HP12	Accounting Associate	2	2		2	
TOTAL	Accounts Payable Unit	3	3	227,526.78	3	212,779.58
TOTAL	Financial Administration & Disbursements Section	10	10	896,933.70	10	932,846.72
<b>450</b>	<b>Special Projects &amp; Payroll Section</b>					
<b>451</b>	<b>Special Projects Unit</b>					
HP19	Accounting Manager	1	1		-	
HP19	Accounting Manager #2 (New Grade HP18)	-	-		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	1	1		-	
HP16	Financial Analyst	-	-		1	
TOTAL	Special Projects Unit	2	2	258,441.04	2	255,581.56
<b>452</b>	<b>Payroll Unit</b>					
HP16	Financial Analyst	1	1		1	
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	1		-	
HP12	Accounting Associate	1	1		1	
TOTAL	Payroll Unit	3	3	245,917.36	2	180,011.00
TOTAL	Special Projects & Payroll Section	5	5	504,358.40	4	435,592.56
<b>460</b>	<b>General Accounting Section</b>					
<b>463</b>	<b>Accounting Unit</b>					
HP19	Accounting Manager	1	1		-	
HP19	Accounting Manager #2 (New Grade HP18)	-	-		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	1	1		-	

Fund: Corporate Dept: Finance Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP16	Financial Analyst	1	1		2	
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	2	2		2	
TOTAL	Accounting Unit	5	5	555,425.78	5	560,323.66
TOTAL	General Accounting Section	5	5	555,425.78	5	560,323.66
TOTAL	Accounting Division	21	21	2,160,566.98	19	1,928,762.94
TOTAL	Finance	29	29	3,128,208.98	28	3,162,315.52

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.



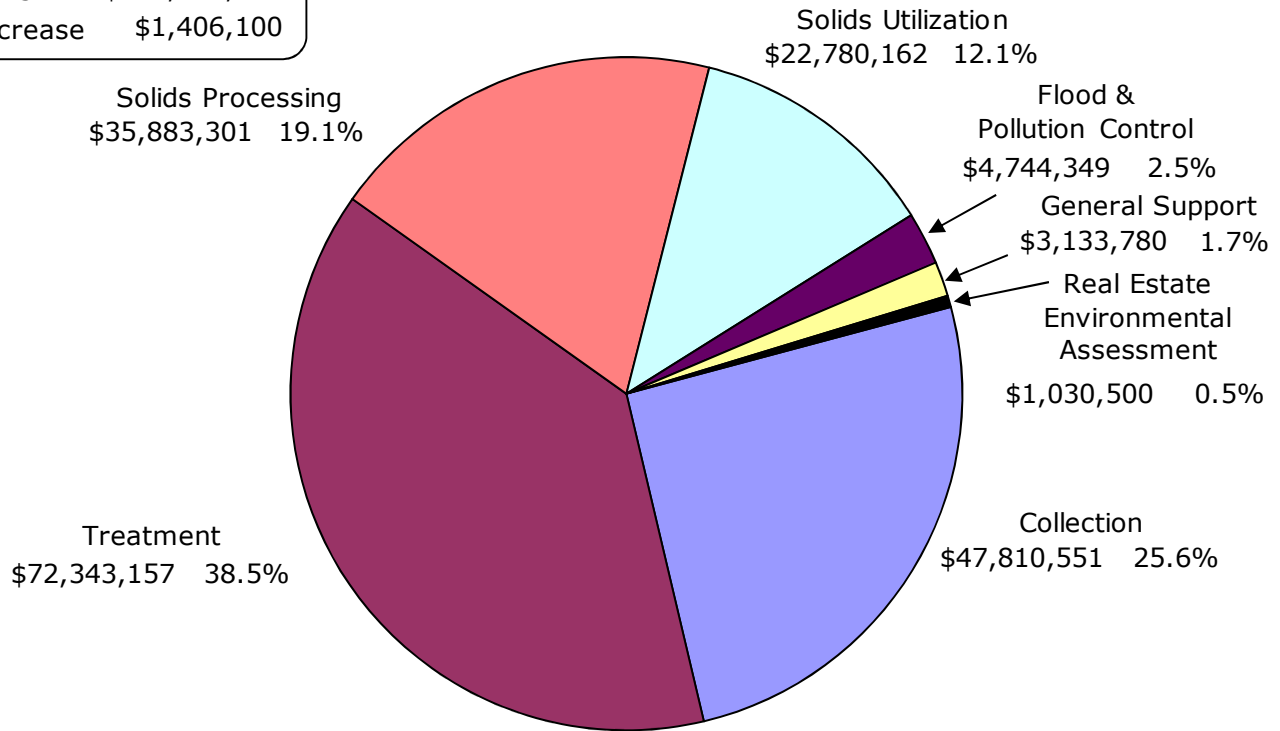
**NOTE PAGE**



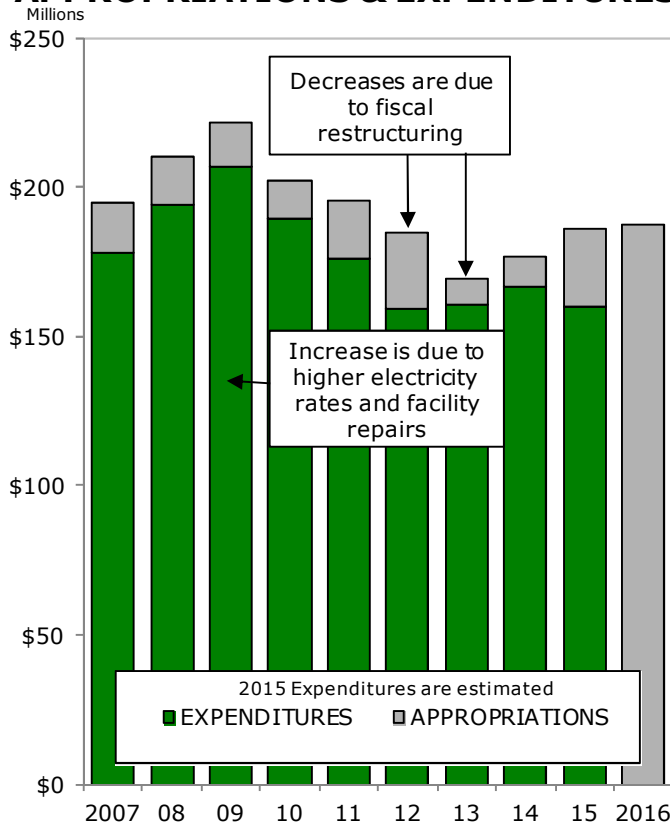
# MAINTENANCE & OPERATIONS – ALL DIVISIONS

2016	\$187,725,800
2015	\$186,319,700
Increase	\$1,406,100

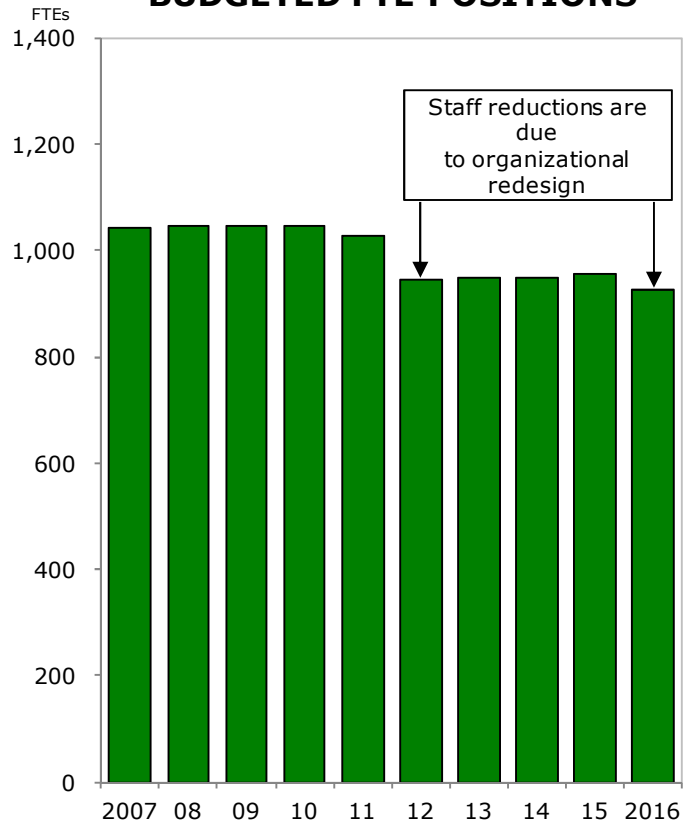
## FUNCTIONS



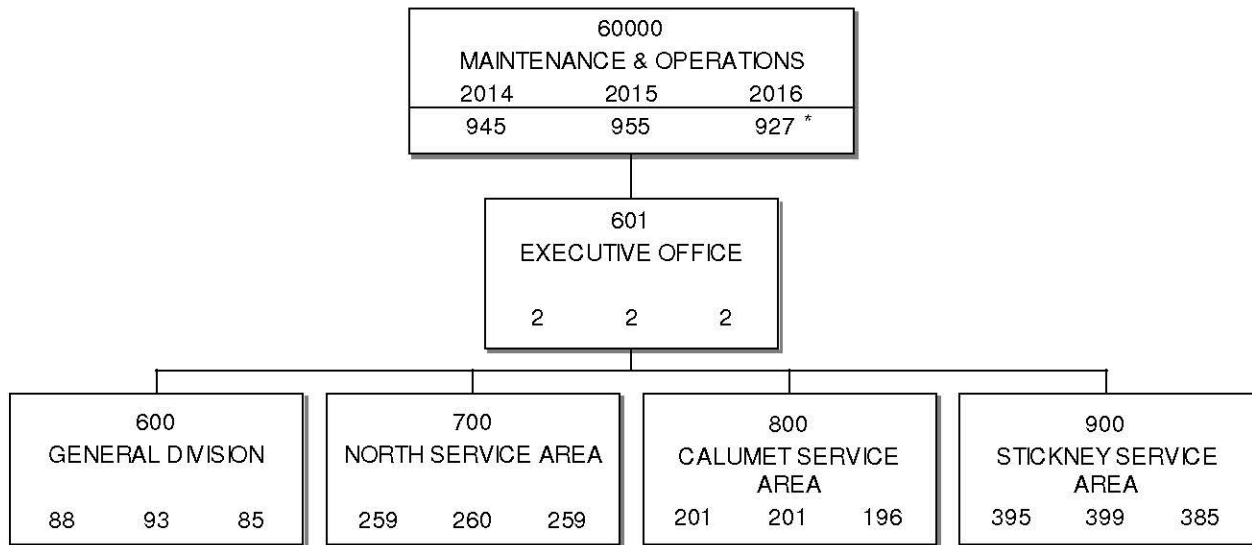
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS – ALL DIVISIONS



\* The 2016 position total for the Maintenance & Operations Department is 954. There are an additional 27 positions funded by the Stormwater Management Fund, while the operations remain in the Maintenance & Operations Department.

## MAINTENANCE & OPERATIONS

**The mission of the Maintenance & Operations Department (M&O) is to maintain and operate the District's facilities at an optimal level, to protect our environment by collecting and treating wastewater, minimizing flooding, maintaining our waterways free of pollution, producing and beneficially reusing high-quality biosolids, and providing environmental remediation for District-owned real estate in the most economical and environmentally sustainable manner.**

### Departmental Summary

M&O consists of four divisions that maintain and operate the collection systems and treatment plants within the District's 883.4 square mile service area. In addition to maintaining and operating the Lockport Powerhouse, the waterways, the collection systems, and three biosolids handling facilities, the General Division provides administrative support for regulatory, budgetary, procurement, and personnel matters. The department's primary responsibilities include:

- Collecting and treating approximately 486.3 billion gallons of wastewater annually by maintaining and operating seven wastewater treatment plants, a 554 mile network of intercepting sewers, 109.4 miles of the Tunnel and Reservoir Plan tunnels, and one ancillary reservoir;
- Further improving the quality of water in the area waterways by maintaining and operating five sidestream elevated pool aeration stations and two instream aeration stations;
- Providing flood relief to the area by maintaining 530 miles of small streams and 35 detention reservoirs;
- Processing and beneficially reusing high-quality biosolids, the byproduct of wastewater treatment, by maintaining and operating three biosolids handling facilities.

### Summary of 2015 Accomplishments

- Achieved a 99.98 percent overall compliance rate with the requirements of the National Pollutant Discharge Elimination System (NPDES) permits in 2014, resulting in two Gold Awards and five Platinum Awards from the National Association of Clean Water Agencies. M&O anticipates an improvement in 2015;
- Completed Illinois Environmental Protection Agency (IEPA) renewal applications for Air Permits, including the Egan Water Reclamation Plant (WRP) Federally Enforceable State Operating Permit (FESOP), the Calumet WRP FESOP, the Kirie WRP FESOP, and the O'Brien WRP FESOP, for Operating Permits, including the Egan WRP Solids Drying Areas, the Stickney WRP Solids Drying Areas, the Calumet WRP East & West Solids Drying Areas, the Stickney WRP Septage Disposal, and the Gloria Alitto Majewski (O'Hare CUP) Reservoir, and for NPDES Permits, including the Kirie WRP NPDES, the Hanover Park WRP NPDES, the Egan WRP NPDES, the Lemont WRP NPDES, and General Stormwater NPDES, and for Title V permits for the Stickney WRP;
- Completed a thorough review of departmental workflow and methods. M&O continues to make strides towards reducing our reliance on contractors for maintenance, thereby increasing our reliance on our highly skilled trades and Master Mechanics;
- Began implementing the Ostara recovery system to capture phosphorus for environmentally friendly reuse, improve the quality of watercourses in the Stickney Service Area, and provide an additional revenue stream for the District;
- Continued to align treatment processes and energy management practices, as demonstrated by the award of Contract 15-604-21, Furnish & Deliver Ammonia Control Equipment, which will substantially reduce electricity consumption and advance the District's goal of energy neutrality by 2023;
- Collaborated with other public agencies to obtain the Governor's signature on Bill HB1445 to classify the District's biosolids product as Class A EQ (Exceptional Quality) Biosolids. This designation means the material meets Illinois Environmental Protection Agency guidelines for land application with no restrictions. Class A biosolids can be legally used as fertilizer on farms and vegetable gardens and can be sold to home owners as compost or fertilizer;
- In 2014, the District generated 41,518,650 kWh and received \$1,395,547 in revenue from ComEd. Projected generation for 2015 is 41.6 million kWh, with a projected value of approximately \$1.3 million, and for 2016 is 36.9 million kWh, with a projected value of approximately \$1.19 million.

### Budget Highlights

The 2016 M&O Corporate Fund appropriation of \$187,725,800 reflects an increase of \$1,406,100, or 0.8 percent, from the 2015 appropriation. In addition to the Corporate Fund, M&O will use the Construction Fund for capital projects, which will allow technical staff to focus on upgrading, rehabilitating, and rebuilding critical infrastructure.

The 2016 Corporate Fund staffing level is 927 positions, a net decrease of 28 positions from 2015. The staffing changes are part of an organizational plan to align human resources with goals and strategies, which includes dropping redundant positions as they become vacant. An additional 27 positions are funded in the Stormwater Management Fund, unchanged from 2015. Therefore, the total 2016 position count is 954, compared to the total 2015 position count of 982.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

As part of our commitment to adding value, M&O is exploring ways to increase revenue from electrical production at the Lockport Powerhouse. One of the more promising options is to become a sub-member of PJM Interconnection (a regional electrical transmission organization), which will allow us to sell electricity on the open market.

M&O is working to diversify our biosolids management portfolio and to develop its commercial potential. The IEPA, with accompanying legislation signed by the Governor on July 20, 2015, recently rated the District’s biosolids product as a commercially viable fertilizer, which will allow us to sell our biosolids product and create a revenue stream for the District. Another exciting development related to our biosolids operation is our agreement with the City of Chicago. Under the agreement, tree debris provided by the city will be used as a bulking agent for composting biosolids.

The composting process raises the temperature of the biosolids and woodchip mixture, which kills off pathogens to create a Class A product. Composting will reduce the footprint needed to process biosolids, create a value-added product with a variety of beneficial applications, and generate an additional revenue stream. The District has set a goal to produce 10,000 tons of composted biosolids in 2016 and more in the future as the operation improves.

In 2015, the Board of Commissioners selected EnergyConnect, Inc., to provide a voluntary energy curtailment program for a three-year period. To date, this relationship has paid off with a \$1.9 million rebate to the District. The program requests participants to reduce energy use voluntarily, when the region’s electricity grid is on the verge of a brownout or blackout due to high electricity usage.

• **Excellence**

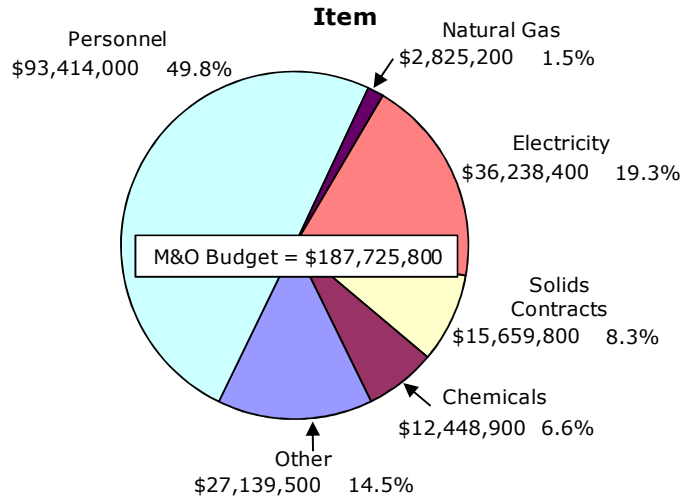
Achieving energy neutrality by 2023 remains an important goal, particularly as energy accounts for approximately 18 to 20 percent of the department’s total budget. Electrical energy costs include three major components: supply, capacity, and transmission. Supply is the actual electricity consumed. Capacity represents the need for adequate generation resources, especially at peak times. Transmission is the transfer of electricity from the generation source (power plant) to the substations located near the demand centers (customers). In 2016, these costs are expected to increase. Supply costs, secured through 2018 under our contract with Dynegy Energy Services, are 4.5 percent higher than in 2015. Disinfection and increasingly stringent effluent requirements will also amplify energy consumption and costs.

To counterbalance these forces, the department will aggressively pursue energy efficiencies, especially in energy-intensive areas of the treatment process, such as aeration. In 2016, for instance, new ammonia probes will be installed at all large plants, which will further optimize the aeration systems. Controlling aeration based upon the ammonia concentration means providing just enough air to achieve the necessary performance. Only using the optimal amount of air will result in energy savings. For 2016, the electrical budget for air blowers has been reduced by approximately 15 percent at the Stickney, O’Brien, and Hanover Park WRPs and by five percent at the Calumet WRP.

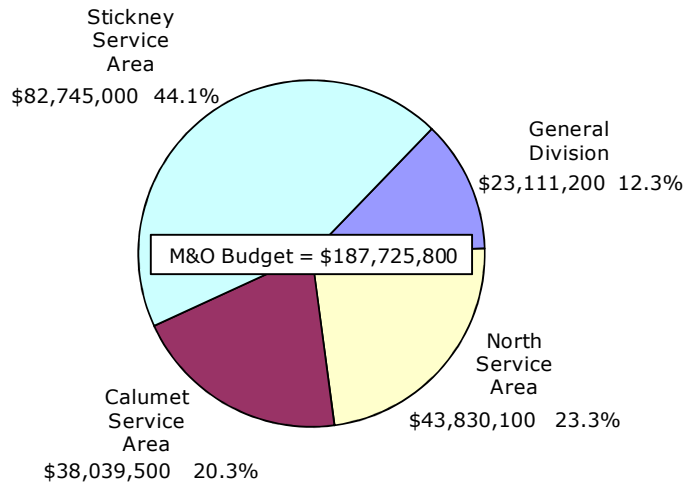
Another initiative related to the energy neutrality goal is the planned operation of a two-megawatt gas turbine at the Stickney WRP. During the summer months, the turbine will be operated using digester gas, a byproduct of the treatment process, to power equipment, such as pumps and aeration blowers. With projects like this, M&O will link plant functions, energy management, and resource recovery.

M&O will also adhere to the current business model of reducing electricity costs through online competitive auctions. Participating in the auctions allows us to procure a supply of electricity at the lowest market rate for that day.

**2016 Appropriations by Major Line Item**



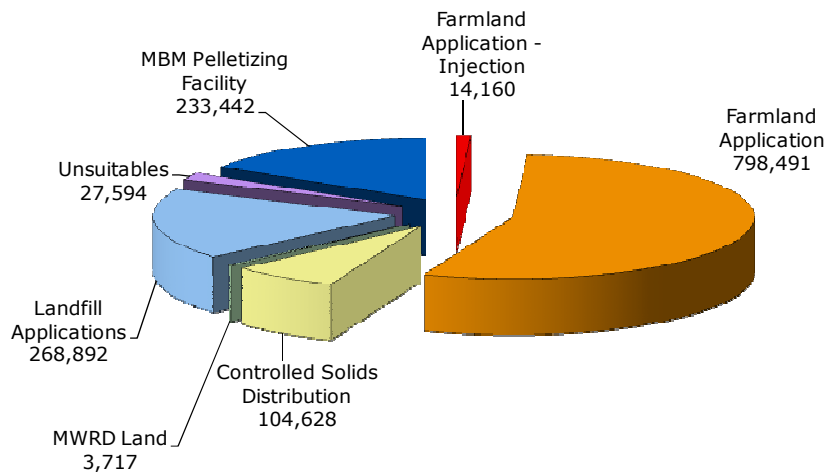
**2016 Appropriations by Service Area**



**• Resource Recovery**

M&O recognizes the tremendous resource potential residing in wastewater and biosolids. With several new projects, the District is working to extract that potential. At the Stickney WRP, for instance, Ostara technology is being implemented. This technology, called the Pearl® System, extracts phosphorus and ammonia from the waste stream by adding magnesium to cause a precipitation reaction. The result is fertilizer pellets rich in phosphorus, nitrogen, and magnesium. Regulations regarding the amount of phosphorus contained in treated effluent have become increasingly stringent. While too much phosphorus in water can cause algae to bloom, depleting the oxygen supply and killing other aquatic life, phosphorus is also essential to plant growth and is a key ingredient in agricultural fertilizer. This innovative technology addresses both the negative and positive aspects of phosphorus as it occurs in a wastewater treatment plant. It will allow the waste stream to be disposed of in an efficient way, while recovering phosphorus in a slow-release fertilizer for environmentally friendly reuse. This is an example that proves wastewater is not waste. In M&O, the goal is to be a resource recovery operation, not a disposal operation.

**Resource Recovery: Biosolids Reuse (in Dry Tons)  
2005 - 2014**



**Total: 1,450,924 Dry Tons**

**• Develop Employees**

In 2015, M&O reviewed the function and structure of our engineering force and developed a reorganization plan for our mechanical and electrical engineers. The new structure places the engineers into functional groups that are aligned with their expertise. The work groups will provide the engineers with a departmental perspective of engineering issues, which in turn will provide them with growth opportunities and better prepare them for future opportunities within this and other departments, ultimately leading to a stronger workforce.

M&O is also committed to providing continuing education and professional development to all employees, particularly as the department seeks to optimize employee performance, workflow, and the work distribution system.

**• Leading Partnerships**

The District, with leadership to be provided by M&O, is considering the development of a tree nursery at the 110-acre site at Fischer Farm, located at the Hanover Park WRP. This project seeks to address Cook County’s declining tree population, decimated in recent years by the emerald ash borer infestation and extreme weather. Trees are a form of green infrastructure as they collect stormwater and help reduce flooding. They also provide important social, economic, and environmental benefits. With initiatives like this, the department is providing value beyond merely treating wastewater. The District owes it to the communities it serves to be a leader in environmental stewardship.

**• Technology**

M&O will continue to pursue innovative, high-efficiency technologies to meet our regulatory and compliance needs and to optimize our treatment processes, particularly aeration. Aeration, the addition of oxygen to wastewater, is the biggest energy consumer in the treatment process. At the Egan WRP, the innovative ANITA™ Mox system is being implemented to treat effluents with a high ammonia concentration. The advantages of this system, as compared to conventional ammonia removal processes, are reduced oxygen and energy requirements and a smaller carbon footprint. Improvements such as this will help the department achieve new benchmarks in quality and performance.

**60000 M&O - ALL DIVISIONS**

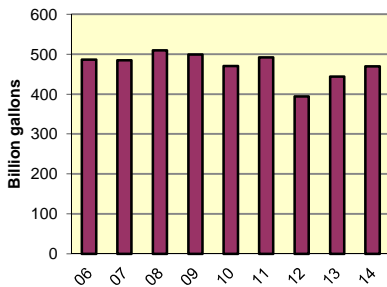
**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:

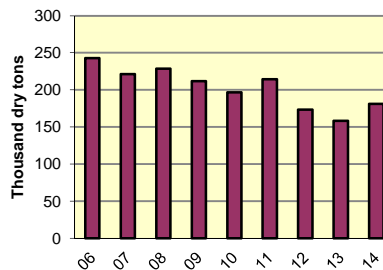
1. **COLLECTION & TREATMENT:** The M&O Department will collect and treat approximately 486.3 billion gallons of sewage through its seven treatment facilities and through a contract agreement with the Fox River Water Reclamation District.
2. **SOLIDS PROCESSING:** The M&O Department will remove and process approximately 190,500 dry tons of concentrated sewage through various systems, including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.
3. **SOLIDS UTILIZATION:** The M&O Department will utilize approximately 90,100 dry tons of biosolids for application at final utilization sites, such as farm applications and daily and final cover at sanitary landfills.
4. **FLOOD & POLLUTION CONTROL:** The M&O Department, in cooperation with local communities, will strive to minimize local area flooding and pollution of Lake Michigan through continuous control of the water levels in 76 miles of canals and 530 miles of small streams and through the operation of 35 detention reservoirs. It will also work to maintain the quality of the waterways system and associated District properties through the activities of the debris boats and the channel maintenance crews.
5. **GENERAL SUPPORT:** The M&O Department provides technical and administrative support for other departments indirectly related to the operational activities of Collection & Treatment, Solids Processing, Flood & Pollution Control, and Solids Utilization.
6. Inspect and evaluate District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.

	Cost	Percent
1. COLLECTION & TREATMENT: The M&O Department will collect and treat approximately 486.3 billion gallons of sewage through its seven treatment facilities and through a contract agreement with the Fox River Water Reclamation District.	\$ 120,153,708	64.1%
2. SOLIDS PROCESSING: The M&O Department will remove and process approximately 190,500 dry tons of concentrated sewage through various systems, including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 35,883,301	19.1%
3. SOLIDS UTILIZATION: The M&O Department will utilize approximately 90,100 dry tons of biosolids for application at final utilization sites, such as farm applications and daily and final cover at sanitary landfills.	\$ 22,780,162	12.1%
4. FLOOD & POLLUTION CONTROL: The M&O Department, in cooperation with local communities, will strive to minimize local area flooding and pollution of Lake Michigan through continuous control of the water levels in 76 miles of canals and 530 miles of small streams and through the operation of 35 detention reservoirs. It will also work to maintain the quality of the waterways system and associated District properties through the activities of the debris boats and the channel maintenance crews.	\$ 4,744,349	2.5%
5. GENERAL SUPPORT: The M&O Department provides technical and administrative support for other departments indirectly related to the operational activities of Collection & Treatment, Solids Processing, Flood & Pollution Control, and Solids Utilization.	\$ 3,133,780	1.7%
6. Inspect and evaluate District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 1,030,500	0.5%
<b>Total</b>	<b>\$ 187,725,800</b>	<b>100.0%</b>

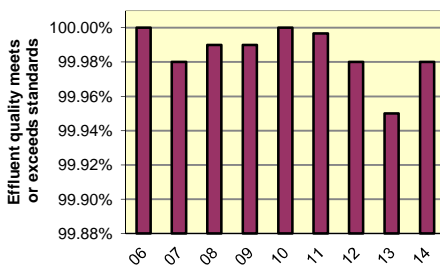
**Collection & Treatment**



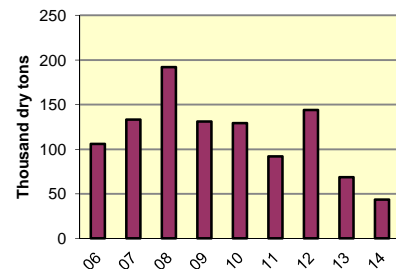
**Solids Processing**



**NPDES Permit Compliance**



**Solids Utilization**





**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change	
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 44,001,489	2016 239	\$ 47,810,551	\$ 634,402	1.3	
			2015 243	\$ 47,176,149			
1100	Surface Interceptor Systems	\$ 4,233,974	2016 30	\$ 4,141,000	\$ (88,200)	(2.1)	
			2015 32	\$ 4,229,200			
1200	Tunnel and Reservoir System	\$ 10,135,363	2016 39	\$ 10,322,200	\$ (69,300)	(0.7)	
			2015 39	\$ 10,391,500			
1300	Pumping Station Facilities	\$ 13,261,508	2016 68	\$ 15,453,500	\$ 948,900	6.5	
			2015 68	\$ 14,504,600			
1900	Collection - Indirect Costs	\$ 16,370,644	2016 102	\$ 17,893,851	\$ (156,998)	(0.9)	
			2015 104	\$ 18,050,849			
2000	Treatment	\$ 61,487,499	2016 384	\$ 71,034,657	\$ 3,342,987	4.9	
			2015 393	\$ 67,691,670			
2000	Pre-Treatment	\$ 3,440,503	2016 33	\$ 3,812,800	\$ 108,300	2.9	
			2015 33	\$ 3,704,500			
2100	Primary Treatment	\$ 3,428,581	2016 39	\$ 3,506,800	\$ (170,500)	(4.6)	
			2015 40	\$ 3,677,300			
2200	Secondary Treatment	\$ 21,389,980	2016 96	\$ 22,022,100	\$ 458,600	2.1	
			2015 97	\$ 21,563,500			
2300	Tertiary Treatment	\$ 1,407,534	2016 12	\$ 5,384,300	\$ 3,035,900	129.3	
			2015 12	\$ 2,348,400			
2900	Treatment - Indirect Costs	\$ 31,820,901	2016 204	\$ 36,308,657	\$ (89,313)	(0.2)	
			2015 211	\$ 36,397,970			
3000	Solids Processing	\$ 32,593,580	2016 210	\$ 35,883,301	\$ 1,252,532	3.6	
			2015 214	\$ 34,630,769			
3100	Thickening	\$ 5,752,386	2016 40	\$ 6,125,100	\$ 81,100	1.3	
			2015 42	\$ 6,044,000			
3200	Stabilization	\$ 5,926,758	2016 44	\$ 5,938,800	\$ 187,700	3.3	
			2015 44	\$ 5,751,100			
3300	Dewatering	\$ 9,102,908	2016 41	\$ 11,084,300	\$ 965,300	9.5	
			2015 40	\$ 10,119,000			
3900	Solids Processing - Indirect Costs	\$ 11,811,528	2016 85	\$ 12,735,101	\$ 18,432	0.1	
			2015 88	\$ 12,716,669			

Note: Explanations of significant changes are provided by individual division.

**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change	
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
4000	Flood & Pollution Control	\$ 4,574,549	2016 24	\$ 4,744,349	\$ (231,515)	(4.7)	
			2015 28	\$ 4,975,864			
4200	Waterways Control and Stormwater Reservoirs	\$ 2,609,592	2016 15	\$ 2,262,200	\$ (209,000)	(8.5)	
			2015 18	\$ 2,471,200			
4210	Maintenance of Waterways	\$ 151,283	2016 1	\$ 200,900	\$ (500)	(0.2)	
			2015 -	\$ 201,400			
4300	Stormwater Management	\$ -	2016 2	\$ 161,600	\$ 5,500	3.5	
			2015 2	\$ 156,100			
4400	Aeration Facilities	\$ 1,013,493	2016 3	\$ 1,121,000	\$ 27,700	2.5	
			2015 3	\$ 1,093,300			
4900	Flood & Pollution Control - Indirect Costs	\$ 800,181	2016 3	\$ 998,649	\$ (55,215)	(5.2)	
			2015 5	\$ 1,053,864			
5000	Solids Utilization	\$ 19,759,583	2016 45	\$ 22,780,162	\$ (4,918,156)	(17.8)	
			2015 50	\$ 27,698,318			
5100	Solids Drying	\$ 5,611,553	2016 8	\$ 5,730,600	\$ (1,929,100)	(25.2)	
			2015 9	\$ 7,659,700			
5200	Solids Distribution	\$ 9,174,374	2016 9	\$ 11,813,900	\$ (2,535,200)	(17.7)	
			2015 11	\$ 14,349,100			
5900	Solids Utilization - Indirect Costs	\$ 4,973,656	2016 28	\$ 5,235,662	\$ (453,856)	(8.0)	
			2015 30	\$ 5,689,518			
7000	General Support (excluding program numbers 7368 & 7604)	\$ 3,220,152	2016 22	\$ 3,133,780	\$ 43,050	1.4	
			2015 24	\$ 3,090,730			
7368	Real Estate Environmental Assessment	\$ 904,989	2016 3	\$ 1,030,500	\$ (25,700)	(2.4)	
			2015 3	\$ 1,056,200			
7604	Social Security and Medicare Contribution	\$ -	2016 -	\$ 1,308,500	\$ 1,308,500	100.0	
			2015 -	\$ -			
	Totals	\$ 166,541,841	2016 927	\$ 187,725,800	\$ 1,406,100	0.8%	*
			2015 955	\$ 186,319,700			

\* The 2016 position total for the M&O Department is 954, which includes 27 positions funded by the Stormwater Management Fund.

Note: Explanations of significant changes are provided by individual division.

**60000 M&O - ALL DIVISIONS**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated
1000-2900	Collection & Treatment				
	Collect and Treat Sewage at Seven Treatment Facilities and Through a Contract Agreement with the Fox River Water Reclamation District	Mil. Gallons Cost Cost/Mil. Gallons	462,373 \$ 105,488,988 \$ 228.15	471,258 \$ 114,867,819 \$ 243.75	486,258 \$ 118,845,208 \$ 244.41
3000	Solids Processing				
	Remove and Process Solids from Concentrated Sewage Using Systems Including Heated Digestion, Centrifuging, Concentration, and Aging Low Solids Sludge and Centrifuge Cake in Lagoons	Dry Tons Cost Cost/Dry Ton	181,162 \$ 32,593,580 \$ 179.91	190,200 \$ 34,630,769 \$ 182.08	190,500 \$ 35,883,301 \$ 188.36
4000	Flood & Pollution Control				
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution				
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals	Cost	\$ 635,488	\$ 791,100	\$ 770,600
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion Cost Cost/Mil. Gal./Year	72,583 \$ 447,393 \$ 6.16	24,000 \$ 355,300 \$ 14.80	23,825 \$ 290,300 \$ 12.18
	Operation of Detention Reservoirs	Reservoirs Cost Cost/Reservoir	34 \$ 971,162 \$ 28,563.59	35 \$ 939,200 \$ 26,834.29	35 \$ 871,500 \$ 24,900.00
	Generate Electricity at Lockport Powerhouse to Obtain Approximately \$1,191,700 in Revenue	kWh Cost Cost/kWh * Revenue Generated	41,518,650 \$ 555,549 \$ 0.0134 \$ 1,395,547	37,750,000 \$ 385,600 \$ 0.0102 \$ 1,320,000	36,856,400 \$ 329,800 \$ 0.0089 \$ 1,191,700
4210	Maintenance of the Waterways and Canal Banks Within the Jurisdiction of the District. Activities Include Debris Removal, Insect and Rodent Control, Bridge Repairs, and Aeration Costs	Cost	\$ 151,283	\$ 201,400	\$ 200,900
4300	Stormwater Management	Cost	\$ -	\$ 156,100	\$ 161,600
4400	Aeration Facilities	Cost	\$ 1,013,493	\$ 1,093,300	\$ 1,121,000
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 800,181	\$ 1,053,864	\$ 998,649
5000	Solids Drying/Utilization				
	Utilize Further Dewatered Sewage for Application at Final Utilization Sites Such as the Land Reclamation Fields in Fulton County, the Fischer Farm, Daily and Final Cover at Sanitary Landfills, and Other Farm Applications	Dry Tons Cost Cost/Dry Ton	43,645 \$ 15,264,782 \$ 349.75	90,100 \$ 21,676,118 \$ 240.58	90,100 \$ 17,145,262 \$ 190.29
5271	Pelletizer Disposal Control Management and Disposal of Solids by Private Contracts	Dry Tons Cost Cost/Dry Ton	36,672 \$ 4,494,801 \$ 122.57	45,000 \$ 6,022,200 \$ 133.83	45,000 \$ 5,634,900 \$ 125.22
7000	General Support (excluding program numbers 7368 & 7604) Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection & Treatment, Solids Processing, Flood & Pollution Control, and Solids Utilization	Cost	\$ 3,220,152	\$ 3,090,730	\$ 3,133,780
7368	Real Estate Environmental Assessment	Cost	\$ 904,989	\$ 1,056,200	\$ 1,030,500
7604	Social Security and Medicare Contribution	Cost	\$ -	\$ -	\$ 1,308,500
Departmental Total			\$ 166,541,841	\$ 186,319,700	\$ 187,725,800

Note: Explanations of significant changes are provided by individual division.

\* Revenue generated not included in total costs.

101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 82,938,634	\$ 88,484,300	\$ 87,311,200	\$ 82,663,400	\$ 86,872,800	\$ 86,872,700	\$ 87,771,800
601060	Compensation Plan Adjustments	4,271,305	4,374,100	4,732,200	4,609,200	4,297,500	4,297,600	4,310,300
601070	Social Security & Medicare Contributions	-	-	-	-	1,308,500	1,308,500	1,308,500
601080	Salaries of Nonbudgeted Employees	81,033	24,800	89,800	30,700	23,400	23,400	23,400
601100	Tuition and Training Payments	179,123	248,000	248,000	104,900	331,700	323,700	323,700
601170	Payments for Professional Services	749,570	782,700	932,700	407,400	-	-	-
100	TOTAL PERSONAL SERVICES	88,219,666	93,913,900	93,313,900	87,815,600	92,833,900	92,825,900	93,737,700
612010	Travel	13,218	62,900	62,900	11,200	54,100	50,100	50,100
612030	Meals and Lodging	56,078	102,200	102,200	39,700	116,000	100,000	100,000
612050	Compensation for Personally-Owned Automobiles	168,809	181,900	181,900	173,500	187,000	187,000	187,000
612080	Motor Vehicle Operating Services	1,043	2,500	2,500	1,000	1,800	1,800	1,800
612150	Electrical Energy	33,125,201	32,993,600	32,993,600	29,258,900	36,238,400	36,238,400	36,238,400
612160	Natural Gas	3,668,070	2,397,500	2,397,500	1,711,500	2,825,200	2,825,200	2,825,200
612170	Water and Water Services	1,559,794	1,583,900	1,583,900	1,517,700	1,729,400	1,729,400	1,729,400
612210	Communication Services	456,369	569,900	569,900	320,100	647,500	647,500	647,500
612240	Testing and Inspection Services	75,386	162,400	262,400	69,100	181,400	181,400	181,400
612280	Subscriptions and Membership Dues	299	-	-	-	-	-	-
612330	Rental Charges	134,894	177,300	177,300	130,100	196,800	196,800	196,800
612410	Governmental Service Charges	3,645,639	3,282,300	3,282,300	3,170,100	3,223,500	3,223,500	3,223,500
612420	Maintenance of Grounds and Pavements	1,635,720	1,937,600	1,937,600	1,342,200	949,900	1,049,900	1,049,900
612430	Payments for Professional Services	-	-	-	-	680,700	810,700	810,700
612490	Contractual Services, N.O.C.	426,607	692,600	692,600	475,700	601,000	601,000	601,000
612520	Waste Material Disposal Charges	9,007,144	14,395,000	12,737,400	9,677,000	10,791,800	10,659,800	10,659,800
612530	Farming Services	24,000	22,000	29,600	22,000	29,600	29,600	29,600
612590	Sludge Disposal	3,879,922	5,522,100	5,522,100	2,453,900	5,000,000	5,000,000	5,000,000
612600	Repairs to Collection Facilities	3,128,226	3,249,000	3,489,000	2,622,000	3,876,000	3,821,000	3,796,000
612620	Repairs to Waterway Facilities	114,728	101,000	101,000	15,000	88,600	88,600	88,600
612650	Repairs to Process Facilities	3,675,095	6,252,500	6,737,500	5,456,200	5,675,900	5,675,900	5,643,700

101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612670	Repairs to Railroads	79,689	323,900	323,900	260,300	478,700	478,700	478,700
612680	Repairs to Buildings	987,035	1,601,000	1,601,000	604,800	1,230,600	1,230,600	1,230,600
612760	Repairs to Material Handling and Farming Equipment	275,546	330,700	470,700	344,500	315,200	315,200	315,200
612780	Safety Repairs and Services	115,137	220,900	220,900	93,200	140,900	145,300	200,100
612790	Repairs to Marine Equipment	54,534	80,000	80,000	43,500	53,000	53,000	53,000
612820	Computer Software Maintenance	-	5,000	5,000	3,000	5,200	5,200	5,200
612840	Communications Equipment Maintenance (Includes Software)	24,766	40,000	40,000	-	15,000	15,000	15,000
612860	Repairs to Vehicle Equipment	82,514	118,400	118,400	78,400	109,500	109,500	109,500
612990	Repairs, N.O.C.	19,200	15,800	15,800	3,600	21,000	20,900	20,900
200	TOTAL CONTRACTUAL SERVICES	66,434,664	76,423,900	75,738,900	59,898,200	75,463,700	75,491,000	75,488,600
623030	Metals	54,144	43,000	43,000	33,500	40,000	40,000	40,000
623070	Electrical Parts and Supplies	1,584,655	1,426,000	1,426,000	1,072,100	1,379,600	1,379,600	1,423,200
623090	Plumbing Accessories and Supplies	891,613	760,000	760,000	574,300	732,400	732,400	732,400
623110	Hardware	21,647	31,300	31,300	20,300	25,000	25,000	25,000
623130	Buildings, Grounds, Paving Materials, and Supplies	148,504	300,000	300,000	71,400	183,500	183,500	191,500
623170	Fiber, Paper, and Insulation Materials	31,564	15,000	15,000	8,900	15,000	15,000	15,000
623190	Paints, Solvents, and Related Materials	11,133	5,500	5,500	3,500	10,000	10,000	10,000
623250	Vehicle Parts and Supplies	209,617	180,000	180,000	55,300	176,300	176,300	176,300
623270	Mechanical Repair Parts	1,980,391	2,932,300	2,932,300	1,732,100	2,140,100	2,137,700	2,137,700
623300	Manhole Materials	20,515	11,000	11,000	9,900	10,600	10,600	10,600
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	67,554	56,800	56,800	50,000	53,000	53,000	58,600
623530	Farming Supplies	4,947	5,000	5,000	5,000	5,000	5,000	5,000
623560	Processing Chemicals	5,798,187	8,950,000	10,203,000	6,833,600	12,545,700	12,545,700	12,448,900
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	41,334	23,300	23,300	16,600	22,600	22,600	22,600
623660	Cleaning Supplies	4,675	5,100	5,100	2,300	5,000	5,000	5,000
623680	Tools and Supplies	204,839	214,800	214,800	189,000	241,400	231,400	231,400

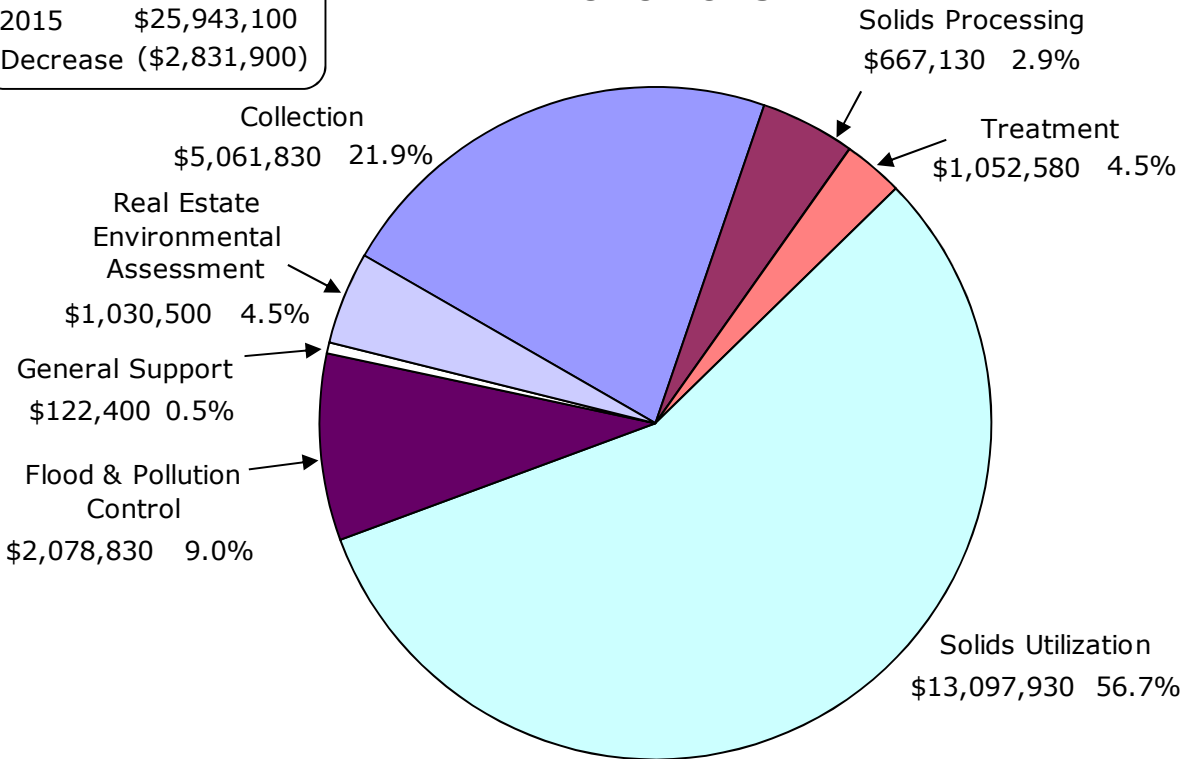
101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623700	Wearing Apparel	1,548	2,900	2,900	1,700	1,500	1,500	1,500
623720	Books, Maps, and Charts	180	1,400	1,400	-	200	200	200
623780	Safety and Medical Supplies	121,713	174,700	174,700	61,300	149,400	149,400	149,400
623800	Computer Software	5,776	6,600	6,600	5,700	6,000	6,000	6,000
623810	Computer Supplies	20,507	19,000	19,000	14,600	18,800	18,800	18,800
623820	Fuel	383,488	455,000	455,000	217,900	437,700	435,800	435,800
623840	Gases	5,211	12,000	12,000	2,600	8,000	8,000	8,000
623850	Communications Supplies	976	11,000	11,000	1,700	3,000	3,000	3,000
623860	Lubricants	22,642	24,600	24,600	14,200	25,200	25,200	25,200
623990	Materials and Supplies, N.O.C.	96,521	65,900	65,900	56,600	104,400	94,400	94,400
300	TOTAL MATERIALS AND SUPPLIES	11,733,882	15,732,200	16,985,200	11,054,100	18,339,400	18,315,100	18,275,500
634600	Equipment for Collection Facilities	11,022	106,000	110,000	36,100	20,000	50,000	50,000
634650	Equipment for Process Facilities	94,700	128,000	150,700	132,300	186,000	161,000	161,000
634760	Material Handling and Farming Equipment	-	-	5,700	5,000	-	-	-
634820	Computer Software	42,960	-	-	-	-	-	-
634860	Vehicle Equipment	-	-	-	-	7,000	7,000	7,000
634970	Testing and Laboratory Equipment	4,949	15,700	15,300	5,400	6,000	6,000	6,000
400	TOTAL MACHINERY AND EQUIPMENT	153,630	249,700	281,700	178,800	219,000	224,000	224,000
TOTAL MAINTENANCE & OPERATIONS		\$166,541,841	\$186,319,700	\$186,319,700	158,946,700	\$186,856,000	\$186,856,000	\$187,725,800

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).  
 4. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

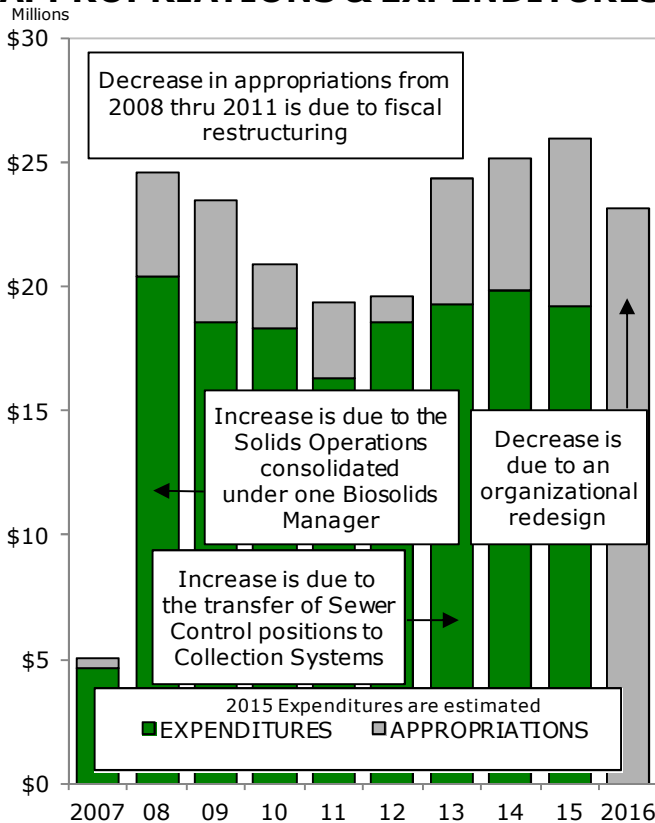
# MAINTENANCE & OPERATIONS – GENERAL DIVISION

2016	\$23,111,200
2015	\$25,943,100
Decrease	(\$2,831,900)

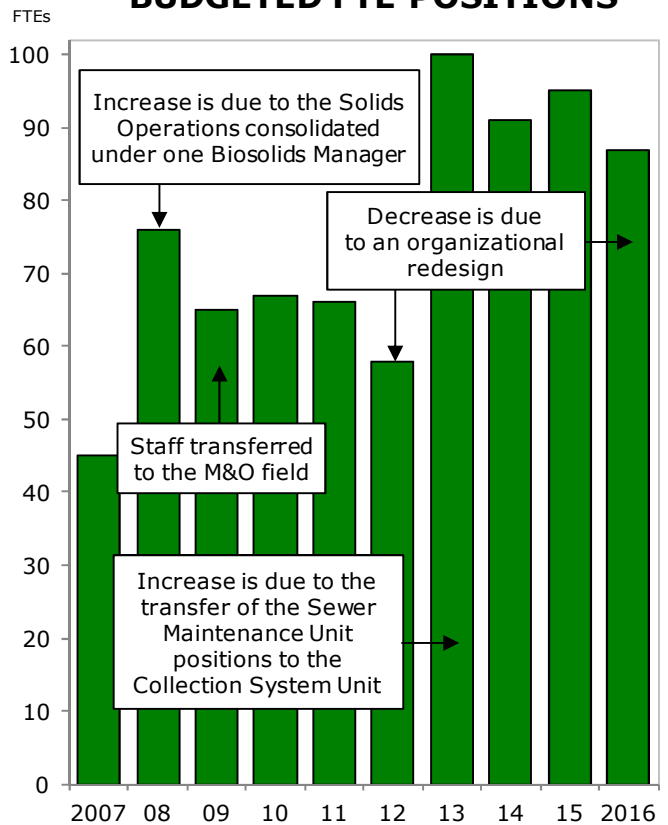
## FUNCTIONS



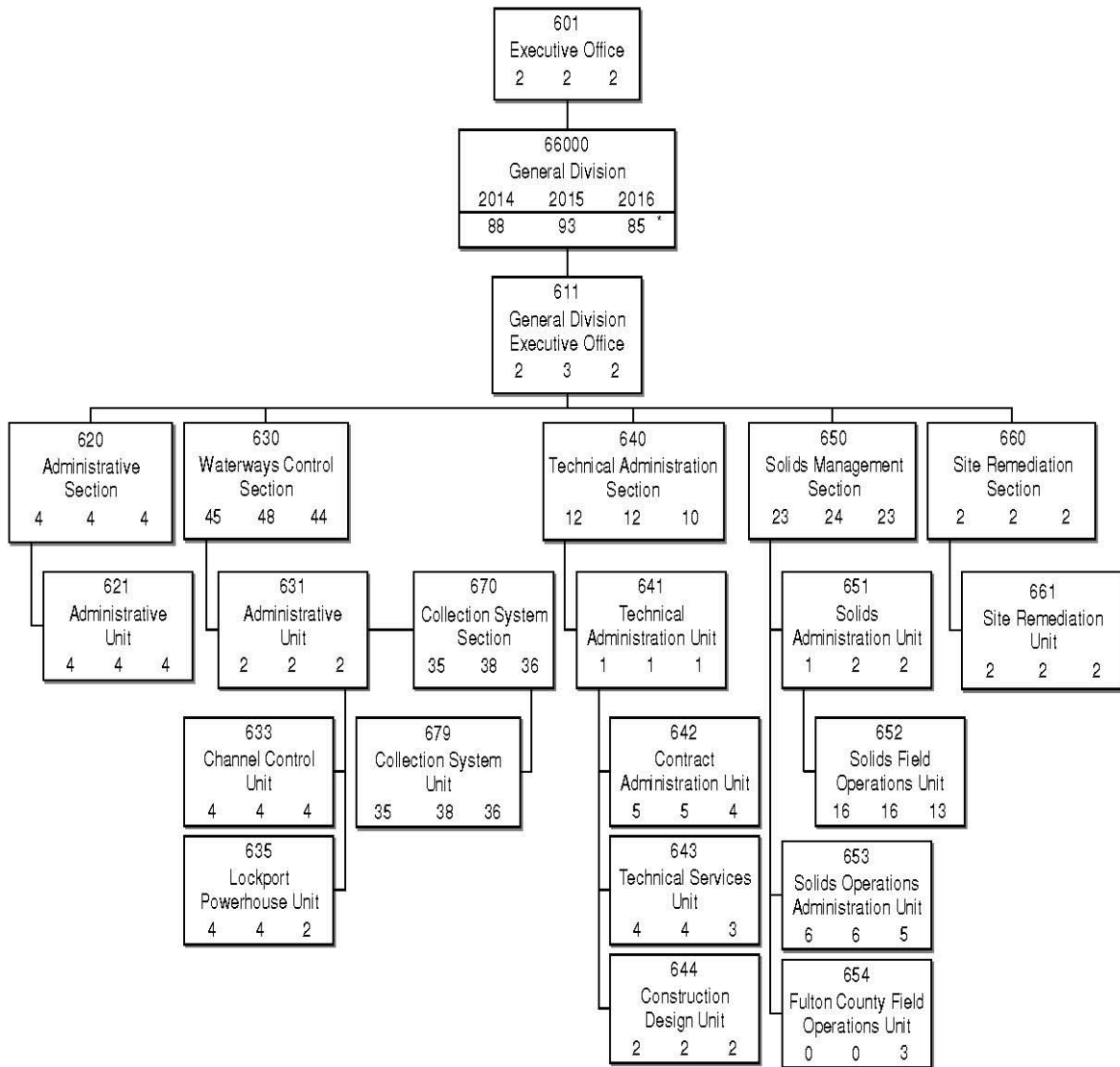
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS – GENERAL DIVISION



\* In 2016, 18 positions in the General Division are funded by the Stormwater Management Fund while the operations remain in the Maintenance & Operations Department: two in Unit 634, six in Unit 636, four in Unit 639, and six in Unit 679.



## MAINTENANCE & OPERATIONS – GENERAL DIVISION

The mission of the General Division is to protect our environment by minimizing flooding, maintaining our waterways free of pollution, producing and beneficially reusing high-quality biosolids, performing environmental remediation for District-owned real estate, and providing administrative support for the department in the most economical and environmentally sustainable manner.

### General Division Summary

**The Waterways Control Section** is responsible for the waterways, collection facilities and small streams throughout the District. The Waterways Control Center continuously receives meteorological data, radar patterns, and other vital information from precipitation stations and water gauges. This information is used to provide control of the 76 miles of the District's navigable inland waterways. The Lockport Powerhouse is integral to managing the Chicago Area Waterway System and reducing the risk of flooding throughout our service area. It also provides financial benefits from its hydroelectric power generation. The Collection System Unit inspects, cleans, and maintains the District's sewers. This unit is also responsible for the Chicago River Controlling Works, the Lockport Controlling Works, the Centennial Fountain, and six bridges over the North Shore Channel. Besides its Corporate Fund responsibilities, the section oversees programs and operations in the Stormwater Management Fund, including the Small Streams Maintenance Program, which reduces flooding in urbanized areas by removing debris from 532 miles of small streams in Cook County, and the Channel Maintenance Unit, which removes debris from the 76 miles of navigable waterways in Cook County.

**The Solids Management Section** manages, on a District-wide basis, the processing and utilization of biosolids, the final byproduct of the wastewater treatment process. It maintains and operates the Lawndale Avenue and Calumet Solids Management Areas and Fulton County.

**The Site Remediation Section** assesses the environmental condition of various District-owned property and works with the Law Department to remediate environmental contamination found on leased District-owned property and to make vacant District-owned property available for lease. The Site Remediation Section also assists in resolving site contamination, environmental compliance, hazardous waste handling, and disposal issues that arise at various District facilities and projects.

**The Technical Administration Section** consists of two units. The Technical Projects Unit acts as the department's liaison for technical, legal, and financial issues. It handles all regulatory communications with agencies such as the Illinois Environmental Protection Agency, and manages all environmental permits, such as the National Pollutant Discharge Elimination System, Federally Enforceable State Operating, Clean Air Act Permit Program Title V, Biosolids, Operating, and Stormwater. The section coordinates reporting requirements for permits and Combined Sewer Overflow, supplies technical information to plant personnel and other departments and agencies, reviews and comments on proposed regulatory requirements and their possible effects on District operations, and coordinates Government Accounting Standards Board Statement 34 evaluations of District facilities. The Contract Administration Unit provides contract procurement services for the department.

**The Administrative Section** provides financial and budgetary services, develops and implements a yearly budget, and reviews and processes requisitions and payments for goods and services in conformance with the Prompt Payment Act and other statutes. It prepares studies, reports, and correspondence to support the department's progress towards its goals and strategies.

### Summary of 2015 Accomplishments

- Distributed the required amount of rain barrels by the Consent Decree three years earlier than mandated;
- Procured the necessary equipment for the Biosolids Management Section to produce a maximum amount of compost;
- Increased biosolids pickups from various drying sites (as opposed to deliveries to end users) due to the collaboration with the Public Affairs Section, which has generated an increased demand for the District's biosolids byproduct;
- Collaborated with other public agencies to obtain the Governor's signature on Bill HB1445 on July 20, 2015, to classify the District's biosolids product as Class A EQ (Exceptional Quality) Biosolids.

### Budget Highlights

The 2016 appropriation for the General Division is \$23,111,200, a decrease of \$2,831,900, or 10.9 percent, from 2015. The 2016 Corporate Fund staffing level is 87 positions, a net decrease of eight positions from 2015. The decrease is the result of transferring in one Administrative Specialist, one Agricultural Technician I, one Agricultural Technician II, one Engineering Technician V, and one Senior Civil Engineer from the Calumet Service Area and one Administrative Assistant and one Principal Engineer from the Stickney Service Area, offset by transferring out one Principal Engineer and one Managing Engineer to the North Service Area and one Engineering Technician V to the Stickney Service Area, and dropping four Engineering Technician IVs, two Senior Civil Engineers, two Assistant Civil Engineers, one Administrative Specialist, one Associate Civil Engineer, one Associate Mechanical Engineer, and one Engineering Technician V. The total General Division position count is 105 due to an additional 18 positions, which are budgeted in the Stormwater Management Fund and managed by Maintenance & Operations.

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION & TREATMENT: The General Division provides technical and administrative support to the Maintenance & Operations Department's seven treatment facilities. It provides management and coordination of the collection system related activities.	\$ 6,114,410	26.4%
2. SOLIDS PROCESSING: The General Division provides technical and administrative support for the removal and processing of solids from concentrated sewage through various systems including heated digestion, centrifuging, air drying, and conditioning of low solids sludge and centrifuge cake in lagoons.	\$ 667,130	2.9%
3. SOLIDS UTILIZATION: The General Division provides management and coordination of biosolids processing and utilization of District-wide activities.	\$ 13,097,930	56.7%
4. FLOOD & POLLUTION CONTROL: The Waterways Control Section minimizes flooding and pollution of Lake Michigan through continuous control of the water levels of major rivers and canals, while limiting diversion of water from the lake in accordance with the U.S. Supreme Court Decree of 1967. In addition, the Waterways Control Section operates the Lockport Powerhouse and will generate an estimated 36.9 million kWh of electricity to obtain approximately \$1.19 million in revenue.	\$ 2,078,830	9.0%
5. GENERAL SUPPORT: The General Division provides technical and administrative support for other departments not directly related to the operational activities of Collection & Treatment, Solids Processing, Flood & Pollution Control, and Solids Utilization.	\$ 122,400	0.5%
6. Inspect and evaluate District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 1,030,500	4.5%
<b>Total</b>	<b>\$ 23,111,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. Operation of the Lockport Powerhouse to generate the equivalent of \$1.19 million worth of electricity in 2016.	kWh generated	41,518,650	41,595,703	36,856,400
	<i>* Revenue generated</i>	<i>\$ 1,395,547</i>	<i>\$ 1,299,793</i>	<i>\$ 1,191,700</i>
2. General Division will minimize diversion of Lake Michigan water in accordance with U.S. Supreme Court Decree, through control of water levels.	mil gal/yr diversion	72,583	23,825	23,825
3. The Solids Management Section will oversee the utilization of 89,100 dry tons of biosolids in 2016. (North Service Area's 1,000 dry tons of solids remain in that division.)	dry tons	42,647	89,100	89,100

*\* Revenue generated not included in total costs.*

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted		Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 4,335,329	2016 35	\$ 5,061,830	\$ 431,115	9.3	
			2015 37	\$ 4,630,715			
1100	Surface Interceptor Systems	\$ 2,877,368	2016 21	\$ 2,810,000	\$ (41,500)	(1.5)	
			2015 23	\$ 2,851,500			
1200	Tunnel and Reservoir System	\$ 641,066	2016 8	\$ 848,300	\$ 60,400	7.7	
			2015 8	\$ 787,900			
1300	Pumping Station Facilities	\$ 16,017	2016 -	\$ 19,600	\$ (27,000)	(57.9)	a)
			2015 -	\$ 46,600			
1900	Collection - Indirect Costs	\$ 800,878	2016 6	\$ 1,383,930	\$ 439,215	46.5	b)
			2015 6	\$ 944,715			
2000	Treatment	\$ 812,371	2016 6	\$ 920,180	\$ (232,860)	(20.2)	
			2015 8	\$ 1,153,040			
2300	Tertiary Treatment	\$ 6,414	2016 -	\$ 7,800	\$ (27,300)	(77.8)	c)
			2015 -	\$ 35,100			
2900	Treatment - Indirect Costs	\$ 805,957	2016 6	\$ 912,380	\$ (205,560)	(18.4)	d)
			2015 8	\$ 1,117,940			
3000	Solids Processing	\$ 657,791	2016 5	\$ 667,130	\$ (3,785)	(0.6)	
			2015 6	\$ 670,915			
3300	Processing Tertiary Solids	\$ 121,160	2016 1	\$ 65,600	\$ (25,600)	(28.1)	e)
			2015 1	\$ 91,200			
3900	Solids Processing - Indirect Costs	\$ 536,631	2016 4	\$ 601,530	\$ 21,815	3.8	
			2015 5	\$ 579,715			
4000	Flood & Pollution Control	\$ 2,139,727	2016 13	\$ 2,078,830	\$ (155,685)	(7.0)	
			2015 15	\$ 2,234,515			
4200	Waterways Control and Stormwater Reservoirs	\$ 1,638,430	2016 8	\$ 1,390,700	\$ (141,300)	(9.2)	f)
			2015 10	\$ 1,532,000			
4210	Maintenance of Waterways	\$ 151,283	2016 1	\$ 200,900	\$ (500)	(0.2)	
			2015 -	\$ 201,400			
4300	Stormwater Management	\$ -	2016 2	\$ 161,600	\$ 5,500	3.5	
			2015 2	\$ 156,100			
4400	Aeration Facilities	\$ 69,935	2016 1	\$ 77,200	\$ 2,600	3.5	
			2015 1	\$ 74,600			

- a) Decrease is due to the transfer of a Managing Engineer position to the North Service Area.
- b) Increase is due to a higher request for odor control activities, including biofilter replacement media (\$175,000), calcium nitrate (\$150,000) and odor control canisters (\$40,000), as well as a higher request for REACT services (\$125,000), offset by the reallocation of salaries to more accurately reflect current activities (\$62,800).
- c) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- d) Decrease is due to the drop of two FTE positions (\$188,700).
- e) Decrease is due to the drop of an Engineering Technician IV position.
- f) Decrease is due to the drop of two FTE positions (\$176,000), offset by the increased demand for telemetry services (\$40,000).

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted		Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
4900	Flood & Pollution Control - Indirect Costs	\$ 280,079	2016 1	\$ 248,430	\$ (21,985)	(8.1)	
			2015 2	\$ 270,415			
5000	Solids Utilization	\$ 10,537,528	2016 24	\$ 13,097,930	\$ (3,061,885)	(18.9)	
			2015 26	\$ 16,159,815			
5100	Solids Drying	\$ 5,356,550	2016 5	\$ 5,483,100	\$ (1,981,700)	(26.5)	g)
			2015 6	\$ 7,464,800			
5200	Solids Distribution	\$ 3,288,535	2016 6	\$ 5,723,100	\$ (961,100)	(14.4)	h)
			2015 6	\$ 6,684,200			
5900	Solids Utilization - Indirect Costs	\$ 1,892,443	2016 13	\$ 1,891,730	\$ (119,085)	(5.9)	i)
			2015 14	\$ 2,010,815			
7000	General Support (excludes program numbers 7368 and 7604)	\$ 433,400	2016 1	\$ 122,400	\$ 84,500	223.0	j)
			2015 -	\$ 37,900			
7368	Real Estate Environmental Assessment	\$ 904,989	2016 3	\$ 1,030,500	\$ (25,700)	(2.4)	
			2015 3	\$ 1,056,200			
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 132,400	\$ 132,400	100.0	k)
			2015 -	\$ -			
Totals		\$ 19,821,135	2016 87	\$ 23,111,200	\$ (2,831,900)	(10.9%)	
			2015 95	\$ 25,943,100			

- g) Decrease is due to reduced requests for local trucking of biosolids (\$1,877,500) and heavy equipment operation for biosolids drying (\$80,000).
- h) Decrease is due to the reduced demand for beneficial use of biosolids (\$964,500), the elimination of general biosolids services (\$458,200), reduced requests for utilization of biosolids (\$411,000), and reduced requests for landfill utilization of biosolids (\$112,500), offset by the transfer of Fulton County activities to the General Division (\$916,900).
- i) Decrease is due to the elimination of general biosolids services (\$66,600) and a reduced request for crushed stone (\$43,500).
- j) Increase is due to the transfer of one FTE position from the Calumet Service Area to the General Division.
- k) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

\* The 2016 position total for the General Division is 105, with 18 positions budgeted in the Stormwater Management Fund.

**66000 M&O - GENERAL DIVISION**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1000-2900	Collection & Treatment					
	Technical and Administrative Support for Collection and Treatment Activities	Cost	\$ 5,147,700	\$ 5,783,755	\$ 5,982,010	a)
3000	Solids Processing					
	Technical and Administrative Support for Solids Removal and Processing	Cost	\$ 657,791	\$ 670,915	\$ 667,130	
4000	Flood & Pollution Control					
4200	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution	Cost	\$ 635,488	\$ 791,100	\$ 770,600	
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion	72,583	24,000	23,825	
		Cost	\$ 447,393	\$ 355,300	\$ 290,300	b)
		Cost/Mil. Gal./Year	\$ 6.16	\$ 14.80	\$ 12.18	
	Generate Electricity at Lockport Powerhouse to Obtain Approximately \$1.19 million in Revenue	kWh	41,518,650	37,750,000	36,856,400	
		Cost	\$ 555,549	\$ 385,600	\$ 329,800	
		Cost/kWh	\$ 0.0134	\$ 0.0102	\$ 0.0089	
		* Revenue Generated	\$ 1,395,547	\$ 1,320,000	\$ 1,191,700	
4210	Maintenance of the Waterways and Canal Banks Within the Jurisdiction of the District. Activities Include Debris Removal, Insect and Rodent Control, Bridge Repairs and Aeration Costs	Cost	\$ 151,283	\$ 201,400	\$ 200,900	
4300	Stormwater Management	Cost	\$ -	\$ 156,100	\$ 161,600	
4400	Aeration Facilities	Cost	\$ 69,935	\$ 74,600	\$ 77,200	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 280,079	\$ 270,415	\$ 248,430	
5000	Solids Drying/Utilization					
	Management and Coordination of the Solids Utilization Program	Dry Tons	42,647	89,100	89,100	
		Cost	\$ 10,537,528	\$ 16,159,815	\$ 13,097,930	c)
		Cost/Dry Ton	\$ 247.09	\$ 181.37	\$ 147.00	
7000	General Support (excludes program numbers 7368 and 7604) Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection & Treatment, Solids Processing, Flood & Pollution Control and Solids Utilization	Cost	\$ 433,400	\$ 37,900	\$ 122,400	d)
7368	Real Estate Environmental Assessment	Cost	\$ 904,989	\$ 1,056,200	\$ 1,030,500	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 132,400	e)
	<b>Division Total</b>		<b>\$ 19,821,135</b>	<b>\$ 25,943,100</b>	<b>\$ 23,111,200</b>	

- a) Increase is due to odor control activities, including biofilter replacement media (\$175,000), calcium nitrate (\$150,000), REACT services (\$125,000) and odor control canisters (\$40,000), offset by the drop of two FTE positions (\$188,700), the reallocation of salaries to more accurately reflect current activities (\$62,800), and the transfer of a Managing Engineer position to the North Service Area (\$41,500).
  - b) Decrease is due to the drop of one FTE position.
  - c) Decrease is due to reduced requests for local trucking of biosolids (\$1,877,500), beneficial reuse of biosolids (\$964,500), the elimination of general biosolids services (\$458,200), reduced requests for utilization of biosolids (\$411,000), heavy equipment operation for biosolids drying (\$205,000), and landfill utilization of biosolids (\$112,500), offset by the transfer of Fulton County activities to the General Division (\$916,900).
  - d) Increase is due to the transfer of one FTE position from the Calumet Service Area to the General Division.
  - e) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.
- \* Revenue generated not included in total costs.

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 8,313,322	\$ 9,460,900	\$ 9,460,900	\$ 8,149,700	\$ 8,712,500	\$ 8,703,300	\$ 8,877,500
601060	Compensation Plan Adjustments	434,055	403,100	603,100	588,000	401,200	403,900	402,700
601070	Social Security & Medicare Contributions	-	-	-	-	132,400	132,400	132,400
601080	Salaries of Nonbudgeted Employees	16,421	24,800	65,200	11,400	23,400	23,400	23,400
601100	Tuition and Training Payments	14,445	25,000	32,500	12,900	28,000	20,000	20,000
601170	Payments for Professional Services	550,785	600,700	750,700	276,400	-	-	-
100	TOTAL PERSONAL SERVICES	9,329,027	10,514,500	10,912,400	9,038,400	9,297,500	9,283,000	9,456,000
612010	Travel	3,552	7,900	7,900	4,600	9,000	5,000	5,000
612030	Meals and Lodging	8,385	12,200	12,200	10,200	27,500	11,500	11,500
612050	Compensation for Personally-Owned Automobiles	10,254	7,000	8,100	7,100	9,000	9,000	9,000
612080	Motor Vehicle Operating Services	362	400	400	200	200	200	200
612150	Electrical Energy	55,305	53,000	55,800	50,400	86,300	86,300	86,300
612160	Natural Gas	3,332	2,500	2,500	2,300	6,900	6,900	6,900
612170	Water and Water Services	27,131	30,000	30,000	28,500	32,400	32,400	32,400
612210	Communication Services	154,249	170,000	170,000	104,600	210,000	210,000	210,000
612240	Testing and Inspection Services	4,373	6,500	6,500	4,100	16,300	16,300	16,300
612330	Rental Charges	8,519	7,300	9,000	7,400	7,600	7,600	7,600
612410	Governmental Service Charges	24,105	22,000	22,000	16,300	22,500	22,500	22,500
612420	Maintenance of Grounds and Pavements	259,226	27,400	27,400	13,100	557,300	657,300	657,300
612430	Payments for Professional Services	-	-	-	-	662,700	792,700	792,700
612490	Contractual Services, N.O.C.	59,099	154,600	154,600	81,200	190,200	190,200	190,200
612520	Waste Material Disposal Charges	7,685,238	12,800,000	11,083,000	8,565,100	9,159,600	9,027,600	9,027,600
612600	Repairs to Collection Facilities	1,166,462	747,100	797,100	532,500	1,160,000	1,110,000	1,110,000
612620	Repairs to Waterway Facilities	114,728	85,000	85,000	-	85,600	85,600	85,600
612650	Repairs to Process Facilities	25,245	31,500	31,500	12,400	25,500	25,500	25,500
612680	Repairs to Buildings	48,431	21,000	72,600	-	31,000	31,000	31,000
612760	Repairs to Material Handling and Farming Equipment	213,508	214,000	354,000	293,100	226,000	226,000	226,000
612780	Safety Repairs and Services	7,581	50,000	50,000	4,100	8,100	12,500	12,500

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612790	Repairs to Marine Equipment	54,534	80,000	80,000	43,500	53,000	53,000	53,000
612820	Computer Software Maintenance	-	5,000	5,000	3,000	5,200	5,200	5,200
612860	Repairs to Vehicle Equipment	20,742	35,000	27,000	16,200	38,100	38,100	38,100
612990	Repairs, N.O.C.	2,483	800	800	800	3,000	2,900	2,900
200	TOTAL CONTRACTUAL SERVICES	9,956,844	14,570,200	13,092,400	9,800,700	12,633,000	12,665,300	12,665,300
623030	Metals	2,339	-	-	-	-	-	-
623070	Electrical Parts and Supplies	7,957	25,000	23,000	14,500	19,400	19,400	19,400
623090	Plumbing Accessories and Supplies	8,983	10,000	10,000	8,700	5,500	5,500	5,500
623110	Hardware	6,381	2,000	2,000	1,000	4,100	4,100	4,100
623130	Buildings, Grounds, Paving Materials, and Supplies	20,534	80,000	80,000	-	42,800	42,800	42,800
623250	Vehicle Parts and Supplies	102,757	85,000	85,000	8,600	74,900	74,900	74,900
623270	Mechanical Repair Parts	45,104	100,000	110,000	46,100	105,000	102,600	102,600
623300	Manhole Materials	20,515	11,000	1,100	-	10,600	10,600	10,600
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	8,047	7,500	8,700	7,100	7,500	7,500	7,500
623530	Farming Supplies	-	-	-	-	5,000	5,000	5,000
623560	Processing Chemicals	33,756	250,000	236,000	131,100	405,000	405,000	405,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	-	2,500	2,600	2,600	-	-	-
623660	Cleaning Supplies	470	400	400	-	1,300	1,300	1,300
623680	Tools and Supplies	17,091	25,000	21,800	12,100	34,000	24,000	24,000
623700	Wearing Apparel	1,151	2,000	2,000	1,700	1,000	1,000	1,000
623780	Safety and Medical Supplies	6,479	8,000	8,000	6,400	8,000	8,000	8,000
623800	Computer Software	946	-	-	-	2,000	2,000	2,000
623810	Computer Supplies	-	-	-	-	600	600	600
623820	Fuel	189,364	220,000	220,000	107,400	255,000	253,100	253,100
623860	Lubricants	-	-	-	-	2,500	2,500	2,500
623990	Materials and Supplies, N.O.C.	20,431	30,000	30,000	27,600	30,000	20,000	20,000
300	TOTAL MATERIALS AND SUPPLIES	492,304	858,400	840,600	374,900	1,014,200	989,900	989,900

101 66000 Fund: Corporate Department: Maintenance & Operations Division: General		LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634820	Computer Software	42,960	-	-	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	42,960	-	-	-	-	-	-
<b>TOTAL GENERAL DIVISION</b>		<b>\$ 19,821,135</b>	<b>\$ 25,943,100</b>	<b>\$ 24,845,400</b>	<b>\$ 19,214,000</b>	<b>\$ 22,944,700</b>	<b>\$ 22,938,200</b>	<b>\$ 23,111,200</b>

- NOTES: 1. Amounts may not add up due to rounding.
2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.
3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).
4. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.



Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>601</b>	<b>Executive Office</b>					
EX14	Director of Maintenance & Operations	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Office	2	2	348,197.72	2	354,207.88
<b>611</b>	<b>General Division Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP20	Managing Engineer	-	1		-	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	General Division Executive Office	2	3	489,307.52	2	313,172.86
<b>620</b>	<b>Administrative Section</b>					
<b>621</b>	<b>Administrative Unit</b>					
HP18	Supervising Budget & Management Analyst	1	1		1	
HP16	Senior Budget & Management Analyst	1	1		1	
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	1		-	
HP14	Budget & Management Analyst	1	1		2	
TOTAL	Administrative Unit	4	4	450,372.00	4	429,707.98
TOTAL	Administrative Section	4	4	450,372.00	4	429,707.98
<b>630</b>	<b>Waterways Control Section</b>					
<b>631</b>	<b>Administrative Unit</b>					
HP20	Managing Civil Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	244,707.32	2	255,318.96
<b>633</b>	<b>Channel Control Unit</b>					
NR6271	Systems Dispatcher	4	4		4	
TOTAL	Channel Control Unit	4	4	433,222.40	4	446,201.60
<b>634</b>	<b>Channel Maintenance Unit</b>					
(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)						
HP17	Senior Civil Engineer	-	-		-	
		(*1)	(*1)		(*1)	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Civil Engineer	-	-		-	
		(*1)	(*1)		(*1)	
TOTAL	Channel Maintenance Unit	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*2)	(*2)		(*2)	
<b>635</b>	<b>Lockport Powerhouse Unit</b>					
HP14	Assistant Civil Engineer	1	1		-	
HP14	Engineering Technician V	1	1		-	
NR7394	Powerhouse Mechanic Leadman	1	1		1	
NR7393	Powerhouse Mechanic	1	1		1	
TOTAL	Lockport Powerhouse Unit	4	4	412,582.04	2	231,171.20
<b>636</b>	<b>Boat Operations Unit</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP14	Engineering Technician V	-	-		-	
		(*1)	(*1)		(*1)	
HP14	Engineering Technician V #4	-	-		-	
		(*1)	(*1)		(*1)	
HP12	Engineering Technician IV	-	-		-	
		(*1)	(*1)		(*1)	
HP12	Engineering Technician IV #4	-	-		-	
		(*1)	(*1)		(*1)	
NR8650	Maintenance Laborer Class A Shift	-	-		-	
		(*2)	(*2)		(*2)	
TOTAL	Boat Operations Unit	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
<b>639</b>	<b>Channel Maintenance Unit</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP14	Engineering Technician V	-	-		-	
		(*1)	(*1)		(*1)	
HP14	Engineering Technician V #4	-	-		-	
		(*1)	(*1)		(*1)	
NR8331	Laborer Foreman	-	-		-	
		(*2)				
NR8650	Maintenance Laborer Class A Shift	-	-		-	
		(*1)	(*2)		(*2)	
TOTAL	Channel Maintenance Unit	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*5)	(*4)		(*4)	
<b>670</b>	<b>Collection System Section</b>					
<b>679</b>	<b>Collection System Unit</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP17	Senior Civil Engineer	2	2		1	
HP15	Associate Civil Engineer	2	2		2	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Civil Engineer	1	1		1	
HP14	Engineering Technician V	4	4		4	
HP12	Engineering Technician IV	1	1		1	
HP12	Engineering Technician IV #1	-	1		-	
HP11	Engineering Technician III	1	1		1	
NR8331	Laborer Foreman	5	6		6	
		(*1)	(*1)		(*1)	
NR8650	Maintenance Laborer Class A Shift	13	14		14	
		(*4)	(*4)		(*4)	
PR6473	Truck Driver	6	6		6	
		(*1)	(*1)		(*1)	
TOTAL	Collection System Unit	35	38	3,159,270.40	36	3,057,082.86
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Collection System Section	35	38	3,159,270.40	36	3,057,082.86
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Waterways Control Section	45	48	4,249,782.16	44	3,989,774.62
TOTAL	Stormwater Management Fund Positions	(*19)	(*18)		(*18)	
<b>640</b>	<b>Technical Administration Section</b>					
<b>641</b>	<b>Technical Administration Unit</b>					
HP20	Managing Civil Engineer	1	1		1	
TOTAL	Technical Administration Unit	1	1	185,256.24	1	190,814.00
<b>642</b>	<b>Contract Administration Unit (formerly Contract Preparation Unit)</b>					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP15	Associate Mechanical Engineer	1	1		-	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Contract Administration Unit (formerly Contract Preparation Unit)	5	5	568,040.98	4	480,248.86
<b>643</b>	<b>Technical Services Unit</b>					
HP18	Principal Civil Engineer	1	1		-	
HP17	Senior Civil Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	1		1	
TOTAL	Technical Services Unit	4	4	434,438.94	3	306,876.70
<b>644</b>	<b>Construction Design Unit</b>					
HP18	Principal Civil Engineer	1	1		1	
HP18	Principal Electrical Engineer	1	1		1	
TOTAL	Construction Design Unit	2	2	288,232.88	2	296,879.96
TOTAL	Technical Administration Section	12	12	1,475,969.04	10	1,274,819.52
<b>650</b>	<b>Solids Management Section</b>					
<b>651</b>	<b>Solids Administration Unit</b>					
HP20	Managing Civil Engineer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	-		1	
HP11	Administrative Specialist	-	1		-	
TOTAL	Solids Administration Unit	1	2	239,892.90	2	270,115.04
<b>652</b>	<b>Solids Field Operations Unit</b>					
HP18	Principal Engineer	-	-		1	
HP17	Senior Civil Engineer	1	1		1	
HP15	Associate Civil Engineer	3	3		3	
HP14	Assistant Civil Engineer	1	1		-	
HP14	Engineering Technician V	3	3		3	
HP14	Engineering Technician V #4	2	2		2	
HP12	Engineering Technician IV	5	5		2	
HP11	Engineering Technician III	1	1		1	
TOTAL	Solids Field Operations Unit	16	16	1,496,253.98	13	1,368,666.78
<b>653</b>	<b>Solids Operations Administration Unit</b>					
HP17	Senior Civil Engineer	1	1		1	
HP15	Associate Civil Engineer	2	2		1	
HP12	Engineering Technician IV #4	1	1		1	
HP11	Administrative Specialist	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	Solids Operations Administration Unit	6	6	531,785.54	5	442,901.42
<b>654</b>	<b>Fulton County Field Operations Unit</b>					
HP12	Agricultural Technician II	-	-		1	
HP11	Agricultural Technician I	-	-		1	
HP11	Administrative Specialist	-	-		1	
TOTAL	Fulton County Field Operations Unit	-	-	-	3	214,741.28
TOTAL	Solids Management Section	23	24	2,267,932.42	23	2,296,424.52
<b>660</b>	<b>Site Remediation Section</b>					
<b>661</b>	<b>Site Remediation Unit</b>					
HP20	Engineer of Site Remediation	1	1		1	
HP17	Site Remediation Specialist	1	1		1	
TOTAL	Site Remediation Unit	2	2	291,963.62	2	308,842.56
TOTAL	Site Remediation Section	2	2	291,963.62	2	308,842.56
TOTAL	Maintenance & Operations General Division	90	95	9,573,524.48	87	8,966,949.94
TOTAL	Stormwater Management Fund Positions	(*19)	(*18)		(*18)	

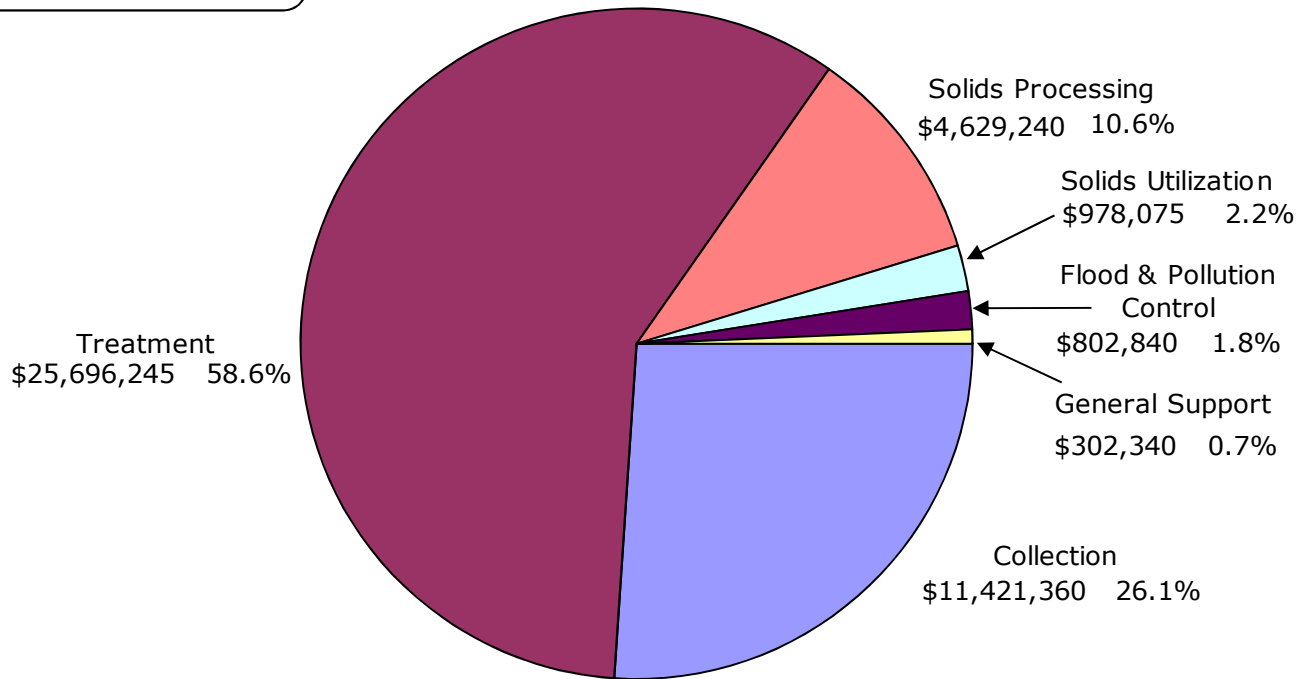
Note: Eighteen positions budgeted in Sections 634, 636, 639, and 679 are funded by the Stormwater Management Fund, while the operations remain in the Maintenance & Operations Department.

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

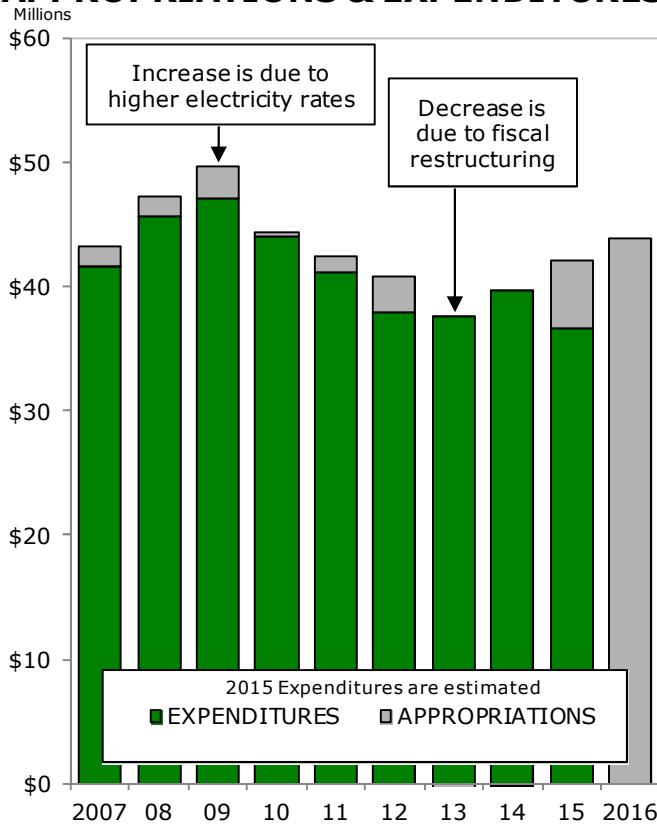
# MAINTENANCE & OPERATIONS – NORTH SERVICE AREA

2016	\$43,830,100
2015	\$42,076,200
Increase	\$1,753,900

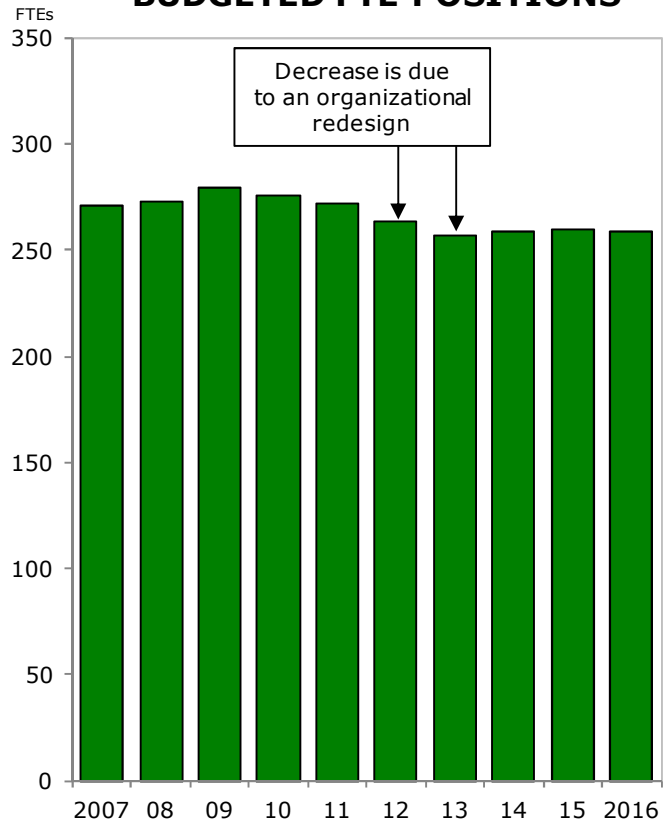
## FUNCTIONS



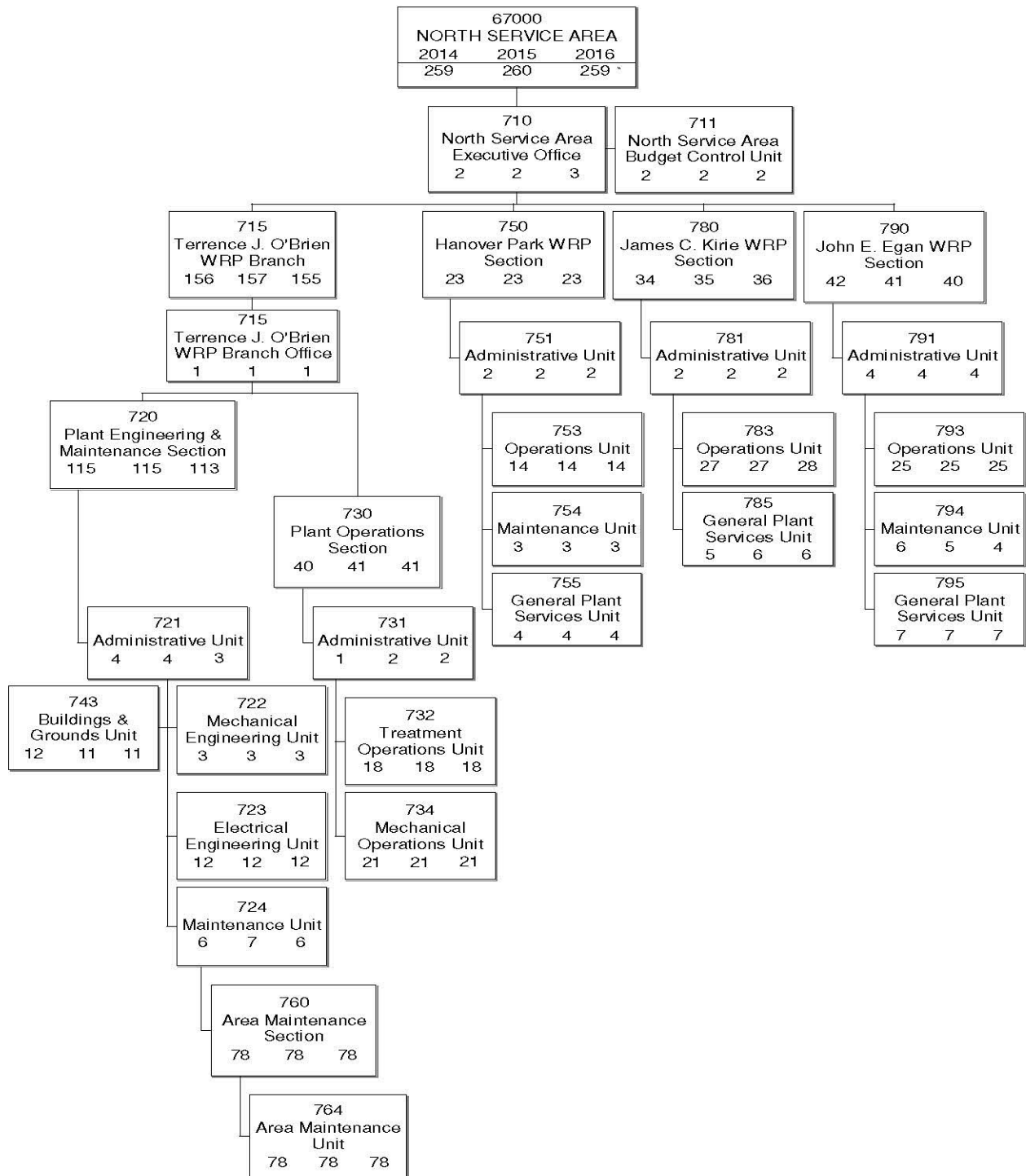
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS – NORTH SERVICE AREA



\* In 2016, there are no positions funded by the Stormwater Management Fund.

## MAINTENANCE & OPERATIONS – NORTH SERVICE AREA

**The North Service Area (NSA) supports the District’s mission to protect the quality of the water supply and the health and safety of the public, to improve the quality of water in canals, rivers, and streams, to protect businesses and homes from flood damage, and to manage water as a vital resource.**

### Service Area Summary

The NSA collects wastewater discharges from a population equivalent of 1,885,874 people in an area of 297.2 square miles, treating approximately 120.3 billion gallons of sewage annually at four Water Reclamation Plants (WRPs): O’Brien, Hanover Park, Egan and Kirie. In order to achieve its mission, the NSA is organized as follows:

**The Area Offices** provide leadership in developing long-term capital improvement, operation, and maintenance plans in compliance with National Pollutant Discharge Elimination System (NPDES) and other permit requirements, ensuring continuous improvements. Area offices also operate facilities in a cost-effective manner that ensures the integrity of all facilities, the safety and security of all employees, workers, and the public, and presents a positive and professional image of the District.

**The Engineering and Maintenance Sections** maintain all equipment at the plants and their outlying facilities in compliance with NPDES and other permit requirements. These sections implement asset management based on Government Accounting Standards Board Statement 34 condition evaluations. They also coordinate and direct repairs, maintenance, and alterations for treatment plants, pumping stations, and outlying facilities in the NSA.

**The Operations Sections** operate all equipment and processes at the plants and their outlying facilities in compliance with NPDES and other permit requirements. These sections ensure the operational integrity of all facilities at all times, as well as the safety of employees, contract workers, and the public.

**The Plant Services Sections** maintain buildings and grounds at the plants and their outlying facilities in compliance with NPDES and other permit requirements and ensure their availability, cleanliness, and safety.

### Summary of 2015 Accomplishments

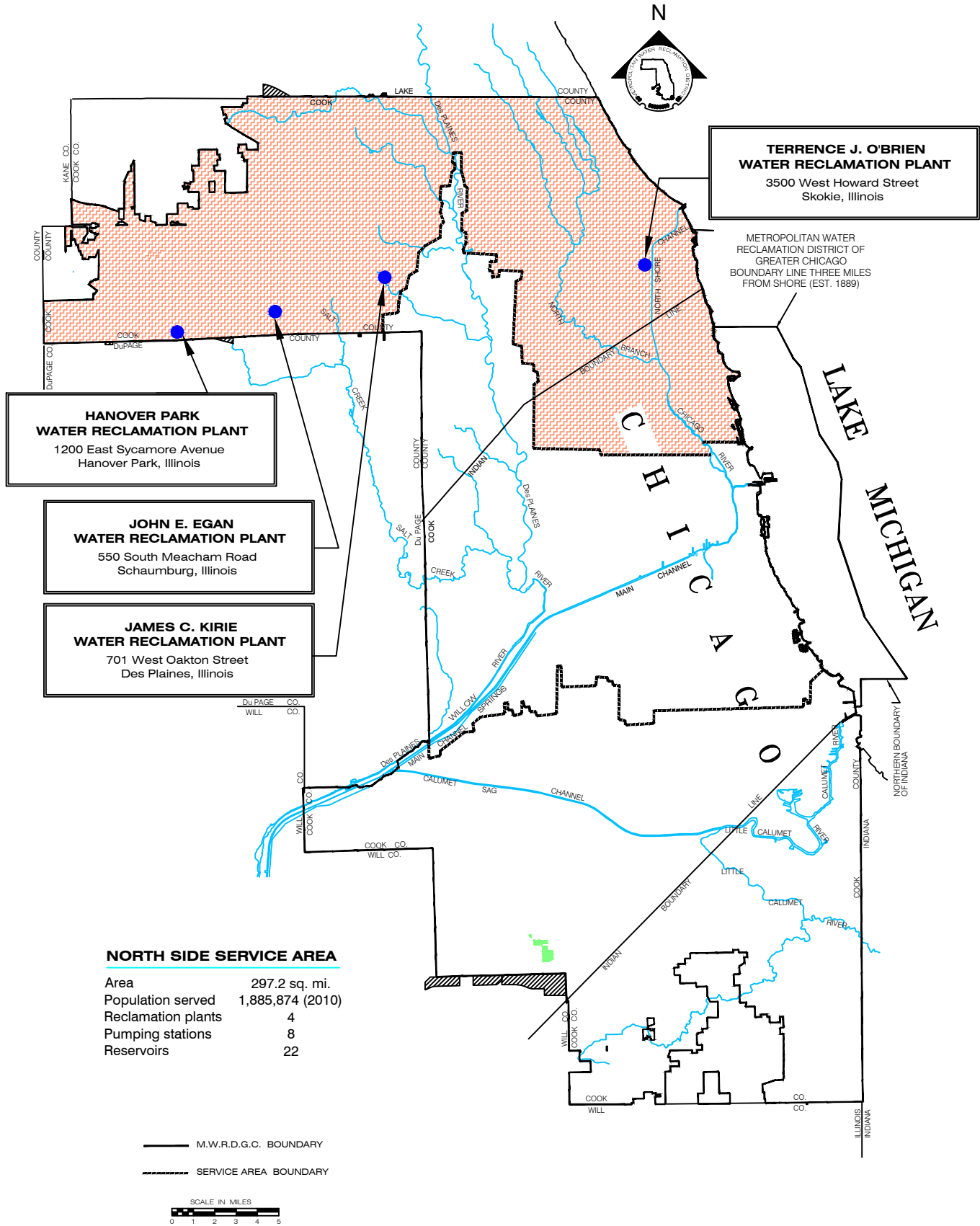
- Achieved 100 percent compliance with NPDES and other permit requirements in 2014 at all four WRPs in the NSA.
- Continued infrastructure improvement, rehabilitation, and replacement with a combination of Engineering and Maintenance & Operations Department contracts and use of the Construction Fund for capital projects;
- Installed ammonia probes to optimize aeration process efficiency at the O’Brien and Hanover Park WRPs;
- Adjusted the maintenance plans and schedules to increase the use of in-house trades to perform maintenance work previously performed by contract personnel to reduce the level of outsourcing;
- Completed the disinfection facility at the O’Brien WRP;

### Budget Highlights

The 2016 appropriation for the NSA is \$43,830,100, an increase of \$1,753,900, or 4.2 percent, from 2015. The 2016 staffing level is 259 positions, a net decrease of one position from 2015. One Assistant Mechanical Engineer, one Engineering Technician IV, and one Principal Engineer were dropped upon vacancy and one Managing Engineer and one Principal Engineer were transferred in from the General Division.

The NSA will continue to work with other departments to develop a strategy for compliance with the phosphorus concentration limits for the O’Brien WRP effluent. Some of the initiatives being developed are final tank enhancements, phosphorus source control through the Industrial Pretreatment Program, the use of algae to recover phosphorus, side stream phosphorus recovery systems, biological phosphorus removal processes, and aeration control through ammonium management. Process automation, energy conservation, disinfection, and implementation of new treatment processes without a significant increase to the budget remain a high priority.





**67000 M&O - NORTH SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION & TREATMENT: The North Service Area will collect and treat approximately 120.3 billion gallons of sewage through its treatment facilities and a contract agreement with the Fox River Water Reclamation District.	\$ 37,117,605	84.7%
Design: Flows ^    CBOD *    SS *		
Terrence J. O'Brien Water Reclamation Plant	333 MGD	10 mg/l    12 mg/l
John E. Egan Water Reclamation Plant	30 MGD	10 mg/l    12 mg/l
Hanover Park Water Reclamation Plant	12 MGD	10 mg/l    12 mg/l
James C. Kirie Water Reclamation Plant	52 MGD	4 mg/l    5 mg/l
Fox River Water Reclamation District	4 MGD	N.A.    N.A.
^ In millions of gallons per day (MGD).		
* National Pollutant Discharge Elimination System (NPDES) monthly effluent quality standards: CBOD - Carbonaceous Biochemical Oxygen Demand SS - Suspended Solids		
2. SOLIDS PROCESSING: The North Service Area will remove 60,500 dry tons and process 15,500 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and centrifuge cake in lagoons at CALSMA** and LASMA**.	\$ 4,629,240	10.6%
3. SOLIDS UTILIZATION: The North Service Area will provide support to utilize 1,000 dry tons of further dewatered sewage for application at the Fischer Farm in Hanover Park.	\$ 978,075	2.2%
4. FLOOD & POLLUTION CONTROL: The North Service Area will work to prevent local area flooding and control diversion of water from Lake Michigan through the operation of 22 detention reservoirs in cooperation with local communities and by assisting in the operation of the Wilmette Controlling Works and the North Shore Channel. The North Service Area will also work to maintain the quality of the waterways system and associated District property by utilizing debris boats and channel maintenance crews.	\$ 802,840	1.8%
5. GENERAL SUPPORT: The North Service Area will provide technical and administrative support for other departments not directly related to the operational activities of Collection & Treatment, Solids Processing, Solids Utilization, and Flood & Pollution Control.	\$ 302,340	0.7%
<b>Total</b>	<b>\$ 43,830,100</b>	<b>100.0%</b>
**CALSMA - Calumet Solids Management Area and LASMA - Lawndale Avenue Solids Management Area		

MEASURABLE GOALS:

	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. The North Service Area will collect and treat approximately 120.3 billion gallons of sewage in 2016.	Billion Gallons	109.5	120.3	120.3
2. The North Service Area will remove 60,500 dry tons and process 15,500 dry tons of concentrated sewage.	Dry Tons Process Solids	12,775	15,200	15,500
3. The North Service Area will obtain 100 percent permit compliance in 2016 for NPDES effluent limits.	Percent	100.00%	100.00%	100.00%
4. The North Service Area will provide support to utilize 1,000 dry tons of biosolids in 2016.	Dry Tons	998	1,000	1,000

**67000 M&O - NORTH SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 10,587,285	2016 69	\$ 11,421,360	\$ 270,085	2.4		
			2015 69	\$ 11,151,275				
1100	Surface Interceptor Systems	\$ 395,721	2016 3	\$ 304,000	\$ (47,200)	(13.4)		
			2015 3	\$ 351,200				
1200	Tunnel and Reservoir System	\$ 1,424,761	2016 9	\$ 1,275,800	\$ 73,700	6.1		
			2015 9	\$ 1,202,100				
1300	Pumping Station Facilities	\$ 4,395,228	2016 27	\$ 4,953,800	\$ 45,600	0.9		
			2015 27	\$ 4,908,200				
1900	Collection - Indirect Costs	\$ 4,371,575	2016 30	\$ 4,887,760	\$ 197,985	4.2	a)	
			2015 30	\$ 4,689,775				
2000	Treatment	\$ 22,473,873	2016 160	\$ 25,348,245	\$ 1,038,460	4.3		
			2015 160	\$ 24,309,785				
2000	Pre-Treatment	\$ 753,589	2016 7	\$ 838,000	\$ 20,400	2.5		
			2015 7	\$ 817,600				
2100	Primary Treatment	\$ 662,217	2016 7	\$ 679,400	\$ (22,000)	(3.1)		
			2015 7	\$ 701,400				
2200	Secondary Treatment	\$ 7,471,941	2016 44	\$ 8,173,600	\$ (298,000)	(3.5)	b)	
			2015 44	\$ 8,471,600				
2300	Tertiary Treatment	\$ 1,328,705	2016 12	\$ 2,037,000	\$ 737,000	56.7	c)	
			2015 12	\$ 1,300,000				
2900	Treatment - Indirect Costs	\$ 12,257,421	2016 90	\$ 13,620,245	\$ 601,060	4.6	d)	
			2015 90	\$ 13,019,185				

- a) Increase is due to the allocation of funds for immediate repair services (\$120,000), salary related costs, including overtime and compensation plan adjustments (\$128,200), utilities, including natural gas, telemetry, and water (\$22,400), and payments to the Fox River Water Reclamation District (\$11,800), offset by reduced funding for materials, supplies, and equipment, including a one-time request for handrails at the Kirie influent pumping station (\$50,000).
- b) Decrease is due to the reduced funding for electrical energy in the North Service Area (\$268,200), chemicals, including soda ash and sodium hypochlorite (\$92,900), and contractual services, including ammonia analyzer repair services (\$26,700), offset by salaries for first stage aeration (\$94,500) to more accurately reflect current activities.
- c) Increase is due to the additional funding for electrical energy related to the implementation of the ultraviolet disinfection process at the O'Brien WRP (\$650,000) and the purchase of polyaluminum chloride for the new control of the secondary treatment at the Egan WRP (\$75,700).
- d) Increase is due to the additional funding for repairs to process facilities, including the manhours contract to provide various classifications of labor for repairs to equipment and systems at District facilities (\$350,000), salary related costs, including overtime and compensation plan adjustments (\$186,600), materials and supplies generated by an increased reliance on in-house staff for immediate repair services (\$117,800), offset by a reduction in payments to the Fox River Water Reclamation District (\$90,400).

**67000 M&O - NORTH SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
3000	Solids Processing	\$ 4,436,530	2016 24	\$ 4,629,240	\$ 56,645	1.2		
			2015 25	\$ 4,572,595				
3100	Thickening	\$ 636,023	2016 5	\$ 793,600	\$ (62,000)	(7.2)		
			2015 6	\$ 855,600				
3200	Stabilization	\$ 846,154	2016 6	\$ 893,700	\$ 5,900	0.7		
			2015 6	\$ 887,800				
3300	Dewatering	\$ 1,251,357	2016 6	\$ 1,320,700	\$ 104,200	8.6	e)	
			2015 6	\$ 1,216,500				
3900	Solids Processing - Indirect Costs	\$ 1,702,996	2016 7	\$ 1,621,240	\$ 8,545	0.5		
			2015 7	\$ 1,612,695				
4000	Flood & Pollution Control	\$ 750,689	2016 4	\$ 802,840	\$ 46,815	6.2		
			2015 4	\$ 756,025				
4200	Waterways Control and Stormwater Reservoirs	\$ 451,009	2016 4	\$ 493,100	\$ 23,800	5.1		
			2015 4	\$ 469,300				
4400	Aeration Facilities	\$ 238,586	2016 -	\$ 198,400	\$ 16,200	8.9		
			2015 -	\$ 182,200				
4900	Flood & Pollution Control - Indirect Costs	\$ 61,094	2016 -	\$ 111,340	\$ 6,815	6.5		
			2015 -	\$ 104,525				
5000	Solids Utilization	\$ 1,055,057	2016 1	\$ 978,075	\$ (5,995)	(0.6)		
			2015 1	\$ 984,070				
5200	Solids Distribution	\$ 180,243	2016 -	\$ 200,700	\$ (21,300)	(9.6)		
			2015 -	\$ 222,000				
5900	Solids Utilization - Indirect Costs	\$ 874,814	2016 1	\$ 777,375	\$ 15,305	2.0		
			2015 1	\$ 762,070				
7000	General Support (excluding program number 7604)	\$ 298,631	2016 1	\$ 302,340	\$ (110)	-		
			2015 1	\$ 302,450				
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 348,000	\$ 348,000	100.0	f)	
			2015 -	\$ -				
Totals		\$ 39,602,065	2016 259	\$ 43,830,100	\$ 1,753,900	4.2%	*	
			2015 260	\$ 42,076,200				

e) Increase is due to the additional funding for polymer (\$86,000) and repair parts for the centrifuges used for solids dewatering (\$10,600).

f) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

\* The 2016 position total for the North Service Area is 259, with no positions budgeted in the Stormwater Management Fund.

**67000 M&O - NORTH SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Sewage at Treatment Facilities and Through a Contract Agreement with the Fox River Water Reclamation District					
	Terrence J. O'Brien Water Reclamation Plant	Mil. Gallons	84,263	89,000	89,000	
		Cost	\$ 17,155,545	\$ 18,621,335	\$ 19,896,905	a)
		Cost/Mil. Gallons	\$ 203.60	\$ 209.23	\$ 223.56	
	John E. Egan Water Reclamation Plant	Mil. Gallons	9,007	10,200	10,200	
		Cost	\$ 6,163,449	\$ 6,262,000	\$ 6,358,350	
		Cost/Mil. Gallons	\$ 684.30	\$ 613.92	\$ 623.37	
	Hanover Park Water Reclamation Plant	Mil. Gallons	3,605	3,500	3,500	
		Cost	\$ 2,595,443	\$ 2,642,680	\$ 2,603,600	
		Cost/Mil. Gallons	\$ 719.96	\$ 755.05	\$ 743.89	
	James C. Kirie Water Reclamation Plant	Mil. Gallons	10,689	15,558	15,558	
		Cost	\$ 5,560,139	\$ 6,481,645	\$ 6,535,950	
		Cost/Mil. Gallons	\$ 520.17	\$ 416.61	\$ 420.10	
	Fox River Water Reclamation District	Mil. Gallons	1,942	2,000	2,000	
		Cost	\$ 1,586,582	\$ 1,453,400	\$ 1,374,800	
		Cost/Mil. Gallons	\$ 816.98	\$ 726.70	\$ 687.40	
3000	Solids Processing					
	Remove 60,500 Dry Tons of Solids, Transfer 45,000 to SWRP, and Process 15,500 from Concentrated Sewage Through Various Systems	Dry Tons	12,775	15,200	15,500	
		Cost	\$ 4,436,530	\$ 4,572,595	\$ 4,629,240	
		Cost/Dry Ton	\$ 347.28	\$ 300.83	\$ 298.66	

a) Increase is due to the additional funding for repairs to collection and process facilities, including the manhours contract to provide various classifications of labor for repairs to equipment and systems at District facilities (\$510,200), salary related costs, including severance and retirement payments and compensation plan adjustments (\$314,800), electrical energy, primarily in connection with the ultraviolet disinfection process (\$286,500), materials and supplies generated by an increased reliance on in-house staff for maintenance and repair work (\$136,100), equipment for collection and process facilities (\$34,700), and contractual services, including building repairs (\$33,400), offset by reduced funding for training and travel related requests (\$40,200).

**67000 M&O - NORTH SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4000	Flood & Pollution Control					
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution					
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals and the Operation of Detention Reservoirs	Reservoirs	22	22	22	
		Cost	\$ 451,009	\$ 469,300	\$ 493,100	
		Cost/Reservoir	\$ 20,500.41	\$ 21,331.82	\$ 22,413.64	
4400	Aeration Facilities	Cost	\$ 238,586	\$ 182,200	\$ 198,400	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 61,094	\$ 104,525	\$ 111,340	
5000	Solids Utilization					
	Utilize Further Dewatered Sewage for Application at Final Utilization Sites Such as the Fischer Farm at Hanover Park and Other Farm Application Sites	Dry Tons	998	1,000	1,000	
		Cost	\$ 1,055,057	\$ 984,070	\$ 978,075	
		Cost/Dry Ton	\$ 1,057.17	\$ 984.07	\$ 978.08	
7000	General Support (excluding program number 7604)					
	Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection and Treatment, Solids Processing, Flood and Pollution Control, and Solids Utilization	Cost	\$ 298,631	\$ 302,450	\$ 302,340	
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 348,000	b)
Division Total			\$ 39,602,065	\$ 42,076,200	\$ 43,830,100	

b) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 22,793,954	\$ 24,183,100	\$ 23,997,100	\$ 23,180,000	\$ 24,471,200	\$ 24,471,200	\$ 24,676,400
601060	Compensation Plan Adjustments	1,135,988	1,018,600	1,200,600	1,171,500	1,159,600	1,159,600	1,167,900
601070	Social Security & Medicare Contributions	-	-	-	-	348,000	348,000	348,000
601100	Tuition and Training Payments	60,715	70,000	66,000	16,700	44,800	44,800	44,800
100	TOTAL PERSONAL SERVICES	23,990,657	25,271,700	25,263,700	24,368,200	26,023,600	26,023,600	26,237,100
612010	Travel	4,540	15,000	15,000	3,500	5,500	5,500	5,500
612030	Meals and Lodging	16,896	25,000	25,000	8,100	12,900	12,900	12,900
612050	Compensation for Personally-Owned Automobiles	35,051	29,200	35,700	35,100	35,800	35,800	35,800
612080	Motor Vehicle Operating Services	247	200	400	300	200	200	200
612150	Electrical Energy	7,166,891	8,000,000	7,300,000	6,005,800	8,428,900	8,428,900	8,428,900
612160	Natural Gas	901,743	745,000	625,000	408,900	692,100	692,100	692,100
612170	Water and Water Services	54,600	53,900	53,900	49,200	57,200	57,200	57,200
612210	Communication Services	88,555	130,000	144,900	81,400	148,400	148,400	148,400
612240	Testing and Inspection Services	19,159	36,500	36,500	14,800	38,900	38,900	38,900
612330	Rental Charges	3,686	20,000	36,900	21,800	40,700	40,700	40,700
612410	Governmental Service Charges	3,429,477	3,062,500	3,062,500	2,964,300	3,006,100	3,006,100	3,006,100
612420	Maintenance of Grounds and Pavements	100,326	59,900	61,900	21,800	59,900	59,900	59,900
612490	Contractual Services, N.O.C.	24,486	8,000	8,000	400	8,000	8,000	8,000
612520	Waste Material Disposal Charges	532,334	535,000	527,400	303,300	534,400	534,400	534,400
612530	Farming Services	24,000	22,000	29,600	22,000	29,600	29,600	29,600
612600	Repairs to Collection Facilities	144,408	50,000	50,000	13,800	190,000	185,000	160,000
612650	Repairs to Process Facilities	594,922	833,300	1,062,300	593,200	1,215,900	1,215,900	1,183,700
612680	Repairs to Buildings	283,295	250,000	250,000	123,700	229,100	229,100	229,100
612760	Repairs to Material Handling and Farming Equipment	9,212	14,000	14,000	1,600	13,900	13,900	13,900
612860	Repairs to Vehicle Equipment	5,865	10,000	10,000	8,300	6,200	6,200	6,200
612990	Repairs, N.O.C.	626	-	-	-	-	-	-
200	TOTAL CONTRACTUAL SERVICES	13,440,319	13,899,500	13,349,000	10,681,300	14,753,700	14,748,700	14,691,500
623030	Metals	9,109	10,000	4,100	3,000	10,000	10,000	10,000
623070	Electrical Parts and Supplies	429,899	351,000	309,200	222,600	398,700	398,700	442,300
623090	Plumbing Accessories and Supplies	191,123	150,000	175,000	128,100	148,200	148,200	148,200

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623110	Hardware	11,987	15,000	15,000	14,300	10,600	10,600	10,600
623130	Buildings, Grounds, Paving Materials, and Supplies	31,322	35,000	35,000	16,900	29,600	29,600	37,600
623190	Paints, Solvents, and Related Materials	663	1,000	1,000	600	2,600	2,600	2,600
623250	Vehicle Parts and Supplies	8,454	10,000	10,000	2,900	7,500	7,500	7,500
623270	Mechanical Repair Parts	433,136	550,000	618,700	381,500	580,700	580,700	580,700
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	21,730	21,000	20,700	18,300	15,400	15,400	21,000
623560	Processing Chemicals	813,143	1,400,000	948,000	454,700	1,371,600	1,371,600	1,371,600
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	41,334	20,800	20,700	14,000	22,600	22,600	22,600
623660	Cleaning Supplies	112	200	200	100	200	200	200
623680	Tools and Supplies	58,815	55,000	55,000	50,300	50,700	50,700	50,700
623780	Safety and Medical Supplies	17,646	45,000	45,000	23,200	23,500	23,500	23,500
623810	Computer Supplies	8,026	7,500	3,000	1,400	7,800	7,800	7,800
623820	Fuel	15,345	20,000	20,000	8,200	16,200	16,200	16,200
623840	Gases	889	2,000	2,000	100	1,100	1,100	1,100
623860	Lubricants	3,966	3,500	3,500	1,000	3,600	3,600	3,600
623990	Materials and Supplies, N.O.C.	3,236	2,000	2,000	2,000	1,700	1,700	1,700
300	TOTAL MATERIALS AND SUPPLIES	2,099,934	2,699,000	2,288,100	1,343,200	2,702,300	2,702,300	2,759,500
634600	Equipment for Collection Facilities	11,022	106,000	110,000	36,100	20,000	50,000	50,000
634650	Equipment for Process Facilities	60,133	100,000	144,200	125,800	117,000	92,000	92,000
400	TOTAL MACHINERY AND EQUIPMENT	71,155	206,000	254,200	161,900	137,000	142,000	142,000
TOTAL NORTH SERVICE AREA		\$ 39,602,065	\$ 42,076,200	\$ 41,155,000	\$ 36,554,600	\$ 43,616,600	\$ 43,616,600	\$ 43,830,100

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.



Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>710</b>	<b>North Service Area Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP20	Managing Engineer	-	-		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	North Service Area Executive Office	2	2	304,051.28	3	479,628.24
<b>711</b>	<b>North Service Area Budget Control Unit</b>					
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	1		-	
HP14	Budget & Management Analyst	1	1		2	
TOTAL	North Service Area Budget Control Unit	2	2	191,275.50	2	179,641.80
<b>715</b>	<b>Terrence J. O'Brien Water Reclamation Plant Branch</b>					
<b>715</b>	<b>Terrence J. O'Brien Water Reclamation Plant Branch Office</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
TOTAL	Terrence J. O'Brien Water Reclamation Plant Branch Office	1	1	201,028.36	1	207,059.32
<b>720</b>	<b>Plant Engineering &amp; Maintenance Section</b>					
<b>721</b>	<b>Administrative Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP18	Principal Engineer	1	1		-	
HP17	Senior Electrical Engineer	1	1		1	
HP15	Associate Mechanical Engineer	1	1		1	
TOTAL	Administrative Unit	4	4	545,424.62	3	410,429.76
<b>743</b>	<b>Buildings &amp; Grounds Unit</b>					
HP14	Engineering Technician V	1	1		1	
HP12	Engineering Technician IV	1	-		-	
HP09	Administrative Clerk	1	1		1	
NR8331	Laborer Foreman	1	1		1	
NR8651	Maintenance Laborer Class A	3	3		3	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8652	Maintenance Laborer Class B	5	5		5	
TOTAL	Buildings & Grounds Unit	12	11	674,714.04	11	702,090.22
<b>722</b>	<b>Mechanical Engineering Unit</b>					
HP18	Principal Mechanical Engineer	1	1		1	
HP15	Associate Mechanical Engineer	1	1		1	
HP14	Assistant Mechanical Engineer	1	1		1	
TOTAL	Mechanical Engineering Unit	3	3	331,472.44	3	341,416.66
<b>723</b>	<b>Electrical Engineering Unit</b>					
HP18	Principal Electrical Engineer	1	1		1	
HP17	Senior Electrical Engineer	1	1		1	
HP15	Associate Electrical Engineer	1	1		1	
HP15	Associate Process Control Engineer	1	1		1	
NR6251	Chief Electrical Operator	1	1		1	
NR6233	Electrical Operator II	5	5		5	
NR6232	Electrical Operator I	2	2		2	
TOTAL	Electrical Engineering Unit	12	12	1,220,919.96	12	1,228,380.14
<b>724</b>	<b>Maintenance Unit</b>					
HP19	Master Mechanic II	-	-		1	
HP18	Master Mechanic I	1	1		-	
HP17	Assistant Master Mechanic	-	-		4	
HP16	Assistant Master Mechanic	3	4		-	
HP12	Engineering Technician IV	1	1		-	
HP09	Administrative Clerk	1	1		1	
TOTAL	Maintenance Unit	6	7	749,164.78	6	749,077.94
<b>760</b>	<b>Area Maintenance Section</b>					
<b>764</b>	<b>Area Maintenance Unit</b>					
PR5933	Architectural Ironworker	2	2		2	
PR5353	Bricklayer	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PR5153	Carpenter	2	2		2	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	
PR7424	Electrical Instrument & Testing Mechanic Leadman	1	1		1	
PR7423	Electrical Instrument & Testing Mechanic	12	12		12	
PR7347	Electrical Mechanic Foreman	1	1		1	
PR7349	Electrical Mechanic Sub-Foreman	1	1		1	
PR7343	Electrical Mechanic	13	13		13	
PR6453	Hoisting Engineer	1	1		1	
PR7579	Machinist Foreman	1	1		1	
PR7575	Machinist Leadman	1	1		1	
PR7573	Machinist	16	16		16	
PR5553	Painter	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7775	Pipefitter Leadman	1	1		1	
PR7773	Pipefitter	12	12		12	
PR5753	Plumber	2	2		2	
PR5975	Structural Ironworker Leadman	1	1		1	
PR5973	Structural Ironworker	2	2		2	
PR6473	Truck Driver	4	4		4	
TOTAL	Area Maintenance Unit	78	78	7,274,425.60	78	7,445,984.00
TOTAL	Area Maintenance Section	78	78	7,274,425.60	78	7,445,984.00
TOTAL	Plant Engineering & Maintenance Section	115	115	10,796,121.44	113	10,877,378.72
<b>730</b>	<b>Plant Operations Section</b>					
<b>731</b>	<b>Administrative Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP12	Engineering Technician IV	-	1		1	
TOTAL	Administrative Unit	1	2	231,305.88	2	238,245.28
<b>732</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Treatment Plant Operator II	5	5		5	
HP14	Treatment Plant Operator II #4	2	2		2	
HP12	Treatment Plant Operator I	4	4		4	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8651	Maintenance Laborer Class A	2	2		2	
TOTAL	Treatment Operations Unit	18	18	1,511,808.48	18	1,549,735.72
<b>734</b>	<b>Mechanical Operations Unit</b>					
HP17	Chief Operating Engineer I	1	1		1	
HP16	Assistant Chief Operating Engineer	1	1		1	
NR6810	Fireman-Oiler	6	6		6	
NR6832	Operating Engineer II	8	8		8	
NR6831	Operating Engineer I	5	5		5	
TOTAL	Mechanical Operations Unit	21	21	1,980,585.62	21	2,039,908.00
TOTAL	Plant Operations Section	40	41	3,723,699.98	41	3,827,889.00
TOTAL	Terrence J. O'Brien Water Reclamation Plant Branch	156	157	14,720,849.78	155	14,912,327.04
<b>750</b>	<b>Hanover Park Water Reclamation Plant Section</b>					
<b>751</b>	<b>Administrative Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	231,450.70	2	238,394.00
<b>753</b>	<b>Operations Unit</b>					
HP17	Senior Civil Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	5	5		6	
HP14	Treatment Plant Operator II #4	2	2		1	
HP12	Treatment Plant Operator I	4	5		5	
HP12	Treatment Plant Operator I #4	1	-		-	
TOTAL	Operations Unit	14	14	1,236,118.78	14	1,292,005.78

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>754</b>	<b>Maintenance Unit</b>					
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Electrical Engineer	1	1		1	
NR6810	Fireman-Oiler	1	1		1	
TOTAL	Maintenance Unit	3	3	309,491.52	3	318,770.92
<b>755</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	1	1		1	
NR8651	Maintenance Laborer Class A	2	1		1	
NR8651	Maintenance Laborer Class A #2 (Maintenance Laborer Class B) (New Grade NR8652)	-	1		1	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	General Plant Services Unit	4	4	290,385.42	4	303,813.12
TOTAL	Hanover Park Water Reclamation Plant Section	23	23	2,067,446.42	23	2,152,983.82
<b>780</b>	<b>James C. Kirie Water Reclamation Plant Section</b>					
<b>781</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	249,416.96	2	256,899.50
<b>783</b>	<b>Operations Unit</b>					
HP18	Principal Engineer	1	1		2	
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Assistant Civil Engineer	1	1		1	
HP14	Treatment Plant Operator II	5	5		5	
HP14	Treatment Plant Operator II #4	2	2		2	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	2		2	
NR8650	Maintenance Laborer Class A Shift	4	4		4	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6831	Operating Engineer I	6	6		6	
TOTAL	Operations Unit	27	27	2,466,595.04	28	2,669,008.42
<b>785</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	-	-		1	
HP14	Engineering Technician V #4	1	1		-	
NR8331	Laborer Foreman	-	1		1	
NR8651	Maintenance Laborer Class A	4	3		3	
NR8651	Maintenance Laborer Class A #2 (Maintenance Laborer Class B) (New Grade NR8652)	-	1		-	
NR8652	Maintenance Laborer Class B	-	-		1	
TOTAL	General Plant Services Unit	5	6	478,331.10	6	439,134.28
TOTAL	James C. Kirie Water Reclamation Plant Section	34	35	3,194,343.10	36	3,365,042.20
<b>790</b>	<b>John E. Egan Water Reclamation Plant Section</b>					
<b>791</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP18	Principal Engineer	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	4	4	524,951.44	4	543,969.66
<b>793</b>	<b>Operations Unit</b>					
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III #4	1	1		1	
HP14	Assistant Civil Engineer	1	1		1	
HP14	Treatment Plant Operator II	4	5		7	
HP14	Treatment Plant Operator II #4	3	2		-	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	3	3		3	
NR8651	Maintenance Laborer Class A	1	1		1	
NR6832	Operating Engineer II	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6831	Operating Engineer I	6	6		6	
TOTAL	Operations Unit	25	25	2,235,373.92	25	2,271,735.70
<b>794</b>	<b>Maintenance Unit</b>					
HP17	Senior Electrical Engineer	1	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP16	Assistant Master Mechanic	1	-		-	
HP15	Associate Process Control Engineer	1	1		1	
HP14	Assistant Electrical Engineer	1	1		1	
HP14	Assistant Mechanical Engineer	1	1		-	
TOTAL	Maintenance Unit	6	5	537,847.96	4	475,958.08
<b>795</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V #4	1	1		1	
NR8331	Laborer Foreman	1	1		1	
NR8651	Maintenance Laborer Class A	4	4		4	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	General Plant Services Unit	7	7	529,083.10	7	544,963.38
TOTAL	John E. Egan Water Reclamation Plant Section	42	41	3,827,256.42	40	3,836,626.82
TOTAL	Maintenance & Operations North Service Area	259	260	24,305,222.50	259	24,926,249.92

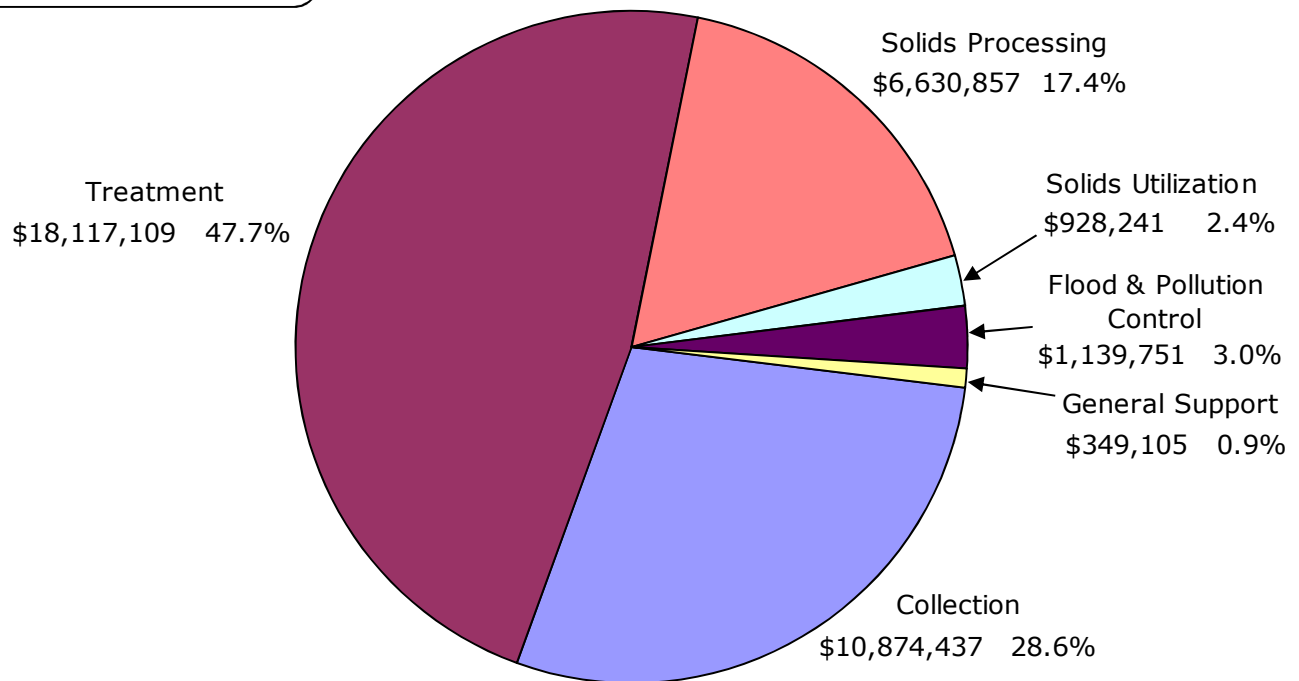
Note: There are no positions budgeted for the Stormwater Management Fund for 2016.

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

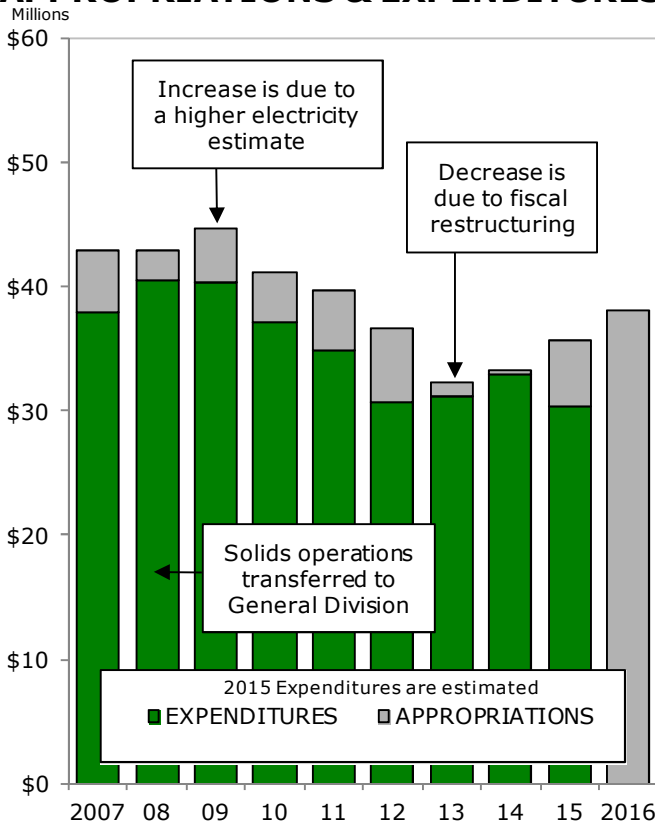
# MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

2016	\$38,039,500
2015	\$35,728,500
Increase	\$2,311,000

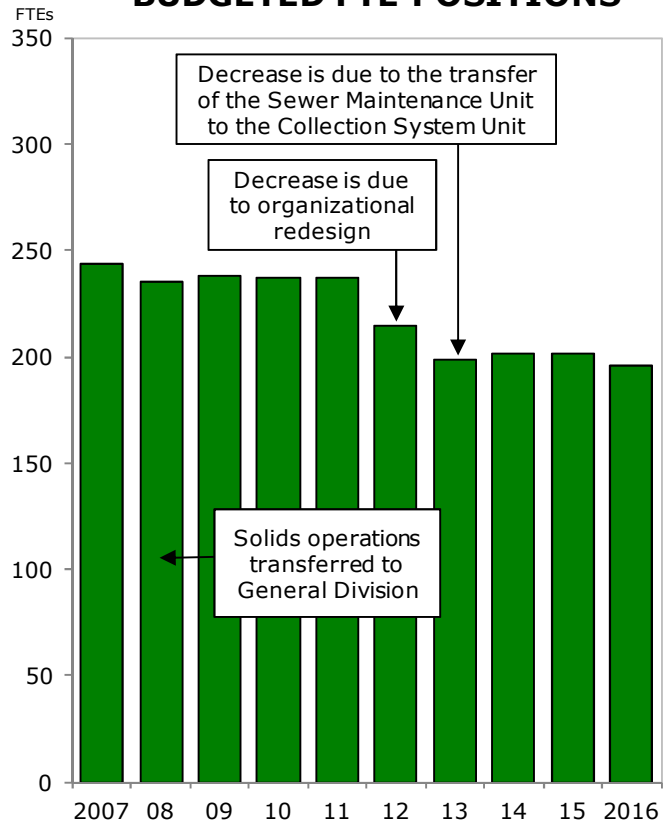
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

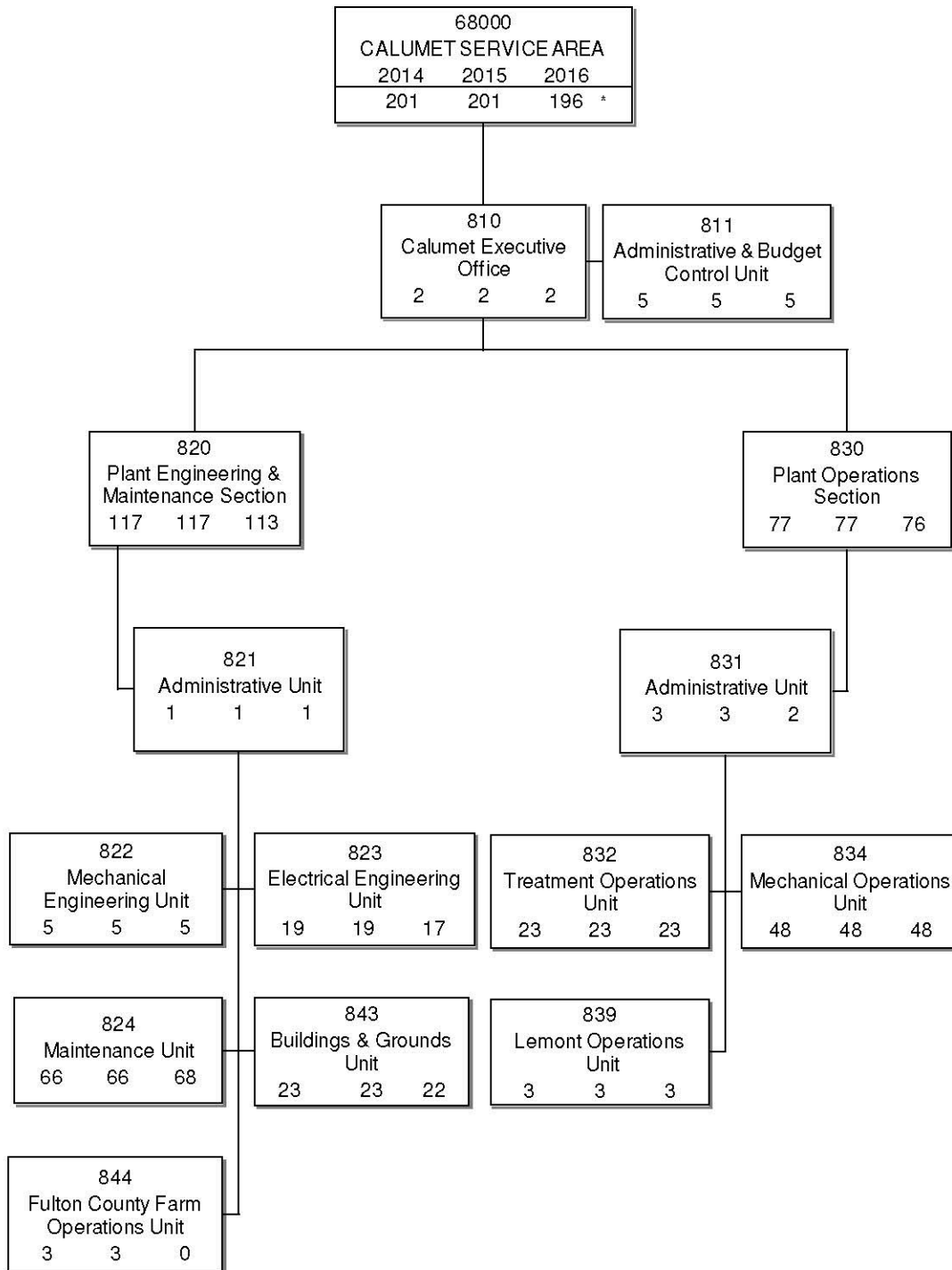


## BUDGETED FTE POSITIONS





# MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA



\* In 2016, there are no positions funded by the Stormwater Management Fund.

## MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

**The mission of the Calumet Service Area (CSA) is to support the Maintenance & Operations Department (M&O) in protecting our water environment by collecting and treating wastewater and maintaining our waterways, keeping them free of pollution in the most economical and environmentally sustainable manner possible.**

### Service Area Summary

The CSA collects wastewater discharges from a population equivalent of 1,026,983 people in an area of 326.3 square miles, treating approximately 101 billion gallons of sewage annually through the Calumet Water Reclamation Plant (WRP) and the Lemont WRP. In order to achieve its mission, the CSA is organized as follows:

**The Calumet Executive Office** provides the general overall direction for the entirety of maintenance and operations for the CSA.

**The Administrative & Budget Control Unit** has responsibilities that include: developing and implementing a yearly budget, reviewing and processing requisitions for goods or services in a timely fashion and ensuring conformance to the Purchasing Act and applicable statutes, reviewing and processing payments for goods and services received, assuring their correctness, appropriateness, and compliance with the Prompt Payment Act, entering all direct vouchers for the payment of gas, water, and electricity at the Calumet WRP and outlying stations, preparing non-engineering related studies, reports, and correspondence, acting as a liaison between other main office departments and CSA personnel when specific information or tasks are required of CSA personnel, and storing and retrieving historical data to aid plant personnel in decision making.

**The Plant Engineering & Maintenance Section** is comprised of the Administrative, Mechanical Engineering, Electrical Engineering, Maintenance, and Buildings & Grounds Units. It is responsible for ensuring that the collection and process facilities that comprise the CSA perform in an efficient and cost-effective manner and for providing manpower and facility maintenance for solids utilization support. This is achieved by either using CSA trades personnel to perform maintenance and repairs or by using the services of outside contractors.

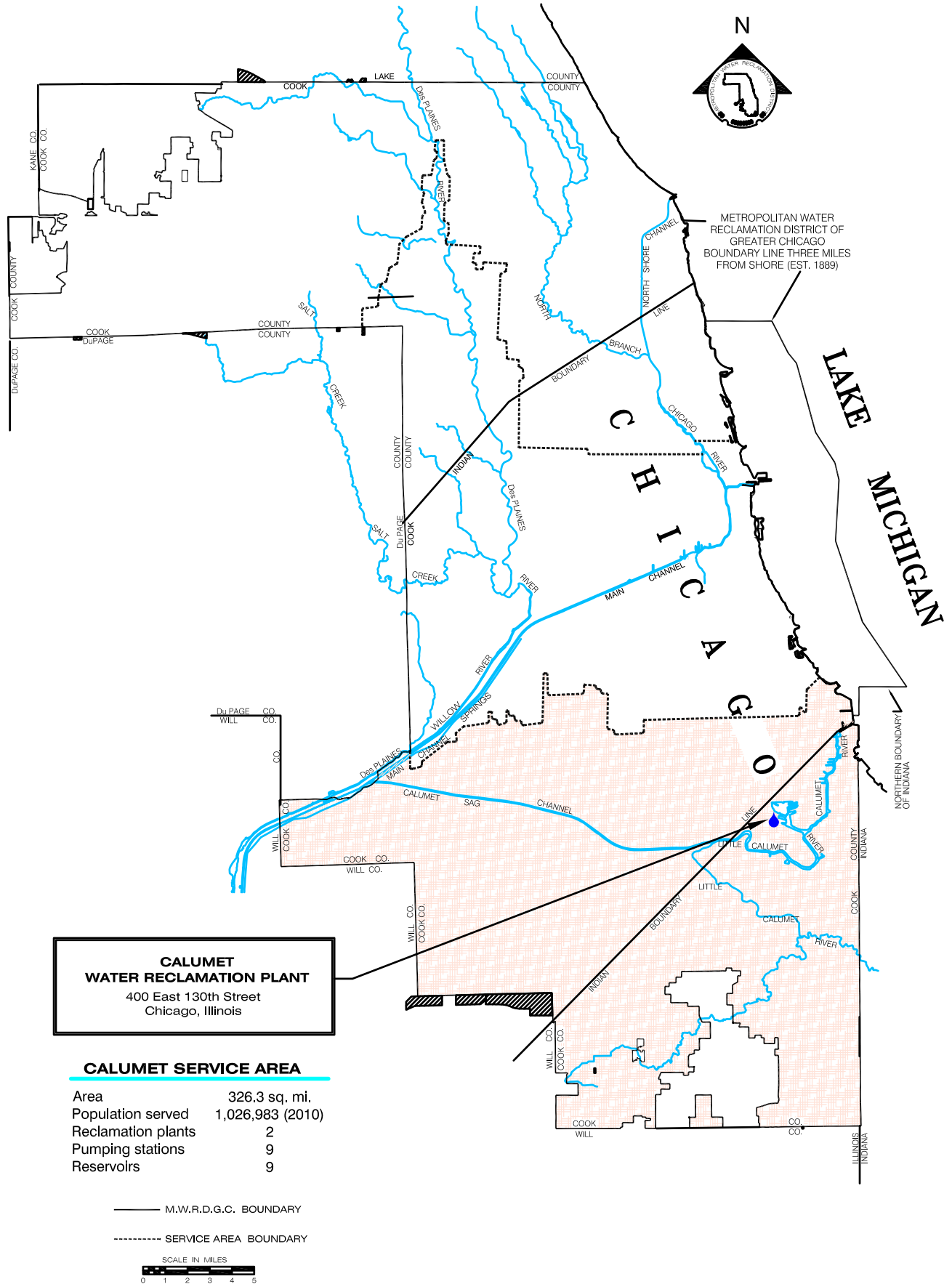
**The Plant Operations Section** is comprised of the Administrative, Treatment Operations, Mechanical Operations, and Lemont Operations Units. It is responsible for the operation of the collection and process facilities that comprise the CSA, ensuring that the facilities are manned and operated in the most efficient and cost-effective manner possible and that all National Pollutant Discharge Elimination System permit requirements are met.

### Summary of 2015 Accomplishments

- Achieved 100 percent National Pollutant Discharge Elimination System permit compliance. Both the Calumet and Lemont WRPs have met 100 percent of all permit requirements for the past 24 and 19 years, respectively;
- Began work to furnish, deliver, and install new tank drives at the Lemont WRP;
- Awarded a contract to furnish and deliver ammonia probes for the aeration batteries at the Calumet WRP;
- Replaced a submersible pump at Sidestream Elevated Pool Aeration Station 1;
- Awarded a contract to install a crane maintenance platform at the High Level Influent Pumping Station at the Calumet WRP;
- Began the disinfection process of effluent at the Calumet WRP.

### Budget Highlights

The 2016 appropriation for the CSA is \$38,039,500, an increase of \$2,311,000, or 6.5 percent, from the 2015 budget. The increase is primarily attributable to additional electrical utility consumption and chemical needs to support the disinfection of effluent. The 2016 staffing level is 196 positions, a net decrease of five positions from 2015. One Administrative Specialist, one Agricultural Technician I, one Agricultural Technician II, one Senior Civil Engineer, and one Engineering Technician V were transferred to General Division; one Engineering Technician IV was transferred from the Stickney Service Area; one Assistant Civil Engineer, one Engineering Technician IV, and one Principal Engineer were dropped upon vacancy; and one Hoisting Engineer and one Pipefitter were added. The Calumet WRP will continue the process of disinfection, which began in late 2015, complete the rehabilitation of a hydraulic operator at Tunnel And Reservoir Plan Gate Structure 1, replace main sewage pump rotating assemblies and install new vacuum pump priming systems at the 95th and 125th Street Pumping Stations, install replacement gearboxes for Sidestream Elevated Pool Aeration Stations 3 and 4, and begin upgrading the Foxboro software input/output modules for the automation system.



**68000 M&O - CALUMET SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION & TREATMENT: The Calumet Service Area will collect and treat approximately 101 billion gallons of sewage through its Calumet and Lemont treatment facilities.	\$ 28,991,546	76.3%
Design: Flows ^    CBOD *    SS *		
Calumet Water Reclamation Plant	354 MGD	10 mg/1    15 mg/1
Lemont Water Reclamation Plant	2.3 MGD	20 mg/1    25 mg/1
<p>^ In millions of gallons per day (MGD).                      * National Pollutant Discharge Elimination System (NPDES) monthly effluent quality standards:                      CBOD - Carbonaceous Biochemical Oxygen Demand                      SS - Suspended Solids</p>		
2. SOLIDS PROCESSING: The Calumet Service Area will remove and process 40,000 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 6,630,857	17.4%
3. SOLIDS UTILIZATION: The Calumet Service Area will provide support to the Solids Management Section to utilize approximately 29,100 dry tons of further dewatered sewage for application at final utilization sites such as daily and final cover in sanitary landfills.	\$ 928,241	2.4%
4. FLOOD & POLLUTION CONTROL: The Calumet Service Area will work to prevent local area flooding through the operation of nine detention reservoirs, in cooperation with local communities. It will also work to maintain the quality of the waterways system and associated District property, in cooperation with the channel maintenance and debris boat crews.	\$ 1,139,751	3.0%
5. GENERAL SUPPORT: The Calumet Service Area will provide technical and administrative support for other departments not directly related to the operational activities of Collection & Treatment, Solids Processing, Solids Utilization, and Flood & Pollution Control.	\$ 349,105	0.9%
<b>Total</b>	<b>\$ 38,039,500</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. The Calumet Service Area will collect and treat approximately 101 billion gallons of sewage in 2016.	Billion Gallons	94	101	101
2. The Calumet Service Area will remove and process solids from 40,000 dry tons of concentrated sewage.	Dry Tons Process Solids	38,690	40,000	40,000
3. The Calumet Service Area will obtain 100 percent permit compliance in 2016 for NPDES effluent limits.	Percent	100.00%	100.00%	100.00%
4. The Calumet Service Area will provide support to utilize 29,100 dry tons of biosolids in 2016.	Dry Tons	12,534	21,600	29,100

**68000 M&O - CALUMET SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 9,735,944	2016 52	\$ 10,874,437	\$ 265,555	2.5		
			2015 52	\$ 10,608,882				
1100	Surface Interceptor Systems	\$ 586,155	2016 4	\$ 620,000	\$ (10,500)	(1.7)		
			2015 4	\$ 630,500				
1200	Tunnel and Reservoir System	\$ 3,116,998	2016 10	\$ 3,266,700	\$ 51,900	1.6		
			2015 10	\$ 3,214,800				
1300	Pumping Station Facilities	\$ 2,476,813	2016 14	\$ 3,488,600	\$ 147,200	4.4	a)	
			2015 14	\$ 3,341,400				
1900	Collection - Indirect Costs	\$ 3,555,978	2016 24	\$ 3,499,137	\$ 76,955	2.2		
			2015 24	\$ 3,422,182				
2000	Treatment	\$ 13,441,946	2016 85	\$ 17,843,809	\$ 2,915,169	19.5		
			2015 87	\$ 14,928,640				
2000	Pre-Treatment	\$ 640,040	2016 6	\$ 652,800	\$ 25,500	4.1		
			2015 6	\$ 627,300				
2100	Primary Treatment	\$ 803,166	2016 10	\$ 843,600	\$ 3,100	0.4		
			2015 10	\$ 840,500				
2200	Secondary Treatment	\$ 5,183,397	2016 23	\$ 4,853,800	\$ 786,900	19.3	b)	
			2015 23	\$ 4,066,900				
2300	Tertiary Treatment	\$ 26,487	2016 -	\$ 3,296,600	\$ 2,325,600	239.5	c)	
			2015 -	\$ 971,000				
2900	Treatment - Indirect Costs	\$ 6,788,856	2016 46	\$ 8,197,009	\$ (225,931)	(2.7)	d)	
			2015 48	\$ 8,422,940				
3000	Solids Processing	\$ 6,515,580	2016 48	\$ 6,630,857	\$ (8,851)	(0.1)		
			2015 47	\$ 6,639,708				
3100	Thickening	\$ 997,733	2016 9	\$ 1,196,100	\$ 8,700	0.7		
			2015 9	\$ 1,187,400				
3200	Stabilization	\$ 1,825,870	2016 12	\$ 1,684,600	\$ 42,600	2.6		
			2015 12	\$ 1,642,000				
3300	Dewatering	\$ 515,852	2016 5	\$ 419,800	\$ 9,400	2.3		
			2015 4	\$ 410,400				
3900	Solids Processing - Indirect Costs	\$ 3,176,125	2016 22	\$ 3,330,357	\$ (69,551)	(2.0)		
			2015 22	\$ 3,399,908				

- a) Increase is due to the additional electrical utility needs related to the Thornton Composite Reservoir coming online (\$76,900), additional funding for scavenger services (\$26,900), and electrical materials and supplies (\$20,500).
- b) Increase is due to the additional electrical utility needs to support the disinfection of effluent (\$751,800).
- c) Increase is due to the additional need for sodium hypochlorite (\$1,711,400) and sodium bisulfite (\$608,200) to support the disinfection of effluent.
- d) Decrease is due to the lower third year cost of the Invensys maintenance agreement (\$344,300), offset by an additional need for the manhours contract to provide for additional trades to perform in-house maintenance and repair work (\$67,300).

**68000 M&O - CALUMET SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
4000	Flood & Pollution Control	\$ 1,093,407	2016 3	\$ 1,139,751	\$ 34,192	3.1		
			2015 3	\$ 1,105,559				
4200	Waterways Control and Stormwater Reservoirs	\$ 300,318	2016 1	\$ 192,900	\$ 7,200	3.9		
			2015 1	\$ 185,700				
4400	Aeration Facilities	\$ 704,972	2016 2	\$ 845,400	\$ 25,900	3.2		
			2015 2	\$ 819,500				
4900	Flood & Pollution Control - Indirect Costs	\$ 88,117	2016 -	\$ 101,451	\$ 1,092	1.1		
			2015 -	\$ 100,359				
5000	Solids Utilization	\$ 1,740,645	2016 6	\$ 928,241	\$ (1,087,715)	(54.0)		
			2015 8	\$ 2,015,956				
5100	Solids Drying	\$ 70,188	2016 1	\$ 99,000	\$ 50,300	103.3	e)	
			2015 1	\$ 48,700				
5200	Solids Distribution	\$ 1,033,806	2016 1	\$ 99,000	\$ (1,145,800)	(92.0)	f)	
			2015 3	\$ 1,244,800				
5900	Solids Utilization - Indirect Costs	\$ 636,651	2016 4	\$ 730,241	\$ 7,785	1.1		
			2015 4	\$ 722,456				
7000	General Support (excluding program number 7604)	\$ 344,800	2016 2	\$ 349,105	\$ (80,650)	(18.8)	g)	
			2015 4	\$ 429,755				
7604	Social Security and Medicare Contribution	\$ -	2016 -	\$ 273,300	\$ 273,300	100.0	h)	
			2015 -	\$ -				
Totals		\$ 32,872,322	2016 196	\$ 38,039,500	\$ 2,311,000	6.5%	*	
			2015 201	\$ 35,728,500				

e) Increase is due to the addition of a Hoisting Engineer.

f) Decrease is due to the transfer of Fulton County staff and Fulton County Program Numbers 5238 and 5239 to the General Division Solids Management Section (\$1,196,100), offset by the addition of a Hoisting Engineer (\$50,000).

g) Decrease is due to the transfer of Fulton County staff to the General Division Solids Management Section (\$92,900), offset by the addition of building control system parts (\$12,800).

h) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

\* The 2016 position total for the Calumet Service Area is 196, with no positions budgeted in the Stormwater Management Fund.

**68000 M&O - CALUMET SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Sewage at the Calumet and Lemont Water Reclamation Plants					
	Calumet Water Reclamation Plant	Mil. Gallons	86,340	100,000	100,000	
		Cost	\$ 22,777,444	\$ 25,093,125	\$ 28,272,692	a)
		Cost/Mil. Gallons	\$ 263.81	\$ 250.93	\$ 282.73	
	Lemont Water Reclamation Plant	Mil. Gallons	819	1,000	1,000	
		Cost	\$ 400,446	\$ 444,397	\$ 445,554	
		Cost/Mil. Gallons	\$ 488.95	\$ 444.40	\$ 445.55	
3000	Solids Processing					
	Remove and Process Solids from Concentrated Sewage Through Various Systems Including Heated Digestion, Centrifuging, Concentration, and Aging Low Solids Sludge and Centrifuge Cake in Lagoons	Dry Tons	38,690	40,000	40,000	
		Cost	\$ 6,515,580	\$ 6,639,708	\$ 6,630,857	
		Cost/Dry Ton	\$ 168.40	\$ 165.99	\$ 165.77	
4000	Flood & Pollution Control					
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution					
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals and the Operation of Detention Reservoirs	Reservoirs	8	9	9	
		Cost	\$ 300,318	\$ 185,700	\$ 192,900	
		Cost/Reservoir	\$ 37,539.75	\$ 20,633.33	\$ 21,433.33	
4400	Aeration Facilities	Cost	\$ 704,972	\$ 819,500	\$ 845,400	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 88,117	\$ 100,359	\$ 101,451	
5000	Solids Utilization					
	Utilize Further Dewatered Sewage for Application at Final Utilization Sites, such as for Daily and Final Cover in Sanitary Landfills	Dry Tons	12,534	21,600	29,100	b)
		Cost	\$ 1,740,645	\$ 2,015,956	\$ 928,241	c)
		Cost/Dry Ton	\$ 138.87	\$ 93.33	\$ 31.90	
7000	General Support (excluding program number 7604)					
	Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection and Treatment, Solids Processing, Flood and Pollution Control, and Solids Utilization	Cost	\$ 344,800	\$ 429,755	\$ 349,105	d)
7604	Social Security and Medicare Contribution	Cost	\$ -	\$ -	\$ 273,300	e)
	Division Total		\$ 32,872,322	\$ 35,728,500	\$ 38,039,500	

- a) Increase is due to the additional need for sodium hypochlorite (\$1,711,400), electricity (\$751,800), and sodium bisulfite (\$608,200) to support the disinfection of effluent, and additional electricity needs related to the Thornton Composite Reservoir coming online (\$76,900).
- b) Increase is due to the Intergovernmental Agreement with the City of Chicago, in which the city supplies woodchips as feedstock for composting biosolids, thereby stabilizing the biosolids and allowing increased productivity.
- c) Decrease is due to the transfer of Fulton County staff and Fulton County Program Numbers 5238 and 5239 to the General Division Solids Management Section (\$1,196,100), offset by the addition of a Hoisting Engineer (\$100,000).
- d) Decrease is due to the transfer of Fulton County staff to the General Division Solids Management Section (\$92,900), offset by the addition of building control system parts (\$12,800).
- e) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 17,128,176	\$ 18,068,400	\$ 18,068,400	\$ 17,061,200	\$ 17,740,800	\$ 17,725,600	\$ 17,981,300
601060	Compensation Plan Adjustments	644,972	1,019,500	864,500	830,800	821,800	820,400	824,100
601070	Social Security & Medicare Contributions	-	-	-	-	273,300	273,300	273,300
601080	Salaries of Nonbudgeted Employees	-	-	20,000	14,700	-	-	-
601100	Tuition and Training Payments	6,399	28,000	31,000	2,100	110,900	110,900	110,900
601170	Payments for Professional Services	48,854	62,000	62,000	53,500	-	-	-
100	TOTAL PERSONAL SERVICES	17,828,401	19,177,900	19,045,900	17,962,300	18,946,800	18,930,200	19,189,600
612010	Travel	389	15,000	15,000	100	26,300	26,300	26,300
612030	Meals and Lodging	12,943	25,000	25,000	7,900	47,600	47,600	47,600
612050	Compensation for Personally-Owned Automobiles	49,594	61,100	58,600	53,500	57,500	57,500	57,500
612080	Motor Vehicle Operating Services	-	900	900	200	700	700	700
612150	Electrical Energy	8,401,488	8,090,000	8,090,000	7,393,300	9,102,100	9,102,100	9,102,100
612160	Natural Gas	933,436	700,000	412,000	294,100	626,200	626,200	626,200
612170	Water and Water Services	375,354	400,000	400,000	379,700	397,600	397,600	397,600
612210	Communication Services	128,774	160,000	158,100	76,800	162,000	162,000	162,000
612240	Testing and Inspection Services	11,061	30,000	30,000	25,100	70,700	70,700	70,700
612330	Rental Charges	195	25,000	6,400	500	19,700	19,700	19,700
612410	Governmental Service Charges	102,676	107,800	107,800	99,500	105,400	105,400	105,400
612420	Maintenance of Grounds and Pavements	590,233	650,300	650,300	609,500	20,000	20,000	20,000
612490	Contractual Services, N.O.C.	138,197	150,000	150,000	96,700	21,300	21,300	21,300
612520	Waste Material Disposal Charges	360,703	380,000	447,000	340,500	417,800	417,800	417,800
612600	Repairs to Collection Facilities	425,102	450,000	450,000	172,500	399,900	399,900	399,900
612650	Repairs to Process Facilities	1,228,704	2,000,000	1,935,000	1,709,300	1,690,800	1,690,800	1,690,800
612680	Repairs to Buildings	240,374	495,900	495,900	178,200	395,200	395,200	395,200
612760	Repairs to Material Handling and Farming Equipment	27,031	52,700	52,700	41,600	40,700	40,700	40,700
612780	Safety Repairs and Services	15,709	20,900	20,900	5,000	20,900	20,900	20,900
612860	Repairs to Vehicle Equipment	41,907	43,400	51,400	44,600	39,600	39,600	39,600
612990	Repairs, N.O.C.	9,165	10,000	9,000	2,200	7,300	7,300	7,300
200	TOTAL CONTRACTUAL SERVICES	13,093,035	13,868,000	13,566,000	11,530,800	13,669,300	13,669,300	13,669,300
623030	Metals	31,290	15,000	13,000	4,700	15,900	15,900	15,900



101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623070	Electrical Parts and Supplies	394,315	250,000	221,000	180,100	334,400	334,400	334,400
623090	Plumbing Accessories and Supplies	368,574	200,000	200,000	140,900	241,100	241,100	241,100
623110	Hardware	2,710	4,700	4,700	2,500	4,300	4,300	4,300
623130	Buildings, Grounds, Paving Materials, and Supplies	49,835	55,000	55,000	20,500	47,400	47,400	47,400
623190	Paints, Solvents, and Related Materials	4,430	2,500	2,500	1,000	3,000	3,000	3,000
623250	Vehicle Parts and Supplies	41,349	35,000	35,000	26,000	29,800	29,800	29,800
623270	Mechanical Repair Parts	512,972	450,000	450,000	289,100	550,900	550,900	550,900
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	22,273	13,300	9,500	7,700	16,200	16,200	16,200
623530	Farming Supplies	4,947	5,000	5,000	5,000	-	-	-
623560	Processing Chemicals	263,236	1,400,000	944,700	31,800	3,810,300	3,810,300	3,713,500
623660	Cleaning Supplies	4,093	2,500	2,500	1,500	2,300	2,300	2,300
623680	Tools and Supplies	42,540	44,800	44,800	37,900	52,500	52,500	52,500
623720	Books, Maps, and Charts	180	1,400	1,400	-	200	200	200
623780	Safety and Medical Supplies	46,942	55,800	55,800	18,100	53,500	53,500	53,500
623810	Computer Supplies	2,904	1,500	1,500	100	400	400	400
623820	Fuel	59,083	90,000	90,000	46,500	41,500	41,500	41,500
623850	Communications Supplies	173	1,000	1,000	-	-	-	-
623860	Lubricants	15,951	14,100	14,100	10,500	14,900	14,900	14,900
623990	Materials and Supplies, N.O.C.	48,522	13,000	12,400	8,100	23,800	23,800	23,800
300	TOTAL MATERIALS AND SUPPLIES	1,916,319	2,654,600	2,163,900	832,000	5,242,400	5,242,400	5,145,600
634650	Equipment for Process Facilities	34,567	28,000	-	-	28,000	28,000	28,000
634860	Vehicle Equipment	-	-	-	-	7,000	7,000	7,000
400	TOTAL MACHINERY AND EQUIPMENT	34,567	28,000	-	-	35,000	35,000	35,000
<b>TOTAL CALUMET SERVICE AREA</b>		<b>\$ 32,872,322</b>	<b>\$ 35,728,500</b>	<b>\$ 34,775,800</b>	<b>\$ 30,325,100</b>	<b>\$ 37,893,500</b>	<b>\$ 37,876,900</b>	<b>\$ 38,039,500</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).  
 4. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>810</b>	<b>Calumet Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Calumet Executive Office	2	2	292,921.72	2	301,709.46
<b>811</b>	<b>Administrative &amp; Budget Control Unit</b>					
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	1	1		1	
TOTAL	Administrative & Budget Control Unit	5	5	376,206.22	5	383,483.36
<b>820</b>	<b>Plant Engineering &amp; Maintenance Section</b>					
<b>821</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
TOTAL	Administrative Unit	1	1	177,372.52	1	182,693.68
<b>822</b>	<b>Mechanical Engineering Unit</b>					
HP18	Principal Mechanical Engineer	1	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Mechanical Engineer	2	2		2	
HP14	Assistant Mechanical Engineer #2 (Engineering Technician IV) (New Grade HP12)	1	1		1	
TOTAL	Mechanical Engineering Unit	5	5	530,054.46	5	557,274.38
<b>823</b>	<b>Electrical Engineering Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		-	
HP17	Senior Electrical Engineer	1	1		1	
HP15	Associate Electrical Engineer	2	2		2	
HP15	Associate Process Control Engineer	1	1		1	
HP14	Assistant Electrical Engineer	1	1		1	
HP12	Engineering Technician IV	1	1		-	
NR6251	Chief Electrical Operator	1	1		1	
NR6233	Electrical Operator II	5	5		5	

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6232	Electrical Operator I	6	6		6	
TOTAL	Electrical Engineering Unit	19	19	1,855,180.60	17	1,662,475.10
<b>824</b>	<b>Maintenance Unit</b>					
HP18	Master Mechanic I	1	1		1	
HP17	Assistant Master Mechanic	-	-		3	
HP16	Assistant Master Mechanic	3	3		-	
PR5353	Bricklayer	1	1		1	
PR5155	Carpenter Leadman	1	1		1	
PR5153	Carpenter	2	2		2	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	
PR7423	Electrical Instrument & Testing Mechanic	7	7		7	
PR7347	Electrical Mechanic Foreman	1	1		1	
PR7349	Electrical Mechanic Sub-Foreman	1	1		1	
PR7343	Electrical Mechanic	9	9		9	
PR6453	Hoisting Engineer	3	3		3	
PR6453	Hoisting Engineer #1	-	-		1	
PR7579	Machinist Foreman	1	1		1	
PR7573	Machinist	10	10		10	
PR5553	Painter	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7773	Pipefitter	9	9		9	
PR7773	Pipefitter #1	-	-		1	
PR5753	Plumber	2	2		2	
PR5975	Structural Ironworker Leadman	1	1		1	
PR5973	Structural Ironworker	5	5		5	
PR6479	Truck Driver Foreman	1	1		1	
PR6473	Truck Driver	4	4		4	
TOTAL	Maintenance Unit	66	66	6,219,412.42	68	6,587,637.42

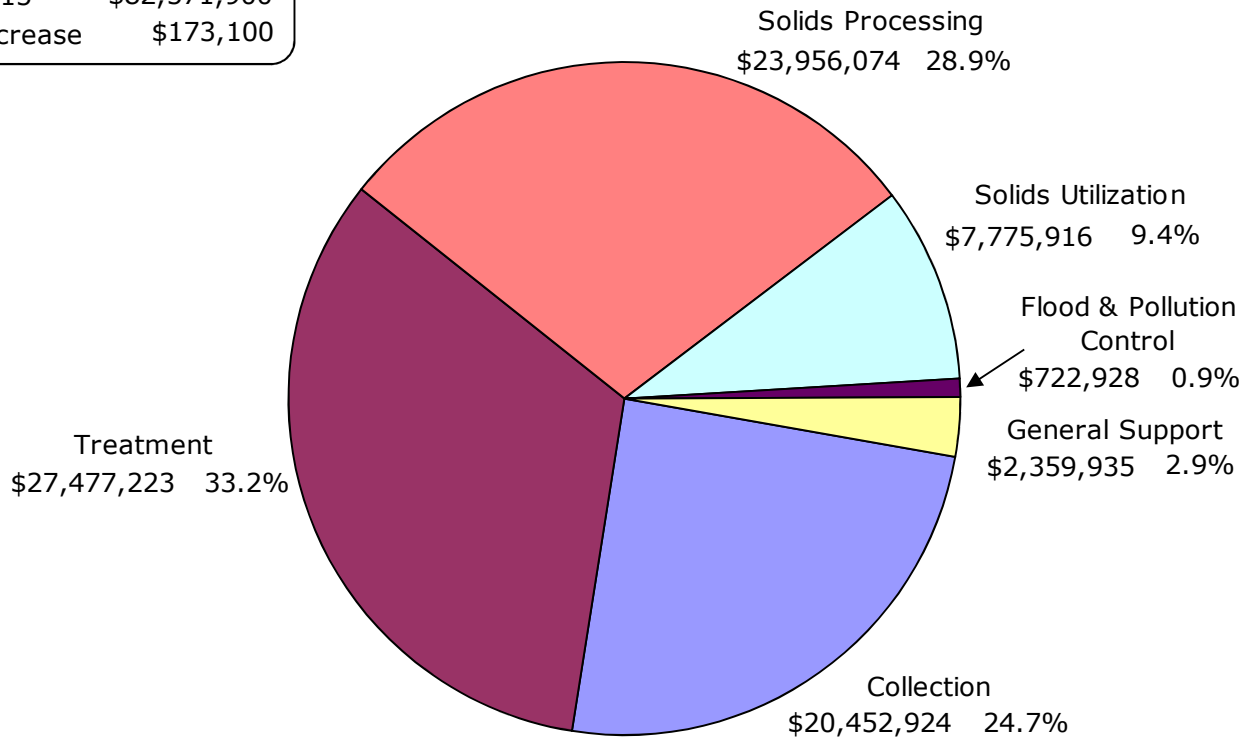
Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>843</b>	<b>Buildings &amp; Grounds Unit</b>					
HP17	Senior Civil Engineer	1	1		-	
HP14	Engineering Technician V	1	1		-	
HP12	Engineering Technician IV	1	1		2	
NR8331	Laborer Foreman	2	2		2	
NR8651	Maintenance Laborer Class A	8	8		8	
NR8652	Maintenance Laborer Class B	10	10		10	
TOTAL	Buildings & Grounds Unit	23	23	1,528,833.54	22	1,441,266.58
<b>844</b>	<b>Fulton County Farm Operations Unit</b>					
HP12	Agricultural Technician II	1	1		-	
HP11	Agricultural Technician I	1	1		-	
HP11	Administrative Specialist	1	1		-	
TOTAL	Fulton County Farm Operations Unit	3	3	208,486.72	-	-
TOTAL	Plant Engineering & Maintenance Section	117	117	10,519,340.26	113	10,431,347.16
<b>830</b>	<b>Plant Operations Section</b>					
<b>831</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP18	Principal Engineer	1	1		1	
HP14	Assistant Civil Engineer	1	1		-	
TOTAL	Administrative Unit	3	3	421,700.76	2	342,171.70
<b>832</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	7	7		7	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	5	5		5	
NR8650	Maintenance Laborer Class A Shift	8	8		8	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Treatment Operations Unit	23	23	1,932,745.36	23	1,948,651.12

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>834</b>	<b>Mechanical Operations Unit</b>					
HP17	Chief Operating Engineer I	1	1		1	
HP16	Assistant Chief Operating Engineer	2	2		2	
NR6810	Fireman-Oiler	5	5		5	
NR8650	Maintenance Laborer Class A Shift	7	7		7	
NR6832	Operating Engineer II	12	12		12	
NR6831	Operating Engineer I	18	18		18	
PR6473	Truck Driver	3	3		3	
TOTAL	Mechanical Operations Unit	48	48	4,369,714.44	48	4,507,607.78
<b>839</b>	<b>Lemont Operations Unit</b>					
HP14	Treatment Plant Operator II	1	1		1	
HP12	Treatment Plant Operator I	2	2		2	
TOTAL	Lemont Operations Unit	3	3	246,088.18	3	247,856.70
TOTAL	Plant Operations Section	77	77	6,970,248.74	76	7,046,287.30
TOTAL	Maintenance & Operations Calumet Service Area	201	201	18,158,716.94	196	18,162,827.28
Note: There are no positions budgeted for the Stormwater Management Fund for 2016.						
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.						

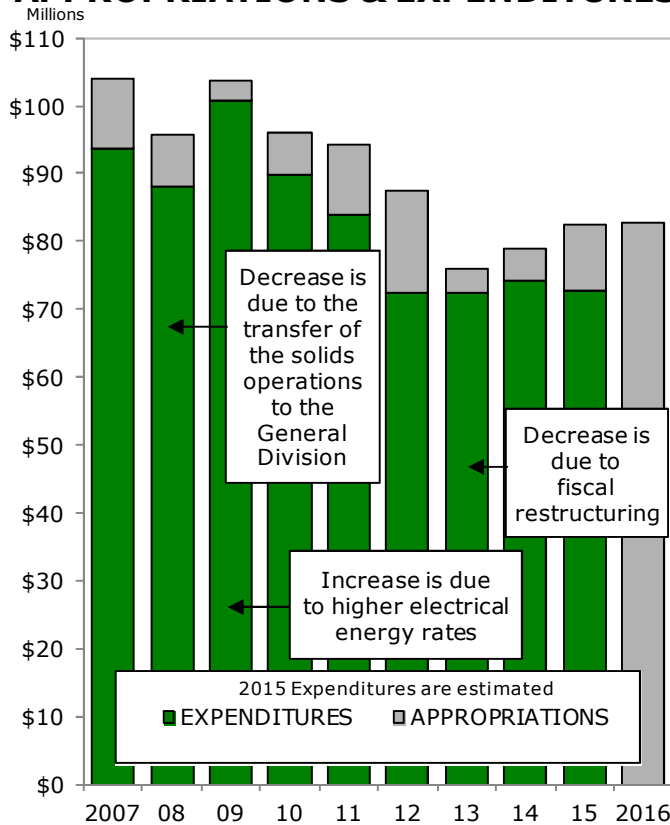
# MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA

2016	\$82,745,000
2015	\$82,571,900
Increase	\$173,100

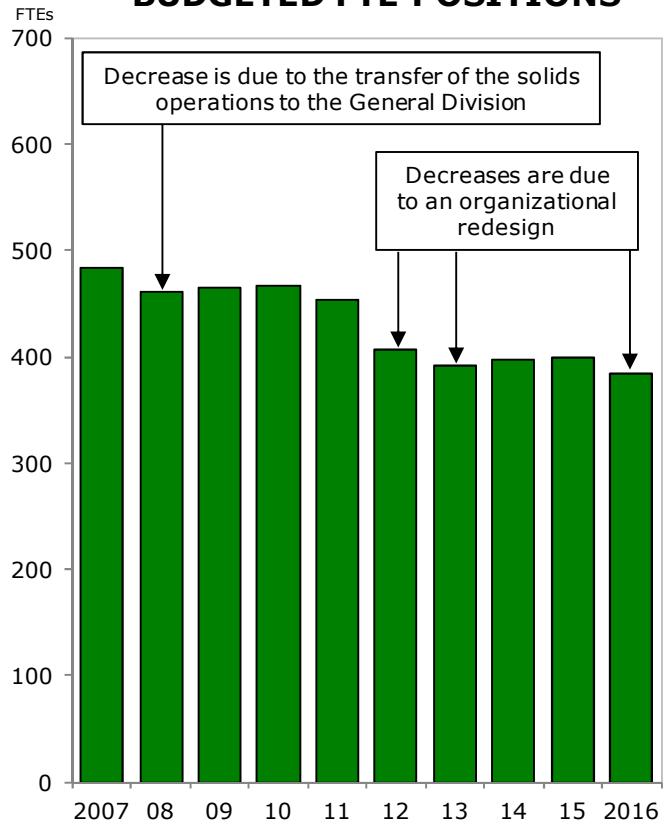
## FUNCTIONS



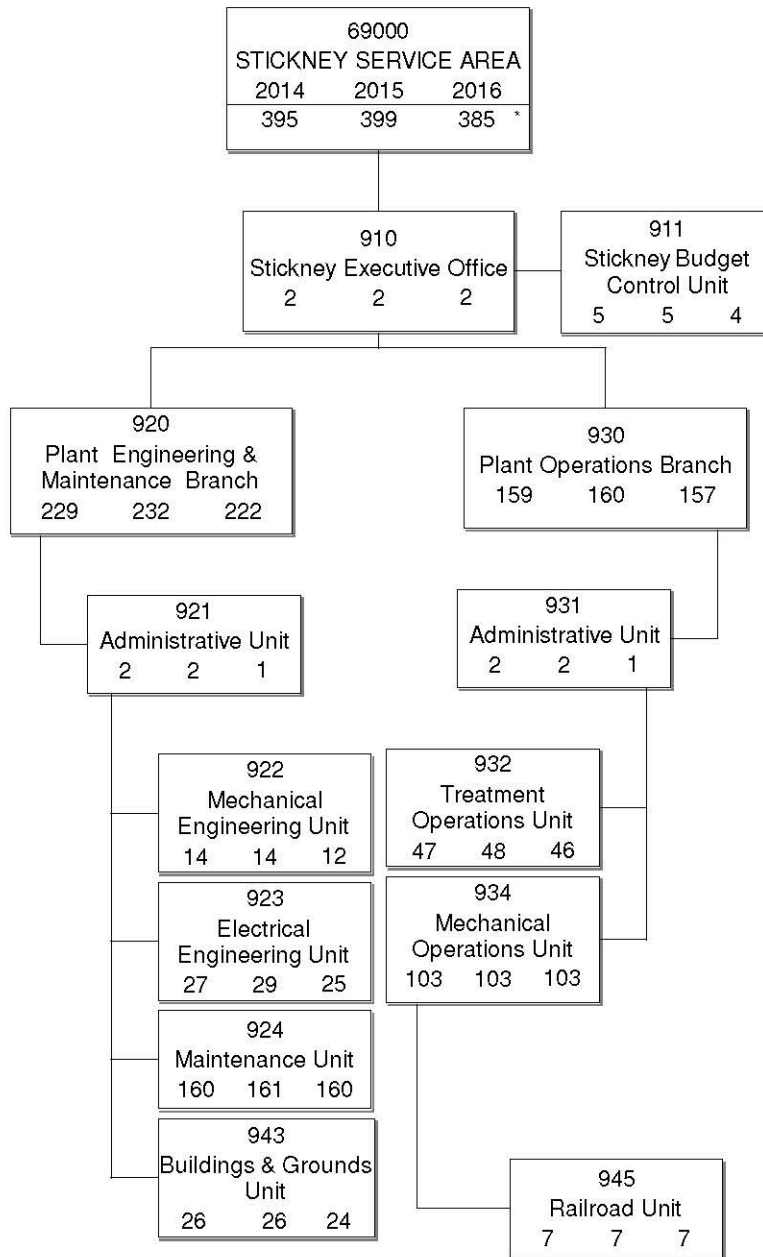
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA



\* In 2016, nine positions in the Stickney Service Area are funded by the Stormwater Management Fund while the operations remain in the Maintenance & Operations Department, one in Unit 924 and eight in Unit 934.

## **MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA**

**The mission of the Stickney Service Area (SSA) is to protect the water environment by collecting and treating wastewater and maintaining our waterways free of pollution in the most economically and environmentally sustainable manner possible.**

### **Service Area Summary**

The SSA's primary responsibilities include the operation of the largest water reclamation plant in the world, as well as two major pumping stations and four detention reservoirs. The SSA plans to collect and treat approximately 265 billion gallons of sewage in 2016. In order to accomplish its mission, the SSA is organized as follows:

**The Stickney Executive Office** provides leadership and direction for the operation, maintenance, and development of capital improvement needs in the SSA, ensures adequate funding for ongoing compliance with National Pollutant Discharge Elimination System (NPDES) guidelines and other permit requirements, assesses risk management at the SSA level, and assists the Director of Maintenance & Operations (M&O) in long-term planning and decision making.

**The Stickney Budget Control Unit** prepares, implements, monitors, and reports on the SSA budget, reviews and processes requisitions and payments to ensure conformance with the Purchasing Act and the Prompt Payment Act, ensures the accuracy and appropriateness of business documents, processes utility payments and reports, acts as a liaison between other departments and SSA personnel, provides ongoing training and leadership in enterprise systems, keeps, retrieves, and interprets historical data to assist management in decision making, and ensures accountability at the divisional service area level.

**The Plant Engineering & Maintenance Branch** is comprised of the Administrative, Mechanical Engineering, Electrical Engineering, Maintenance, and Buildings & Grounds Units. This branch is responsible for ensuring that the collection and process facilities perform in an efficient and cost-effective manner. Maintenance and repairs are performed by a combination of in-house trades personnel and outside contractor services to provide cost-effective operations. The engineering and maintenance units maintain, operate, and repair SSA infrastructure, architectural, and structural elements. The District-wide Buildings & Grounds Unit maintains buildings, roadways, parking lots, and landscaping, secures District property, provides labor support to other sections and/or departments, and participates in capital improvement development and implementation.

**The Plant Operations Branch** is comprised of the Treatment Operations Unit, the Mechanical Operations Unit, and the Railroad Unit. This branch is responsible for the physical operation of the collection and process facilities in the SSA. Efficient and effective operations are measured through daily reporting and permit compliance. Operational integrity and efficiency, as well as worker and public safety, are paramount. The size of the Stickney Water Reclamation Plant (WRP) and the scope of its operations generate frequent requests for plant tours, which are conducted by operations staff. The Railroad Unit provides for the cost-effective transportation of centrifuged biosolids to the Lawndale Avenue Solids Management Area (LASMA) facility. All units utilize a combination of in-house staff and outside contractor services to provide for cost-effective operations.

### **Summary of 2015 Accomplishments**

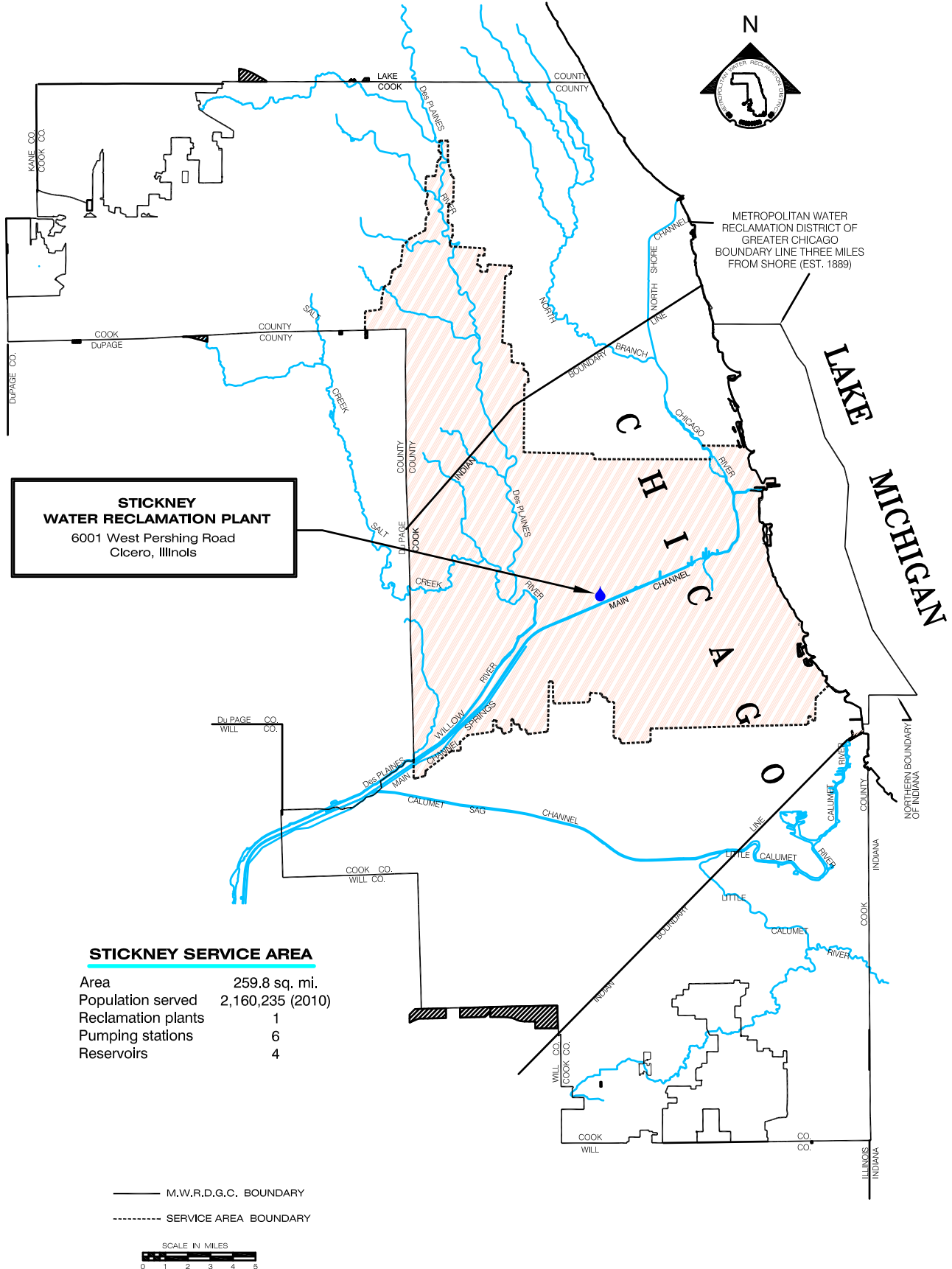
- Completed and commissioned the Gravity Concentration facility to provide an increased concentration of primary solids to the digesters;
- Completed a furnish and deliver contract for ammonia probes to optimize aeration process efficiency. When installed, this will reduce aeration-related energy costs and overall plant electrical costs;
- Completed the deep anode bed cathodic protection project to extend the effective service life of Mainstream Pumping Station metallic assets and reduce costs related to corrosion failures;
- Replaced the roofs and tuckpointed the LASMA Visitor Center and various buildings at the Stickney WRP, thereby extending the effective life of these buildings and continuing to provide a safe environment for employees.

### **Budget Highlights**

The 2016 appropriation for the SSA is \$82,745,000, an increase of \$173,100, or 0.2 percent, from 2015. The 2016 Corporate Fund staffing level is 385 positions, a decrease of fourteen positions from 2015. The decrease results from the elimination of the following positions: one Assistant Civil Engineer, one Senior Civil Engineer, one Associate Electrical Engineer, one Senior Electrical Engineer, one Principal Electrical Engineer, one Assistant Mechanical Engineer, one Senior Mechanical Engineer, one Maintenance Laborer Class A, and three Administrative Specialists. There were also the following transfers: one Associate Process Control Engineer to the Engineering Department, one Engineering Technician IV to the Calumet Service Area, one Administrative Assistant and one Senior Civil Engineer to the General Division, and Engineering Technician V from the General Division. There are nine additional positions funded by the Stormwater Management Fund.

The SSA budget achieves the District's strategic goals as follows: Add Value via employee training and the resultant insourcing of work previously contracted; Excellence through energy-saving projects such as ammonia monitoring enhancements and new aeration controls to reduce blower operation costs; Resource Recovery via phosphorus capture and the rehabilitation of gas turbines to best use digester gas; Develop Employees as shown by M&O redesigned mechanical and electrical engineering work groups, structured to optimize employee performance and work distribution systems; Leading Partnerships through our work with Ostara Nutrient Recovery; and Technology as demonstrated by above mentioned projects and numerous smaller-scale initiatives.





**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION & TREATMENT: The Stickney Service Area will collect and treat approximately 265 billion gallons of sewage through its treatment facilities.	\$ 47,930,147	57.9%
Stickney Water Reclamation Plant	Design: Flows ^    CBOD *    SS *	
	1,200 MGD    10 mg/l    12 mg/l	
<p>^ In millions of gallons per day (MGD).                      * National Pollutant Discharge Elimination System (NPDES) monthly effluent quality standards:                      CBOD - Carbonaceous Biochemical Oxygen Demand                      SS - Suspended Solids</p>		
2. SOLIDS PROCESSING: The Stickney Service Area will remove 90,000 dry tons and process solids from 135,000 dry tons of concentrated sewage (includes 45,000 dry tons from North Service Area) through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 23,956,074	28.9%
3. SOLIDS UTILIZATION: The Stickney Service Area will provide support to the Solids Management Section to utilize 60,000 dry tons of dewatered sewage for application at final utilization sites, such as farm application, and as daily and final cover in sanitary landfills.	\$ 7,775,916	9.4%
4. FLOOD & POLLUTION CONTROL: The Stickney Service Area will work to prevent local area flooding through the operation of four detention reservoirs, in cooperation with local communities. It will also work to maintain the quality of the waterways system and associated District property, in cooperation with the debris boats and the channel maintenance and debris boat crews.	\$ 722,928	0.9%
5. GENERAL SUPPORT: The Stickney Service Area will provide technical and administrative support for other departments not directly related to the operational activities of Collection & Treatment, Solids Processing, Solids Utilization, and Flood & Pollution Control.	\$ 2,359,935	2.9%
<b>Total</b>	<b>\$ 82,745,000</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. The Stickney Service Area will collect and treat approximately 265 billion gallons of sewage in 2016.	Billion Gallons	266	250	265
2. The Stickney Service Area will remove and process solids from 135,000 dry tons of concentrated sewage, including 45,000 dry tons transferred from the North Service Area.	Dry Tons Process Solids	129,697	135,000	135,000
3. The Stickney Service Area will obtain 100 percent permit compliance in 2016 for NPDES effluent limits.	Percent	99.94%	100.00%	100.00%
4. The Stickney Service Area will provide support to utilize 60,000 dry tons of biosolids in 2016 (does not include Pelletizer Facility Operations).	Dry Tons	30,113	60,000	60,000

**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 19,342,931	2016 83	\$ 20,452,924	\$ (332,353)	(1.6)		
			2015 85	\$ 20,785,277				
1100	Surface Interceptor Systems	\$ 374,730	2016 2	\$ 407,000	\$ 11,000	2.8		
			2015 2	\$ 396,000				
1200	Tunnel and Reservoir System	\$ 4,952,538	2016 12	\$ 4,931,400	\$ (255,300)	(4.9)	a)	
			2015 12	\$ 5,186,700				
1300	Pumping Station Facilities	\$ 6,373,450	2016 27	\$ 6,991,500	\$ 783,100	12.6	b)	
			2015 27	\$ 6,208,400				
1900	Collection - Indirect Costs	\$ 7,642,213	2016 42	\$ 8,123,024	\$ (871,153)	(9.7)	c)	
			2015 44	\$ 8,994,177				
2000	Treatment	\$ 24,759,309	2016 133	\$ 26,922,423	\$ (377,782)	(1.4)		
			2015 138	\$ 27,300,205				
2000	Pre-Treatment	\$ 2,046,874	2016 20	\$ 2,322,000	\$ 62,400	2.8		
			2015 20	\$ 2,259,600				
2100	Primary Treatment	\$ 1,963,198	2016 22	\$ 1,983,800	\$ (151,600)	(7.1)	d)	
			2015 23	\$ 2,135,400				
2200	Secondary Treatment	\$ 8,734,642	2016 29	\$ 8,994,700	\$ (30,300)	(0.3)		
			2015 30	\$ 9,025,000				
2300	Tertiary Treatment	\$ 45,928	2016 -	\$ 42,900	\$ 600	1.4		
			2015 -	\$ 42,300				
2900	Treatment - Indirect Costs	\$ 11,968,667	2016 62	\$ 13,579,023	\$ (258,882)	(1.9)	e)	
			2015 65	\$ 13,837,905				

- a) Decrease is due to the reduced demand for electrical service for Mainstream Pumping Station and Tunnel and Reservoir Plan (TARP) facilities (\$347,300), pipe wall assessment (\$35,500), and electrical parts for TARP Structures (\$18,900), offset by increased need for TARP remote terminal unit parts (\$62,800), 15-656-11, Repairs to Rockwell at TARP (\$35,000), 15-654-11, Parts for Valve Actuators (\$40,000), and Telemetry Service for TARP (\$9,000).
- b) Increase is due to the higher demand for electrical service at the Stickney Water Reclamation Plant (WRP) pumping stations (\$806,500) and Racine Avenue Pumping Station (RAPS) (\$24,900), offset by reduced demand for electrical repair equipment at the Stickney WRP and RAPS (\$62,900).
- c) Decrease is due to the cancellation of 15-665-11, Landscaping Maintenance (\$413,000), reduced requests for various mechanical, electrical, and plumbing spare parts (\$67,800), 16-602-11, Chains, Sprockets, and Appurtenances (\$64,800), parts for various pumps (\$39,800), safety repair services (\$35,000), the transfer of 16-963-11, Stickney WRP Pavement Repairs to the Construction Fund (\$116,100), expiration of the Emerson DCS warranty (\$85,300), and the reduction of two FTE positions (\$140,100).
- d) Decrease is due to the reduced requests for 14-613-11, Scavenger Services (\$49,400) and the drop of one FTE position (\$123,500).
- e) Decrease is due to the reduced demand for 16-611-11, Manhours (\$262,100), 15-665-11, Landscaping Maintenance (\$250,000), materials and supplies (\$213,500), building repairs (\$203,400), scavenger service (\$34,300), and a net decrease in salaries primarily due to the reduction of three FTE positions (\$250,300), offset by the increased demand for natural gas (\$570,000), tree removal and other grounds maintenance (\$150,000), water service for Stickney WRP and RAPS (\$123,500), and the reallocation of salaries to better reflect current activities (\$119,400).

**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
3000	Solids Processing	\$ 20,983,679	2016 133	\$ 23,956,074	\$ 1,208,523	5.3		
			2015 136	\$ 22,747,551				
3100	Thickening	\$ 4,118,630	2016 26	\$ 4,135,400	\$ 134,400	3.4	f)	
			2015 27	\$ 4,001,000				
3200	Stabilization	\$ 3,254,734	2016 26	\$ 3,360,500	\$ 139,200	4.3	g)	
			2015 26	\$ 3,221,300				
3300	Dewatering	\$ 7,214,539	2016 29	\$ 9,278,200	\$ 877,300	10.4	h)	
			2015 29	\$ 8,400,900				
3900	Solids Processing - Indirect Costs	\$ 6,395,776	2016 52	\$ 7,181,974	\$ 57,623	0.8		
			2015 54	\$ 7,124,351				
4000	Flood & Pollution Control	\$ 590,726	2016 4	\$ 722,928	\$ (156,837)	(17.8)		
			2015 6	\$ 879,765				
4200	Waterways Control and Stormwater Reservoirs	\$ 219,835	2016 2	\$ 185,500	\$ (98,700)	(34.7)	i)	
			2015 3	\$ 284,200				
4420	Sidestream Aeration Facilities	\$ -	2016 -	\$ -	\$ (17,000)	(100.0)	j)	
			2015 -	\$ 17,000				
4900	Flood & Pollution Control - Indirect Costs	\$ 370,891	2016 2	\$ 537,428	\$ (41,137)	(7.1)		
			2015 3	\$ 578,565				

- f) Increase is due to the higher demand for electrical service for the Stickney WRP pre-digestion centrifuges (\$168,500), repair parts for sludge screens (\$25,000), offset by the reduced need for 16-633-11, Polymer for the Stickney WRP (\$54,600).
- g) Increase is due to the higher demand for electrical service for the Stickney WRP digesters (\$168,200), offset by the reduced need for replacement electrical, mechanical, and plumbing parts (\$30,000).
- h) Increase is due to the higher demand for various chemicals including 16-633-11, Polymer for the Stickney WRP (\$770,900), 15-934-11, Magnesium Chloride (\$215,000), 15-935-11, Sodium Hydroxide (\$95,000), and 15-936-11, Citric Acid (\$30,000), 15-656-11, Rockwell Repairs (\$129,000), offset by the reduced need for dewatering centrifuge parts (\$350,000), and post-digestion centrifuge repair parts (\$15,000).
- i) Decrease is due to the drop of an Associate Electrical Engineer position (\$82,700) and the reduced demand for digital governor service (\$13,000).
- j) Decrease is due to the cancellation of 15-665-11, Landscaping Maintenance.

**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
5000	Solids Utilization	\$ 6,426,353	2016 14	\$ 7,775,916	\$ (762,561)	(8.9)		
			2015 15	\$ 8,538,477				
5100	Solids Drying	\$ 184,815	2016 2	\$ 148,500	\$ 2,300	1.6		
			2015 2	\$ 146,200				
5200	Solids Distribution	\$ 4,671,790	2016 2	\$ 5,791,100	\$ (407,000)	(6.6)	k)	
			2015 2	\$ 6,198,100				
5900	Solids Utilization - Indirect Costs	\$ 1,569,748	2016 10	\$ 1,836,316	\$ (357,861)	(16.3)	l)	
			2015 11	\$ 2,194,177				
7000	General Support (excluding program number 7604)	\$ 2,143,321	2016 18	\$ 2,359,935	\$ 39,310	1.7		
			2015 19	\$ 2,320,625				
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 554,800	\$ 554,800	100.0	m)	
			2015 -	\$ -				
Totals		\$ 74,246,319	2016 385	\$ 82,745,000	\$ 173,100	0.2%	*	
			2015 399	\$ 82,571,900				

k) Decrease is due to the reduced need for 98-RFP-10, Pelletizing Facility (\$522,100) and the drop of an Assistant Civil Engineer (\$22,700), offset by higher demand for electrical service at the Stickney WRP Pelletizing Facility (\$134,500).

l) Decrease is due to the cancellation of 15-665-11, Landscaping Maintenance (\$128,000), 16-963-11, Biosolids Pavement Repairs (\$100,000), 14-987-11, Railroad Track Maintenance (\$83,400), and 13-612-11, Street Sweeping Services (\$47,400).

m) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

\* The 2016 position total for the Stickney Service Area is 385, with nine positions budgeted in the Stormwater Management Fund.

**69000 M&O - STICKNEY SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Sewage at the Stickney Water Reclamation Plant	Mil. Gallons	265,708	250,000	265,000	
		Cost	\$ 44,102,240	\$ 48,085,482	\$ 47,375,347	a)
		Cost/Mil. Gallons	\$ 165.98	\$ 192.34	\$ 178.77	
3000	Solids Processing					
	Remove 90,000 Dry Tons of Solids and Process 135,000 Dry Tons of Solids (Includes 45,000 Dry Tons from North Service Area) from Concentrated Sewage Through Various Systems Including Heated Digestion, Centrifuging, Concentration, and Aging Low Solids Sludge and Centrifuge Cake in Lagoons	Dry Tons	129,697	135,000	135,000	
		Cost	\$ 20,983,679	\$ 22,747,551	\$ 23,956,074	b)
		Cost/Dry Ton	\$ 161.79	\$ 168.50	\$ 177.45	
4000	Flood & Pollution Control					
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution					
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals and the Operation of Detention Reservoirs	Reservoirs	4	4	4	
		Cost	\$ 219,835	\$ 284,200	\$ 185,500	c)
		Cost/Reservoir	\$ 54,958.75	\$ 71,050.00	\$ 46,375.00	
4420	Sidestream Aeration Facilities	Cost	\$ -	\$ 17,000	\$ -	d)
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 370,891	\$ 578,565	\$ 537,428	
5000	Solids Utilization					
	Utilize Further Dewatered Sewage for Application at Final Utilization Sites Such as Daily Cover for Chicago Industrial Dump Landfill, Final Cover of Landfills, and Farm/Land Application	Dry Tons	30,113	60,000	60,000	
		Cost	\$ 1,931,552	\$ 2,516,277	\$ 2,141,016	e)
		Cost/Dry Ton	\$ 64.14	\$ 41.94	\$ 35.68	
5271	Pelletizer Disposal Control Management and Disposal of Solids by Private Contracts	Dry Tons	36,672	45,000	45,000	
		Cost	\$ 4,494,801	\$ 6,022,200	\$ 5,634,900	f)
		Cost/Dry Ton	\$ 122.57	\$ 133.83	\$ 125.22	
7000	General Support (excluding program number 7604)					
	Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection and Treatment, Solids Processing, Flood and Pollution Control, and Solids Utilization	Cost	\$ 2,143,321	\$ 2,320,625	\$ 2,359,935	
7604	Social Security and Medicare Contributions		\$ -	\$ -	\$ 554,800	g)
Division Total			\$ 74,246,319	\$ 82,571,900	\$ 82,745,000	

- a) Decrease is due to the cancellation of 15-665-11, Landscaping Maintenance (\$663,000), the reduced request for building repairs (\$200,000), the reduced request for chain sprockets and appurtenances (\$126,900), MMS consolidation (\$25,000), the transfer of pavement repairs to the Construction Fund (\$151,000), the drop of seven FTE positions and the net transfer of one FTE position (\$773,000), offset by the increased demand for electricity (\$861,600), and the reallocation of salaries to more accurately reflect current activities (\$377,700).
- b) Increase is due to the higher demand for various chemicals including 16-633-11, Polymer (\$770,900), 15-934-11, Magnesium Chloride (\$215,000), 15-935-11, Sodium Hydroxide (\$95,000), 15-936-11, Citric Acid (\$30,000), electrical service for the Stickney WRP pre-digestion centrifuges (\$168,500) and digesters (\$168,200), and 15-656-11, Rockwell Repairs (\$129,000), offset by the reduced need for dewatering centrifuge parts (\$350,000).
- c) Decrease is due to the drop of an Associate Electrical Engineer position (\$82,700) and the reduced demand for digital governor service (\$13,000).
- d) Decrease is due to the cancellation of 15-665-11, Landscaping Maintenance.
- e) Decrease is due to the reduced demand for 15-665-11, Landscaping Maintenance (\$128,000), 16-963-11, Biosolids Pavement Repairs (\$100,000), 14-987-11, Railroad Track Maintenance (\$83,400), and 13-612-11, Street Sweeping Services (\$47,400).
- f) Decrease is due to the reduced need for 98-RFP-10, Pelletizing Facility (\$522,100) and the drop of an Assistant Civil Engineer (\$22,700), offset by the higher demand for electrical service at the Stickney WRP Pelletizing Facility (\$134,500).
- g) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 34,703,183	\$ 36,771,900	\$ 35,784,800	\$ 34,272,500	\$ 35,948,300	\$ 35,972,600	\$ 36,236,600
601060	Compensation Plan Adjustments	2,056,291	1,932,900	2,064,000	2,018,900	1,914,900	1,913,700	1,915,600
601070	Social Security & Medicare Contributions	-	-	-	-	554,800	554,800	554,800
601080	Salaries of Nonbudgeted Employees	64,612	-	4,600	4,600	-	-	-
601100	Tuition and Training Payments	97,564	125,000	118,500	73,200	148,000	148,000	148,000
601170	Payments for Professional Services	149,931	120,000	120,000	77,500	-	-	-
100	TOTAL PERSONAL SERVICES	37,071,581	38,949,800	38,091,900	36,446,700	38,566,000	38,589,100	38,855,000
612010	Travel	4,738	25,000	25,000	3,000	13,300	13,300	13,300
612030	Meals and Lodging	17,854	40,000	40,000	13,500	28,000	28,000	28,000
612050	Compensation for Personally-Owned Automobiles	73,910	84,600	79,500	77,800	84,700	84,700	84,700
612080	Motor Vehicle Operating Services	434	1,000	800	300	700	700	700
612150	Electrical Energy	17,501,517	16,850,600	17,547,800	15,809,400	18,621,100	18,621,100	18,621,100
612160	Natural Gas	1,829,558	950,000	1,358,000	1,006,200	1,500,000	1,500,000	1,500,000
612170	Water and Water Services	1,102,710	1,100,000	1,100,000	1,060,300	1,242,200	1,242,200	1,242,200
612210	Communication Services	84,791	109,900	96,900	57,300	127,100	127,100	127,100
612240	Testing and Inspection Services	40,794	89,400	189,400	25,100	55,500	55,500	55,500
612280	Subscriptions and Membership Dues	299	-	-	-	-	-	-
612330	Rental Charges	122,494	125,000	125,000	100,400	128,800	128,800	128,800
612410	Governmental Service Charges	89,380	90,000	90,000	90,000	89,500	89,500	89,500
612420	Maintenance of Grounds and Pavements	685,935	1,200,000	1,198,000	697,800	312,700	312,700	312,700
612430	Payments for Professional Services	-	-	-	-	18,000	18,000	18,000
612490	Contractual Services, N.O.C.	204,825	380,000	380,000	297,400	381,500	381,500	381,500
612520	Waste Material Disposal Charges	428,869	680,000	680,000	468,100	680,000	680,000	680,000
612590	Sludge Disposal	3,879,922	5,522,100	5,522,100	2,453,900	5,000,000	5,000,000	5,000,000
612600	Repairs to Collection Facilities	1,392,253	2,001,900	2,191,900	1,903,200	2,126,100	2,126,100	2,126,100
612620	Repairs to Waterway Facilities	-	16,000	16,000	15,000	3,000	3,000	3,000
612650	Repairs to Process Facilities	1,826,224	3,387,700	3,708,700	3,141,300	2,743,700	2,743,700	2,743,700
612670	Repairs to Railroads	79,689	323,900	323,900	260,300	478,700	478,700	478,700

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612680	Repairs to Buildings	414,935	834,100	782,500	302,900	575,300	575,300	575,300
612760	Repairs to Material Handling and Farming Equipment	25,795	50,000	50,000	8,200	34,600	34,600	34,600
612780	Safety Repairs and Services	91,847	150,000	150,000	84,100	111,900	111,900	166,700
612840	Communications Equipment Maintenance (Includes Software)	24,766	40,000	40,000	-	15,000	15,000	15,000
612860	Repairs to Vehicle Equipment	14,000	30,000	30,000	9,300	25,600	25,600	25,600
612990	Repairs, N.O.C.	6,926	5,000	6,000	600	10,700	10,700	10,700
200	TOTAL CONTRACTUAL SERVICES	29,944,466	34,086,200	35,731,500	27,885,400	34,407,700	34,407,700	34,462,500
623030	Metals	11,407	18,000	25,900	25,800	14,100	14,100	14,100
623070	Electrical Parts and Supplies	752,484	800,000	872,800	654,900	627,100	627,100	627,100
623090	Plumbing Accessories and Supplies	322,934	400,000	375,000	296,600	337,600	337,600	337,600
623110	Hardware	569	9,600	9,600	2,500	6,000	6,000	6,000
623130	Buildings, Grounds, Paving Materials, and Supplies	46,812	130,000	130,000	34,000	63,700	63,700	63,700
623170	Fiber, Paper, and Insulation Materials	31,564	15,000	15,000	8,900	15,000	15,000	15,000
623190	Paints, Solvents, and Related Materials	6,040	2,000	2,000	1,900	4,400	4,400	4,400
623250	Vehicle Parts and Supplies	57,057	50,000	50,000	17,800	64,100	64,100	64,100
623270	Mechanical Repair Parts	989,180	1,832,300	1,753,600	1,015,400	903,500	903,500	903,500
623300	Manhole Materials	-	-	9,900	9,900	-	-	-
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	15,504	15,000	17,900	16,900	13,900	13,900	13,900
623560	Processing Chemicals	4,688,052	5,900,000	8,074,300	6,216,000	6,958,800	6,958,800	6,958,800
623660	Cleaning Supplies	-	2,000	2,000	700	1,200	1,200	1,200
623680	Tools and Supplies	86,393	90,000	93,200	88,700	104,200	104,200	104,200
623700	Wearing Apparel	397	900	900	-	500	500	500
623780	Safety and Medical Supplies	50,646	65,900	65,900	13,600	64,400	64,400	64,400
623800	Computer Software	4,830	6,600	6,600	5,700	4,000	4,000	4,000
623810	Computer Supplies	9,577	10,000	14,500	13,100	10,000	10,000	10,000
623820	Fuel	119,695	125,000	125,000	55,800	125,000	125,000	125,000
623840	Gases	4,321	10,000	10,000	2,500	6,900	6,900	6,900



101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623850	Communications Supplies	803	10,000	10,000	1,700	3,000	3,000	3,000
623860	Lubricants	2,725	7,000	7,000	2,700	4,200	4,200	4,200
623990	Materials and Supplies, N.O.C.	24,332	20,900	21,500	18,900	48,900	48,900	48,900
300	TOTAL MATERIALS AND SUPPLIES	7,225,324	9,520,200	11,692,600	8,504,000	9,380,500	9,380,500	9,380,500
634650	Equipment for Process Facilities	-	-	6,500	6,500	41,000	41,000	41,000
634760	Material Handling and Farming Equipment	-	-	5,700	5,000	-	-	-
634970	Testing and Laboratory Equipment	4,949	15,700	15,300	5,400	6,000	6,000	6,000
400	TOTAL MACHINERY AND EQUIPMENT	4,949	15,700	27,500	16,900	47,000	47,000	47,000
TOTAL STICKNEY SERVICE AREA		\$74,246,319	\$82,571,900	\$85,543,500	\$72,853,000	\$ 82,401,200	\$ 82,424,300	\$82,745,000

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).  
 4. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>910</b>	<b>Stickney Executive Office</b>					
HP23	Deputy Director of Maintenance & Operations #2 (Assistant Director of Maintenance & Operations) (New Grade HP22)	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Stickney Executive Office	2	2	319,909.20	2	329,506.58
<b>911</b>	<b>Stickney Budget Control Unit</b>					
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		1	
HP15	Management Analyst II #2 (Budget & Management Analyst) (New Grade HP14)	1	-		-	
HP14	Budget & Management Analyst	1	2		2	
HP11	Administrative Specialist	2	2		1	
TOTAL	Stickney Budget Control Unit	5	5	420,339.66	4	390,828.62
<b>920</b>	<b>Plant Engineering &amp; Maintenance Branch</b>					
<b>921</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
TOTAL	Administrative Unit	2	2	281,730.54	1	207,059.32
<b>922</b>	<b>Mechanical Engineering Unit</b>					
HP20	Managing Mechanical Engineer	1	1		1	
HP18	Principal Mechanical Engineer	1	1		1	
HP17	Senior Mechanical Engineer	3	3		2	
HP15	Associate Mechanical Engineer	4	3		3	
HP14	Assistant Mechanical Engineer	2	3		2	
HP14	Engineering Technician V	1	1		1	
HP12	Engineering Technician IV	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Mechanical Engineering Unit	14	14	1,520,472.46	12	1,366,630.72
<b>923</b>	<b>Electrical Engineering Unit</b>					
HP18	Principal Electrical Engineer	2	2		1	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Electrical Engineer	3	3		2	
HP15	Associate Electrical Engineer	4	4		3	
HP15	Associate Process Control Engineer	1	1		-	
HP14	Engineering Technician V	1	1		2	
HP14	Engineering Technician V #4	1	1		1	
HP11	Administrative Specialist	1	1		-	
NR6275	Chief Powerhouse Dispatcher I	1	1		1	
NR6272	Powerhouse Dispatcher	4	4		4	
NR6233	Electrical Operator II	9	11		11	
TOTAL	Electrical Engineering Unit	27	29	2,930,143.84	25	2,624,879.40
<b>924</b>	<b>Maintenance Unit</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appear below position count)					
HP19	Master Mechanic II	1	1		1	
HP17	Assistant Master Mechanic	-	-		5	
HP16	Assistant Master Mechanic	4	4		-	
HP16	Assistant Master Mechanic #4	1	1		-	
HP14	Engineering Technician V	1	1		1	
HP12	Engineering Technician IV	1	1		-	
HP11	Administrative Specialist	1	1		1	
PR5935	Architectural Ironworker Leadman	1	1		1	
PR5933	Architectural Ironworker	3	3		3	
PR5933	Architectural Ironworker #1	-	1		1	
PR5353	Bricklayer	1	1		1	
PR5159	Carpenter Foreman	1	1		1	
PR5155	Carpenter Leadman	1	1		1	
PR5153	Carpenter	6	6		6	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	
PR7424	Electrical Instrument & Testing Mechanic Leadman	1	1		1	

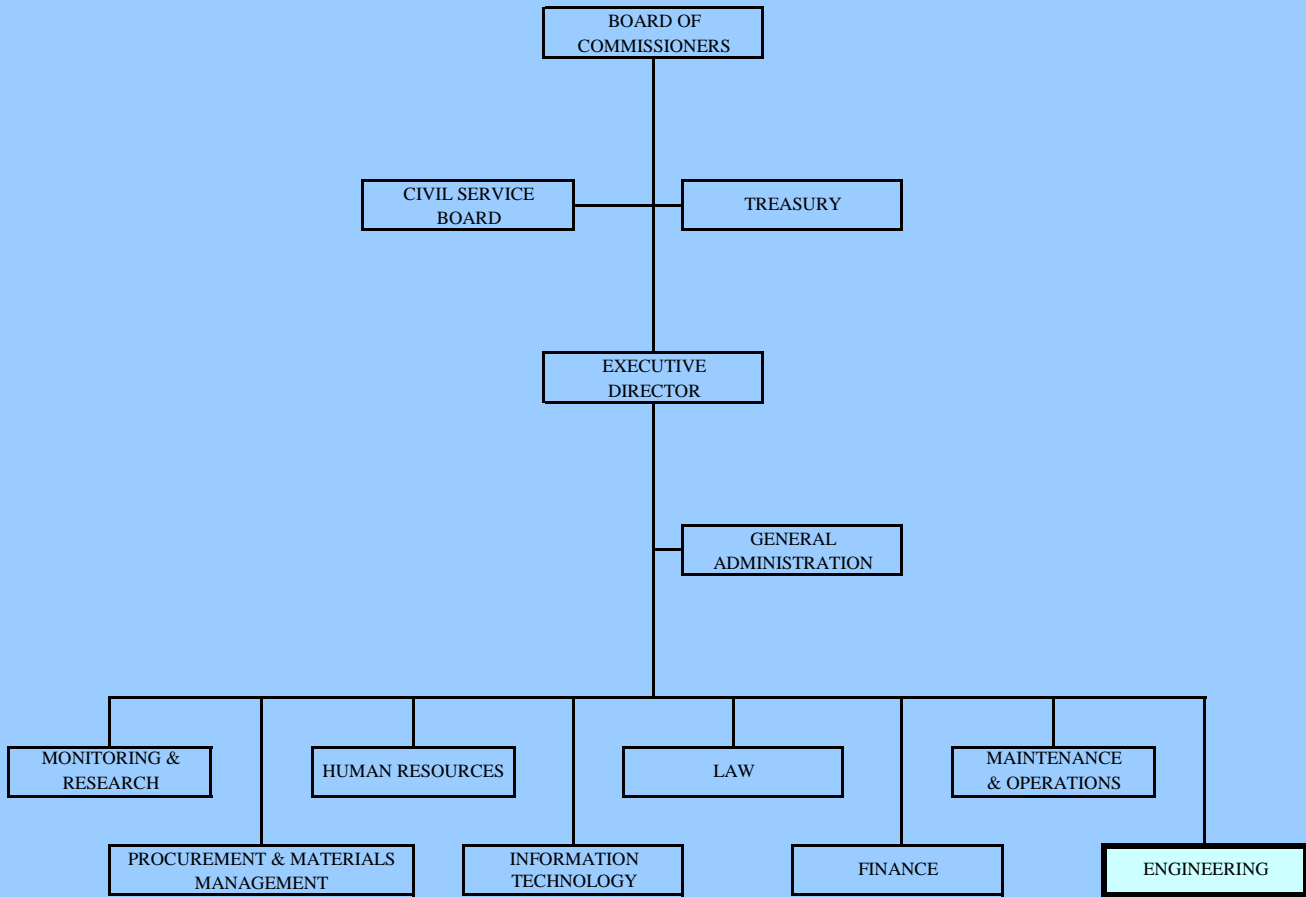
Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PR7423	Electrical Instrument & Testing Mechanic	13	13		13	
PR7347	Electrical Mechanic Foreman	1	1		1	
PR7349	Electrical Mechanic Sub-Foreman	2	2		2	
PR7343	Electrical Mechanic	18	18		18	
PR6459	Hoisting Engineer Foreman	1	1		1	
PR6453	Hoisting Engineer	10	10		10	
PR5989	Ironworker Foreman	1	1		1	
PR5973	Structural Ironworker	9	9		9	
PR7579	Machinist Foreman	1	1		1	
PR7575	Machinist Leadman	2	2		2	
PR7573	Machinist	25	25		25	
PR5555	Painter Leadman	1	1		1	
PR5553	Painter	3	3		3	
PR7743	Pipcoverer	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7775	Pipefitter Leadman	2	2		2	
PR7773	Pipefitter	23 (*1)	23 (*1)		23 (*1)	
PR5759	Plumber Foreman	1	1		1	
PR5753	Plumber	4	4		4	
PR5955	Sheet Metal Worker Leadman	1	1		1	
PR5953	Sheet Metal Worker	6	6		6	
PR6479	Truck Driver Foreman	1	1		1	
PR6473	Truck Driver	8	8		8	
TOTAL	Maintenance Unit	160	161	15,117,587.68	160	15,380,416.74
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
<b>943</b>	<b>Buildings &amp; Grounds Unit</b>					
HP18	Principal Mechanical Engineer	1	1		1	
HP17	Senior Civil Engineer	1	1		-	
HP15	Associate Civil Engineer	2	2		2	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Engineering Technician V	2	2		2	
HP09	Administrative Clerk	1	1		1	
NR8331	Laborer Foreman	2	2		2	
NR8651	Maintenance Laborer Class A	8	7		7	
NR8651	Maintenance Laborer Class A #1	-	1		-	
NR8652	Maintenance Laborer Class B	9	9		9	
TOTAL	Buildings & Grounds Unit	26	26	1,905,486.18	24	1,776,754.72
TOTAL	Plant Engineering & Maintenance Branch	229	232	21,755,420.70	222	21,355,740.90
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
<b>930</b>	<b>Plant Operations Branch</b>					
<b>931</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
TOTAL	Administrative Unit	2	2	278,019.56	1	207,059.32
<b>932</b>	<b>Treatment Operations Unit</b>					
HP20	Managing Engineer	1	-		-	
HP18	Principal Engineer	2	2		1	
HP16	Treatment Plant Operator III	5	5		5	
HP16	Treatment Plant Operator III #4	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP14	Assistant Civil Engineer	-	1		-	
HP14	Assistant Mechanical Engineer	1	1		1	
HP14	Treatment Plant Operator II	6	7		8	
HP14	Treatment Plant Operator II #4	3	2		1	
HP12	Treatment Plant Operator I	6	6		6	
HP11	Administrative Specialist	1	1		1	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	14	15		15	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8651	Maintenance Laborer Class A	5	5		5	
TOTAL	Treatment Operations Unit	47	48	4,243,172.96	46	4,067,261.12
<b>934</b>	<b>Mechanical Operations Unit</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appear below position count)					
HP18	Chief Operating Engineer II	1	1		1	
HP17	Chief Operating Engineer I	2	2		2	
HP16	Assistant Chief Operating Engineer	6	6		6	
NR6810	Fireman-Oiler	10	10		10	
NR8650	Maintenance Laborer Class A Shift	20	20		20	
		(*4)	(*4)		(*4)	
NR8651	Maintenance Laborer Class A	4	4		4	
NR6832	Operating Engineer II	34	34		34	
NR6831	Operating Engineer I	26	26		26	
		(*4)	(*4)		(*4)	
TOTAL	Mechanical Operations Unit	103	103	9,427,805.66	103	9,720,852.18
TOTAL	Stormwater Management Fund Positions	(*8)	(*8)		(*8)	
<b>945</b>	<b>Railroad Unit</b>					
HP11	Engineering Technician III	1	1		1	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	5	5		5	
TOTAL	Railroad Unit	7	7	511,982.64	7	530,595.00
TOTAL	Plant Operations Branch	159	160	14,460,980.82	157	14,525,767.62
TOTAL	Stormwater Management Fund Positions	(*8)	(*8)		(*8)	
TOTAL	Maintenance & Operations Stickney Service Area	395	399	36,956,650.38	385	36,601,843.72
TOTAL	Stormwater Management Fund Positions	(*9)	(*9)		(*9)	

Note: Nine positions budgeted in Sections 924 and 934 are funded by the Stormwater Management Fund while the operations remain in the Maintenance & Operations Department.

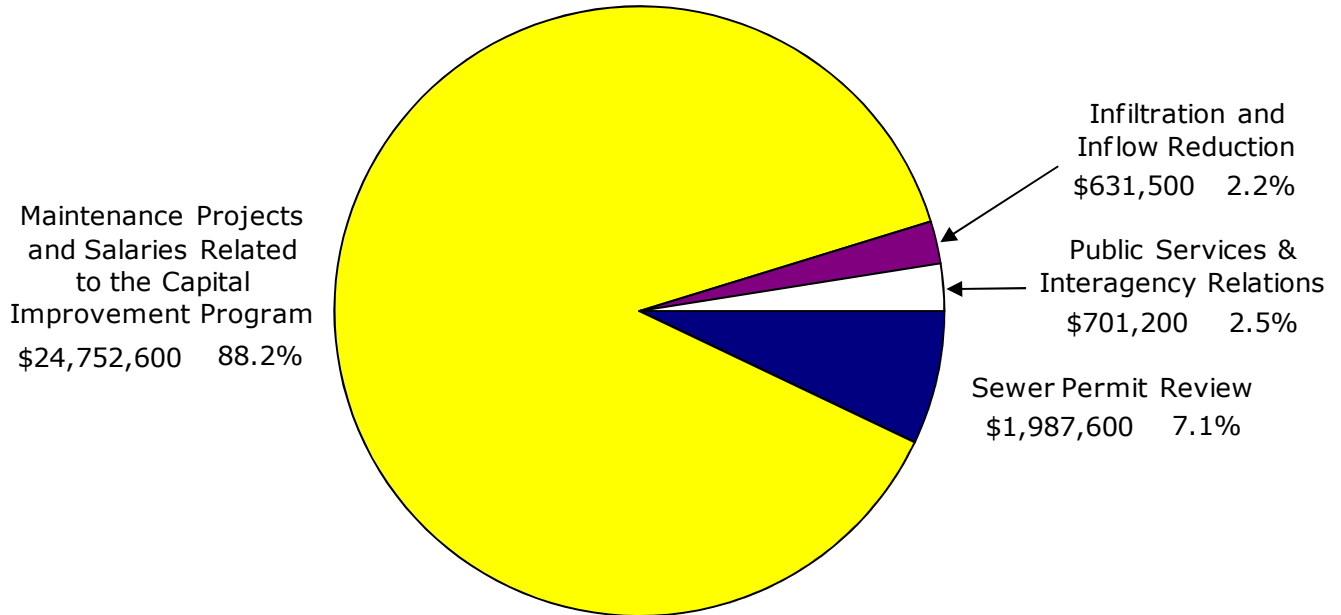
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.



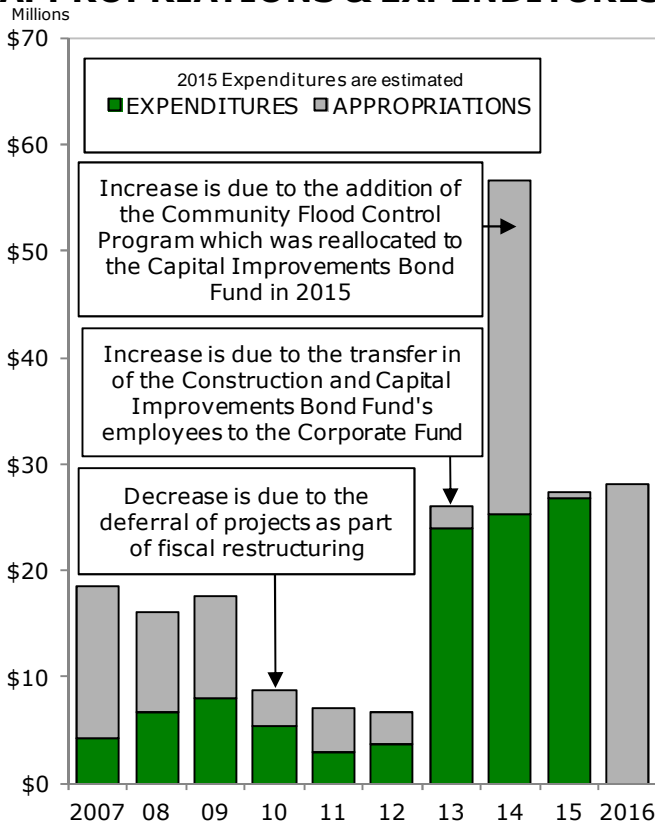
# ENGINEERING – CORPORATE FUND

2016	\$28,072,900
2015	\$27,286,800
Increase	\$786,100

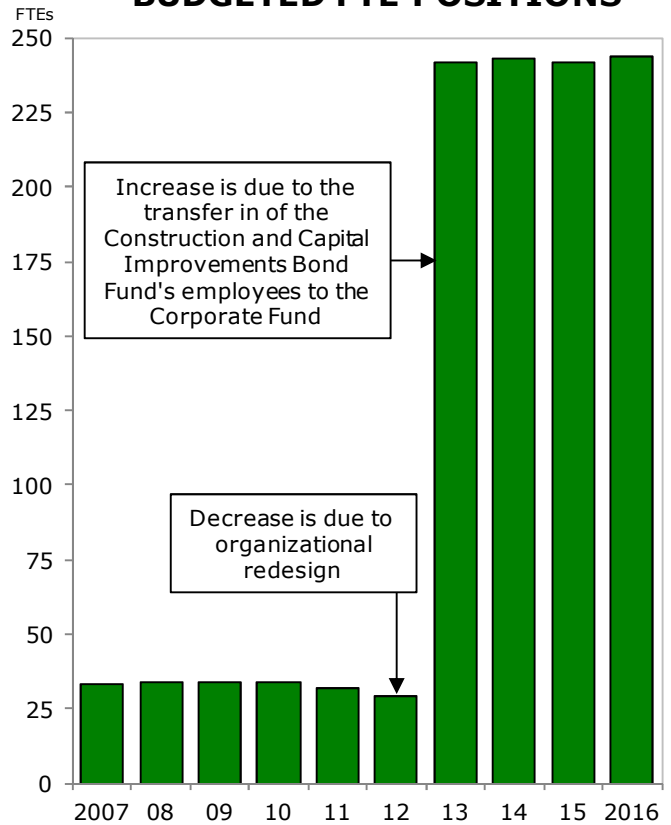
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

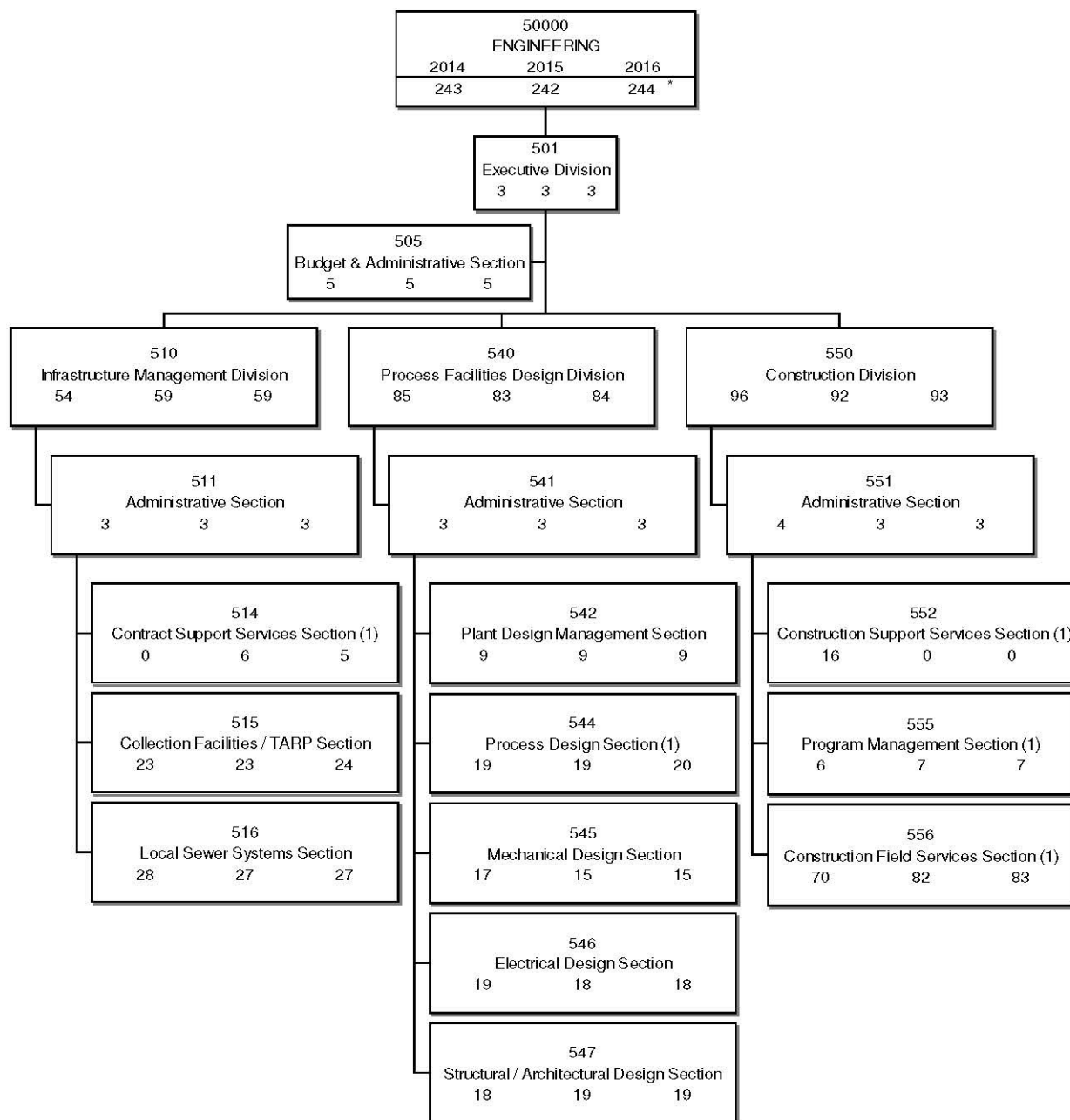


## BUDGETED FTE POSITIONS





# ENGINEERING



\* The 2016 position total for Engineering – Corporate Fund is 244. There are an additional 32 positions funded by the Stormwater Management Fund while the operations remain in the Engineering Department.

(1) Effective 01/01/15, positions in Section 552 were transferred to Sections 544, 555, 556, and newly created Section 514.

## ENGINEERING CORPORATE FUND

**The mission of the Engineering Department is to plan, design, and construct projects prioritized in the Capital Improvement Program, and regulate the construction and maintenance of local sewers, which are tributary to the District's intercepting sewer system.**

### Departmental Summary

The programs of the Engineering Department are described in three sections of the budget. Most Engineering Department positions and many of the activities of the Local Sewer Systems Section (LSSS) are financed by the Corporate Fund, which is described below. The Capital Budget is described in Section V and the Stormwater Management budget is described in Section VI.

The department's primary responsibilities include:

- Plan, develop, and implement a Capital Improvement Program that meets the District's statutory responsibilities, is compliant with applicable state and federal regulations and requirements, and is responsive to the needs of the District's residents as directed through the policies put forth by its Board of Commissioners in the areas of sewage treatment, pollution control, and stormwater management;
- Provide requested and required engineering assistance to other departments within the District in support of their missions.

The Corporate Fund supports the work of the LSSS, whose responsibility is the enforcement of the Watershed Management Ordinance (WMO). The WMO became effective on May 1, 2014, replacing the Sewer Permit Ordinance (SPO). The WMO establishes uniform, countywide stormwater management regulations, sewer construction standards, and requires compliance with a new Infiltration and Inflow (I/I) Control Program.

In response to new special conditions imposed by the National Pollutant Discharge Elimination System (NPDES) permits, the District developed a new I/I Control Program with the help of an Advisory Technical Panel (ATP) comprised of members from the United States Environmental Protection Agency, the Illinois Environmental Protection Agency (IEPA), local sewer system owners, engineering consultants, and District staff. The ATP provided recommendations for the new I/I Control Program which were incorporated into Article 8 of the WMO and adopted by the Board of Commissioners on July 10, 2014. The I/I Control Program is applicable to all owners and/or operators of separate sanitary sewer systems that discharge directly and/or indirectly to District facilities.

The Corporate Fund budget is also used for repair and maintenance projects not eligible for capital improvements funding.

### Summary of 2015 Accomplishments

- Received revenue of approximately \$1.4 million from sewer service agreements;
- Received revenue of \$1.5 million from extraterritorial impact fees;
- Updated the Technical Guidance Manual (TGM); a useful resource for developers, consultant engineers, and municipal staff to understand how to comply with the WMO requirements;
- Hosted two training events to familiarize authorized municipalities with the WMO requirements;
- Hosted six workshops to provide training and guidance on I/I Control Program compliance and reporting requirements;
- Reviewed and issued permits in an average of 54 working days from the initial submittal to permit issuance;
- Achieved compliance with the District's old I/I Control Program.

### Budget Highlights

The 2016 appropriation for the Engineering – Corporate Fund is \$28,072,900, an increase of \$786,100, or 2.9 percent, from 2015. The 2016 staffing level of 244 is an increase of two positions. One Associate Process Control Engineer was transferred in from the Maintenance & Operations Department and one Administrative Specialist was transferred in from the Monitoring & Research Department.

Significant features of the 2016 budget for the Engineering Department include the following:

- Continue the implementation of the new I/I Control Program;
- Additional development of the TGM to add guidance for the WMO compliance;
- Implementation of the Community Flood Control Program, under which the District will pursue the acquisition of flood-prone properties in situations where it is the most cost-effective option to eliminate flood damages. Legislative authority for this work was granted to the District in June 2014;
- Continue the Green Infrastructure Program by coordinating with various stakeholders to identify, design, and construct Green Infrastructure projects throughout Cook County to reduce the flow of stormwater into the sewer systems.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

• **Add Value**

The Engineering staff look for opportunities to add value in all endeavors. For example, during the permitting process, staff follow up with consulting engineers who have submitted permits to ensure that the permit process does not impede development. Additionally, staff worked to establish a WMO fee schedule that would be the least costly of all urbanized collar counties. This fee structure was developed based on the following information: (1) current review fees for the collar counties, (2) past review fees under the SPO, and (3) estimated review times under the WMO. The base fee is \$1,100.00 plus a charge of \$5.00 per linear foot of sewer that is tributary to District facilities. Additional fees are collected for projects that require stormwater detention, impact wetlands and riparian environments, impact hazard areas, and for additional submittals that require review. Fees will be evaluated on a yearly basis and are set to recover the salaries of District employees in the LSSS who work on permit issuance and field inspection.

• **Excellence**

Planning, design, permit review, and permit approval are conducted with the goal of excellence in mind. Work is completed timely and accurately the first time, and with consideration given to the service to our regulated community. Through excellence, we plan to find opportunities for efficiency gains with a disciplined methodology, which is deeply rooted in a culture of innovation and continuous improvement.

• **Develop Employees**

The Engineering staff includes engineers and technicians who must remain current with developments in sewer construction, site development, construction inspection, sewer rehabilitation, and flow monitoring. The 2016 budget includes funds for continuing education opportunities, including attendance at relevant conferences and web-based and local seminars.

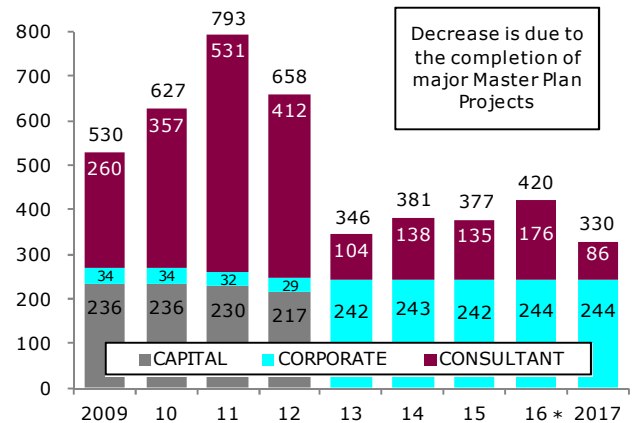
• **Leading Partnerships**

The LSSS responds to questions and requests from the public and local communities regarding District ordinances. The WMO was developed in partnership with all key stakeholders; we understand that administration of the WMO will also rely on our partnerships. In general, inquiries related to the WMO include such diverse topics as permit requirements, stormwater management, floodplains, special construction problems, preliminary engineering reviews, permit fees, the IEPA permit application certifications, requests for field investigations, violation investigations, engineering standards, availability of District facilities, proposed District projects, review of proposed local ordinances, and interpretation of District ordinances. Thousands of telephone and written inquiries will be received and addressed in 2016.

Numerous field investigations will be undertaken to resolve sewerage and drainage questions and complaints. The complaints arise from sewage backup and surcharges, flooding, and other unsanitary or unsafe conditions detrimental to the health and welfare of the public. As a result of investigating these matters and contacts made with local officials, the District has been instrumental in bringing about a satisfactory resolution to the majority of the complaints. The LSSS coordinates activities with other governmental agencies to resolve multi-jurisdictional problems and evaluates new stormwater management practices and sewer construction procedures and products.

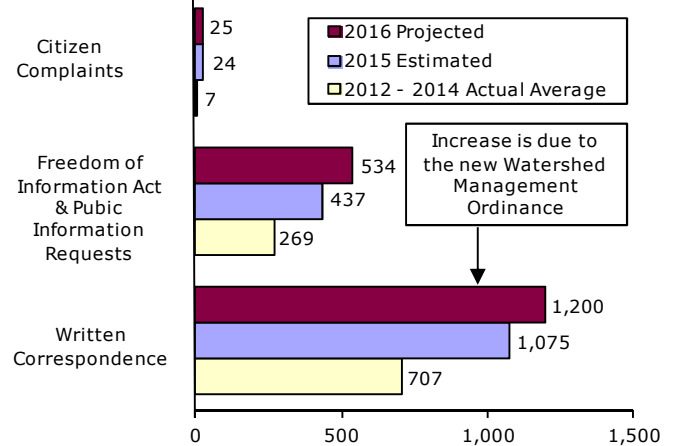
Through administration of the WMO, the LSSS protects public health and the environment by ensuring that minimum standards for land development and sewer construction are enforced throughout the District’s service area. The reduction of excessive I/I also facilitates the operation of the District’s treatment plants during wet weather within NPDES permit limits. Stormwater

**Engineering Department Staffing & Consultants**



\*An additional 32 positions are funded by the Stormwater Management Fund (see page 476), while the operations remain in the Engineering Department.

**Public Services**



management, that is required in conjunction with many permits, helps reduce flooding along waterways, and places the responsibility for the construction of a development’s flood control facilities with the developer, rather than the public.

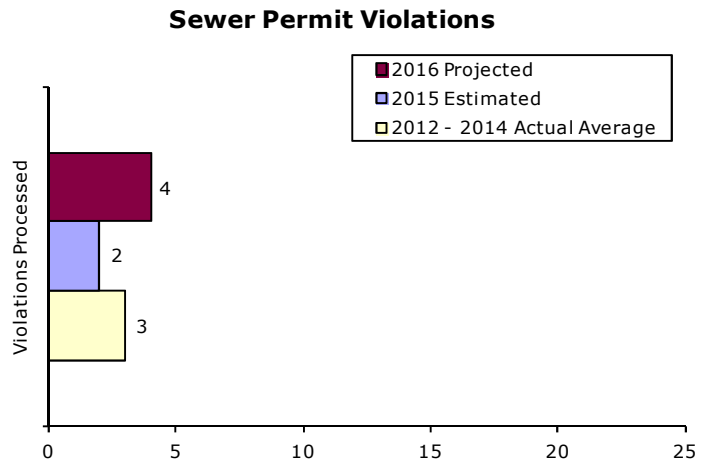
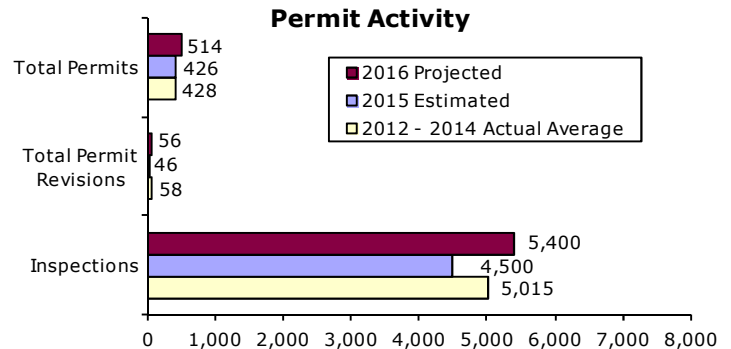
**LOCAL SEWER SYSTEMS SECTION  
PERMIT ADMINISTRATION**

The LSSS administers the WMO within Cook County, excluding the City of Chicago, through the review and approval of WMO permit applications. The WMO establishes uniform, minimum stormwater management design requirements for new land development and redevelopment. The WMO also regulates the design, construction, operation, and maintenance of local public and private sewer connections for residential, commercial, institutional, governmental, and industrial developments, public sewerage systems, and treatment facilities, which discharge directly or indirectly into District collection and treatment facilities, or to waters within the boundaries of the District. The WMO requires that special attention be given to construction within floodplains, wetlands, and riparian environments. The District requires stormwater management as part of land development to ensure that runoff from new developments and redevelopments exceeding certain acreage limits do not exacerbate existing runoff and flooding conditions. As a result of ordinance enforcement, approximately five million gallons of volume control storage, 15 million gallons of compensatory storage, and 108 million gallons of locally-provided stormwater detention capacity was provided in 2015.

The TGM is a companion guide to the WMO and provides reference information on how best to apply and meet the regulations for both project design and project implementation. The TGM identifies when a permit is needed, the information required to support a WMO permit application, clarification of the WMO requirements and applicability, how best to satisfy the WMO requirements, and examples to demonstrate standard compliance. The TGM is expected to evolve over time as WMO compliance lessons are learned.

The LSSS reviews and issues several types of permits under the WMO. Those permits include standard WMO permits, Notification and Request for Inspection (NRI) sewer construction permits, Facility Connection Authorization, Single Family Home permits, and Authorized Municipality permits. An NRI permit is a short form permit regulating sanitary sewer rehabilitation work for the reconstruction or replacement-in-kind of existing sewers or minor sewer work that involves less than 25 linear feet of new sewer. Municipal sewer maintenance projects, the most common type of NRI, are useful in monitoring the progress of municipal efforts made to reduce I/I. A Facility Connection Authorization is utilized to approve connections to District-owned property, facilities, and waterways (including Lake Michigan) within the City of Chicago. A Single Family Home permit is a short form permit, applicable to the development and redevelopment of single family homes that impact special flood hazard areas such as a floodplain/floodway or riparian environment. Lastly, Authorized Municipality permits for projects that take place within municipalities that are authorized to administer and issue WMO permits are partially reviewed by the authorized municipality and LSSS. The authorized municipality reviews the stormwater management requirements and LSSS reviews qualified sewer construction, existing stormwater detention, and new outfalls.

The WMO requires the timely review of permit applications. Initial review and response is required within 15 working days for developments not involving flood protection areas, 30 working days for developments involving flood protection areas, and 10 working days for re-submittals. In 2015 the average review and response time for an initial submittal was eight days and the average re-submittal response time was nine days. Additionally, LSSS issued 426 total permits in 2015 with an average time from initial submittal to permit issuance of 54 working days. The number of total permits issued has averaged 428 for the last three years. While the District’s service area is almost fully developed, many of the remaining development opportunities involve marginal, low-lying land, and the redevelopment of challenging, high density existing areas. These types of permits are



generally more complex to analyze and review. Any existing stormwater requirements and facilities must first be reassessed for impacts from the proposed development. Limited space and site constraints, common for in-fill redevelopment, offer further challenges to meeting the latest requirements, often necessitating retrofits to existing stormwater systems to achieve permit compliance.

## **SEWER REHABILITATION PROGRAMS**

The LSSS also administers the District's new I/I Control Program, which replaces the existing program under the SPO. All communities have achieved compliance with the District's old I/I Control Program. The new I/I Control Program will apply to communities within the District's separate sewer area. The goal of the I/I Control Program is to reduce the number of sanitary sewer overflows and basement backups by requiring individual communities to perform ongoing inspections and continuously conduct maintenance and rehabilitation work on their sanitary sewer systems.

Developed in response to two special conditions imposed by the IEPA in the District's NPDES permits for four Water Reclamation Plants and the United States Environmental Protection Agency's notification for proposed rulemaking to reduce the harmful effects of sanitary sewer overflows as well as increasing operational problems due to the conveyance of excessive amounts of I/I, the District has adopted and implemented the new I/I Control Program.

- The first IEPA special condition defines excessive I/I as flow in excess of 150 gallons per capita per day in a local sewer system that causes or contributes to basement backups or sanitary sewer overflows.
- The second requires adoption of a Capacity, Management, Operation, and Maintenance Program for the District's conveyance and treatment facilities. The NPDES permit requires the District to take action against the owners of such local sewer systems to reduce the excessive I/I, in addition to those actions required under the Sewer Summit Agreement.

**50000 ENGINEERING**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Protect public health by administering the Watershed Management Ordinance (WMO) to regulate local sewer connections to local treatment plants and discharges to District waters and migration of runoff from new developments and redevelopments.	\$ 1,987,600	7.1%
2. Provide information to the public and local communities regarding District ordinances, coordinate solutions to regional problems with other governmental agencies, and review and evaluate new cost-effective sewer construction procedures and products.	\$ 701,200	2.5%
3. Reduce treatment costs by eliminating excessive infiltration and inflow (I/I) of stormwater into sanitary sewers through a comprehensive rehabilitation program of the local sewer systems.	\$ 631,500	2.2%
4. Ongoing maintenance projects, salaries, and employee expenses related to the Capital Improvement Program.	\$ 24,752,600	88.2%
<b>Total</b>	<b>\$ 28,072,900</b>	<b>100.0%</b>

MEASURABLE GOALS:	2014 Actual	2015 Estimated	2016 Proposed
1. Reduction of avoidable I/I by promoting repair and rehabilitation of the 125 local sanitary sewer systems under the Sewer Permit Ordinance (SPO) and Manual of Procedures for Administration of the Sewer Permit Ordinance (MOP).			
Number of agencies that have achieved compliance	121	125	-
Percentage complete	97%	100%	-
All agencies have achieved compliance with the District's old I/I control program under the SPO and the MOP.			
	2014 Actual	2015 Estimated	2016 Proposed
2. Reduction of avoidable I/I by promoting repair and rehabilitation of the 120 local sanitary sewer systems under the WMO.			
Number of agencies that have completed their Short-Term Requirements	-	-	10
Percentage complete	-	-	8%
The WMO requires compliance with a new I/I control program. Measurable goals are being evaluated for the new program. Due to mergers, takeovers, and annexations, etc., the number of agencies that require compliance has been reduced from 125 under the SPO and MOP to 120 under the WMO. Agencies will submit annual reports detailing the progress made during the reporting period. While some agencies may complete their Short-Term Requirements within one year, it is anticipated that most agencies will take three to five years.			

**50000 ENGINEERING**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 6,784,806	2016 64	\$ 7,228,200	\$ (156,200)	(2.1)		
			2015 66	\$ 7,384,400				
1530	Local Sewer Permit Activity	\$ 1,924,564	2016 20	\$ 1,987,600	\$ (48,400)	(2.4)		
			2015 20	\$ 2,036,000				
1560	Local Sewer Public Service Coordination	\$ 734,442	2016 7	\$ 701,200	\$ 12,300	1.8		
			2015 7	\$ 688,900				
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 414,733	2016 3	\$ 631,500	\$ 69,500	12.4		
			2015 2	\$ 562,000				
1700	Collection System Design	\$ 1,106,862	2016 9	\$ 1,174,900	\$ (98,600)	(7.7)		
			2015 10	\$ 1,273,500				
1800	Collection Construction	\$ 2,604,205	2016 25	\$ 2,733,000	\$ (91,000)	(3.2)		
			2015 27	\$ 2,824,000				
2000	Treatment	\$ 8,244,756	2016 80	\$ 8,988,900	\$ 144,400	1.6		
			2015 80	\$ 8,844,500				
2700	Treatment Design	\$ 3,310,269	2016 27	\$ 3,266,700	\$ (116,400)	(3.4)	a)	
			2015 30	\$ 3,383,100				
2800	Treatment Construction	\$ 4,934,487	2016 53	\$ 5,722,200	\$ 260,800	4.8	b)	
			2015 50	\$ 5,461,400				
3000	Solids Processing	\$ 4,621,931	2016 49	\$ 5,807,700	\$ 888,200	18.1		
			2015 44	\$ 4,919,500				
3700	Solids Processing Design	\$ 2,444,221	2016 24	\$ 2,964,500	\$ 427,000	16.8	c)	
			2015 22	\$ 2,537,500				
3800	Solids Processing Construction	\$ 2,177,710	2016 25	\$ 2,843,200	\$ 461,200	19.4	d)	
			2015 22	\$ 2,382,000				

- a) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$174,200), offset by increased funding for office furniture and equipment (\$16,500) and in-house training (\$45,000).
- b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$459,700) and the transfer of an Associate Process Control Engineer from the Maintenance & Operations (M&O) Department and an Administrative Specialist from the Monitoring & Research (M&R) Department (\$36,800), offset by a decrease due to the expiration of the warranty for the Stickney WRP distributed control system (\$237,900).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$309,900) and an increased estimate for retirement, severance, and termination payments (\$117,100).
- d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$448,300) and the transfer of an Associate Process Control Engineer from the M&O Department and an Administrative Specialist from the M&R Department (\$19,800), offset by a decreased estimate for employee mileage reimbursements (\$8,900).

**50000 ENGINEERING**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
4000	Flood and Pollution Control	\$ 3,403,603	2016 29	\$ 3,334,400	\$ (584,800)	(14.9)		
			2015 32	\$ 3,919,200				
4216	Bridge and Road Maintenance	\$ 57,016	2016 -	\$ 93,600	\$ 79,600	568.6	e)	
			2015 -	\$ 14,000				
4322	Storm & Flood Ordinance Development	\$ 58,728	2016 -	\$ 16,500	\$ (43,300)	(72.4)	f)	
			2015 -	\$ 59,800				
4341	Planning/Design	\$ 58,728	2016 -	\$ 61,500	\$ 1,700	2.8		
			2015 -	\$ 59,800				
4342	Contract Administration	\$ 95,607	2016 1	\$ 100,400	\$ 2,900	3.0		
			2015 1	\$ 97,500				
4343	Construction	\$ 48,719	2016 1	\$ 116,900	\$ (432,200)	(78.7)	g)	
			2015 1	\$ 549,100				
4700	Flood and Pollution Control Design	\$ 772,224	2016 5	\$ 608,500	\$ (119,200)	(16.4)	h)	
			2015 6	\$ 727,700				
4800	Flood and Pollution Control Construction	\$ 2,312,581	2016 22	\$ 2,337,000	\$ (74,300)	(3.1)		
			2015 24	\$ 2,411,300				
5000	Solids Disposal	\$ 384,093	2016 3	\$ 356,300	\$ (33,200)	(8.5)		
			2015 3	\$ 389,500				
5700	Solids Disposal Design	\$ 45,202	2016 -	\$ 9,600	\$ (36,600)	(79.2)	i)	
			2015 -	\$ 46,200				
5800	Solids Disposal Construction	\$ 338,891	2016 3	\$ 346,700	\$ 3,400	1.0		
			2015 3	\$ 343,300				
7000	General Support (excluding program number 7604)	\$ 1,856,158	2016 19	\$ 1,987,200	\$ 157,500	8.6	j)	
			2015 17	\$ 1,829,700				
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 370,200	\$ 370,200	100.0	k)	
			2015 -	\$ -				
Totals		\$ 25,295,347	2016 244	\$28,072,900	\$ 786,100	2.9%		
			2015 242	\$27,286,800				

- e) Increase is due to the expected 2016 award of Contract 13-059-1D, Biennial Bridge Inspection (2016-2019).
- f) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- g) Decrease is due to the reallocation of funding for green infrastructure projects to the Capital Improvements Bond Fund.
- h) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$69,200) and the 2015 completion of 13-810-1C, Flood Control Measures within the Combined Sewer Area - Alternatives Group A (\$50,000).
- i) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- j) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$140,700) and additional funding for membership in Digger, the Chicago Utility Alert Network (\$16,000).
- k) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.



**50000 ENGINEERING**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1500	Local Sewer - Engineering Activity					
1530	Local Sewer Permit Activity					
1531	Review/Issuance of MWRD Sewer Permits (includes standard permits and notification and request for inspection permits.)	Permits	497	500	570	
		Cost	\$ 992,073	\$ 1,006,900	\$ 1,062,200	
		Cost/Permit	\$ 1,996.12	\$ 2,013.80	\$ 1,863.51	
1533	Review of Other Permits	Cost	\$ 111,846	\$ 114,500	\$ 136,700	a)
1535	Local Sewer Construction Surveillance/Enforcement	Inspections	4,536	6,500	5,400	
		Cost	\$ 656,255	\$ 738,200	\$ 718,500	
		Cost/Inspection	\$ 144.68	\$ 113.57	\$ 133.06	
1537	Permit Revision	Cost	\$ 164,390	\$ 176,400	\$ 70,200	b)
1560	Local Sewer - Public Service Coordination					
1561	Public Service	Requests	1,021	1,315	1,734	
		Cost	\$ 494,028	\$ 484,100	\$ 467,000	
		Cost/Request	\$ 483.87	\$ 368.14	\$ 269.32	
1563	Interagency Coordination	Cost	\$ 240,414	\$ 204,800	\$ 234,200	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Systems	250	250	280	
		Cost	\$ 414,733	\$ 562,000	\$ 631,500	
		Cost/System	\$ 1,658.93	\$ 2,248.00	\$ 2,255.36	
1700	Collection System Design	Cost	\$ 1,106,862	\$ 1,273,500	\$ 1,174,900	
1800	Collection Construction	Cost	\$ 2,604,205	\$ 2,824,000	\$ 2,733,000	
2700	Treatment Design	Cost	\$ 3,310,269	\$ 3,383,100	\$ 3,266,700	c)
2800	Treatment Construction	Cost	\$ 4,934,487	\$ 5,461,400	\$ 5,722,200	d)
3700	Solids Processing Design	Cost	\$ 2,444,221	\$ 2,537,500	\$ 2,964,500	e)
3800	Solids Processing Construction	Cost	\$ 2,177,710	\$ 2,382,000	\$ 2,843,200	f)

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities.
- b) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$174,200), offset by increased funding for office furniture and equipment (\$16,500) and in-house training (\$45,000).
- d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$459,700) and the transfer of an Associate Process Control Engineer from the Maintenance & Operations (M&O) Department and an Administrative Specialist from the Monitoring & Research (M&R) Department (\$36,800), offset by a decrease due to the expiration of the warranty for the Stickney WRP distributed control system (\$237,900).
- e) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$309,900) and an increased estimate for retirement, severance, and termination payments (\$117,100).
- f) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$448,300) and the transfer of an Associate Process Control Engineer from the M&O Department and an Administrative Specialist from the M&R Department (\$19,800), offset by a decreased estimate for employee mileage reimbursements (\$8,900).

**50000 ENGINEERING**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4200	Waterways Control and Stormwater Detention Reservoirs	Cost	\$ 57,016	\$ 14,000	\$ 93,600	g)
4300	Stormwater Management	Cost	\$ 261,782	\$ 766,200	\$ 295,300	h)
4700	Flood and Pollution Control Design	Cost	\$ 772,224	\$ 727,700	\$ 608,500	i)
4800	Flood and Pollution Control Construction	Cost	\$ 2,312,581	\$ 2,411,300	\$ 2,337,000	
5700	Solids Disposal Design	Cost	\$ 45,202	\$ 46,200	\$ 9,600	j)
5800	Solids Disposal Construction	Cost	\$ 338,891	\$ 343,300	\$ 346,700	
7000	General Support (excluding program number 7604)	Cost	\$ 1,856,158	\$ 1,829,700	\$ 1,987,200	k)
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 370,200	l)
		Total	\$ 25,295,347	\$ 27,286,800	\$ 28,072,900	

- g) Increase is due to the expected 2016 award of Contract 13-059-1D, Biennial Bridge Inspection (2016-2019).
- h) Decrease is due to the reallocation of funding for green infrastructure projects to the Capital Improvements Bond Fund.
- i) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$69,200) and 2015 completion of 13-810-1C, Flood Control Measures within the Combined Sewer Area - Alternatives Group A (\$50,000).
- j) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- k) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$140,700) and additional funding for membership in Digger, the Chicago Utility Alert Network (\$16,000).
- l) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

101 50000	Fund: Corporate Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 24,020,281	\$ 25,560,400	\$ 25,287,900	\$ 24,896,100	\$ 25,703,700	\$ 25,703,700	\$ 26,420,800
601060	Compensation Plan Adjustments	306,684	250,500	437,000	387,900	399,900	399,900	409,200
601070	Social Security & Medicare Contributions	-	-	-	-	370,200	370,200	370,200
601100	Tuition and Training Payments	84,567	96,400	142,400	128,600	100,000	100,000	100,000
601170	Payments for Professional Services	401,892	575,500	524,400	495,400	-	-	-
601410	Personal Services Exp for Prelim Engineering Rpts & Studies	174,070	50,000	141,100	141,100	-	-	-
100	<b>TOTAL PERSONAL SERVICES</b>	<b>24,987,493</b>	<b>26,532,800</b>	<b>26,532,800</b>	<b>26,049,100</b>	<b>26,573,800</b>	<b>26,573,800</b>	<b>27,300,200</b>
612010	Travel	13,844	10,000	10,000	9,100	15,000	15,000	15,000
612030	Meals and Lodging	28,293	20,000	19,800	18,900	20,000	20,000	20,000
612040	Postage, Freight, and Delivery Charges	1,386	1,000	2,000	1,000	1,500	1,500	2,000
612050	Compensation for Personally-Owned Automobiles	37,911	38,900	37,900	33,100	30,000	30,000	30,000
612080	Motor Vehicle Operating Services	599	1,000	1,000	500	900	900	900
612090	Reprographic Services	2,673	7,000	7,000	3,000	5,000	5,000	6,200
612170	Water and Water Services	3,421	3,200	3,200	3,000	3,200	3,200	3,200
612330	Rental Charges	4,847	4,300	4,500	4,500	8,000	8,000	3,700
612430	Payments for Professional Services	-	-	-	-	394,600	394,600	442,600
612440	Personal Services Exp for Prelim	-	-	-	-	-	-	40,000
612490	Contractual Services, N.O.C.	88,618	578,700	248,700	248,600	100,000	100,000	100,000
612620	Repairs to Waterway Facilities	52,822	10,000	10,000	9,700	133,900	133,900	9,700
612970	Repairs to Testing and Laboratory Equipment	1,574	2,700	2,700	2,700	2,500	2,500	4,000
612990	Repairs, N.O.C.	11,618	18,800	18,800	11,800	10,600	10,600	11,900
200	<b>TOTAL CONTRACTUAL SERVICES</b>	<b>247,605</b>	<b>695,600</b>	<b>365,600</b>	<b>345,900</b>	<b>725,200</b>	<b>725,200</b>	<b>689,200</b>
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	37,969	41,000	41,000	35,700	40,000	40,000	58,000
623700	Wearing Apparel	4,294	5,500	5,500	5,500	6,500	6,500	7,500
623720	Books, Maps, and Charts	5,811	6,900	6,900	6,900	6,000	6,000	8,100
623990	Materials and Supplies, N.O.C.	3,279	5,000	5,000	2,500	2,100	2,100	9,900
300	<b>TOTAL MATERIALS AND SUPPLIES</b>	<b>51,354</b>	<b>58,400</b>	<b>58,400</b>	<b>50,600</b>	<b>54,600</b>	<b>54,600</b>	<b>83,500</b>

101 50000	Fund: Corporate Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634990	Machinery and Equipment, N.O.C.	8,895	-	-	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	8,895	-	-	-	-	-	-
656010	Land	-	-	330,000	320,800	-	-	-
600	TOTAL LAND	-	-	330,000	320,800	-	-	-
<b>TOTAL ENGINEERING</b>		<b>\$ 25,295,347</b>	<b>\$ 27,286,800</b>	<b>\$ 27,286,800</b>	<b>\$ 26,766,400</b>	<b>\$ 27,353,600</b>	<b>\$ 27,353,600</b>	<b>\$ 28,072,900</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>501</b>	<b>Executive Division</b>					
EX15	Director of Engineering	1	1		1	
HP22	Assistant Director of Engineering	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Division	3	3	567,837.40	3	580,436.74
<b>505</b>	<b>Budget &amp; Administrative Section</b>					
HP18	Supervising Budget and Management Analyst	1	1		1	
HP17	Management Analyst III #2 (Senior Budget and Management Analyst) (New Grade HP16)	1	1		1	
HP15	Management Analyst II #2 (Budget and Management Analyst) (New Grade HP14)	1	1		1	
HP14	Budget & Management Analyst	1	1		1	
HP13	Senior Administrative Specialist	-	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
TOTAL	Budget & Administrative Section	5	5	562,825.38	5	584,427.48
<b>510</b>	<b>Infrastructure Management Division</b>					
<b>511</b>	<b>Administrative Section</b>					
HP22	Assistant Director of Engineering	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	Administrative Section	3	3	470,695.94	3	484,816.80
<b>514</b>	<b>Contract Support Services Section</b>					
HP20	Managing Civil Engineer	-	1		1	
HP14	Engineering Technician V #4	-	1		1	
HP12	Engineering Technician IV	-	1		1	
HP11	Administrative Specialist	-	1		1	
HP11	Engineering Technician III	-	1		-	
HP09	Administrative Clerk	-	1		1	
TOTAL	Contract Support Services Section	-	6	518,134.76	5	440,809.98

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>515</b>	<b>Collection Facilities / TARP Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	
HP17	Senior Civil Engineer	5	5		6	
HP15	Associate Civil Engineer	5	5		4	
HP14	Assistant Civil Engineer	2	2		2	
HP14	Engineering Technician V	1	1		1	
HP14	Engineering Technician V #4	1	1		1	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Technician IV	2	2		2	
HP11	Engineering Technician III	2	2		3	
TOTAL	Collection Facilities / TARP Section	23	23	2,409,786.08	24	2,580,667.44
<b>516</b>	<b>Local Sewer Systems Section</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP18	Principal Civil Engineer	3	2		2	
		(*1)	(*1)		(*1)	
HP17	Senior Civil Engineer	7	7		7	
		(*1)	(*2)		(*2)	
HP15	Associate Civil Engineer	5	5		5	
		(*2)	(*3)		(*3)	
HP14	Assistant Civil Engineer	3	3		3	
		(*1)	(*3)		(*2)	
HP14	Engineering Technician V	2	2		2	
HP14	Engineering Technician V #4	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP12	Engineering Technician IV	2	2		2	
			(*1)		(*2)	
HP12	Engineering Technician IV #4	1	1		1	
HP11	Administrative Specialist	-	-		1	
HP11	Engineering Technician III	1	1		1	
HP09	Administrative Clerk	2	2		2	
TOTAL	Local Sewer Systems Section	28	27	2,661,070.10	27	2,677,172.42
TOTAL	Stormwater Management Fund Positions	(*5)	(*10)		(*10)	
TOTAL	Infrastructure Management Division	54	59	6,059,686.88	59	6,183,466.64
TOTAL	Stormwater Management Fund Positions	(*5)	(*10)		(*10)	

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>522</b>	<b>Stormwater Management Section</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP20	Managing Civil Engineer	-	-		-	
		(*1)	(*1)		(*1)	
HP18	Principal Civil Engineer	-	-		-	
		(*2)	(*3)		(*3)	
HP17	Senior Civil Engineer	-	-		-	
		(*7)	(*7)		(*7)	
HP15	Associate Civil Engineer	-	-		-	
		(*6)	(*6)		(*6)	
HP14	Assistant Civil Engineer	-	-		-	
		(*2)	(*4)		(*4)	
HP11	Administrative Specialist	-	-		-	
		(*2)	(*1)		(*1)	
TOTAL	Stormwater Management Section	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*20)	(*22)		(*22)	
<b>540</b>	<b>Process Facilities Design Division</b>					
<b>541</b>	<b>Administrative Section</b>					
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	2	2		3	
TOTAL	Administrative Section	3	3	212,732.78	3	181,906.14
<b>542</b>	<b>Plant Design Management Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	2	2		2	
HP17	Senior Civil Engineer	2	2		2	
HP16	Computer Aided Drafting and Design Administrator	1	1		1	
HP15	Associate Civil Engineer	2	2		2	
HP12	Engineering Technician IV	1	1		1	
TOTAL	Plant Design Management Section	9	9	1,080,947.66	9	1,123,785.26
<b>544</b>	<b>Process Design Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	2	3		3	
HP17	Senior Civil Engineer	7	7		7	
HP17	Senior Process Control Engineer	1	1		1	
HP15	Associate Civil Engineer	3	2		2	
HP15	Associate Process Control Engineer	-	-		1	

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Civil Engineer	2	2		2	
HP13	Engineering Draftsman III #4	1	1		1	
HP12	Engineering Draftsman II	1	1		1	
HP12	Engineering Draftsman II #4	1	1		1	
TOTAL	Process Design Section	19	19	2,186,451.28	20	2,352,857.78
<b>545</b>	<b>Mechanical Design Section</b>					
HP20	Managing Mechanical Engineer	1	1		1	
HP18	Principal Mechanical Engineer	2	2		2	
HP17	Senior Mechanical Engineer	5	4		4	
HP15	Associate Mechanical Engineer	4	4		4	
HP14	Assistant Mechanical Engineer	2	1		1	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	-	1		1	
HP12	Engineering Draftsman II #4	2	1		1	
TOTAL	Mechanical Design Section	17	15	1,687,443.42	15	1,753,194.30
<b>546</b>	<b>Electrical Design Section</b>					
HP20	Managing Electrical Engineer	1	1		1	
HP18	Principal Electrical Engineer	2	2		2	
HP17	Senior Electrical Engineer	6	5		5	
HP15	Associate Electrical Engineer	5	5		5	
HP14	Assistant Electrical Engineer	2	2		2	
HP13	Engineering Draftsman III #4	1	1		1	
HP12	Engineering Draftsman II	2	2		2	
TOTAL	Electrical Design Section	19	18	2,006,981.08	18	2,076,145.50
<b>547</b>	<b>Structural / Architectural Design Section</b>					
HP20	Managing Structural Engineer	1	1		1	
HP18	Principal Architect	1	1		1	
HP18	Principal Structural Engineer	2	2		2	



Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Architect	2	2		2	
HP17	Senior Structural Engineer	3	3		3	
HP15	Associate Architect	3	3		3	
HP15	Associate Structural Engineer	2	2		2	
HP14	Assistant Structural Engineer	2	3		3	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II #4	1	1		1	
TOTAL	Structural / Architectural Design Section	18	19	2,099,127.94	19	2,170,722.32
TOTAL	Process Facilities Design Division	85	83	9,273,684.16	84	9,658,611.30
<b>550</b>	<b>Construction Division</b>					
<b>551</b>	<b>Administrative Section</b>					
HP22	Assistant Director of Engineering	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Section	4	3	347,960.08	3	364,939.12
<b>552</b>	<b>Construction Support Services Section</b>					
HP20	Managing Civil Engineer	1	-		-	
HP18	Principal Civil Engineer	1	-		-	
HP17	Senior Civil Engineer	1	-		-	
HP15	Associate Civil Engineer	2	-		-	
HP14	Assistant Civil Engineer	1	-		-	
HP14	Assistant Electrical Engineer	1	-		-	
HP14	Engineering Technician V	1	-		-	
HP14	Engineering Technician V #4	1	-		-	
HP13	Senior Administrative Specialist	1	-		-	
HP12	Engineering Technician IV	2	-		-	
HP12	Engineering Technician IV #4	1	-		-	
HP11	Engineering Technician III	1	-		-	

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	-		-	
HP09	Administrative Clerk	1	-		-	
TOTAL	Construction Support Services Section	16	-	-	-	-
<b>555</b>	<b>Program Management Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	1	-		-	
HP17	Senior Civil Engineer	1	1		1	
HP17	Senior Electrical Engineer	-	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP14	Assistant Civil Engineer	-	1		1	
HP14	Assistant Mechanical Engineer	-	1		1	
HP14	Assistant Structural Engineer	1	-		-	
HP13	Senior Administrative Specialist	-	1		1	
HP11	Engineering Technician III	1	-		-	
TOTAL	Program Management Section	6	7	782,397.72	7	768,742.26
<b>556</b>	<b>Construction Field Services Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	2	3		4	
HP18	Principal Electrical Engineer	3	3		3	
HP18	Principal Engineer	1	1		-	
HP17	Senior Civil Engineer	9	10		10	
HP17	Senior Electrical Engineer	3	3		3	
HP17	Senior Mechanical Engineer	1	2		2	
HP15	Associate Civil Engineer	8	11		11	
HP15	Associate Electrical Engineer	3	3		3	
HP15	Associate Mechanical Engineer	3	2		2	
HP15	Associate Structural Engineer	1	1		1	
HP14	Assistant Civil Engineer	7	7		7	

Fund: Corporate Dept: Engineering Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Electrical Engineer	1	2		2	
HP14	Assistant Mechanical Engineer	1	1		1	
HP14	Engineering Technician V	8	11		12	
HP14	Engineering Technician V #4	5	4		3	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	1		1	
HP12	Engineering Technician IV	7	8		9	
HP12	Engineering Technician IV #4	1	2		1	
HP11	Administrative Specialist	-	-		1	
HP11	Engineering Technician III	5	6		6	
TOTAL	Construction Field Services Section	70	82	8,093,578.74	83	8,414,026.66
TOTAL	Construction Division	96	92	9,223,936.54	93	9,547,708.04
TOTAL	Engineering	243	242	25,687,970.36	244	26,554,650.20
TOTAL	Stormwater Management Fund Positions	(*25)	(*32)		(*32)	

Note: Thirty-two positions budgeted in Sections 516 and 522 are funded by the Stormwater Management Fund, while the operations remain in the Engineering Department.

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

# SECTION V

## CAPITAL BUDGET

The Capital Improvement Program is the District's plan for the construction, rehabilitation, and modernization of District-owned and operated infrastructure. It includes plans to protect Lake Michigan from pollution, to clean up approximately 200 miles of rivers and streams within the District's jurisdiction to meet federal and state standards, and to reduce the level of flooding which has persistently plagued many municipalities within the District's jurisdiction.

The Capital Budget includes the Construction Fund and the Capital Improvements Bond Fund. To understand the Capital Budget, it is necessary to visualize existing facilities as well as the program for the next year and the long-term plan.

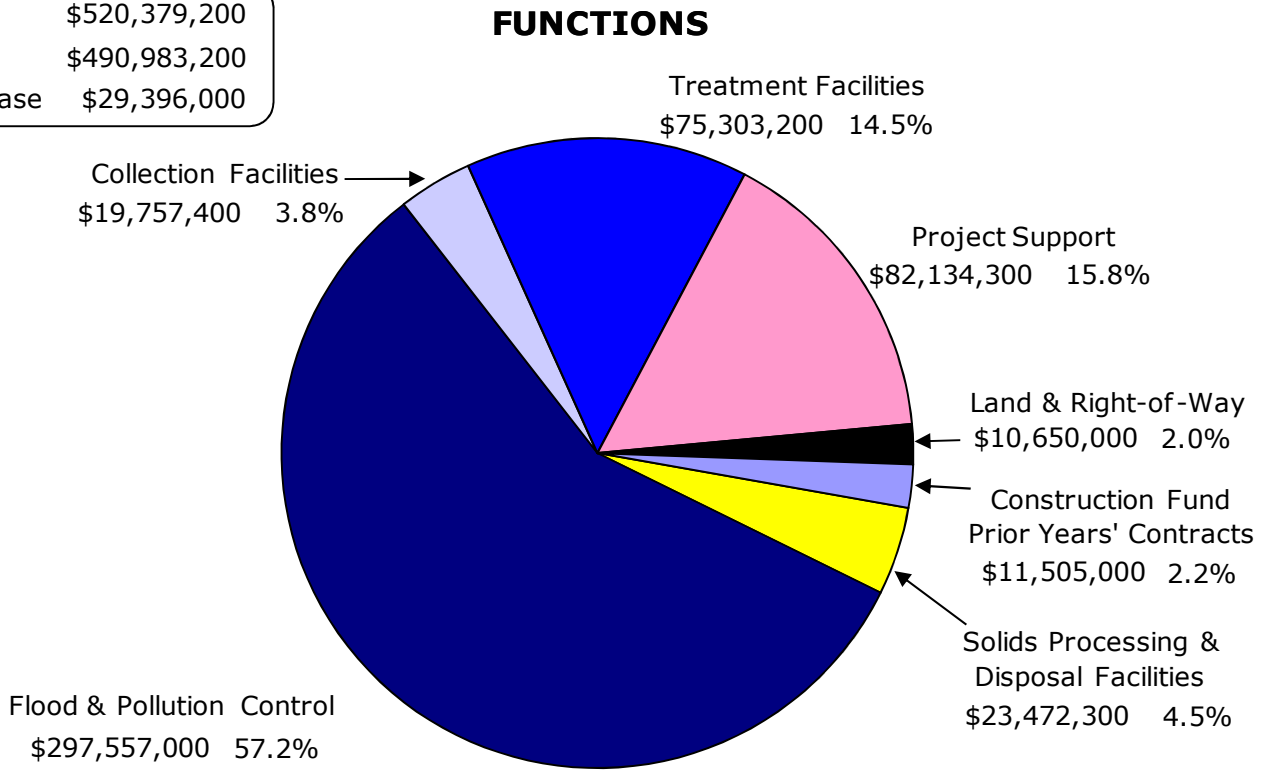
The type of funding for each fund corresponds to the estimated useful life of the project and statutory restrictions on bond sales. The Tax Cap Law imposes restrictions on the non-referendum bonding authority of the District. There are exceptions in the Tax Cap Law to allow non-referendum bonds to be sold to finance certain District projects. Bonds or long-term debt are only utilized to finance projects with useful lives beyond 20 years. Capital projects not eligible for bond financing, or with shorter useful lives, are funded on a "pay as you go" basis and financed primarily by property taxes. The Capital Improvements Bond Fund receives most of its resources from bond sales, State Revolving Fund loans, and federal and state grants. It provides for major plant and sewer construction, flood control facilities, and land acquisition. The Construction Fund is financed primarily through a property tax levy and provides for much of the District's infrastructure rehabilitation and modernization.

The narrative discussion of the District's 2016 Capital Improvement Program places the 2016 program within the context of our long-range plan. Information is provided on the levels of funding in 2016 and in the future. The graphs, charts, figures, and descriptions of the Construction Fund and Capital Improvements Bond Fund Program within this section aid the reader in understanding this component of the Budget. The impact on operating costs associated with capital projects scheduled for award in 2016 is presented in the Capital Improvement Program narrative.

Capital Improvement Program Functions and Narrative .....	331
Ten-Year Capital Improvement Program Summary.....	334
Construction Fund:	
Narrative .....	335
Projects Listed by Service Area.....	337
Project List and Operating Impacts.....	341
Project Fact Sheets.....	345
Objectives and Program Summary .....	402
Line Item Analysis.....	406
Capital Improvements Bond Fund:	
Narrative .....	409
Projects Listed by Service Area.....	411
Project List and Operating Impacts.....	417
Tunnel and Reservoir Plan (TARP) Project Costs and Status Charts .....	421
Project Fact Sheets.....	423
Other Project Exhibits.....	455
Stormwater Management Project List and Operating Impacts .....	467
Objectives and Program Summary .....	471
Line Item Analysis.....	473

# CAPITAL IMPROVEMENT PROGRAM CONSTRUCTION AND CAPITAL IMPROVEMENTS BOND FUNDS

2016	\$520,379,200
2015	\$490,983,200
Increase	\$29,396,000



A comprehensive Capital Improvement Program narrative appears on the following pages. The District utilizes the Construction and Capital Improvements Bond Funds for the Capital Improvement Program. Capital improvements comprise all new facilities and projects that preserve the useful life of District facilities or increase the capacity or efficiency of these facilities. The project support activities of the Construction and Capital Improvements Bond Funds consist of planning, designing, and constructing District infrastructure, acting as a liaison to the United States Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency, and pursuing funding for capital projects from the United States Army Corps of Engineers.

**Budget Highlights**

The 2016 Capital Improvement Program (Construction and Capital Improvements Bond Funds) totals \$520,379,200, an increase of \$29,396,000, or 6.0 percent, from 2015. The increase is primarily due to an increase in the total value of capital projects budgeted in 2016. A total of 134 projects funded by the Construction or Capital Improvements Bond Funds will be under planning, design, or construction in 2016.

On January 6, 2015, the District received bond proceeds to fund stormwater flood control and streambank stabilization projects. The 2014 Series B General Obligation Unlimited Tax Bonds were issued as “alternative revenue bonds” pursuant to the Debt Reform Act. The bonds will be paid by the District from the levy and collection of Stormwater Management tax receipts, which constitute a revenue source pledged as security for the payment of principal and interest on the bonds. In 2016, there are 15 flood control and streambank stabilization projects planned for award.

**The mission of the Capital Improvement Program is to plan, develop, and implement projects for new facilities, preserve the useful life of facilities, or increase the capacity or efficiency of facilities to ensure that the District complies with our statutory responsibilities in the areas of sewage treatment and pollution control.**

### **Capital Improvement Program Policy**

The District's Capital Improvement Program consists of those projects identified as necessary to ensure safe and uninterrupted operation of our facilities, meet existing and new statutory and regulatory requirements, and maintain efficiency in a cost-effective manner. Projects are identified based on asset management audits, Governmental Accounting Standards Board (GASB) Statement 34 inspections, and need, such as regulatory requirements or long-term strategic planning. Following identification, projects must be justified and vetted by an interdepartmental review panel. Projects are prioritized using an evaluation and scoring system. Projects are then added to the Capital Improvement Program and scheduled for award according to priority and resource availability.

GASB Statement 34 became effective in 2003. By adopting the modified approach for reporting infrastructure assets, the District agrees to perform condition assessments of our facilities, establish service levels for our infrastructure, and appropriate monies to maintain these high standards, thus protecting the environment and avoiding the detrimental impacts of deferred maintenance. The results of these assessments are reported in the Comprehensive Annual Financial Report.

### **Beneficial Impacts of Capital Projects**

Through proper operation, maintenance, repair, and replacement of equipment and facilities, the District ensures continued efficient, reliable service, protects our investment and infrastructure, and meets National Pollutant Discharge Elimination System permit requirements. The Capital Improvement Program identifies and prioritizes projects to upgrade and modernize obsolete equipment and facilities.

### **Program Funding**

Sources of funding for the Capital Improvement Program consist of capital improvement bond sales, general property tax revenues, State Revolving Fund loans, and federal and state grants.

### **Construction Fund**

Section 12 of "An ACT to create sanitary districts and to remove obstructions in the Des Plaines and Illinois Rivers," approved May 29, 1889, as amended, provides that the Board of Commissioners of the District can levy and collect taxes for construction purposes (which means the replacement, remodeling, completion, alteration, construction, and enlargement, which will add appreciably to the value, utility, or useful life of sewage treatment works or flood control facilities, and additions thereto, pumping stations, tunnels, conduits, and intercepting sewers connecting therewith, and outlet sewers together with the equipment and appurtenances necessary thereto, and for the acquisition of the sites and rights of way necessary thereto, and for engineering expenses of designing and supervising construction of the work above described) for the year 1985 and each year thereafter, which shall be at a rate not to exceed 0.10 percent of the assessed valuation of all taxable property within the District as equalized and determined for state and local taxes.

### **Capital Improvements Bond Fund**

Section 9.6(a) of "An ACT to create sanitary districts and to remove obstructions in the Des Plaines and Illinois Rivers," approved May 29, 1889, as amended, provides that the Board of Commissioners of the District is authorized to issue bonds for District purposes. The District issues bonds to provide funds to replace, remodel, complete, alter, construct, and enlarge sewage treatment or flood control facilities, to acquire air pollution control equipment, and to build or acquire sewers. The total allowable bond debt at any given time cannot exceed 3.35 percent of the last known equalized assessed valuation of all taxable property within the District. The ordinance authorizing the issuance of the bonds provides for the levy of a tax on all taxable property within the District adequate to pay principal and interest on the bonds when due, including a provision for loss in the collection of taxes.

Tax Cap laws enacted in Illinois have a significant impact on the funding of the District's Capital Improvement Program through bond sales. Under Public Act 89-1, the District's non-referendum bond authority is restricted to fund only projects initiated prior to October 1, 1991, which generally covers only Tunnel and Reservoir Plan (TARP) projects. However, Public Act 89-385 provided additional non-referendum authority to the District by authorizing the issuance of "limited bonds." These "limited bonds" allow the District to issue non-referendum debt for projects initiated after October 1, 1991. "Limited bonds" can be issued up to the debt service extension base established by the Act. This "limited bond" authority was expanded for the District by passage of Public Act 90-485 in the 1997 legislative session. This Act excludes debt associated with the TARP program from the "limited bond" limitation. The use of "limited bonds," in conjunction with the "unlimited bonds" authorized for TARP-related projects, positions the District's capital funding on firm ground.

**State Revolving Fund**

The purpose of the State Revolving Fund (SRF) is to ensure that each state’s program is designed and operated to continue to provide capital funding assistance for water pollution control activities in perpetuity. The USEPA implemented the SRF program in a manner that preserves for the states, a high degree of flexibility for operating their revolving funds in accordance with each state’s unique needs and circumstances.

Funds in the SRF shall not be used to provide grants. SRF balances must be available in perpetuity and must be used solely to provide loans and other authorized forms of financial assistance:

- a. For municipalities, intermunicipal, interstate, or state agencies for the construction of publicly owned wastewater treatment works;
- b. For implementation of a new point source pollution control management program;
- c. For development and implementation of a conservation and management plan.

For many years, the major sources of funding for District projects were federal grants and the Build Illinois Compliance Grants, both of which were discontinued. Under the grant program, the District received approximately \$1.9 billion between 1973 and 1993, leaving 25 percent of the cost to be borne by the District. The District continues to aggressively pursue federal and state funding to minimize the impact on our constituency. The SRF is an integral part of the District’s capital improvements financing. SRF revenues are based on the award and construction schedule of specific projects. It is estimated the District will receive at least \$200.0 million annually in SRF loans.

**Operating Cost Impacts of Capital Improvement Projects**

Specific tables are provided later in the narrative to show the estimated cost impacts on the operating budget of capital improvement projects under construction, scheduled for award, and under development.

The annual maintenance and/or operating costs associated with new capital projects are an important part of the decision-making process for the selection of capital projects. In many cases, the District must build new or modify existing facilities to meet regulatory requirements, and increases in operating costs cannot be avoided. In other cases, operating costs can be significantly reduced based on the replacement of aging infrastructure or equipment. In all cases, the operating cost impacts of proposed capital projects are analyzed by design personnel, as well as operating staff, in order to implement a Capital Improvement Program that meets operating needs in the most cost-effective manner.

The operating cost impact tables are designed to give a range of cost impacts on the most significant cost elements, specifically, manpower, energy, and chemicals. The cost impact ranges are defined as no impact, minor impact, or major impact. These estimated cost impacts are reviewed once the specific projects are completed to guide in the preparation of operating budgets and to evaluate if planned efficiencies are realized.

Included in the operating cost impact tables is a categorization of the justification for a particular capital project. As discussed above, projects must be built to meet regulatory requirements, but they may also be built to obtain operating efficiencies, provide a safer operating environment, or extend useful life. The specific categories used are capacity needs, useful life, economic benefit, and safety/regulatory. Projects are often justified by more than one criterion.

**Overall Capital Improvement Program Costs**

The District’s 2016 overall Capital Improvement Program includes 2016 project awards, program support, and projects under construction, with a total estimated construction cost of approximately \$1,207.4 million. A breakdown of these projects (in millions of dollars) is as follows:

2016 project awards	\$ 386.7
2016 program support (project support and land)	92.8
Projects currently under construction	<u>727.9</u>
Total	\$ 1,207.4

◆ A breakdown of projects scheduled for 2016 award by fund is as follows:

Construction Fund projects	\$ 13.7
Capital Improvements Bond Fund projects	<u>373.0</u>
Total	\$ 386.7

◆ A breakdown of projects under construction by fund is as follows:

Construction Fund projects	\$ 19.6
Capital Improvements Bond Fund projects	<u>708.3</u>
Total	\$ 727.9

**10-YEAR CAPITAL IMPROVEMENT PROGRAM SUMMARY**

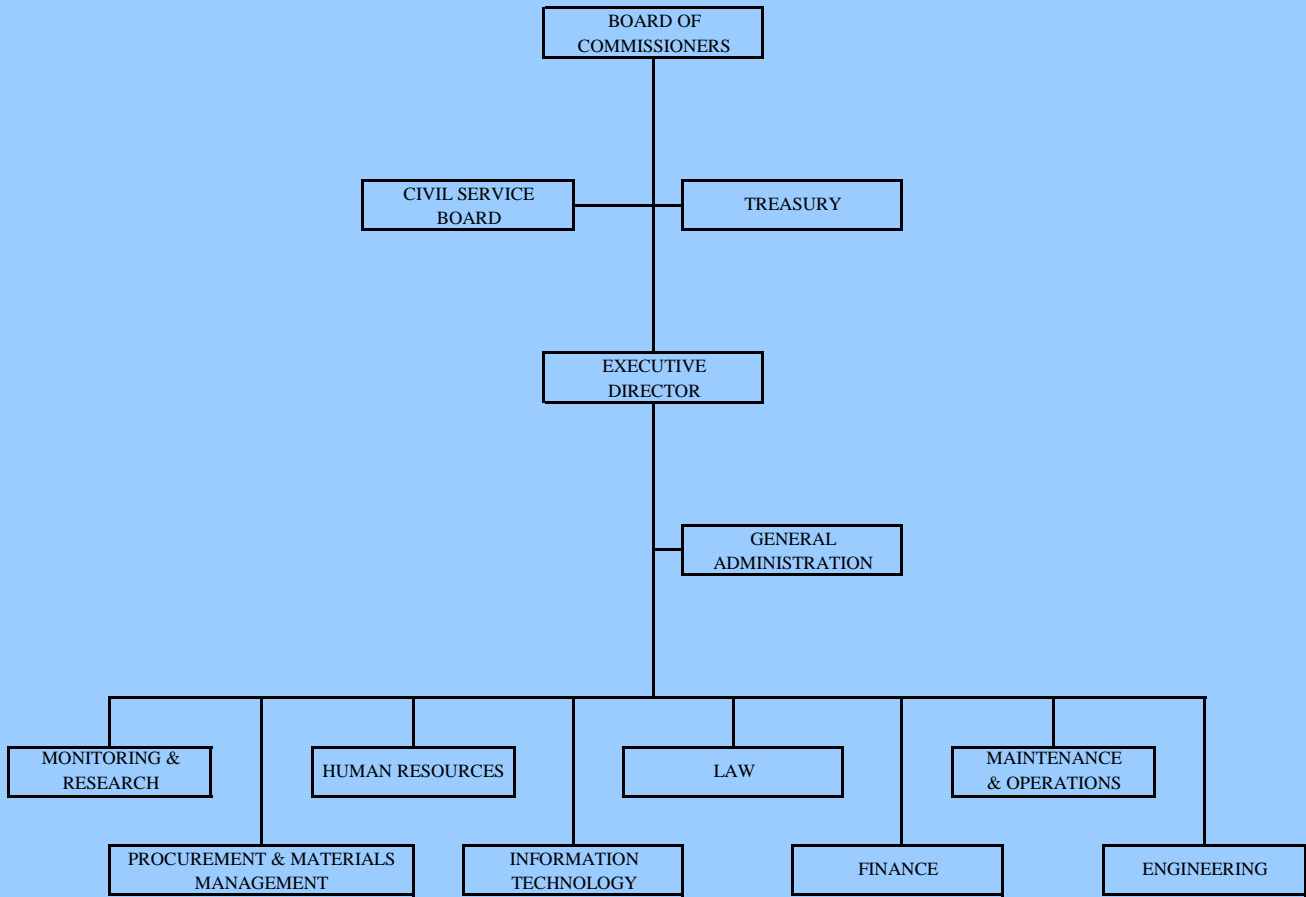
**2011 - 2020 CAPITAL PROJECT CONSTRUCTION COST**

	ACTUAL CASH DISBURSEMENTS					ESTIMATED CASH DISBURSEMENTS					TOTAL DISBURSEMENTS
	2011	2012	2013	2014	2015 *	2016	2017	2018	2019	2020	2011-2020
<b>BY CATEGORY</b>											
Water Reclamation Plants and Solids Management	\$103.17	\$58.96	\$51.54	\$65.99	\$140.36	\$109.62	\$93.83	\$92.18	\$69.34	\$70.55	\$855.54
Replacement of Facilities	56.10	37.33	31.77	40.17	25.03	45.39	52.29	44.92	33.82	29.50	\$396.32
Collection Facilities	63.14	69.99	32.32	44.66	37.01	15.35	19.54	26.52	36.04	40.00	\$384.57
Stormwater Management	-	4.54	19.37	5.27	4.46	28.38	116.98	79.17	73.35	41.07	\$372.59
Tunnel and Reservoir Plan	53.95	29.36	35.99	37.49	51.11	34.74	34.14	42.00	47.00	27.00	\$392.78
<b>TOTAL</b>	<b>\$276.36</b>	<b>\$200.18</b>	<b>\$170.99</b>	<b>\$193.58</b>	<b>\$257.97</b>	<b>\$233.48</b>	<b>\$316.78</b>	<b>\$284.79</b>	<b>\$259.55</b>	<b>\$208.12</b>	<b>\$2,401.80</b>
<b>BY FUND</b>											
Stormwater Management Fund	\$ -	\$4.54	\$19.37	\$5.27	\$4.46	\$7.28	\$7.15	\$7.00	\$7.00	\$7.00	\$69.07
Construction Fund	1.72	5.24	10.78	16.57	10.87	20.91	23.20	17.00	15.50	14.00	\$135.79
Capital Improvements Bond Fund	274.64	190.40	140.84	171.74	242.64	205.29	286.43	260.79	237.05	187.12	\$2,196.94
<b>TOTAL</b>	<b>\$276.36</b>	<b>\$200.18</b>	<b>\$170.99</b>	<b>\$193.58</b>	<b>\$257.97</b>	<b>\$233.48</b>	<b>\$316.78</b>	<b>\$284.79</b>	<b>\$259.55</b>	<b>\$208.12</b>	<b>\$2,401.80</b>

Notes: 1. All project costs are in millions of dollars.  
 2. Information regarding the distribution of funds between the sub-items in the Construction and Capital Improvements Bond Funds can be found in the Five-Year Financial Forecast.

\* PROJECTED CASH DISBURSEMENTS





## CONSTRUCTION FUND

### Fund Summary

The Construction Fund provides for the acquisition of infrastructure assets or the rehabilitation of existing structures that increase the efficiency or extend the useful life of the structure. The useful life of the asset generally will be less than five years and the cost of the project typically does not exceed \$500,000. The Construction Fund is funded primarily by property taxes.

### Summary of 2015 Accomplishments

Significant accomplishments include:

- Continued work on the rotating assemblies replacement project at the 95th and 125th Street Pumping Stations;
- Awarded a contract for the evaluation of an odor monitoring system, OdoWatch®, at the Calumet Water Reclamation Plant (WRP);
- Concluded DuFlow water quality modeling to analyze the effectiveness of the Devon Avenue Instream Aeration Station;
- Concluded the third year of a seven-year project (2013-2019) on microbial source tracking for the reaches of the Chicago Area Waterway System (CAWS) designated as primary contact recreation use;
- Completed the evaluation of the Albany Park flood mitigation alternatives as part of the project of developing a three-dimensional hydrodynamic and water quality model for the CAWS;
- Completed the hydrological investigation of the Tunnel and Reservoir Plan (TARP) groundwater system to evaluate the possibility of a reduction in the monitoring program;
- Awarded a contract for odor mitigation experts to assist in the development of a District Odor Master Plan;
- Awarded a contract for hydraulic and process modeling of the Calumet WRP;
- Purchased composting equipment for the District's biosolids program;
- Began work on a multi-year contract to furnish, deliver, and install new tank drives at the Lemont WRP;
- Awarded a contract to investigate two approaches to achieve shortcut nitrogen removal on a small scale for potential energy savings and total nitrogen removal;
- Awarded a contract to investigate a rapid microbiological method to monitor enhanced biological phosphorus removal performance at the Stickney WRP;
- Completed the inspection of 43 miles of intercepting sewers;
- Completed a contract for the expansion of the storeroom building at the O'Brien WRP;
- Awarded a contract to replace the parking lot with porous pavement at the Egan WRP;
- Completed the construction of a greenhouse facility to house research projects for use of algae technology in the recovery of nutrients from the wastewater stream at the O'Brien WRP.

### Budget Highlights

The 2016 appropriation for the Construction Fund is \$36,614,400, a decrease of \$1,296,300, or 3.4 percent, from 2015.

Significant features of the 2016 budget include:

- Complete the exterior restoration of the Process Control Building at the O'Brien WRP;
- Complete the odor mitigation expert contract;
- Upgrade the telemetry software from wired to cellular technology for the Waterways Control Section;
- Procure a membrane aerated biofilm at the Hanover Park WRP;
- Begin the rehabilitation of an old M&R laboratory building at the Calumet WRP;
- Complete the rehabilitation of various buildings at the prairie plan site in Fulton County, Illinois;
- Continue to inspect intercepting sewers on a prioritized basis;
- Begin odor dispersion modeling at District WRPs;
- Rehabilitate the hydraulic operator at TARP Gate Structure #1 in the Calumet Service Area;
- Begin hydraulic and process modeling for other District WRPs (the Calumet WRP began in 2015);
- Complete a contract to replace membrane gas holders and perform digester cleanings at the Egan WRP;
- Replace select gearboxes at Sidestream Elevated Pool Aeration Stations #3 and #4 in the Calumet Service Area;
- Complete a dashboard with an animation of major past storm events in terms of precipitation traversing the area and resulting waterway levels, gate positions, combined sewer overflows, and dissolved oxygen levels based on actual data;
- Upgrade the Foxboro input/output modules for the automation system at the Calumet WRP;
- Begin Phase II of a research project utilizing algae technology for recovery of phosphorus and nitrogen from wastewater, with installation of a pilot-scale photobioreactor system at the O'Brien WRP.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

- **Add Value**
  - Increase the use of the in-house trades for the completion of rehabilitation projects;
  - Increase the use of the Construction Fund, as part of the Asset Maintenance Plan, for the maintenance of facilities to ensure the long-term viability of assets;
  - Continue addressing odor mitigation strategy through the District Odor Master Plan and through the purchase of odor monitoring equipment.
  
- **Excellence**
  - Continue to develop and refine the Asset Maintenance Plan with the goal of reducing emergency sewer collapses and sludge line breaks and the high costs associated with them;
  - Continue to use District personnel to develop, design, and implement construction projects;
  - Develop an odor mitigation strategy at the Calumet WRP and complete the evaluation of odor mitigation options.
  
- **Resource Recovery**
  - Purchase and maintain equipment for enhanced biological phosphorus removal at the Stickney, Calumet, and Kirie WRPs;
  - Install an algae reactor system to explore nutrient recovery and production of commodity products at the O'Brien WRP;
  - Purchase equipment for composting biosolids with wood chips.

**CAPITAL PROJECTS LISTED BY SERVICE AREA - CONSTRUCTION FUND**

The following is a list of capital projects within the District’s three major service areas. They are presented by their association with a Water Reclamation Plant (WRP) and by their completion status: projects under construction and projects for 2016 award.

**STICKNEY  
SERVICE  
AREA (SSA)**



**Stickney Water Reclamation Plant (SWRP)**

**Projects Under Construction (with estimated completion dates)**

**Estimated Construction Cost**

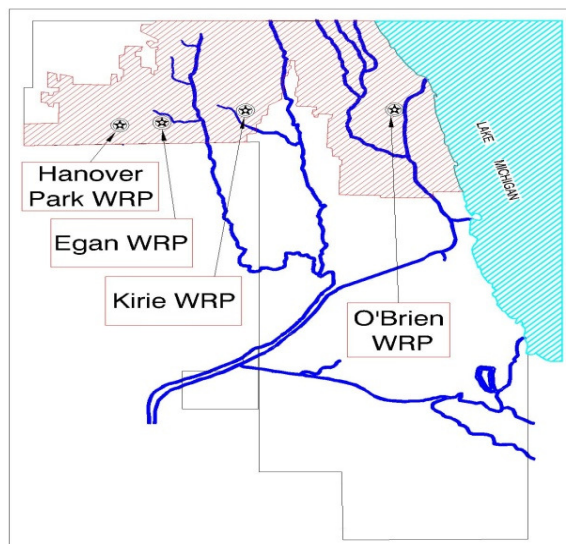
12-932-21	Rehabilitation of Sludge Heat Exchangers, SWRP (3/2016)	\$ 1,593,000
13-805-2S	Television Inspection and Recording of Sewer and Manholes, District-wide (9/2017)	1,522,000
13-932-22	Painting Services, SSA (12/2016)	1,755,000
15-906-21	Rehabilitation of Main Sewage Pump Rotating Assembly, SWRP (9/2016)	187,000
15-RFP-16	FD&I Building Automation System, MOBC (1/2016)	41,000
	<b>Total</b>	<b>\$ 5,098,000</b>

**Projects for 2016 Award**

14-107-2J	Stickney Effluent Reuse Line, SSA	\$ 600,000
15-609-21	F&D Equipment for Landscaping Maintenance, District-wide	400,000
15-913-21	Gas Turbine Recommissioning, SWRP	1,800,000
15-914-21	Recondition Various Circuit Breakers, SSA	200,000
16-601-21	Replacement of Communication Conduit, LPH	150,000
16-602-21	Waterways Telemetry Replacement, MOB	323,000
16-607-21	Security Fence and Gate Replacement, LPH	50,000
16-901-21	Boilers 4 and 5 Distributed Control System Controls Upgrade, SWRP	150,000
16-902-21	Pavement Restoration, District-wide	1,230,000
16-906-21	FD&I Hot Water Tank, SWRP	55,000
16-907-21	FD&I Hot Water Converter Bundles, SWRP	200,000
16-911-21	F&D Condensate Return System, SWRP	50,000
16-915-21	Fertilizer Storage Building Roof Replacement, SWRP	300,000
J15090-053	Paint and Carpet Replacement, MOB	425,000
J15090-054	Rehabilitation of Elevators, MOB	600,000
J15090-055	Replace Trane Mixed Air Heating Unit, MOBA	60,000
J15090-056	Replace Heating Unit and Reconfigure Ductwork, MOBA	25,000
J15090-057	Emergency Public Address System, MOBA	50,000
	<b>Total</b>	<b>\$ 6,668,000</b>

**Stickney Service Area Grand Total \$ 11,766,000**

# NORTH SERVICE AREA (NSA)



## Terrence J. O'Brien Water Reclamation Plant (OWRP)

### Projects Under Construction (with estimated completion dates)

	<b>Estimated Construction Cost</b>
13-721-22 Painting of Final Tanks, OWRP and KWRP (10/2016)	\$ 985,000
15-721-21 Rehabilitation of Devon Instream Aeration Station Air Main, OWRP (2/2016)	353,000
<b>Total</b>	<b>\$ 1,338,000</b>

### Projects for 2016 Award

15-073-2J Support Facilities for Algae Reactor System Pilot Plant, OWRP	\$ 500,000
15-607-21 F&D Station Batteries, OWRP, SWRP, and NBPS	210,000
15-711-21 Restoration of Process Control Building, OWRP	590,000
16-606-21 Sludge Line Valve Replacement, NSA	225,000
16-701-21 F&D Dissolved Oxygen Sampling Stations, CAWS	200,000
<b>Total</b>	<b>\$ 1,725,000</b>

## John E. Egan Water Reclamation Plant (EWRP)

### Projects Under Construction (with estimated completion dates)

06-842-2E Electrical Equipment Replacement, EWRP (11/2016)	\$ 1,950,000
11-403-2P Membrane Gas Holder Replacement and Digester Cleaning, EWRP (9/2016)	4,364,000
14-714-21 Parking Lot Replacement, EWRP (10/2016)	1,462,000
15-720-21 Rehabilitation of Chiller 1, EWRP (2/2016)	100,000
<b>Total</b>	<b>\$ 7,876,000</b>

## James C. Kirie Water Reclamation Plant (KWRP)

### Project Under Construction (with estimated completion dates)

15-719-21 Sludge Line Improvements, KWRP (1/2017)	\$ 178,000
<b>Total</b>	<b>\$ 178,000</b>

### Projects for 2016 Award

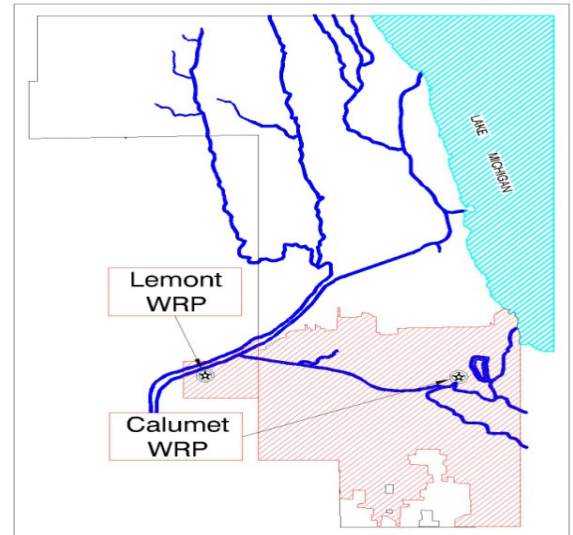
16-702-21 F&D Raw Sewage Pump Parts, KWRP	\$ 165,000
16-703-21 F&D Equipment for Phosphorus Removal, KWRP	450,000
J69644-001 Touhy Avenue Reservoir Rehabilitation, NSA	499,000
<b>Total</b>	<b>\$ 1,114,000</b>

**Hanover Park Water Reclamation Plant (HPWRP)**

**Projects for 2016 Award**

		<b>Estimated Construction Cost</b>
15-534-2C	Procurement of Membrane Aerated Biofilm Reactor Cassettes for Pilot Plant, HPWRP	\$ 800,000
15-701-21	F&D Turbo Blower for Process Air, HPWRP	178,000
	Total	\$ <u>978,000</u>
	North Service Area Grand Total	\$ <u><u>13,209,000</u></u>

## CALUMET SERVICE AREA (CSA)



### Calumet Water Reclamation Plant (CWRP)

#### Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
14-821-21	FD&I Rotating Assemblies at the 95th and 125th Street Pumping Stations, CSA (4/2016)	\$ 2,290,000
15-801-21	FD&I Crane Maintenance Platform, CWRP (4/2016)	50,000
15-802-21	Rehabilitation of Hydraulic Operator at TARP Gate Structure 1, CSA (12/2016)	1,324,000
15-813-22	Rehabilitation of Buildings, Fulton County (12/2016)	230,000
15-815-21	F&D One Gear Reducer, CSA (3/2016)	183,000
	<b>Total</b>	<b>\$ 4,077,000</b>

#### Projects for 2016 Award

14-811-22	FD&I New Boilers at the 125th Street Pumping Station, CSA	\$ 407,000
15-816-21	Rehabilitation of Hydraulic Passenger Elevator, CWRP	100,000
15-817-21	Replacement of Scum Screw Conveyor, CWRP	150,000
16-605-21	Installation of Drain Tile and Bioreactors, Fulton County	150,000
16-608-21	Erosion Control at SEPA 4, CSA	500,000
16-609-21	Pool Access Improvements at SEPA 3, CSA	240,000
16-804-21	Salt Storage Dome Installation, CWRP	150,000
16-806-21	F&D Vacuum Pump Priming System at the 95th Street Pumping Station, CSA	200,000
16-808-21	Laborers' Building Extension, CWRP	75,000
16-815-21	F&D One Gear Reducer, CSA	225,000
16-xxx-21	Old M&R Laboratory Building Rehabilitation, CWRP	1,000,000
	<b>Total</b>	<b>\$ 3,197,000</b>

### Lemont Water Reclamation Plant (LWRP)

#### Project Under Construction (with estimated completion date)

14-806-21	FD&I New Tank Drives, LWRP (9/2017)	\$ 976,000
	<b>Total</b>	<b>\$ 976,000</b>

Calumet Service Area Grand Total **\$ 8,250,000**

Capital Projects Grand Total - All Service Areas **\$ 33,225,000**

### Construction Fund Program

<b><u>Projects Under Construction</u></b>		Est.	MWRD		Award	
#	Project Name	Project Number	Construc- tion Cost	2016 Appro- piation	Dura- tion (days)	/ Est. Award Date
1	Painting of Final Tanks, OWRP and KWRP	13-721-22	985	255	984	Feb-14
2	Painting Services, SSA	13-932-22	1,755	413	989	Apr-14
3	FD&I Rotating Assemblies at the 95th and 125th Street Pumping Stations, CSA	14-821-21	2,290	300	680	Jun-14
4	Rehabilitation of Sludge Heat Exchangers, SWRP	12-932-21	1,593	460	630	Jul-14
5	Television Inspection and Recording of Sewer and Manholes, District-wide	13-805-2S	1,522	773	1,095	Sep-14
6	FD&I New Tank Drives, LWRP	14-806-21	976	300	1,111	Sep-14
7	Membrane Gas Holder Replacement and Digester Cleaning, EWRP	11-403-2P	4,364	2,813	665	Nov-14
8	Electrical Equipment Replacement, EWRP	06-842-2E	1,950	1,950	607	Mar-15
9	FD&I Crane Maintenance Platform, CWRP	15-801-21	50	50	365	Apr-15
10	Sludge Line Improvements, KWRP	15-719-21	178	136	516	Sep-15
11	Rehabilitation of Chiller 1, EWRP	15-720-21	100	100	151	Sep-15
12	F&D One Gear Reducer, CSA	15-815-21	183	183	210	Sep-15
13	Parking Lot Replacement, EWRP	14-714-21	1,462	1,397	392	Oct-15
14	Rehabilitation of Main Sewage Pump Rotating Assembly, SWRP	15-906-21	187	245	365	Oct-15
15	Rehabilitation of Devon Instream Aeration Station Air Main, OWRP	15-721-21	353	360	90	Nov-15
16	Rehabilitation of Hydraulic Operator at TARP Gate Structure 1, CSA	15-802-21	1,324	1,500	422	Nov-15
17	Rehabilitation of Buildings, Fulton County	15-813-22	230	250	422	Nov-15
18	FD&I Building Automation System, MOBC	15-RFP-16	41	20	87	Nov-15
Total Projects Under Construction			\$19,543	\$11,505		
<b><u>Awards in 2016</u></b>			Est.	MWRD		Est.
#	Project Name	Project Number	Construc- tion Cost	2016 Appro- piation	Dura- tion (days)	Award Date
1	FD&I New Boilers at the 125th Street Pumping Station, CSA	14-811-22	\$ 407	\$ 407	359	Jan-16
2	F&D Equipment for Landscaping Maintenance, District-wide	15-609-21	400	400	359	Jan-16
3	F&D Station Batteries, OWRP, SWRP, and NBPS	15-607-21	210	210	147	Jan-16
4	F&D Turbo Blower for Process Air, HPWRP	15-701-21	178	178	215	Jan-16
5	F&D Raw Sewage Pump Parts, KWRP	16-702-21	165	165	284	Jan-16
6	F&D One Gear Reducer, CSA	16-815-21	225	225	180	Jan-16
7	Boilers 4 and 5 Distributed Control System Controls Upgrade, SWRP	16-901-21	150	150	345	Jan-16
8	F&D Condensate Return System, SWRP	16-911-21	50	50	345	Jan-16
9	Paint and Carpet Replacement, MOB	J15090-053	425	425	151	Jan-16
10	Rehabilitation of Elevators, MOB	J15090-054	600	600	335	Jan-16
11	Emergency Public Address System, MOBA	J15090-057	50	50	90	Jan-16
12	Replacement of Scum Screw Conveyor, CWRP	15-817-21	150	150	331	Feb-16
13	Sludge Line Valve Replacement, NSA	16-606-21	225	225	270	Feb-16
14	F&D Dissolved Oxygen Sampling Stations, CAWS	16-701-21	200	200	92	Feb-16
15	F&D Equipment for Phosphorus Removal, KWRP	16-703-21	450	450	147	Feb-16



<b><u>Awards in 2016 (continued)</u></b>		Project	Est. Construc- tion Cost	MWRD 2016 Appro- priation	Dura- tion (days)	Est. Award Date
16	Stickney Effluent Reuse Line, SSA	14-107-2J	\$ 600	\$ 600	210	Feb-16
17	Support Facilities for Algae Reactor System Pilot Plant, OWRP	15-073-2J	500	500	73	Feb-16
18	Replace Trane Mixed Air Heating Unit, MOBA	J15090-055	60	60	185	Feb-16
19	Replace Heating Unit and Reconfigure Ductwork, MOBA	J15090-056	25	25	185	Feb-16
20	Gas Turbine Recommissioning, SWRP	15-913-21	1,800	1,500	547	Mar-16
21	F&D Vacuum Pump Priming System at the 95th Street Pumping Station, CSA	16-806-21	200	200	365	Mar-16
22	Fertilizer Storage Building Roof Replacement, SWRP	16-915-21	300	300	303	Mar-16
23	Rehabilitation of Hydraulic Passenger Elevator, CWRP	15-816-21	100	100	92	Mar-16
24	Touhy Avenue Reservoir Rehabilitation, NSA	J69644-001	499	539	105	Mar-16
25	Recondition Various Circuit Breakers, SSA	15-914-21	200	200	114	Apr-16
26	Security Fence and Gate Replacement, LPH	16-607-21	50	50	60	Apr-16
27	Laborers' Building Extension, CWRP	16-808-21	75	75	182	Apr-16
28	FD&I Hot Water Converter Bundles, SWRP	16-907-21	200	100	455	Apr-16
29	Procurement of Membrane Aerated Biofilm Reactor Cassettes for Pilot Plant, HPWRP	15-534-2C	800	800	550	May-16
30	Installation of Drain Tile and Bioreactors, Fulton County	16-605-21	150	150	240	May-16
31	Salt Storage Dome Installation, CWRP	16-804-21	150	150	89	May-16
32	FD&I Hot Water Tank, SWRP	16-906-21	55	55	240	May-16
33	Restoration of Process Control Building, OWRP	15-711-21	590	590	179	Jun-16
34	Waterways Telemetry Replacement, MOB	16-602-21	323	323	166	Jun-16
35	Old M&R Laboratory Building Rehabilitation, CWRP	16-xxx-21	1,000	1,000	198	Jun-16
36	Pavement Restoration, District-wide	16-902-21	1,230	350	542	Jul-16
37	Erosion Control at SEPA 4, CSA	16-608-21	500	355	455	Sep-16
38	Pool Access Improvements at SEPA 3, CSA	16-609-21	240	240	121	Sep-16
39	Replacement of Communication Conduit, LPH	16-601-21	150	150	31	Oct-16
Total 2016 Awards			\$13,682	\$12,297		
TOTAL 2016 PROJECTS			\$33,225	\$23,802		

**Note: All cost figures are in thousands of dollars.**

### Construction Fund Program Operating Impacts

<b><u>Projects Under Construction</u></b>		Justification				Impact			
		<i>Capacity Needs</i>	<i>Useful Life</i>	<i>Economic Benefit</i>	<i>Safety/Regulatory</i>	<i>Manpower</i>	<i>Energy</i>	<i>Chemical</i>	
#	Project Name	Project Number							
1	Painting of Final Tanks, OWRP and KWRP	13-721-22		x			=	+	=
2	Painting Services, SSA	13-932-22		x			=	=	=
3	FD&I Rotating Assemblies at the 95th and 125th Street Pumping Stations, CSA	14-821-21		x			=	+	=
4	Rehabilitation of Sludge Heat Exchangers, SWRP	12-932-21		x			=	+	=
5	Television Inspection and Recording of Sewer and Manholes, District-wide	13-805-2S		x		x	=	+	=
6	FD&I New Tank Drives, LWRP	14-806-21		x		x	=	+	=
7	Membrane Gas Holder Replacement and Digester Cleaning, EWRP	11-403-2P		x			=	+	=
8	Electrical Equipment Replacement, EWRP	06-842-2E		x			=	=	=
9	FD&I Crane Maintenance Platform, CWRP	15-801-21			x	x	=	=	=
10	Sludge Line Improvements, KWRP	15-719-21		x			=	=	=
11	Rehabilitation of Chiller 1, EWRP	15-720-21	x	x	x		=	=	=
12	F&D One Gear Reducer, CSA	15-815-21		x			=	=	=
13	Parking Lot Replacement, EWRP	14-714-21		x		x	=	=	=
14	Rehabilitation of Main Sewage Pump Rotating Assembly, SWRP	15-906-21		x			=	+	=
15	Rehabilitation of Devon Instream Aeration Station Air Main, OWRP	15-721-21		x			=	=	+
16	Rehabilitation of Hydraulic Operator at TARP Gate Structure 1, CSA	15-802-21		x		x	=	=	=
17	Rehabilitation of Buildings, Fulton County	15-813-22		x			=	=	=
18	FD&I Building Automation System, MOBC	15-RFP-16		x		x	=	+	=
<b><u>Awards in 2016</u></b>									
1	FD&I New Boilers at the 125th Street Pumping Station, CSA	14-811-22		x	x	x	+	+	=
2	F&D Equipment for Landscaping Maintenance, District-wide	15-609-21			x		-	-	=
3	F&D Station Batteries, OWRP, SWRP, and NBPS	15-607-21		x			=	=	=
4	F&D Turbo Blower for Process Air, HPWRP	15-701-21		x	x	x	+	+	+
5	F&D Raw Sewage Pump Parts, KWRP	16-702-21		x			=	=	=
6	F&D One Gear Reducer, CSA	16-815-21		x			=	=	=
7	Boilers 4 and 5 Distributed Control System Controls Upgrade, SWRP	16-901-21		x			=	=	=
8	F&D Condensate Return System, SWRP	16-911-21				x	=	=	+
9	Paint and Carpet Replacement, MOB	J15090-053		x		x	=	=	=
10	Rehabilitation of Elevators, MOB	J15090-054		x		x	=	+	=
11	Emergency Public Address System, MOBA	J15090-057		x		x	=	=	=
12	Replacement of Scum Screw Conveyor, CWRP	15-817-21		x		x	=	=	=
13	Sludge Line Valve Replacement, NSA	16-606-21		x			+	+	=
14	F&D Dissolved Oxygen Sampling Stations, CAWS	16-701-21		x			=	=	=
15	F&D Equipment for Phosphorus Removal, KWRP	16-703-21		x			=	=	=

<b>Construction Fund Operating Impacts for Awards in 2016 (continued)</b>			Justification				Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical
#	Project Name	Project Number							
16	Stickney Effluent Reuse Line, SSA	14-107-2J			x		=	=	=
17	Support Facilities for Algae Reactor System Pilot Plant, OWRP	15-073-2J				x	-	-	=
18	Replace Trane Mixed Air Heating Unit, MOBA	J15090-055		x			=	+	=
19	Replace Heating Unit and Reconfigure Ductwork, MOBA	J15090-056		x			=	=	=
20	Gas Turbine Recommissioning, SWRP	15-913-21			x		=	++	=
21	F&D Vacuum Pump Priming System at the 95th Street Pumping Station, CSA	16-806-21		x			=	=	=
22	Fertilizer Storage Building Roof Replacement, SWRP	16-915-21		x			=	=	=
23	Rehabilitation of Hydraulic Passenger Elevator, CWRP	15-816-21		x			=	=	=
24	Touhy Avenue Reservoir Rehabilitation, NSA	J69644-001		x	x	x	=	=	=
25	Recondition Various Circuit Breakers, SSA	15-914-21		x			=	=	=
26	Security Fence and Gate Replacement, LPH	16-607-21				x	=	=	=
27	Laborers' Building Extension, CWRP	16-808-21	x				=	=	=
28	FD&I Hot Water Converter Bundles, SWRP	16-907-21	x	x			+	+	+
29	Procurement of Membrane Aerated Biofilm Reactor Cassettes for Pilot Plant, HPWRP	15-534-2C				x	=	+	=
30	Installation of Drain Tile and Bioreactors, Fulton County	16-605-21		x			=	=	=
31	Salt Storage Dome Installation, CWRP	16-804-21	x		x	x	=	=	=
32	FD&I Hot Water Tank, SWRP	16-906-21	x				=	+	=
33	Restoration of Process Control Building, OWRP	15-711-21		x	x		=	=	=
34	Waterways Telemetry Replacement, MOB	16-602-21			x		=	=	=
35	Old M&R Laboratory Building Rehabilitation, CWRP	16-xxx-21	x			x	=	=	=
36	Pavement Restoration, District-wide	16-902-21		x		x	=	=	=
37	Erosion Control at SEPA 4, CSA	16-608-21		x			+	=	=
38	Pool Access Improvements at SEPA 3, CSA	16-609-21			x	x	++	=	=
39	Replacement of Communication Conduit, LPH	16-601-21	x			x	+	=	=

<b>LEGEND</b>		
Under " <b>Justification</b> ," the marked columns note the categories of benefits expected from each project.		
<b>Manpower</b>		
+ or - Labor savings (+) or increases (-) expected to result in redirecting existing manpower away from or toward facility or process to other tasks with no net change in total position costs.	++ or --	Labor impact significant enough to ultimately result in reduction (++) or increase (--) in personnel. See additional cost details contained in the Project Fact Sheets.
<b>Energy</b>		
+ or - Minor energy savings (+) or costs (-) having a negligible impact on the District's overall energy budget.	++ or --	Major energy savings (++) or costs (--) expected to result in significant revisions to a facility's energy budget. See additional cost details contained in the Project Fact Sheets.
<b>Chemical</b>		
+ or - Chemical savings (+) or costs (-) having a negligible impact on the District's overall chemical costs.	++ or --	Major chemical savings (++) or costs (--) expected to result in significant revisions to the budgeted chemical expenditures for the associated process. See additional cost details contained in the Project Fact Sheets.
=		No budgetary impact expected.

## Paint and Carpet Replacement, MOB

**Project Number:** J15090-053

**Service Area:** Stickney

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$425,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Replace old carpet and wall-coverings on the 3rd floor of the Main Office Building (MOB) utilizing "green" practices such as recycling of the existing carpet, applying zero volatile organic compound paint, and installing the Carpet and Rug Institute's Green Label Plus certified carpet tiles with aquatic (water-based) adhesive.

**Project Justification:** The MOB was last remodeled in 1985. Since then, only partial repairs to floor and wall coverings have been made. The carpet throughout the building is worn, painted areas are fading, and wallpaper is deteriorating. The project will provide an appealing, clean work area for employees and visitors.

**Project Status:** Pending award.

\*Information shown is estimated.

## Rehabilitation of Elevators, MOB

**Project Number:** J15090-054

**Service Area:** Stickney

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$600,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Modernize two Main Office Building (MOB) elevators by replacing direct current motors on two machines with alternating current motors with variable frequency drives (VFDs) to ensure better, more reliable performance while achieving energy savings.

**Project Justification:** Elevator entrapments result in lost employee productivity, potentially leading to an increase in the number of Workers' Compensation claims. Modernization of the MOB elevators will address this risk by providing a more reliable vertical transportation system for District employees and visitors at the MOB. Visitors will have a better impression of the MOB while experiencing a smoother elevator ride. This is in line with the "Excellence" value of the District, as related to the operations of the MOB Complex facilities. Additionally, the parts obsolescence issue will be addressed. Energy savings due to installation of load-modulating VFDs are expected.

**Project Status:** Pending award.

\*Information shown is estimated.

## Replace Trane Mixed Air Heating Unit, MOBA

**Project Number:** J15090-055

**Service Area:** Stickney

**Location:** Chicago

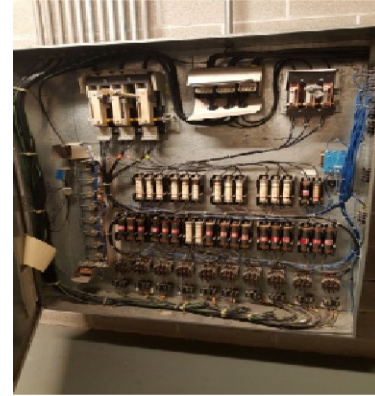
**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$60,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** August 2016\*



**Project Description:** Remove and replace a mixed air heating unit located on the 2nd floor of the Main Office Building Annex (MOBA). The new unit will be an energy efficient heating unit with up to 100kW of heating capacity.

**Project Justification:** The electric elements of the existing unit are failing, which may result in a fire hazard. The upgrade will replace an obsolete, mixed air pre-heating unit that is at the end of its useful life, with a new, energy efficient model of a similar size/heating capacity. Some ductwork reconfiguration may be required as a part of the project to accommodate the new unit by integrating it with the existing MOBA heating, ventilation, and air-conditioning system.

**Project Status:** Pending award.

\*Information shown is estimated.

## Replace Heating Unit and Reconfigure Ductwork, MOBA

**Project Number:** J15090-056

**Service Area:** Stickney

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$25,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** August 2016\*



**Project Description:** Replace the heating unit for ongoing heating needs of the 50'x20' supply storage room located on the 2nd floor of the Main Office Building Annex (MOBA). Reconfigure the existing ductwork to allow for future maintenance of the equipment.

**Project Justification:** By replacing the heating unit, the risk of the sprinkler piping freezing during below-zero temperatures will be eliminated. Currently, electric space heaters are utilized to prevent freezing, which pose a safety hazard.

Replacement of the heating unit is needed as a permanent solution to keep storage room temperatures in the safe range during the winter months and to prevent the sprinkler system from freezing and possibly flooding part of the building. In the event of a flood, the replacement cost of the MOBA lobby police desk, the 2nd floor phone room, and the P1 parking garage will outweigh the cost of a new heating unit.

**Project Status:** Pending award.

\*Information shown is estimated.

## Emergency Public Address System, MOBA

**Project Number:** J15090-057

**Service Area:** Stickney

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$50,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** April 2016\*



**Project Description:** Install a public address system at the Main Office Building Annex (MOBA) for emergency use in the event of a safety situation. The system would need to provide a selection for communication between individual or all floors of the MOBA to send an immediate audible message. This is a combined effort between the Human Resources Department and General Administration to ensure the safety of employees, contractors, and visitors in the MOBA offices.

**Project Justification:** The system will allow for communication between individual floors or all floors at once when the safety of District personnel is at risk. An example would be if an armed individual is present in the MOBA, individual floors could be selected to announce an evacuation or issue instructions. Exploration of the possibility of utilizing the existing fire system to create a sub-system that will provide the capabilities is described in the project scope. The sub-system would need to have the ability to be overridden by the existing fire safety system.

**Project Status:** Pending award.

\*Information shown is estimated.



## Touhy Avenue Reservoir Rehabilitation, NSA

**Project Number:** J69644-001

**Service Area:** North

**Location:** Touhy Avenue Reservoir

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$499,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Restore eroded slopes, spillways, outflow channels, gabions, damaged concrete, and joints at the Touhy Avenue Reservoir in accordance with the 2011 through 2015 inspection reports and permit requirements.

**Project Justification:** Per the District's Dam and Reservoir Permit guidelines and per Section 3702.160 of the "Rules for Construction and Maintenance of Dams and Reservoirs," the District is required to properly maintain its dams and reservoirs. The 2008 and 2011 Dam and Reservoir Annual Inspection Reports outline a list of deficiencies and provide restoration recommendations. It is recommended that the District restore these deficiencies to prevent accelerated deterioration of structural components.

**Project Status:** Pending award.

\*Information shown is estimated.

## Electrical Equipment Replacement, EWRP

**Project Number:** 06-842-2E

**Service Area:** North

**Location:** Egan WRP, Hamilton Reservoir

**Engineering Consultant:** In-house design

**General Contractor:** Broadway Electric, Inc.

**Estimated Construction Cost:** \$1,950,000

**Contract Award Date:** March 2015

**Substantial Completion Date:** November 2016\*



**Project Description:** Replace electrical equipment, including Power Centers 1, 1A, 4, and 5 and Motor Control Center 11 at the Egan WRP and the Motor Control Center at the Hamilton Reservoir.

**Project Justification:** The electrical equipment is over 30 years old and is in poor condition. In order to avoid failure and ensure the appropriate level of service, the equipment must be replaced.

**Project Status:** The project is under construction.

\*Information shown is estimated.

## Membrane Gas Holder Replacement and Digester Cleaning, EWRP

**Project Number:** 11-403-2P

**Service Area:** North

**Location:** Egan WRP

**Engineering Consultant:** In-house design

**General Contractor:** Path Construction Company, Inc.

**Estimated Construction Cost:** \$4,364,000

**Contract Award Date:** November 2014

**Substantial Completion Date:** September 2016\*



**Project Description:** Drain and clean Digesters A through D. Remove and replace the Dystor® membrane gas holders at Digesters B and D. Remove and replace the digester gas plug valves for Digesters A through D. Install new digester gas plug valves to allow Digesters B and D to be isolated. Install new actuators to some of the new/replaced valves to isolate digester gas during emergency shutoff events. Provide control wiring to the distributed control system (DCS) for these valves (programming the DCS will be performed by District personnel). Install new check valves in gas mixing pipelines to prevent sludge backflow and replace flushing water lines in Digesters A and C. Replace digested sludge sampling pipes at Digesters A through D. Replace mixing gas flow meters and associated gas piping, as necessary, at Digesters A and C.

**Project Justification:** Digesters A through D need to be drained and cleaned in order to maintain proper capacity and to perform the contract work. Digesters B and D currently use the Dystor® membranes to contain and store biogas. Those membranes were installed around the year 2000, and they are designed to be replaced every 12 to 14 years. It is economically justified to replace the membranes to maintain the unit's capacities and capabilities of safe utilization of digester gas. The existing digester gas plug valves are degraded to the point of being non-operational, and spare parts are not available. These valves and additional new valves are required for adequate isolation of digester gas piping. DCS control of the actuated digester gas valves is required to allow complete isolation of the digester gas system in an emergency.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Rehabilitation of Sludge Heat Exchangers, SWRP

**Project Number:** 12-932-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** Meccon Industries, Inc.

**Estimated Construction Cost:** \$1,593,000

**Contract Award Date:** July 2014

**Substantial Completion Date:** March 2016\*



**Project Description:** The purpose of this project is to replace six of the twenty-four sludge heat exchangers, now in service, that are necessary for maintaining the required sludge temperature at the digesters.

**Project Justification:** The existing sludge heat exchangers in Areas D and E were poorly designed. The units were in need of replacement due to tube failures and u-bend erosion. They will be replaced with an economically superior product.

**Project Status:** In progress.

\*Information shown is estimated.

## Painting of Final Tanks, OWRP and KWRP

**Project Number:** 13-721-22

**Service Area:** North

**Location:** O'Brien and Kirie WRPs

**Engineering Consultant:** In-house design

**General Contractor:** Crown Painting

**Estimated Construction Cost:** \$985,000

**Contract Award Date:** February 2014

**Substantial Completion Date:** October 2016\*



**Project Description:** Painting of final tanks including rake arms and walkways at the O'Brien and Kirie WRPs.

**Project Justification:** Existing paint was peeling, causing accelerated corrosion of the metal, and has exceeded the expected service life.

**Project Status:** In progress.

\*Information shown is estimated.

## Television Inspection and Recording of Sewer and Manholes, District-wide

**Project Number:** 13-805-2S

**Service Area:** North, Calumet, and Stickney

**Location:** District-wide

**Engineering Consultant:** In-house design

**General Contractor:** National Power Rodding Corporation

**Estimated Construction Cost:** \$1,522,000

**Contract Award Date:** September 2014

**Substantial Completion Date:** September 2017\*



**Project Description:** To provide the District with sewer inspection services of varying methods including: video inspection, water jetter system television inspection, zoom camera inspection, laser profiling, multi-sensor inspection, and manhole and Tunnel and Reservoir Plan drop shaft inspection. The contractor will also be responsible for cleaning, disposal, and hourly video inspection services.

**Project Justification:** The purpose of this contract is to determine and monitor the state of the District's existing collection systems infrastructure.

**Project Status:** This contract is in progress.

\*Information shown is estimated.

## Painting Services, SSA

**Project Number:** 13-932-22

**Service Area:** Stickney

**Location:** Stickney WRP and Mainstream Pumping Station

**Engineering Consultant:** In-house design

**General Contractor:** ERA Valdivia Contractors, Inc.

**Estimated Construction Cost:** \$1,755,000

**Contract Award Date:** April 2014

**Substantial Completion Date:** December 2016\*



**Project Description:** Group A: Painting of the final tanks at the Stickney WRP. Recoat the interior rake arm and center column portions, which are constructed of ferrous metal, on 22 final settling tanks.

Group B: Painting of the digester covers at the Stickney WRP. Furnish all necessary labor to clean, prepare, and paint digester covers and miscellaneous associated structures located in Digester Areas D, E, F, and G at the Stickney WRP.

Group C: Miscellaneous painting at the Mainstream Pumping Station. Coat various piping and appurtenances in such areas as the trashrake building, the gate building, the discharge valve shaft and chamber, the dewatering shaft and chamber, and the north and south pump houses, including the vent shafts, guard valve galleries, and receiving bays.

**Project Justification:** The coating on the tanks is deteriorating to the point that delamination has started to occur. Recoating is necessary to prevent corrosion, which will reduce the thickness of the steel members and lead to an increase in future costs and downtime to replace members that would otherwise have only required recoating.

The services outlined in this contract will maintain the protective coating program at the Stickney WRP to protect the physical integrity of equipment. Failure to proceed with this contract will result in excessive pitting and corrosion, resulting in the need to replace digester tank covers.

In order to maintain a quality facility with a full service life, piping and appurtenances must be reasonably protected from corrosion. If support equipment, such as pipe hangers/supports, are left to fail, pipes can become dislodged and separate. If stairs and ladders are deteriorated, the safety of District personnel becomes compromised. The location of many of these systems is not readily accessible for inspection; therefore, detection may not be possible until a failure occurs.

**Project Status:** In progress.

\*Information shown is estimated.

## Stickney Effluent Reuse Line, SSA

**Project Number:** 14-107-2J

**Service Area:** Stickney

**Location:** Stickney Township

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$600,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** September 2016\*



**Project Description:** This project consists of the installation of 2,000 linear feet of 6-inch diameter pressure pipe by directional drilling and the installation of air relief and blow-off structures and clean-out and blow-off structures.

**Project Justification:** This project provides a source of treated effluent water for use in process applications in the immediate vicinity of the Stickney WRP and represents the first of the effluent water reuse opportunities to be constructed.

**Project Status:** This project is being designed.

\*Information shown is estimated.



## Parking Lot Replacement, EWRP

**Project Number:** 14-714-21

**Service Area:** North

**Location:** Egan WRP

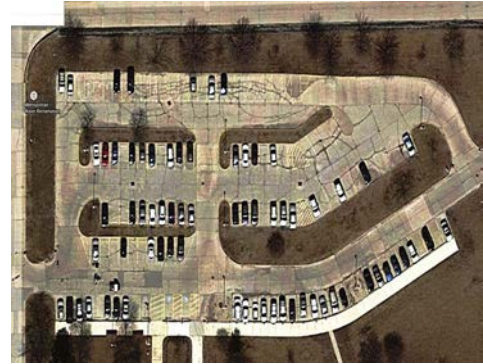
**Engineering Consultant:** In-house design

**General Contractor:** Path Construction Company, Inc.

**Estimated Construction Cost:** \$1,462,000

**Contract Award Date:** October 2015

**Substantial Completion Date:** October 2016\*



**Project Description:** Demolition of the existing concrete parking lot, driveways, storm sewers, and other associated appurtenances. Installation of a new permeable paver parking lot, concrete driveways and walkways, underdrain system, bio-retention basin, landscaping, and energy-efficient parking lot lighting.

**Project Justification:** The existing 44-year old concrete parking lot has deteriorated significantly, developed many potholes, and is failing very rapidly, thus creating driving and pedestrian hazards. The proposed permeable paver parking lot will provide green benefits by promoting stormwater infiltration and groundwater recharge, improving receiving waterway water quality, and contributing to compliance with the Green Infrastructure requirements of the District's Consent Decree.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Furnish, Deliver, and Install New Tank Drives, LWRP

**Project Number:** 14-806-21

**Service Area:** Calumet

**Location:** Lemont WRP

**Engineering Consultant:** In-house design

**General Contractor:** Independent Mechanical Industries, Inc.

**Estimated Construction Cost:** \$976,000

**Contract Award Date:** September 2014

**Substantial Completion Date:** September 2017\*



**Project Description:** Furnish, deliver, and install new clarifier drives on four final tanks and new mixers on one digester and one concentration tank. Refurbish and paint the structural steel members of the six tanks. Refurbish two tanks per year.

**Project Justification:** The original tank drives are in poor condition and require excessive maintenance. The structural steel also requires replacement of miscellaneous members due to rust. Replacement of the tank drives will ensure the tanks are available to meet the operational needs of the plant.

**Project Status:** In progress.

\*Information shown is estimated.

## Furnish, Deliver, and Install New Boilers at the 125th Street Pumping Station, CSA

**Project Number:** 14-811-22

**Service Area:** Calumet

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$407,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Remove and replace the boilers, condensate transfer system, and feedwater system at the 125th Street Pumping Station.

**Project Justification:** In 2011, a consultant performed a vulnerability study of the District's large pumping stations. The final report submitted by the consultant, dated March 25, 2011, entitled "Pump Station Vulnerability and Risk Assessment Study," identified the boiler system at the 125th Street Pumping Station as "quite aged and in poor to fair condition." In addition, the report determined that "steam availability is unlikely to be reliable." The burner systems for the boilers, manufactured by North American Atlas Generator, are obsolete. The efficiency of the boiler system is poor. It takes hours (versus minutes) to start producing steam from a cold start, and the boilers must be run continuously to hold the low temperature set point needed to keep the pipes from freezing in the winter.

Boilers are necessary to maintain the environment in the facility and to ensure the equipment is available when necessary.

**Project Status:** Pending award.

\*Information shown is estimated.

## **Furnish, Deliver, and Install Rotating Assemblies at the 95th and 125th Street Pumping Stations, CSA**

**Project Number:** 14-821-21

**Service Area:** Calumet

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** Ornelas Construction Co.

**Estimated Construction Cost:** \$2,290,000

**Contract Award Date:** June 2014

**Substantial Completion Date:** April 2016\*



**Project Description:** This project consists of furnishing, delivering, and installing a reverse-engineered rotating assembly for one storm pump at the 95th Street Pumping Station, one storm pump at the 125th Street Pumping Station, rebuilding one existing rotating assembly from each pumping station, and providing dimensional, computer-aided design drawings of the pumps and their associated components.

**Project Justification:** Storm pumps at both the 95th Street and 125th Pumping Stations are custom-made pumps manufactured in 1920 by manufacturers that are no longer in business. Dimensional drawings of the pumps do not exist. Replacement of the rotating assemblies will ensure that the pumping stations are available to meet the operational needs of the plant.

**Project Status:** In progress.

\*Information shown is estimated.

## Support Facilities for Algae Reactor System Pilot Plant, OWRP

**Project Number:** 15-073-2J

**Service Area:** North

**Location:** O'Brien WRP

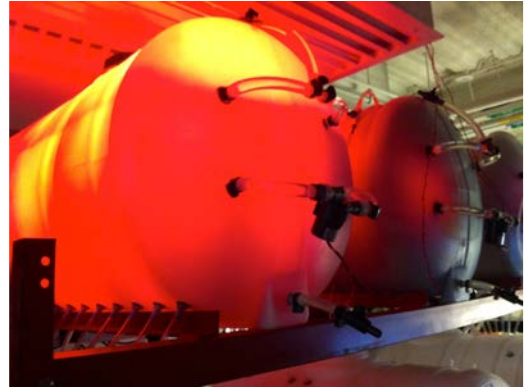
**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$500,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** May 2016\*



**Project Description:** Installation of the infrastructure and facilities required for the support of an algae reactor system pilot plant for the recovery of nutrients from wastewater at the O'Brien WRP.

**Project Justification:** This project provides the infrastructure to support the research project to determine the benefits and the performance of a photobioreactor designed to grow specific species of algae for the purpose of nutrient recovery. This project provides for the installation of the site work, sample supply line, drain, electricity supply, and temporary office space for the research project and research staff for project 15-073-2C.

**Project Status:** Design phase.

\*Information shown is estimated.

## Procurement of Membrane Aerated Biofilm Reactor Cassettes for Pilot Plant, HPWRP

**Project Number:** 15-534-2C

**Service Area:** North

**Location:** Hanover Park WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$800,000

**Contract Award Date:** May 2016\*

**Substantial Completion Date:** November 2017\*



**Project Description:** Purchase of 10 membrane aerated biofilm reactors (MABR) cassettes for a pilot plant installation at the Hanover Park WRP. The purpose of this project is to provide proof-of-concept for the application of MABR technology to improving the nitrification rate, increasing reactor capacity for enhanced biological phosphorus removal (EBPR), improving operations under stressed conditions, and reducing energy consumption in the activated sludge process. The project includes engineering support from the MABR manufacturer for design and installation.

**Project Justification:** This project is the second phase of a research project to determine the benefits of, and to prove the performance of MABR technology. The O'Brien WRP will be required to meet total phosphorus limits. The plant does not have the reactor capacity to implement EBPR and still meet the ammonia permit requirements. This technology has the potential to increase existing reactor capacity, while also reducing energy demand through reduced air consumption. A pilot test will be done at the Hanover Park WRP because it has the reactor-clarifier configuration needed for a small-scale pilot test.

**Project Status:** Pending results of the sidestream research project at O'Brien WRP.

\*Information shown is estimated.

## Furnish and Deliver Station Batteries, OWRP, SWRP, and NBPS

**Project Number:** 15-607-21

**Service Area:** North and Stickney

**Location:** O'Brien and Stickney WRPs and North Branch Pumping Station

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$210,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Replace three direct current (DC) battery line-ups located at the O'Brien WRP Pump and Blower Building, the Stickney WRP Central Heat Building, and the North Branch Pumping Station. These units supply DC power to tripping and charging circuits, protective relays, and monitoring devices within the corresponding switchgear.

**Project Justification:** The three DC battery line-ups are experiencing a manufacturing defect whereby internal plates expand and dislodge the post seals of the battery cells. Individual cell replacement is not recommended since the defect is apparent in nearly every cell in each of the three battery line-ups. The batteries were installed in 2005-2006 under Contracts 05-706-11 and 04-911-11, with a one-year unlimited warranty and expected service life of 20 years. In 2011-2012, the manufacturing defect appeared in some units, which prompted the manufacturer to perform field maintenance and reseal the affected post seals. The defect has reappeared in additional units and the manufacturer has no further obligation to make repairs as the warranty has now expired. Failure of a unit would result in the loss of electrical service for an extended period of time. Replacement units are not readily available due to long lead times, which would compromise the functionality of the plants or pumping station.

**Project Status:** Pending award.

\*Information shown is estimated.

## **Furnish and Deliver Equipment for Landscaping Maintenance, District-wide**

**Project Number:** 15-609-21

**Service Area:** North, Calumet, and Stickney

**Location:** District-wide

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$400,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Furnish and deliver assorted landscaping equipment to the North, Calumet, and Stickney Service Areas and outlying facilities.

**Project Justification:** Landscaping maintenance will be handled in-house beginning in 2016. The scope of this work will include the mowing of 500 acres of turf grass and maintenance of 100 acres of planting beds. As a result, additional equipment will be required for District staff to maintain the landscaping at all seven plants and outlying facilities. This equipment will include the following: mowers, tractors, brush cutters, chain saws, stump grinders, and weed trimmers.

**Project Status:** Pending award.

\*Information shown is estimated.



## Furnish and Deliver Turbo Blower for Process Air, HPWRP

**Project Number:** 15-701-21

**Service Area:** North

**Location:** Hanover Park WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$178,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** August 2016\*



**Project Description:** Furnish and deliver one high-speed turbo blower and electrical and mechanical accessories for the process air blowers at the Hanover Park WRP.

**Project Justification:** The project entails replacing two existing process air blowers with one high-speed turbo blower at the Hanover Park WRP, using in-house trades personnel. The contractor will furnish and deliver the turbo blower assembly and all electrical and mechanical accessories needed to replace the blowers. The turbo blower uses non-friction air or magnetic bearings instead of the ball bearings used in a conventional blower, which makes the turbo blower more energy efficient.

The existing multi-stage blowers have no variable frequency drive (VFD) motor controls. The air demand is controlled by throttling the air-inlet valve, which always operates at full speed, irrespective of air flow. The turbo blower has VFD motor controls, which will accurately control the speed based on the air flow, resulting in additional energy savings. Furthermore, due to the turbo blower's low-operating sound levels, the noise pollution will be reduced significantly.

**Project Status:** Pending award.

\*Information shown is estimated.

## Restoration of Process Control Building, OWRP

**Project Number:** 15-711-21

**Service Area:** North

**Location:** O'Brien WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$590,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** November 2016\*



**Project Description:** This contract provides for the restoration of the Process Control Building at the O'Brien WRP. The scope of the project includes grinding and recaulking the capstones and limestone, tuckpointing the entire structure, removing and replacing the sealant on all the doors and windows, replacing all the windows and glass blocks, and removing and replacing the roof. This project is expected to have a life expectancy of over 20 years.

**Project Justification:** The building is 85 years old and the building envelope is in poor condition and beginning to fail. Structural steel, in other buildings of the same age on the same site, has begun to rust badly due to envelope issues. The condition of the building, if not addressed now, will deteriorate further. Delaying the restoration will likely result in more extensive and expensive repairs in the future.

**Project Status:** Pending award.

\*Information shown is estimated.

## Sludge Line Improvements, KWRP

**Project Number:** 15-719-21

**Service Area:** North

**Location:** Kirie WRP

**Engineering Consultant:** In-house design

**General Contractor:** Kantex Subsurface, Inc.

**Estimated Construction Cost:** \$178,000

**Contract Award Date:** September 2015

**Substantial Completion Date:** January 2017\*



**Project Description:** The purpose of this project is to locate 21 of the 54 missing cathodic protection testing stations along approximately 5.6 miles of underground force main, from the Kirie WRP to the Egan WRP. The pipeline consists of approximately 5.6 miles of 18-inch ductile iron force main with mechanical joint construction. Over time, the test stations have been buried and identification marks have been erased due to construction activities or soil erosion. The expert service contractor will locate, raise, identify, and verify operation of all the test stations.

**Project Justification:** It is vital that the single force main pipeline for pumping sludge from the Kirie WRP to the Egan WRP is properly maintained. The operation of the Kirie WRP and its ability to meet the National Pollutant Discharge Elimination System permit requirements are directly affected if waste sludge cannot be pumped to the Egan WRP, as designed. Cathodic protection provides secondary corrosion protection for the underground force main. All testing stations must be functional in order to verify the cathodic protection for the underground force main. Under this project, the missing 21 cathodic protection testing stations will be located, and the ability to test the electrical continuity of the cathodic protection will be reestablished.

**Project Status:** In progress.

\*Information shown is estimated.

## Rehabilitation of Chiller 1, EWRP

**Project Number:** 15-720-21

**Service Area:** North

**Location:** Egan WRP

**Engineering Consultant:** In-house design

**General Contractor:** Anchor Mechanical, Inc.

**Estimated Construction Cost:** \$100,000

**Contract Award Date:** September 2015

**Substantial Completion Date:** February 2016\*



**Project Description:** Furnish, deliver, and install generator section tubes for Chiller 1 at the Egan WRP.

**Project Justification:** Under this project, the generator section tube bundle for Chiller 1 will be replaced. The chiller provides climate control for the Monitoring & Research Department's laboratory operations and office air-conditioning for the Egan WRP. There are three chillers at the Egan WRP; two chillers are required for the operation to meet design criteria.

To assess the condition of the equipment, eddy-current tests were performed on all four tube sections of Chiller 1. The condition report indicates that the generator section has five percent of the wall thickness remaining and replacement is required. The chiller has been in service for 28 years; if it continues to run, the tubes will fail, and it will cease to operate. It is less damaging to the chiller to replace the tube bundle under pre-planned, controlled conditions.

**Project Status:** In progress.

\*Information shown is estimated.

## Rehabilitation of Devon Instream Aeration Station Air Main, OWRP

**Project Number:** 15-721-21

**Service Area:** North

**Location:** Devon Instream Aeration Station

**Engineering Consultant:** In-house design

**General Contractor:** Morrison Construction Company, Inc.

**Estimated Construction Cost:** \$353,000

**Contract Award Date:** November 2015

**Substantial Completion Date:** February 2016\*



**Project Description:** Line the Devon Instream Aeration Station air main with cured-in-place piping.

**Project Justification:** The Devon Instream Aeration Station is used to maintain the dissolved oxygen level in the North Shore Channel per the National Pollutant Discharge Elimination System permit. The station is located at Devon Avenue and the North Shore Channel, two miles south of the O'Brien WRP. The air main is fabricated from 36-inch welded steel pipe. It runs underneath the length of the station, plus an additional 170 feet underground, before it connects to a riser, which distributes air to both sides of the channel through aeration plates. The air main section underneath the station has developed holes due to thinning and corroded steel. Condensation is unable to drain away, and groundwater has entered and filled the section of pipe running underneath the channel, blocking off the diffusers on the east bank. The District will install a cured-in-place liner to eliminate the air leaks and return the structural integrity of the pipe back to original specifications.

**Project Status:** In progress.

\*Information shown is estimated.

## Furnish, Deliver, and Install Crane Maintenance Platform, CWRP

**Project Number:** 15-801-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** Sievert Electric Service and Sales Company

**Estimated Construction Cost:** \$50,000

**Contract Award Date:** April 2015

**Substantial Completion Date:** April 2016\*



**Project Description:** This project includes the replacement of the existing ladder and platform at the Calumet WRP's influent pumping station with a new crane maintenance platform, consisting of a catwalk and access ladder, which is permanently mounted to the overhead crane.

**Project Justification:** Currently, if the overhead crane malfunctions while over the pump floor, there is no way to access the bridge safely to perform the required maintenance. The new crane maintenance platform will allow for any necessary work to be completed regardless of the crane's position.

**Project Status:** In progress.

\*Information shown is estimated.

## Rehabilitation of Hydraulic Operator at TARP Gate Structure 1, CSA

**Project Number:** 15-802-21

**Service Area:** Calumet

**Location:** TARP Gate Structure 1

**Engineering Consultant:** In-house design

**General Contractor:** Ornelas Construction Company

**Estimated Construction Cost:** \$1,324,000

**Contract Award Date:** November 2015

**Substantial Completion Date:** December 2016\*



**Project Description:** This project will include the removal, rehabilitation, and installation of the hydraulic operator on the Tunnel and Reservoir Plan (TARP) Gate Structure 1 (GS-1) in the Calumet Service Area.

**Project Justification:** TARP GS-1 is a critical roller gate in the Calumet Service Area that isolates the Torrence Avenue leg of the Calumet TARP System, protecting the service area from localized flooding events and providing a buffer to prevent combined sewer overflows into Lake Michigan. The gate is 16'x25' and is located 300 feet underground.

The hydraulic operator, installed in 2003, controls the operation of the gate. Corrosion of the rod on TARP GS-1 has damaged the packing, causing a hydraulic oil leak in the cylinder that cannot be repaired in the field. As a result, the gate could fail in the closed position, preventing the Torrence Avenue leg of the Calumet TARP System from being dewatered after a fill event. The rehabilitation of the hydraulic operator will include an upgraded rod designed to withstand the highly corrosive environment in the drop shaft.

**Project Status:** In progress.

\*Information shown is estimated.

## Rehabilitation of Buildings, Fulton County

**Project Number:** 15-813-22

**Service Area:** Calumet

**Location:** Prairie Plan Site, Fulton County

**Engineering Consultant:** In-house design

**General Contractor:** CAD Construction, Inc.

**Estimated Construction Cost:** \$230,000

**Contract Award Date:** November 2015

**Substantial Completion Date:** December 2016\*



**Project Description:** Rehabilitation of various buildings and structures at the prairie plan site in Fulton County, Illinois includes replacing the decking and roof material on Building B, replacing the roof material on the oil shed, replacing the roof and windows on the Wier Farmhouse, replacing the roof on the Maintenance & Operations Department's office building, and repairing the sheet metal on the Monitoring & Research Department's building.

**Project Justification:** Replacing the roof material on Building B, which is over 35 years old, is needed to ensure its structural integrity. It is the site's largest heated storage area and provides space for maintenance and repair work. The new roof will have a 40-year warranty. Replacing the decking on Building B will ensure that the new metal roof is securely fastened to the structure. Replacing the roof material on the oil shed is also needed to maintain its integrity. The roof and windows on the Wier Farmhouse are in poor condition and need to be replaced. The roof on the Maintenance & Operations Department's building has likewise exceeded its useful life. New asphalt shingles and decking in low-slope areas are recommended. On the Monitoring & Research Department's building, sheet metal repairs, such as new gutters and downspouts, are needed.

**Project Status:** In progress.

\*Information shown is estimated.



## Furnish and Deliver One Gear Reducer, CSA

**Project Number:** 15-815-21

**Service Area:** Calumet

**Location:** Blue Island

**Engineering Consultant:** In-house design

**General Contractor:** Chicago Chain and Transmission Company, Inc.

**Estimated Construction Cost:** \$183,000

**Contract Award Date:** September 2015

**Substantial Completion Date:** March 2016\*



**Project Description:** This project will furnish and deliver a replacement gearbox for Sidestream Elevated Pool Aeration (SEPA) Station 3 in the Calumet Service Area.

**Project Justification:** Due to changes in the permit that require average dissolved oxygen levels to be increased from 3.0 mg/L to 5.0 mg/L, from March through July, and to 3.5 mg/L, from August through February, normal operation may require all SEPA station screw pumps to be in service at the same time.

The existing gearboxes at SEPA Station 3 have been in service for over 20 years. Within the last three years, two of the four existing gearboxes have failed due to broken gears.

**Project Status:** In progress.

\*Information shown is estimated.

## Rehabilitation of Hydraulic Passenger Elevator, CWRP

**Project Number:** 15-816-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$100,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Rehabilitate the east hydraulic passenger elevator at the Calumet WRP Digester Complex and furnish, deliver, and install a positive-pressure, pneumatic system to prevent infiltration of corrosive gases and moisture, in accordance with applicable standards and safety code requirements.

**Project Justification:** The elevator was placed in service in 1964. Currently, the elevator is out of service. The elevator's condition has deteriorated over time due to the corrosive gases in the area which have affected the controls in the hoistway and machine room, as well as equipment in the elevator pit. This has caused frequent gaps in elevator availability despite monthly preventative maintenance performed in accordance with the City of Chicago Department of Buildings Elevator Code (adopted from American Society Mechanical Engineers Standard A17.1) that includes various points of inspection, adjustments, small component replacements, and corrective maintenance work to replace damaged electrical components.

Rehabilitating the hydraulic elevator and adding a positive-pressure, pneumatic system to minimize infiltration of the corrosive gases will increase availability and minimize future maintenance costs.

**Project Status:** Pending award.

\*Information shown is estimated.

## Replacement of Scum Screw Conveyor, CWRP

**Project Number:** 15-817-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$150,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Remove the existing shafted screw conveyor and furnish, deliver, and install a new shafted screw conveyor in the Scum Concentration Building at the Calumet WRP.

**Project Justification:** The shafted screw conveyor in the Scum Concentration Building, which was placed into service approximately 34 years ago, conveys scum from the scum concentration tank to dumpsters for disposal. Due to the corrosive gases and harsh environment in the Scum Concentration Building, the steel drive components and conveyor trough have experienced significant deterioration, causing maintenance costs to increase significantly. Replacement of the shafted screw conveyor, with current technologies, will minimize future maintenance and operations costs, lower disposal costs, eliminate a safety/slipping hazard, and allow more operational flexibility.

**Project Status:** Pending award.

\*Information shown is estimated.

## Rehabilitation of Main Sewage Pump Rotating Assembly, SWRP

**Project Number:** 15-906-21

**Service Area:** Stickney

**Location:** Racine Avenue Pumping Station (RAPS)

**Engineering Consultant:** In-house design

**General Contractor:** Xylem Water Solutions USA, Inc.

**Estimated Construction Cost:** \$187,000

**Contract Award Date:** October 2015

**Substantial Completion Date:** September 2016\*



**Project Description:** The purpose of this project is to refurbish one main sewage pump rotating assembly at the RAPS. The work includes complete disassembly, inspection of the impeller for reuse, and replacement of the shaft and all other parts. Epoxy coating of the impeller is an added technical feature. The project will provide for the refurbishment of the assembly to such a condition that it will be in service for another full lifecycle.

**Project Justification:** Inspection of the rotating assembly in service at the RAPS indicates excessive wear of the pump casing rings, impeller wear rings, and packing sleeves.

**Project Status:** In progress.

\*Information shown is estimated.

## Gas Turbine Recommissioning, SWRP

**Project Number:** 15-913-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,800,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** September 2017\*



**Project Description:** The purpose of this project is to recommission the gas turbine at the Stickney WRP. The work includes conversion of the gas turbine to operate on natural gas and an upgrade to the electrical control system.

**Project Justification:** The existing gas turbine generator is a capital asset that can be used to generate electricity. Conversion to natural gas operation will allow it to run without any interruptions in gas supply, and it will save the cost of digester gas treatment.

**Project Status:** Under design.

\*Information shown is estimated.

## Recondition Various Circuit Breakers, SSA

**Project Number:** 15-914-21

**Service Area:** Stickney

**Location:** Various

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$200,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** July 2016\*



**Project Description:** The purpose of this project is to recondition various circuit breakers in the Stickney Service Area.

**Project Justification:** Provide labor, materials, and appurtenances to recondition, test, and warranty various circuit breakers in the Stickney Service Area. The reconditioning will ensure the electrical safety and reliability of the equipment during normal operating and fault conditions. The breakers will be overhauled and reconditioned to meet the original manufacturer specifications.

**Project Status:** Pending award.

\*Information shown is estimated.

## Furnish, Deliver, and Install Building Automation System, MOBC

**Project Number:** 15-RFP-16

**Service Area:** Stickney

**Location:** Chicago

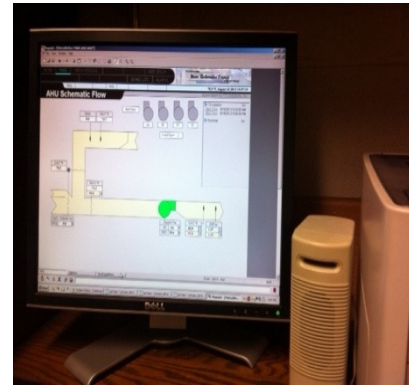
**Engineering Consultant:** In-house design

**General Contractor:** Anchor Mechanical, Inc.

**Estimated Construction Cost:** \$41,000

**Contract Award Date:** November 2015

**Substantial Completion Date:** January 2016\*



**Project Description:** Upgrade the existing Main Office Building Annex (MOBA) Building Automation System (BAS) and OPTO-22 life-safety alarm system to ensure automated text/call notifications for equipment in alarm and to implement the building operating controls resulting in energy savings. As a part of the Main Office Building Complex (MOBC) BAS, the alarm/life-safety master control module will monitor and transmit fire, high temperatures, and other alarms for any incidents that occur at the MOBC.

**Project Justification:** The OPTO-22 life-safety alarm system provides monitoring and audible/electronic (flash screen) notifications of over 70 MOBC alarms for critical building equipment and infrastructure, including the Uninterrupted Power Supply (UPS) system to the Main Office Building (MOB) 4th floor computer room, the MOBA 2nd floor phone room, to all fire, high temperature, and smoke alarms in both buildings, and the open door alarms. The system was installed in 2004 and the software is currently in need of four upgrades. There is no maintenance agreement in place to support this system. This part of the system will be replaced with a new MOBC alarm/life-safety system.

The MOB has no BAS in place; all building equipment is operated manually. All equipment readings for boilers, chillers, fans, pumps, and other equipment are obtained directly from the equipment sensors, without any reporting capability. The MOBA had a partial BAS that provides monitoring and control of start/stop times for fans, chillers, dampers, and cooling tower.

Direct Digital Controls (DDC) will allow greater energy savings by modulating heating and cooling based on the demand load. Enhanced reporting of major building systems will be provided and potential energy savings could be realized by reducing operation costs.

The new MOBC BAS will be further expandable (new monitoring points, card access, and video monitoring), programmable, and will have a choice of alarm delivery methods (email, on-screen pop-up, and/or sound). Additional benefits will include DDC, which will allow greater energy savings by modulating heating and cooling modes of equipment based on the actual demand loads.

**Project Status:** In progress.

\*Information shown is estimated.

## Replacement of Communication Conduit, LPH

**Project Number:** 16-601-21

**Service Area:** Stickney

**Location:** Lockport Powerhouse

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$150,000

**Contract Award Date:** October 2016\*

**Substantial Completion Date:** November 2016\*



**Project Description:** The project consists of replacing approximately one mile of PVC conduit and all necessary expansion joints. This will allow for greater expansion and contraction of the conduit which is critical for withstanding a harsh weather environment.

**Project Justification:** The existing conduit has separated in spots and, in some locations, is resting on the communication cables. In the event of a communication cable failure, communication with the powerhouse will be lost and the operation of two hydrogenerators, gates that control levels of the canal, and security cameras would be in jeopardy. The Lockport Powerhouse is governed by the Federal Energy Regulatory Commission, which requires the District to maintain continuous surveillance of the facility.

**Project Status:** Under review.

\*Information shown is estimated.



## Waterways Telemetry Replacement, MOB

**Project Number:** 16-602-21

**Service Area:** Stickney

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$323,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** November 2016\*



**Project Description:** Replace wired telemetry lines for elevation and rain gauges.

**Project Justification:** Elevation and rain gauges are critical to operating the Chicago Area Waterway System, likewise, telemetry lines are critical to operating the gauges. Elevation gauges are used to maintain the navigable waterways within the limits required by federal regulations and to manage the waterways during storms. Rain gauges are used to adjust waterway operations based on real-time information and to provide data for Combined Sewer Overflow reporting, as required by the District's National Pollutant Discharge Elimination System permits. Under this project, the current wired technology would be replaced with a new technology, such as cellular, to lower telemetry costs without lowering reliability. An additional benefit would be the ability to share data on the District's website.

**Project Status:** Under review.

\*Information shown is estimated.

## Installation of Drain Tile and Bioreactors, Fulton County

**Project Number:** 16-605-21

**Service Area:** Calumet

**Location:** Prairie Plan Site, Fulton County

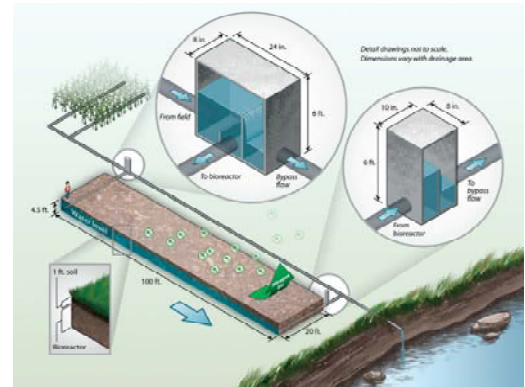
**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$150,000

**Contract Award Date:** May 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** During the non-growing season, patterned drain tile of the recommended size and depth will be installed throughout Fulton County's Field 106, which is approximately 80 acres in size. Bioreactors will also be installed to remove the nutrients in the runoff.

**Project Justification:** Bioreactors are a best management practice for reducing nitrogen runoff into surface waters. Bioreactors allow anaerobic conditions to develop which in turn allows naturally occurring denitrifiers to flourish. This project supports the District's goal of adding value by leveraging our real estate and utilizing Fulton County property for nutrient-control technology. It is expected that additional projects of this type will be planned for the Fulton County property, potentially on a watershed basis.

The project will also benefit the agricultural use of the District's Fulton County land. Increased drainage will allow fields to be planted earlier in wet springs and assist in modeling agricultural methods in the Mississippi River Basin. Fulton County staff ranked the fields based on which agricultural land would most benefit from the installation of drainage tiles. Information was collected from our tenants, resulting in Field 106 being deemed the highest priority.

**Project Status:** Under review.

\*Information shown is estimated.

## Sludge Line Valve Replacement, NSA

**Project Number:** 16-606-21

**Service Area:** North

**Location:** Various

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$225,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** October 2016\*



**Project Description:** Replacement of air-relief and blow-off valves on the North Side sludge line.

**Project Justification:** The North Side sludge line is a critical part of the District's infrastructure. The 18.3 mile force main conveys sludge from the O'Brien WRP to the Stickney WRP for processing. The line transports approximately 2.5 million gallons of sludge per day. On occasion, the sludge line is decommissioned to accommodate plant shutdowns and other maintenance needs. In order to shut down and reactivate the sludge line, District staff open air-relief and blow-off valves to relieve air locking and allow sludge to flow.

The line was constructed in three phases in the late 1960s, and many of the relief valves have exceeded their approximately 20 years of useful life. Over the years, several of the relief valves, which are used to recommission the line, have become corroded and difficult to operate. The operation of the air-relief valves is a critical component of the sludge line restoration process, needed to bring operating pressures and flow back to normal. The valves are vulnerable to failure and unreliable due to the corrosion.

The replacement of the air-relief and blow-off valves is necessary to ensure the North Side sludge line is in serviceable condition for future years. Failure of the valves would require an immediate shutdown of the sludge line in order to make the essential repairs.

**Project Status:** Under review.

\*Information shown is estimated.

## Security Fence and Gate Replacement, LPH

**Project Number:** 16-607-21

**Service Area:** Stickney

**Location:** Lockport Powerhouse

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$50,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Install a high-security fence at the Lockport Powerhouse. The fence will extend seven feet, with remote-control access only to the electric gate. The fence will allow the powerhouse to maintain maximum security 24 hours a day.

**Project Justification:** The Lockport Powerhouse is governed by the Federal Energy Regulatory Commission (FERC), which requires the District to maintain the facility with maximum security. Because the Lockport Powerhouse is a remote facility that is not manned around the clock, FERC requires that a security fence be installed for protection. The building contains two very expensive generators that produce approximately \$1.5 million annually in electric revenue through hydrogeneration. The powerhouse is a remote facility with the Stickney WRP police, as the closest security staff, located over 20 miles away.

**Project Status:** Under review.

\*Information shown is estimated.

## Erosion Control at SEPA 4, CSA

**Project Number:** 16-608-21

**Service Area:** Calumet

**Location:** Sidestream Elevated Pool Aeration Station (SEPA) 4

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$500,000

**Contract Award Date:** September 2016\*

**Substantial Completion Date:** November 2017\*



**Project Description:** Remove the gabion baskets and replace them with an articulated concrete revetment mat system for improved shoreline stabilization and erosion control.

**Project Justification:** The gabions along the 1,750 lineal feet of bank have failed and are falling into the pools. Replacement of the gabions is critical to ensure the banks remain intact and aesthetically pleasing, as SEPA 4 is a popular destination for area residents.

**Project Status:** Under review.

\*Information shown is estimated.

## Pool Access Improvements at SEPA 3, CSA

**Project Number:** 16-609-21

**Service Area:** Calumet

**Location:** Sidestream Elevated Pool Aeration Station (SEPA) 3

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$240,000

**Contract Award Date:** September 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Install ramps to allow for small equipment to enter the pools, install a gate on the decorative fencing, and relocate the monument to allow dump trucks to operate on the walking path.

**Project Justification:** The SEPA stations are designed to achieve State of Illinois dissolved oxygen concentration standards. At SEPA 3, the flow from the Calumet Sag Channel is pumped from the waterway to elevated shallow pools and cascaded over a number of drops back into the waterway. Each year, silt and zebra mussels accumulate in the pools, which interfere with operations. Currently, there is no means of accessing the pools with the small excavating equipment that should ideally be used to clean and maintain the pools.

Improving access will allow for easier, safer, and more efficient maintenance operations.

**Project Status:** Under review.

\*Information shown is estimated.

## Furnish and Deliver Dissolved Oxygen Sampling Stations, CAWS

**Project Number:** 16-701-21

**Service Area:** North, Calumet, and Stickney

**Location:** Chicago Area Waterways

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$200,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** May 2016\*



**Project Description:** Furnish and deliver dissolved oxygen (DO) sampling stations for in-house installation along the Chicago Area Waterway System (CAWS) to optimize Lake Michigan diversion, Sidesteam Elevated Pool Aeration (SEPA) stations, and the Devon Instream Aeration Station (IAS).

**Project Justification:** The District commissioned a report on the effectiveness of the Devon and Webster IAS, including their monitoring and control points. The report indicates that operation of the Devon IAS will be optimized if the DO monitoring probe delivering the DO information is moved downstream from its current location at the North Branch Pumping Station (NBPS). A site upstream of the Webster IAS, near Fullerton Avenue, is recommended as it is far enough upstream of the Webster IAS to avoid the effects of the aeration, which can distort the readings. Installation of a DO monitoring point at this location (near the DS-M75 structure) will provide feedback to control the DO levels in the waterway between the NBPS and Fullerton Avenue. Compliance with DO requirements in the waterway will also improve.

The report also provides information regarding optimization of the O'Brien Lock and Dam and SEPA stations. Report modeling identifies optimal withdrawal of Lake Michigan diversion at the O'Brien Lock and Dam to meet compliance with water quality standards in the Little Calumet River (north). The modeling uses a control point at the Conrail rail yard, which is downstream of the O'Brien Lock and Dam, to optimize diversion. Data obtained at this control point will be used to determine lake diversion at the O'Brien Lock and Dam. Report modeling also examines how to optimize pump operation at SEPA Stations 2, 3, and 4 to conserve energy while still maintaining compliance with new water quality standards. The modeling uses control points at Division Street, Cicero Avenue, and 104th Avenue for operation at SEPA Stations 2, 3, and 4, respectively. Downstream DO levels will help determine the operation of screw pumps at the aforementioned SEPA stations.

Installation of the sampling stations will be performed by District trades.

**Project Status:** Design phase.

\*Information shown is estimated.

## Furnish and Deliver Raw Sewage Pump Parts, KWRP

**Project Number:** 16-702-21

**Service Area:** North

**Location:** Kirie WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$165,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** October 2016\*



**Project Description:** Furnish and deliver raw sewage pump parts, including oil-lubed bearing frames, shaft sleeves, impeller lockplate assemblies, stuffing box head assemblies, and ductile iron casings.

**Project Justification:** Under Contract 01-353-2M, Kirie Pump Station Rehabilitation, six raw sewage pumps were to be replaced. However, the contract was terminated after the installation of Pumps #4, #5, and #6 only. The remaining three pumps will be rehabilitated under this contract.

**Project Status:** Under review.

\*Information shown is estimated.



## Furnish and Deliver Equipment for Phosphorus Removal, KWRP

**Project Number:** 16-703-21

**Service Area:** North

**Location:** Kirie WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$450,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** Procure and install pumps, piping, and instrumentation in the first pass of two aeration tanks. Procure and install return sludge pumps in two final settling tanks. The installation will be performed by District trades.

**Project Justification:** A future phosphorus limit, tentatively scheduled to be in place within five years of issuance of the currently expired National Pollutant Discharge Elimination System permit, will require the use of both Batteries A and B for first stage treatment. The first pass of each aeration tank will be converted to an anoxic zone. Return sludge pumps will be installed for sludge withdrawal as a replacement for air lifts. This equipment will reduce dissolved oxygen in the first pass of the aeration tanks, which is necessary for phosphorus removal.

During 2016 and 2017, Aeration and Final Settling Tanks A5 and A6 will be used as pilot tanks to determine the length of the first pass anoxic zone and overall capacity for biological treatment and phosphorus removal.

**Project Status:** Project is under review.

\*Information shown is estimated.

## Salt Storage Dome Installation, CWRP

**Project Number:** 16-804-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$150,000

**Contract Award Date:** May 2016\*

**Substantial Completion Date:** August 2016\*



**Project Description:** The purpose of this project is to move the winter salt pile from outside into a covered building. The salt dome comes pre-fabricated and will be delivered and installed in the lot by the new storage building. All the work will be done by the contractor.

**Project Justification:** The Illinois Pollution Control Board is considering a new water quality standard for chloride in Illinois waterways. As a National Pollutant Discharge Elimination System permit holder, the District needs to find ways to eliminate chloride from making its way into the waterways in order to meet the lower chloride limit. Currently, the winter salt supply is stored outside, uncovered in a loading dock, and exposed to the elements. The salt dome would keep the salt pile covered and prevent it from being blown away or washed away into the drains during precipitation events.

**Project Status:** Design phase.

\*Information shown is estimated.

## Furnish and Deliver Vacuum Pump Priming System at the 95th Street Pumping Station, CSA

**Project Number:** 16-806-21

**Service Area:** Calumet

**Location:** Chicago

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$200,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** March 2017\*



**Project Description:** Replace problematic equipment and install modern technology to ensure increased dependability of the vacuum priming systems at the 95th Street Pumping Station and reduce the risk of flooding during rain events. The installation will be performed by District Pipefitters.

**Project Justification:** The wet-weather and dry-weather centrifugal pumps at the 95th Street Pumping Station require a functional vacuum system to raise the level of the wet well in order to initiate operation. The District has consistently followed the manufacturer's recommended maintenance schedule for the electrical equipment, motors, vacuum pumps, and control valves. Recently, however, the reliability of the vacuum systems has diminished and has caused significant operational difficulties during rain events.

**Project Status:** Design phase.

\*Information shown is estimated.

## Laborers' Building Extension, CWRP

**Project Number:** 16-808-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$75,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** October 2016\*



**Project Description:** The small equipment garage will be expanded and insulated to include a Laborer Foreman's office, washrooms, and a small break area.

**Project Justification:** During various construction projects over the past 15 years, buildings and offices have been demolished, displacing plant laborer staff from a centralized location. The existing building functions poorly as both a small equipment garage, housing riding lawn mowers, push mowers, snow blowers, bush cutters, and chainsaws and a common work area for the laborers. Providing additional space in this building, as well as a centralized location, will improve staff function and efficiency.

**Project Status:** Design phase.

\*Information shown is estimated.

## Furnish and Deliver One Gear Reducer, CSA

**Project Number:** 16-815-21

**Service Area:** Calumet

**Location:** Worth

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$225,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** July 2016\*



**Project Description:** This project will furnish and deliver a replacement gearbox for Sidestream Elevated Pool Aeration (SEPA) Station 4 in the Calumet Service Area.

**Project Justification:** Due to changes in the permit that require average dissolved oxygen levels to be increased from 3.0 mg/L to 5.0 mg/L, from March through July, and to 3.5 mg/L, from August through February, normal operation may require all SEPA station screw pumps to be in service at the same time.

The existing gearboxes at SEPA stations within the Calumet Service Area have been in service for over 24 years and during this time, the District has consistently followed the manufacturer's recommended maintenance schedule. Within the last four years, two of the gearboxes have failed due to normal friction wear and deterioration of the gear teeth.

**Project Status:** Under review.

\*Information shown is estimated.

## Boilers 4 and 5 Distributed Control System Controls Upgrade, SWRP

**Project Number:** 16-901-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$150,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Replace the distributed control system (DCS) for Central Heat Facility Boilers 4 and 5 at the Stickney WRP.

**Project Justification:** Replace the combined Boiler 4 and 5 DCS controls at the Stickney Central Heat Facility with a superior technology that will provide the operators with all necessary information, while incurring lower maintenance costs. The boilers provide steam for the digester plant process, along with building heating and cooling. The existing DCS consists of two control panels, with one common obsolete processor controlling Boilers 4 and 5. The new system will share a fault-tolerant dual controller with an independent remote input/output cabinet for proper lockout/tag out to comply with the Occupational Safety and Health Administration standard for the control of hazardous energy.

**Project Status:** Design phase.

\*Information shown is estimated.

## Pavement Restoration, District-wide

**Project Number:** 16-902-21

**Service Area:** North, Calumet, and Stickney

**Location:** District-wide

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,230,000

**Contract Award Date:** July 2016\*

**Substantial Completion Date:** December 2017\*



**Project Description:** Removal and replacement includes: Illinois Department of Transportation type-B patch and restoration of deteriorating concrete pavement, curb and gutter, and collapsed inlets in the Stickney, Calumet, and North Service Areas.

**Project Justification:** Roadway and parking lot pavements, as old as 35 years, show signs of deterioration at the Stickney, Calumet, Egan, Hanover Park, and Kirie WRPs. Cracks are as wide as six inches, and potholes are noted at numerous locations in these WRPs. Asphalt cold patch has been applied every year in the past but will not last. Collapsed inlets are noted at each WRP as well. The poor condition of the pavement has a negative impact on District vehicles as well as employees' vehicles. This project will extend the useful life of the roadways and parking lots and provide safe driving conditions in the plants.

**Project Status:** Preliminary planning.

\*Information shown is estimated.

## Furnish, Deliver, and Install Hot Water Tank, SWRP

**Project Number:** 16-906-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$55,000

**Contract Award Date:** May 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Furnish, deliver, and install a stainless steel hot water tank in Digester Area D at the Stickney WRP.

**Project Justification:** The tank is used as a reservoir to store hot water that is routed through adjacent sludge heat exchangers to maintain the required sludge digestion temperature. The hot water storage tank used on Digester Tanks 13 and 15 has failed due to extensive internal corrosion. There is one hot water tank for every two sludge heat exchangers in Digester Area D. Since this hot water tank cannot be used, the hot water tank capacity is reduced by 50 percent. In order to restore the needed capacity, the hot water tank must be replaced.

**Project Status:** Preliminary planning.

\*Information shown is estimated.



## Furnish, Deliver, and Install Hot Water Converter Bundles, SWRP

**Project Number:** 16-907-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$200,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** July 2017\*



**Project Description:** Furnish, deliver, and install six steam/hot water converter bundles at the Stickney WRP.

**Project Justification:** The converter bundles utilize steam to heat hot water that is subsequently used to heat sludge being recirculated in four anaerobic digesters in Digester Areas E and G. Their capacity has been reduced due to debris wedged in the u-bend portion of the internal tube bundle. This project will replace six steam/hot water converter bundles in Digester Area E that are performing at a reduced capacity and efficiency.

**Project Status:** Preliminary planning.

\*Information shown is estimated.

## Furnish and Deliver Condensate Return System, SWRP

**Project Number:** 16-911-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$50,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** Furnish and deliver a duplex condensate return system for the West Grit Building at the Stickney WRP.

**Project Justification:** This project will provide for the replacement of the existing condensate return system, which does not meet the National Fire Protection Association (NFPA) Class 1, Division 1 code and is inoperative. By replacing the condensate tank system, the NFPA code will be met and the condensate will be returned to the boiler, reducing the amount of make-up water and boiler treatment chemicals needed.

**Project Status:** Pending award.

\*Information shown is estimated.

## Fertilizer Storage Building Roof Replacement, SWRP

**Project Number:** 16-915-21

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$300,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** The purpose of this project is to replace the Fertilizer Storage Building (FSB) roof located at the Stickney WRP. The FSB has a 31,000 square foot corrugated metal roof that was last replaced in 1981 under Contract 80-152-2D.

**Project Justification:** The FSB is a 28,000 square foot unheated storage facility used by the Procurement & Materials Management (P&MM) Department to store both inventory and non-inventory project items awaiting use. The FSB keeps the items secure and allows the main storeroom the ability to process incoming and outgoing material without disruptions due to space shortages. P&MM stores large non-inventory items inside the FSB that are not going to be consumed immediately. P&MM reports that they are currently unable to store any items inside the FSB due to roof leaks. They have approximately 110 skids of sewer components being stored on the floor of the Equipment Storage Building, which is blocking their ability to maneuver any large inventory items. The restoration of the FSB roof would restore P&MM's storage capacity and increase their ability to provide a safe and efficient inventory control system. P&MM is planning on expanding the use of this building for some of the larger project components that are currently stored outside to insure the integrity of the items, as well as provide order and security. The corrugated roofing panels have deteriorated rapidly in the last four years; delays to the roof restoration may impact the buildings integrity.

**Project Status:** Project initiation.

\*Information shown is estimated.

## Old M&R Laboratory Building Rehabilitation, CWRP

**Project Number:** 16-xxx-21

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,000,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** December 2016\*



**Project Description:** This project is the first phase of repurposing the old Monitoring and Research Department (M&R) laboratory, which was vacated when M&R staff moved into new facilities, constructed under Engineering Contract 00-275-2V. Phase I will gut the old laboratory, which includes the removal of all old laboratory equipment, walk-in coolers, and ancillary facilities no longer used by laboratory staff. Phase I will also include the upgrade and replacement of the mechanical and electrical systems, repair/replace the roof, and replace all the windows.

**Project Justification:** M&R has a business need to provide a proper work space for the Calumet Field Surveillance Section (FSS) of the Industrial Waste Division (IWD). The work offices for the Calumet FSS professional staff are currently located in the basement of the North Administrative Building, beneath the old, unoccupied laboratory facilities. Initially started as a temporary arrangement until a more suitable work area could be secured, the professional staff has occupied this area for approximately 30 years, while five Pollution Control Technicians have been stationed at two remote trailers and IWD samples/equipment have been stored and cleaned at an unattached structure. This arrangement presents managerial, health and safety, and morale challenges. This also presents a loss of supervisory control when the represented staff is located in a completely separate work location from that of professional staff.

The current office space presents itself with several issues that are less than desirable for a professional working environment. There is very poor ventilation and no operable, fresh air venting available, creating a less than optimal breathing environment for the staff. An inspection last year revealed health and safety issues due to mold growing in the north rear corner of the office, due in part to the leaky roof. Several of the wall jacks and ports are inoperable and irreparable, due to the basement location. Instead of repairing, lines are run long distances to reach the necessary location(s). Lastly, working in a windowless, basement environment presents health and safety concerns and supervisory challenges in terms of keeping morale up, maintaining a good, professional work attitude, and remaining creative in a sterile environment.

**Project Status:** Design phase.

\*Information shown is estimated.

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. TREATMENT FACILITIES: Award projects, such as the Foxboro input/output module upgrade, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 10,303,200	28.1%
2. COLLECTION FACILITIES: Award projects, such as the Northside sludge line valve replacement, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 1,807,400	4.9%
3. SOLIDS PROCESSING & DISPOSAL FACILITIES: Award projects, such as the replacement of hot water converter bundles at the Stickney Water Reclamation Plant (WRP), which will reduce costs and/or provide facility improvements.	\$ 3,072,300	8.4%
4. FLOOD & POLLUTION CONTROL: Provide funding for construction projects addressing flood control.	\$ 1,882,000	5.1%
5. CONSTRUCTION FUND PROJECT COST: Provide funding for contracts awarded prior to 2016.	\$ 11,505,000	31.5%
6. PROJECT SUPPORT: Development, design, and administration of current and future contracts, funding support, construction materials, and utility support services.	\$ 8,044,500	22.0%
Total	<u>\$ 36,614,400</u>	<u>100.0%</u>

MEASURABLE GOAL:	2014 Actual	2015 Estimated	2016 Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	42	33	39
Number of contracts awarded	26	26	39
Number of plans available for award	26	26	39
<p>The projects proposed for each year are based upon the requirements dictated by the Capital Improvement Program. The number of actual projects awarded may not, on face value, quantify performance. There are several factors that could either increase or decrease the number of projects awarded. Some of these factors are project size, project complexity, and unforeseen obstacles. The numbers are provided only as a general indicator of performance.</p>			

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change			
Number	Name		Positions	Dollars	Dollars	Percent		
1110	Interceptor Systems	\$ 449,942	2016	-	\$ 772,600	\$ 217,800	39.3	a)
			2015	-	\$ 554,800			
1200	TARP	\$ 3,362	2016	-	\$ -	\$ -	-	
			2015	-	\$ -			
1300	Pumping Station Facilities	\$ 374,023	2016	-	\$ 300,000	\$ (1,423,600)	(82.6)	b)
			2015	-	\$ 1,723,600			
1530	Local Sewer Permit Activity	\$ -	2016	-	\$ 50,000	\$ 50,000	100.0	c)
			2015	-	\$ -			
1700	Collection Design	\$ 42,736	2016	-	\$ -	\$ (192,000)	(100.0)	d)
			2015	-	\$ 192,000			
1800	Collection Construction	\$ 3,323,186	2016	-	\$ 2,498,800	\$ (987,400)	(28.3)	e)
			2015	-	\$ 3,486,200			
2211	Aeration Basin/Clarifiers	\$ 397,788	2016	-	\$ -	\$ (65,000)	(100.0)	f)
			2015	-	\$ 65,000			
2700	Treatment Design	\$ 92,850	2016	-	\$ 2,255,000	\$ 1,712,200	315.4	g)
			2015	-	\$ 542,800			
2800	Treatment Construction	\$ 9,290,271	2016	-	\$ 14,446,200	\$ 2,175,500	17.7	h)
			2015	-	\$ 12,270,700			
3700	Solids Processing Design	\$ 123,511	2016	-	\$ 1,349,600	\$ (2,336,200)	(63.4)	i)
			2015	-	\$ 3,685,800			
3800	Solids Processing Construction	\$ 2,292,149	2016	-	\$ 4,845,700	\$ (2,147,100)	(30.7)	j)
			2015	-	\$ 6,992,800			
4200	Waterways Control and Stormwater Reservoirs	\$ 231,302	2016	-	\$ -	\$ (50,000)	(100.0)	k)
			2015	-	\$ 50,000			
4210	Maintenance of Waterways	\$ 68,732	2016	-	\$ -	\$ -	-	
			2015	-	\$ -			

- a) Increase is due to an increased estimate for sewer inspections under 13-805-2S, Television Inspection and Recording of Sewers and Manholes (\$257,800).
- b) Decrease is due to the 2015 carryforward of 14-821-21, FD&I Rotating Assemblies at the 95th and 125th Street Pumping Stations.
- c) Increase is due to the addition of a project for permit database and geographic information system integration for the Local Sewer Systems Section.
- d) Decrease is due to the 2015 completion and 2016 reallocation to the Capital Improvements Bond Fund of 07-857-2S, Civil Consulting Support Services.
- e) Decrease is due to the 2015 completion of a TARP crane rehabilitation project (\$625,000) and a Mainstream Pumping Station pump rehabilitation project (\$300,000).
- f) Decrease is due to the completion of bio-phosphorus carbon testing at the Calumet WRP.
- g) Increase is due to the addition of consulting services for 15-073-2C, Algae Reactor System Pilot Plant for Recovery of Nutrients (\$900,000) and the addition of 15-534-2C, Procurement of Membrane Aerated Biofilm Reactor Cassettes for Pilot Plant, HPWRP (\$800,000).
- h) Increase is due to the addition of a project to upgrade the Foxboro distributed control system (\$2,184,200), offset by the completion of 14-802-21, F&D Replacement Pickup Truck (\$36,900).
- i) Decrease is due to the reallocation of engineering services for 11-240-3P, Organic Waste Receiving Facility, CWRP to the Capital Improvements Bond Fund (\$2,334,000).
- j) Decrease is due to the completion of a project to rehabilitate centrifuges at the Stickney WRP (\$1,785,000) and 15-910-21, F&D Replacement Parts for Sludge Heat Exchangers (\$225,000), as well as the deferral of 16-910-21, Painting of Digester Covers (\$95,800).
- k) Decrease is due to the completion of a project to install a bioxide dosing station at the Kirie WRP.

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change			
Number	Name		Positions	Dollars	Dollars	Percent		
4330	Operations and Maintenance	\$ 283,194	2016	-	\$ -	\$ (266,000)	(100.0)	l)
			2015	-	\$ 266,000			
4600	Monitoring	\$ 1,923,499	2016	-	\$ 3,914,500	\$ 1,089,500	38.6	m)
			2015	-	\$ 2,825,000			
4800	Flood & Pollution Control Construction	\$ 21,888	2016	-	\$ 1,882,000	\$ 1,319,800	234.8	n)
			2015	-	\$ 562,200			
5114	Loading Lagoon Lo-Solids for Transport to Drying Site	\$ 112,215	2016	-	\$ -	\$ (132,000)	(100.0)	o)
			2015	-	\$ 132,000			
5800	Solids Disposal Construction	\$ 1,068,259	2016	-	\$ 150,000	\$ 150,000	100.0	p)
			2015	-	\$ -			
5900	Solids Utilization - Indirect Cost Programs	\$ 4,942	2016	-	\$ -	\$ -	-	
			2015	-	\$ -			
7284	Storing	\$ -	2016	-	\$ -	\$ (200,000)	(100.0)	q)
			2015	-	\$ 200,000			
7355	Litigation	\$ 26,986	2016	-	\$ -	\$ -	-	
			2015	-	\$ -			
7367	Real Estate Asset Management	\$ 120,503	2016	-	\$ 270,000	\$ (35,800)	(11.7)	
			2015	-	\$ 305,800			
7380	Information Technology and Telecommunications	\$ 824,509	2016	-	\$ 1,232,000	\$ (429,000)	(25.8)	r)
			2015	-	\$ 1,661,000			
7399	Accounting and Financial Reporting	\$ -	2016	-	\$ 50,000	\$ 50,000	100.0	s)
			2015	-	\$ -			
7461	Main Office Building Complex Operations	\$ 969,740	2016	-	\$ 1,180,000	\$ 405,000	52.3	t)
			2015	-	\$ 775,000			
7480	Safety Program	\$ -	2016	-	\$ 118,000	\$ 18,000	18.0	u)
			2015	-	\$ 100,000			

l) Decrease is due to the completion of 13-611-21, F&D Skimmer Boats.

m) Increase is due to the addition of a project to rehabilitate an old M&R laboratory building at the Calumet WRP (\$1,000,000).

n) Increase is due to the carryover of a project to rehabilitate the Touhy Avenue Reservoir (\$379,000), and the addition of 16-608-21, SEPA 4 Erosion Control (\$355,000), 16-602-21, Waterways Telemetry Control, MOB (\$323,000), and 16-609-21, SEPA 3 Pool Access Improvements (\$240,000).

o) Decrease is due to the completion of 14-608-21, F&D Three Lagoon Pumps, LASMA and CALSMA.

p) Increase is due to the addition of a project to install drain tiles and bioreactors at the prairie plan site in Fulton County.

q) Decrease is due to the completion of a Job Order Contracting project to furnish, deliver, and install racks in the storeroom at the O'Brien WRP.

r) Decrease is due to the cancellation of SAP evaluation work (\$420,000).

s) Increase is due to the addition of a project to upgrade ReadSoft software.

t) Increase is due to the addition of a project to rehabilitate elevators at the Main Office Building (\$600,000) and replace a Trane mixed air heating unit at the Main Office Building Annex (\$60,000), offset by the completion of an elevator systems upgrade at the Main Office Building Annex (\$340,000).

u) Increase is due to the 2015 carryforward of a project to provide outdoor electronic signs for plant facilities.

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted		Change		
Number	Name	Actuals	Positions	Dollars	Dollars	Percent	
7491	Automotive Fleet Procurement	\$ 754,053	2016	- \$ 900,000	\$ (120,000)	(11.8)	v)
			2015	- \$ 1,020,000			
7500	Risk Management Operations	\$ 123,300	2016	- \$ -	\$ -	-	
			2015	- \$ -			
7745	Utility Review	\$ -	2016	- \$ 100,000	\$ (400,000)	(80.0)	w)
			2015	- \$ 500,000			
7900	M&O General Support Services	\$ 205,104	2016	- \$300,000.00	\$ 300,000	100.0	x)
			2015	- \$0.00			
Totals		\$ 23,128,044	2016	- \$ 36,614,400	\$ (1,296,300)	(3.4%)	
			2015	- \$ 37,910,700			

- v) Decrease is due to the receipt of a delivery truck (\$70,000).
- w) Decrease is due to a reduced estimate for IDOT sewer support relocation fees.
- x) Increase is due to the addition of 16-915-21, Fertilizer Storage Building Roof Replacement, SWRP.

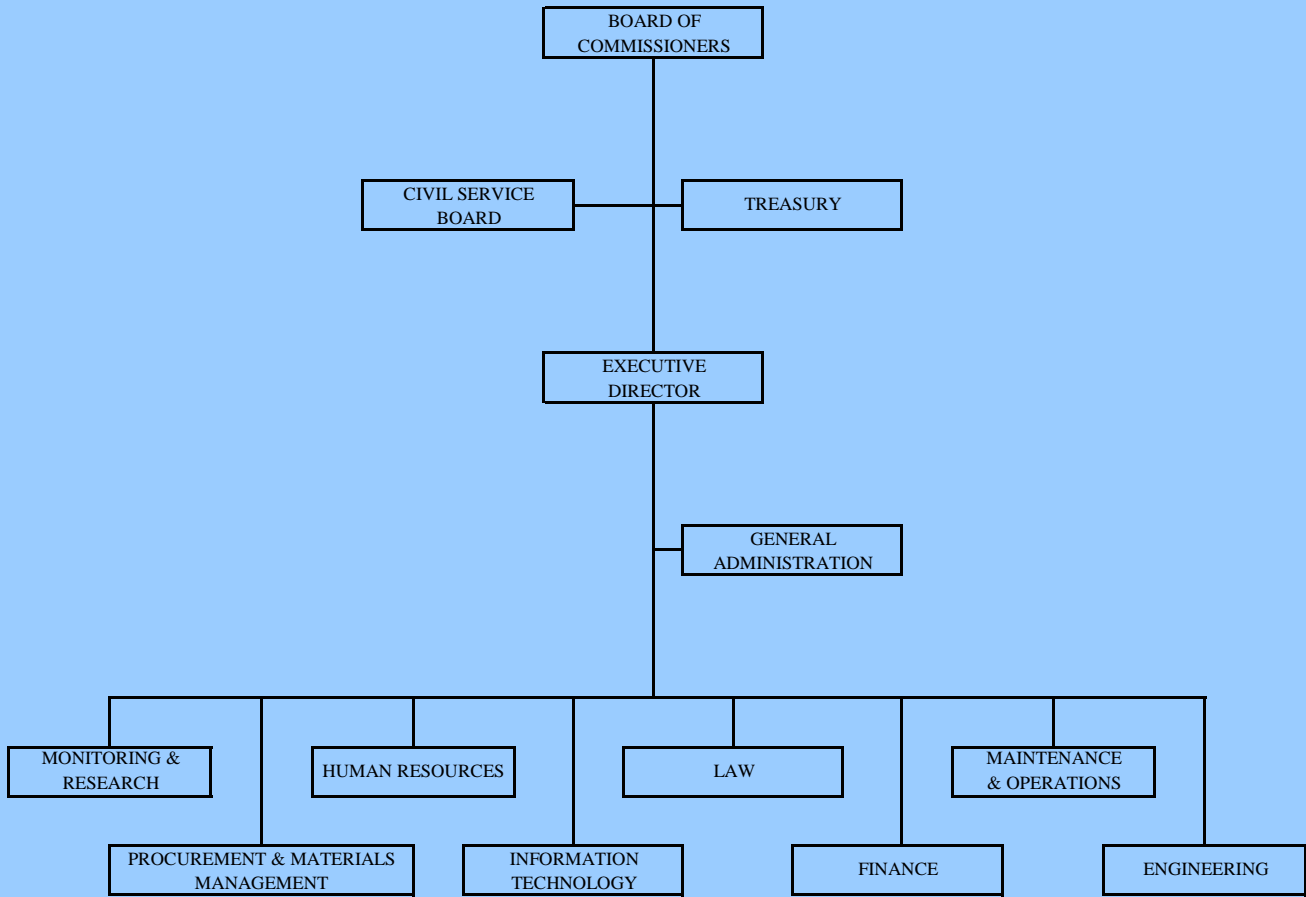


201 50000	Fund: Construction Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601170	Payments for Professional Services	\$ 2,517,091	\$ 3,759,600	\$ 3,870,500	\$ 2,131,000	\$ -	\$ -	\$ -
601410	Personal Services Exp for Prelim Engineering Rpts & Studies	92,850	542,800	514,200	292,400	-	-	-
601420	Personal Services Exp for Constr Drawings, Specs, & Cost Est	-	3,489,000	3,489,000	500,000	-	-	-
601440	Personal Svcs for Post-Award Engr for Construction Projects	42,736	192,000	120,000	81,000	-	-	-
100	TOTAL PERSONAL SERVICES	2,652,677	7,983,400	7,993,700	3,004,400	-	-	-
612240	Testing and Inspection Services	217	10,000	10,000	1,000	-	-	-
612250	Court Reporting Services	3,683	5,000	5,000	2,000	-	-	-
612380	Soil and Rock Mechanics Investigation	11,413	40,000	40,000	12,000	-	-	-
612430	Payments for Professional Services	-	-	-	-	5,787,800	5,787,800	3,832,100
612440	Personal Services Exp for Prelim Engineering Rpts & Studies	-	-	-	-	-	-	55,000
612450	Personal Services Exp for Constr Drawings, Specs, & Cost Est	-	-	-	-	1,253,200	1,253,200	1,253,200
612490	Contractual Services, N.O.C.	49,500	400,000	300,000	125,000	208,000	208,000	208,000
612600	Repairs to Collection Facilities	77,783	514,800	514,800	463,500	772,600	772,600	772,600
612680	Repairs to Buildings	-	-	100,000	50,000	100,000	100,000	100,000
612760	Repairs to Material Handling and Farming Equipment	-	625,000	625,000	202,000	-	-	-
200	TOTAL CONTRACTUAL SERVICES	142,596	1,594,800	1,594,800	855,500	8,121,600	8,121,600	6,220,900
623250	Vehicle Parts and Supplies	68,816	50,000	25,200	25,200	-	-	-
623270	Mechanical Repair Parts	374,023	2,623,600	2,623,600	1,751,000	1,800,000	1,983,000	300,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	16,795	20,000	20,000	19,900	31,000	31,000	31,000
623810	Computer Supplies	347,236	200,000	-	-	-	-	-
300	TOTAL MATERIALS AND SUPPLIES	806,870	2,893,600	2,668,800	1,796,100	1,831,000	2,014,000	331,000
634620	Equipment for Waterway Facilities	23,980	119,500	301,800	118,800	225,000	225,000	408,000
634650	Equipment for Process Facilities	231,585	1,045,000	2,545,000	546,500	2,143,000	3,343,000	3,522,800
634780	Safety and Medical Equipment	-	-	-	-	-	-	50,000
634790	Marine Equipment	508,636	266,000	-	-	-	-	-

201 50000	Fund: Construction Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634810	Computer Equipment	-	534,000	734,000	734,000	-	-	642,000
634820	Computer Software	120,503	40,000	40,000	-	-	-	150,000
634860	Vehicle Equipment	1,771,678	1,429,400	1,085,700	493,800	900,000	900,000	900,000
634990	Machinery and Equipment, N.O.C.	297,241	746,000	690,200	470,000	570,000	1,170,000	1,088,000
400	TOTAL MACHINERY AND EQUIPMENT	2,953,622	4,179,900	5,396,700	2,363,100	3,838,000	5,638,000	6,760,800
645600	Collection Facilities Structures	1,175,406	740,000	518,000	32,000	1,020,000	1,690,000	3,190,000
645620	Waterway Facilities Structures	-	-	-	-	600,000	600,000	523,000
645650	Process Facilities Structures	2,938,692	3,890,500	4,167,200	1,820,000	2,826,200	4,585,200	4,727,200
645680	Buildings	2,197,750	3,573,100	4,733,700	2,765,000	768,000	918,000	2,580,100
645690	Capital Projects, N.O.C.	-	1,830,800	475,800	-	3,174,200	3,174,200	3,174,200
645700	Preservation of Collection Facility Structures	2,545,764	1,064,200	1,501,200	431,400	595,500	595,500	1,053,800
645720	Preservation of Waterway Facility Structures	205,372	562,200	500,400	268,000	-	550,000	539,000
645750	Preservation of Process Facility Structures	3,600,208	7,995,800	6,433,600	4,533,100	8,462,900	5,101,900	4,637,400
645780	Preservation of Buildings	3,566,174	1,272,400	1,272,400	799,000	407,000	456,000	1,407,000
645790	Preservation of Capital Projects, N.O.C.	342,913	330,000	333,600	327,000	1,286,000	1,470,000	1,470,000
500	TOTAL CAPITAL PROJECTS	16,572,278	21,259,000	19,935,900	10,975,500	19,139,800	19,140,800	23,301,700
656010	Land	-	-	320,800	-	-	-	-
600	TOTAL LAND	-	-	320,800	-	-	-	-
<b>TOTAL ENGINEERING CONSTRUCTION</b>		<b>\$ 23,128,044</b>	<b>\$ 37,910,700</b>	<b>\$ 37,910,700</b>	<b>\$ 18,994,600</b>	<b>\$ 32,930,400</b>	<b>\$ 34,914,400</b>	<b>\$ 36,614,400</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

**NOTE PAGE**



## CAPITAL IMPROVEMENTS BOND FUND

### Fund Summary

The Capital Improvements Bond Fund is used when acquiring an asset that meets the definition of a capital asset: the cost typically exceeds \$500,000 and the useful life extends beyond five years. The Capital Improvements Bond Fund is funded by the sale of bonds and therefore, the use of these funds is governed by state statutes, federal guidelines, and applicable bond opinions.

### Summary of 2015 Accomplishments

- Completed construction of the Thornton Composite Reservoir and began accepting additional combined sewer overflow to reduce flooding and pollution;
- Executed a revised agreement with Vulcan Construction Materials to mine the expanded portion of the McCook Reservoir's Stage 2, increasing its capacity by an additional three billion gallons;
- Completed overburden removal at the McCook Reservoir;
- Completed construction of new disinfection facilities at the Calumet and O'Brien Water Reclamation Plants (WRPs);
- Completed construction of a wet weather treatment facility and reservoir at the Lemont WRP;
- Completed construction of a Distributed Control System (DCS) for solids processing at the Stickney WRP, Mainstream Pumping Station (PS), and remote pumping stations;
- Completed construction of a DCS for the West Side PS at the Stickney WRP and Racine Avenue PS;
- Awarded a construction contract to replace the switchgear at the Stickney WRP;
- Awarded a construction contract to replace the Tunnel and Reservoir Plan (TARP) pumping station screens, which require manual cleaning, with a fully automated self-cleaning screen system at the Calumet WRP;
- Awarded a nitrogen removal contract at the Egan WRP. The new process will use cutting-edge technology for the cost-effective removal of nitrogen from the centrate, which will eliminate the need to convey and treat this waste stream at the O'Brien WRP;
- Completed construction of the final tank rake arm assemblies and repair and replacement of preliminary tank concrete at the O'Brien WRP;
- Awarded a construction contract to rehabilitate Pump #8 at the Mainstream PS, which has been in service for 30 years;
- Entered into a Contract of Commitment to explore the reuse of Calumet WRP effluent water;
- Awarded a contract to rehabilitate Salt Creek Intercepting Sewer 2;
- Awarded an engineering design contract for a digester gas cleaning facility at the Calumet WRP.

### Budget Highlights

Significant features of the 2016 budget are:

- The Capital Improvements Bond Fund's 2016 appropriation is \$483,764,800, an increase of \$30,692,300, or 6.8 percent, from 2015. There are no staff positions budgeted in the Capital Improvements Bond Fund. The 2016 appropriation includes funding for stormwater management capital projects and related costs;
- Issue requests for proposal for the development of a digester gas utilization facility at the Stickney WRP;
- Award a construction contract for an organic waste receiving facility at the Calumet WRP;
- Award a construction contract to connect the Des Plaines TARP tunnels to the McCook Reservoir;
- Award a construction contract for the installation of the WASSTRIP® process, which will increase the amount of phosphorus that will be recoverable by the phosphorus recovery facility;
- Award a contract for the automation of air valves to allow better control of air usage for the enhanced biological phosphorus removal treatment process at the Stickney WRP;
- Award a construction contract for Phase 2 of rehabilitation of the service and connecting tunnels at the Stickney WRP;
- Continue construction to rehabilitate Pump #8 at the Mainstream PS;
- Continue construction of a process to recover phosphorus from the centrate waste stream at the Stickney WRP;
- Continue construction of nine new primary settling tanks and aerated grit removal facilities for improved operations at the Stickney WRP;
- Continue mining and construction at the McCook Reservoir;
- Continue to upgrade and improve the HVAC system for the Monitoring and Research (M&R) Laboratory to meet the evolving needs of the M&R personnel and regulatory compliance;
- Continue construction of the air main rehabilitation and diffuser plate replacement to improve the efficiency of air usage and return sludge withdrawal at the Stickney WRP;
- Continue construction to replace the TARP pumps, motors, variable frequency drives, and screens at the Calumet WRP;
- Continue construction to replace aging coarse screens and raw sewage pump slide gates at the Egan WRP.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

- **Add Value**
  - Recover valuable resources and reduce the consumption of energy by improving treatment processes;
  - Stabilize Capital Improvement Program (CIP) project expenditures;
  - Fully utilize digester gas to reduce the energy demand from outside sources and reduce the carbon footprint and air pollutants associated with conventional energy sources;
  - Develop a program for receiving organic waste streams for co-digestion that both increases energy production and reduces waste products going to landfills;
  - Promote the ongoing work of effluent disinfection at the Calumet and O'Brien WRPs.
- **Excellence**
  - Strive to achieve best-in-class performance for budgeting and scheduling of all capital improvement projects;
  - Review contracts after construction is completed to document best practices and foster continuous improvement;
  - Apply comprehensive metrics to manage CIP projects for best-in-class performance;
  - Continue to lead the industry and exceed contractor expectations by promptly processing and paying invoices for completed work within 30 days after submittal;
  - Remove nutrients from the waste stream to benefit downstream receiving waters and ecosystems.
- **Resource Recovery**
  - Achieve multiple environmental benefits by recovering and reusing phosphorus in the most cost-efficient manner, in lieu of phosphate rock, which must be mined and transported for use;
  - Optimize the use of digester gas;
  - Explore projects to supply effluent water to businesses that require non-potable water, replacing their dependence on Lake Michigan water.

**CAPITAL PROJECTS LISTED BY SERVICE AREA - CAPITAL IMPROVEMENTS BOND FUND**

The following is a list of capital projects within the District’s three major service areas. They are presented by their association with a Water Reclamation Plant (WRP) and by their completion status: projects under construction, for 2016 award, or under development.

**Bold type indicates projects to be financed by "Unlimited Tax Bonds."**

**STICKNEY  
SERVICE  
AREA (SSA)**



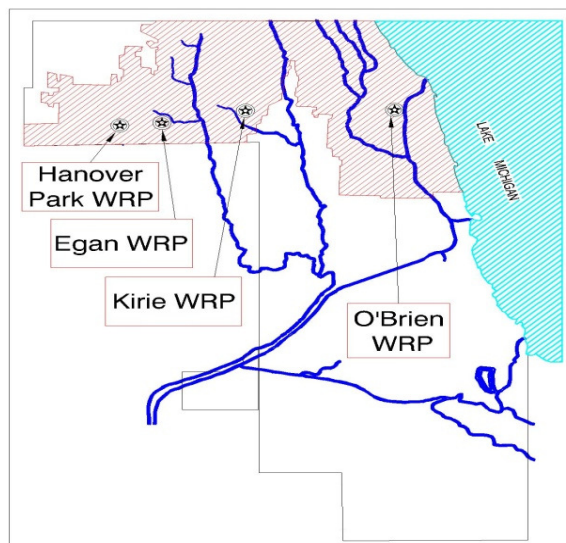
**Stickney Water Reclamation Plant (SWRP)**

<b>Projects Under Construction (with estimated completion dates)</b>		<b>Estimated Construction Cost</b>
02-111-3M	TARP Pump #8 Rehabilitation, MSPS (5/2016)	\$ 4,533,000
04-128-3P	West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP (3/2018)	226,208,000
04-131-2D	Rehabilitation of the A/B and C/D Service Tunnels – Phase I, SWRP (8/2016)	14,047,000
06-155-3S	Salt Creek Intercepting Sewer 2 Rehabilitation, SSA (9/2018)	43,878,000
06-158-3S	Des Plaines River Intercepting Sewer Rehabilitation, SSA (7/2016)	13,694,000
09-176-3P	Sludge Thickening Facilities, SWRP (8/2016)	167,275,000
09-181-3P	Battery C Airlift and Air Main Rehabilitation and Aeration Tanks No. 6, 7, 8 Diffuser Plate Replacement, SWRP (9/2016)	4,906,000
09-182-3E	D799 Switchgear Replacement, SWRP (12/2017)	12,645,000
10-880-3H	TARP Control Structure Rehabilitation, NSA, SSA, and CSA (1/2016)	14,767,000
11-195-AP	Phosphorus Recovery System, SWRP (9/2016)	31,914,000
14-113-3F ^	Controls for Dearborn Homes (3/2017)	1,220,000
15-IGA-07 ^	Silver Creek Channel Improvements from Riverside Drive to Scott Street (6/2016)	3,000,000
<b>Total</b>		<b>\$ 538,087,000</b>

<b>Projects for 2016 Award</b>		<b>Estimated Construction Cost</b>
04-132-3D	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	\$ 22,000,000
<b>13-106-4F</b>	<b>McCook Reservoir Des Plaines Inflow Tunnel</b>	<b>139,000,000</b>
13-199-3F ^	Flood Control Project on the Des Plaines River in Lyons	6,500,000
14-108-3F *^	Streambank Stabilization Projects for Addison Creek [CIBF = \$625,000; Stormwater Management Fund = \$625,000]	625,000
15-118-3J	Main Sewage Pump Seal Water System Modification, MSPS	1,250,000
15-120-3P	Conversion of Old GCTs to the WASSTRIP® Process, SWRP	15,000,000
15-122-3P	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP	10,000,000
15-123-3D	Safety Railing around Tanks, SWRP	9,000,000
15-124-3P	Conversion of Two New GCTs to Primary Sludge Fermenters and Installation of a Gas Detection System in New GCT Building, SWRP	3,000,000
15-IGA-16 ^	Prairie/Washington Pumping Station Improvements in Brookfield, IL	1,000,000
15-IGA-18 ^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood Prone Parcels of Real Property Located along the Des Plaines River	950,000
15-IGA-20 ^	Installation of Green Infrastructure at Chicago Public Schools	3,000,000
	Total	<b>\$ 211,325,000</b>
 <b>Projects Under Development</b>		
01-103-AS	39th Street Conduit Rehabilitation - Phase II, SSA	\$ 24,700,000
11-186-3F ^	Addison Creek Reservoir	127,231,000
11-187-3F ^	Addison Creek Channel Improvements	43,069,000
11-189-3P	Digester Gas Utilization Facilities, SWRP	20,000,000
14-114-3M	Odor Control Facilities, SWRP	20,000,000
14-117-3P	Organic Waste Receiving Station, SWRP	10,000,000
	Total	<b>\$ 245,000,000</b>
	Stickney Service Area Grand Total	<b>\$ 994,412,000</b>



## NORTH SERVICE AREA (NSA)



### Terrence J. O'Brien Water Reclamation Plant (OWRP)

#### Projects Under Construction (with estimated completion dates)

	<b>Estimated Construction Cost</b>
10-884-AF ^ Flood Control Project for Upper Salt Creek (7/2016)	\$ 1,350,000
11-054-3P Disinfection Facilities, OWRP (1/2016)	61,724,000
15-IGA-02 ^ Construction of Cleveland Street Relief Sewer in Niles, Illinois (5/2016)	2,000,000
15-IGA-10^ New Storm Sewers on Shermer Road and Cherry Lane in Northbrook, IL (8/2016)	1,050,000
<b>Total</b>	<b>\$ 66,124,000</b>

#### Projects for 2016 Award

11-052-3F ^ Streambank Stabilization Project for the West Fork of the North Branch of the Chicago River	\$ 449,000
12-056-3F ^ Flood Control Project on Farmers and Prairie Creeks	13,760,000
14-061-3S Glenbrook Sanitary Sewer Rehabilitation, NSA	2,000,000
14-066-3F # ^ Albany Park Stormwater Diversion Tunnel	24,750,000
14-824-3D Rehabilitation of Bridges, NSA	1,174,000
15-072-3D Safety Railing around Tanks, OWRP	3,000,000
15-IGA-21 ^ Controls for Northbrook Wescott Park	475,000
<b>Total</b>	<b>\$ 45,608,000</b>

#### Projects Under Development

10-047-3S North Shore 1 Rehabilitation, NSA	\$ 21,500,000
12-055-3F ^ Flood Control Project for the West Fork of the North Branch of the Chicago River	25,000,000
14-827-3M Odor Control Facilities, NSA	20,000,000
<b>Total</b>	<b>\$ 66,500,000</b>

**John E. Egan Water Reclamation Plant (EWRP)**

**Projects Under Construction (with estimated completion dates)**

		<b>Estimated Construction Cost</b>
11-405-3M	Coarse Screens and Raw Sewage Pump Slide Gates Replacement, EWRP (8/2016)	\$ 2,842,000
13-409-3P	Nitrogen Removal in Centrate, EWRP (4/2016)	2,675,000
Total		<b>\$ 5,517,000</b>

**Project Under Development**

11-404-3S	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	\$ 5,500,000
Total		<b>\$ 5,500,000</b>

**James C. Kirie Water Reclamation Plant (KWRP)**

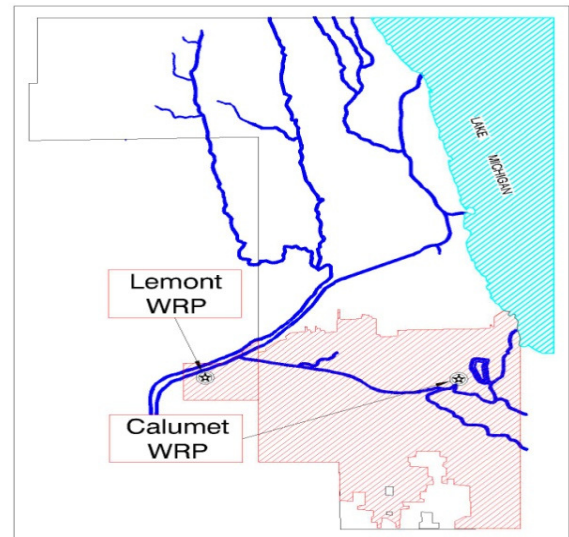
**Projects for 2016 Award**

13-370-3F ^	Buffalo Creek Reservoir Expansion	\$ 15,882,000
14-372-3S	Drop Shaft 5 Inspection and Rehabilitation, NSA	2,700,000
		<b>18,582,000</b>

**Projects Under Development**

06-360-3S	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	\$ 6,700,000
12-369-3S	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	5,500,000
Total		<b>\$ 12,200,000</b>
North Service Area Grand Total		<b>\$ 220,031,000</b>

# CALUMET SERVICE AREA (CSA)



## Calumet Water Reclamation Plant (CWRP)

### Projects Under Construction (with estimated completion dates)

	<b>Estimated Construction Cost</b>
04-203-4F <b>Final Reservoir Preparation, Thornton Composite Reservoir, CSA (9/2016)</b>	\$ 49,088,000
06-212-3M Calumet TARP Pumping Station Improvements, CWRP (10/2017)	35,288,000
10-882-CJ ^ Streambank Stabilization Project along Midlothian Creek (6/2017)	307,000
13-246-3M Calumet TARP Screens, CWRP (12/2018)	12,754,000
15-IGA-09 ^ Stony Island Ditch and Lansing Manor Detention Basin and Pumping Station Modifications (7/2016)	1,173,000
<b>Total</b>	<b>\$ 98,610,000</b>

### Projects for 2016 Award

10-237-3F ^ Streambank Stabilization Project on Oak Lawn Creek	\$ 4,175,000
10-882-AF ^ Streambank Stabilization Project on Tinley Creek	3,806,000
10-882-BF ^ Streambank Stabilization Project along Calumet Union Drainage Ditch	1,839,000
10-883-BF ^ Flood Control Project at Arrowhead Lake	1,087,000
10-883-CF ^ Flood Control Project on the East Branch of Cherry Creek in Flossmoor, IL	2,637,000
10-884-BF ^ Flood Control Project for Deer Creek	3,440,000
11-239-3S Calumet Intercepting Sewer 19F Rehabilitation, CSA	12,000,000
11-240-3P Organic Waste Receiving Facility, CWRP	7,400,000
13-248-3F ^ Streambank Stabilization Project on Melvina Ditch	10,600,000
14-250-3P Digester Gas Utilization Facilities, CWRP	13,000,000
14-263-3F ^ Melvina Ditch Reservoir Improvements	23,000,000
14-263-AF ^ Melvina Ditch Pumping Station Improvements	1,723,000
15-265-3D Safety Railing around Tanks, CWRP	3,000,000
15-266-3F Thornton Reservoir Valve Shaft Chamber Cone Valve, Crane and Drip Ceiling Rehabilitation	3,000,000
15-IGA-14 *^ Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, IL [CIBF = \$3,483,000; Stormwater Management Fund = \$387,000]	3,483,000
15-IGA-19 ^ New Culvert between the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal	320,000
15-IGA-22 ^ Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue in Oak Lawn, IL	3,000,000
<b>Total</b>	<b>\$ 97,510,000</b>

<b>Projects Under Development</b>		<b>Estimated Construction Cost</b>
12-245-3P	Phosphorus Recovery System, CWRP	\$ 10,000,000
14-262-3M	Odor Control Facilities, CWRP	20,000,000
14-264-3P	Biosolids Processing Facility, CWRP	48,000,000
15-IGA-04 ^	Construction of Lavergne Avenue Flood Relief Project in Crestwood	133,000
	Total	<u>\$ 78,133,000</u>
	Calumet Service Area Grand Total	<u>\$ 274,253,000</u>
	Capital Projects Grand Total - All Service Areas	<u><u>\$ 1,488,696,000</u></u>

^ These projects are part of the Stormwater Management Fund Program. Detailed information about this fund and these projects appears in Section VI of this budget book.

\* This project is funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

# This project is designed and built by the City of Chicago. The District is sharing the cost.

## Capital Improvements Bond Fund Program

<b>Awards in 2016</b>		Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
#	Project Name				
1	<b>McCook Reservoir Des Plaines Inflow Tunnel</b>	13-106-4F	\$ 139,000	850	Jan-16
2	Glenbrook Sanitary Sewer Rehabilitation, NSA	14-061-3S	2,000	350	Feb-16
3	Safety Railing around Tanks, SWRP	15-123-3D	9,000	400	Feb-16
4	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	04-132-3D	22,000	1,278	Feb-16
5	Conversion of Old GCTs to the WASSTRIP® Process, SWRP	15-120-3P	15,000	730	Apr-16
6	Main Sewage Pump Seal Water System Modification, MSPS	15-118-3J	1,250	365	Apr-16
7	Digester Gas Utilization Facilities, CWRP	14-250-3P	13,000	761	Apr-16
8	Drop Shaft 5 Inspection and Rehabilitation, NSA	14-372-3S	2,700	260	Jun-16
9	Safety Railing around Tanks, OWRP	15-072-3D	3,000	400	Jun-16
10	Safety Railing around Tanks, CWRP	15-265-3D	3,000	400	Jun-16
11	Rehabilitation of Bridges, NSA	14-824-3D	1,174	300	Jun-16
12	Thornton Reservoir Valve Shaft Chamber Cone Valve, Crane and Drip Ceiling Rehabilitation	15-266-3F	3,000	365	Jun-16
13	Calumet Intercepting Sewer 19F Rehabilitation, CSA	11-239-3S	12,000	620	Jul-16
14	Organic Waste Receiving Facility, CWRP	11-240-3P	7,400	540	Oct-16
15	Conversion of Two New GCTs to Primary Sludge Fermenters and Installation of a Gas Detection System in New GCT Building, SWRP	15-124-3P	3,000	545	Nov-16
16	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP	15-122-3P	10,000	730	Dec-16
Total 2016 Awards			<u>\$ 246,524</u>		

### Projects Under Development

#	Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
17	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S	\$ 5,500	450	Feb-17
18	Odor Control Facilities, CWRP	14-262-3M	20,000	730	Apr-17
19	39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS	24,700	770	Apr-17
20	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S	5,500	450	Aug-17
21	Phosphorus Recovery System, CWRP	12-245-3P	10,000	900	Jan-18
22	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	06-360-3S	6,700	360	Mar-18
23	Digester Gas Utilization Facilities, SWRP	11-189-3P	20,000	730	Mar-18
24	Organic Waste Receiving Station, SWRP	14-117-3P	10,000	365	Apr-18
25	Odor Control Facilities, SWRP	14-114-3M	20,000	730	Apr-18

**Projects Under Development (continued)**

#	Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
26	Biosolids Processing Facility, CWRP	14-264-3P	\$ 48,000	365	Mar-19
27	North Shore 1 Rehabilitation, NSA	10-047-3S	21,500	650	Jun-19
28	Odor Control Facilities, NSA	14-827-3M	20,000	730	Mar-20
Total Future Awards			<u>\$ 211,900</u>		
Cumulative 2016 and Future Awards			<u>\$ 458,424</u>		

Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.

**Bold Type Indicates Unlimited Tax Bond Project**

	<b>Method of Financing</b>		
	State Revolving <u>Fund Loans</u>	General Obligation	<u>Total</u>
		<u>Bonds</u>	
Tunnel and Reservoir Plan	\$ -	\$ 139,000	\$ 139,000
Water Reclamation Plant	107,000	26,000	133,000
Expansion and Improvements			
Solids Management	68,400	10,000	78,400
Collection Facilities	24,700	1,250	25,950
Replacement of Facilities	43,900	38,174	82,074
	<u>\$ 244,000</u>	<u>\$ 214,424</u>	<u>\$ 458,424</u>

### Capital Improvements Bond Fund Program Impacts

#	Project Name	Project Number	Justification				Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical
<b><u>Awards in 2016</u></b>									
1	McCook Reservoir Des Plaines Inflow Tunnel	13-106-4F	x		x		=	=	=
2	Glenbrook Sanitary Sewer Rehabilitation, NSA	14-061-3S		x	x		=	=	=
3	Safety Railing around Tanks, SWRP	15-123-3D				x	=	=	=
4	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	04-132-3D		x			=	=	=
5	Conversion of Old GCTs to the WASSTRIP® Process, SWRP	15-120-3P			x	x	=	-	=
6	Main Sewage Pump Seal Water System Modification, MSPS	15-118-3J				x	-	-	=
7	Digester Gas Utilization Facilities, CWRP	14-250-3P				x	-	++	=
8	Drop Shaft 5 Inspection and Rehabilitation, NSA	14-372-3S				x	=	=	=
9	Safety Railing around Tanks, OWRP	15-072-3D				x	=	=	=
10	Safety Railing around Tanks, CWRP	15-265-3D		x			=	=	=
11	Rehabilitation of Bridges, NSA	14-824-3D		x		x	=	=	=
12	Thornton Reservoir Valve Shaft Chamber Cone Valve, Crane and Drip Ceiling Rehabilitation	15-266-3F				x	=	=	=
13	Calumet Intercepting Sewer 19F Rehabilitation, CSA	11-239-3S		x			=	=	=
14	Organic Waste Receiving Facility, CWRP	11-240-3P			x		-	++	=
15	Conversion of Two New GCTs to Primary Sludge Fermenters and Installation of a Gas Detection System in New GCT Building, SWRP	15-124-3P				x	=	=	=
16	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP	15-122-3P			x	x	=	=	=
<b><u>Projects Under Development</u></b>									
17	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S		x			=	=	=
18	Odor Control Facilities, CWRP	14-262-3M				x	-	-	-
19	39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS		x	x		=	=	=
20	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S		x	x		=	=	=
21	Phosphorus Recovery System, CWRP	12-245-3P				x	-	-	-
22	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	06-360-3S		x			=	=	=
23	Digester Gas Utilization Facilities, SWRP	11-189-3P			x		=	++	=
24	Organic Waste Receiving Station, SWRP	14-117-3P			x		-	++	=
25	Odor Control Facilities, SWRP	14-114-3M				x	-	-	-
26	Biosolids Processing Facility, CWRP	14-264-3P		x		x	=	=	=
27	North Shore 1 Rehabilitation, NSA	10-047-3S		x			=	=	=
28	Odor Control Facilities, NSA	14-827-3M				x	-	-	-

See legend on following page.

**LEGEND**

Under "**Justification**," the marked columns note the categories of benefits expected from each project.

	<b>Manpower</b>	
+ or - Labor savings (+) or increases (-) expected to result in redirecting existing manpower away from or toward facility or process to other tasks with no net change in total position costs.	++ or --	Labor impact significant enough to ultimately result in reduction (++) or increase (--) in personnel. See additional cost details contained in the Project Fact Sheets.
	<b>Energy</b>	
+ or - Minor energy savings (+) or costs (-) having a negligible impact on the District's overall energy budget.	++ or --	Major energy savings (++) or costs (--) expected to result in significant revisions to a facility's energy budget. See additional cost details contained in the Project Fact Sheets.
	<b>Chemical</b>	
+ or - Chemical savings (+) or costs (-) having a negligible impact on the District's overall chemical costs.	++ or --	Major chemical savings (++) or costs (--) expected to result in significant revisions to the budgeted chemical expenditures for the associated process. See additional cost details contained in the Project Fact Sheets.
= No budgetary impact expected.		



**TARP PHASE 2 PROJECT COSTS**

Though only partially complete, TARP has already been effective in reducing pollution and flooding. In order to substantially resolve the pollution and flooding problems in the Chicagoland combined sewer area, the reservoirs component of TARP must be completed. The Majewski Reservoir is completed and functional, and the Thornton Reservoir was made operational at the end of 2015. The last TARP reservoir, McCook, is under construction. McCook and Thornton Reservoir project costs are shown in the tables below.

**McCook Reservoir**

Project Name	Project Number	Estimated Cost (in thousands)				Eligible for Federal Cost Sharing	Status
		Outside Engineering	Construction	Total			
McCook Reservoir - Army Corps Work	73-161-2H	\$83,000	\$527,263	\$610,263	\$590,523	Army Corps Projects, District pays 25%	
Conveyance Tunnel	73-161-AH	891	4,537	5,428	0	Completed	
Site Preparation	73-161-BH	0	889	889	307	Completed	
Overburden Removal	73-161-CH	500	65,816	66,316	0	Completed	
Expanded Stage 2 Overburden Removal	73-161-DH	0	18,696	18,696	0	Completed	
Vulcan Excavation Agreement Hard Costs	73-161-EH	35	93,710	93,745	0	Stage 1 Mining Underway	
Expanded Stage 2 Hard Costs	-	0	8,200	8,200	0	To be Negotiated with Vulcan	
Vulcan Conveyor and Maintenance Facilities	73-161-FH	1,817	30,564	32,381	1,753	Completed	
Vulcan Miscellaneous Mining Vehicles	73-161-GH	0	4,884	4,884	0	Completed	
Vulcan Mining Trucks and Loaders	73-161-HH	0	11,105	11,105	0	Completed	
Stage 2 Misc. Overburden Removal	73-161-JH	0	6,510	6,510	0	Completed	
Furnish and Deliver Primary Crusher	PO3030920	0	1,626	1,626	0	Completed	
Willow Springs Berm	96-249-2P	0	3,593	3,593	0	Completed	
73rd Street Tunnel Relocation	97-156-2H	129	15,003	15,132	15,132	Completed	
Des Plaines Inflow Tunnel	13-106-4F	2,071	150,000	152,071	TBD	2015 Award	
District Engineering/PM	-	2,500	0	2,500	2,500	Ongoing	
District Land Value	-	38	5,375	5,413	5,413	Completed	
<b>Total Project Cost</b>		<b>\$90,981</b>	<b>\$947,771</b>	<b>\$1,038,752</b>	<b>\$615,628</b>		

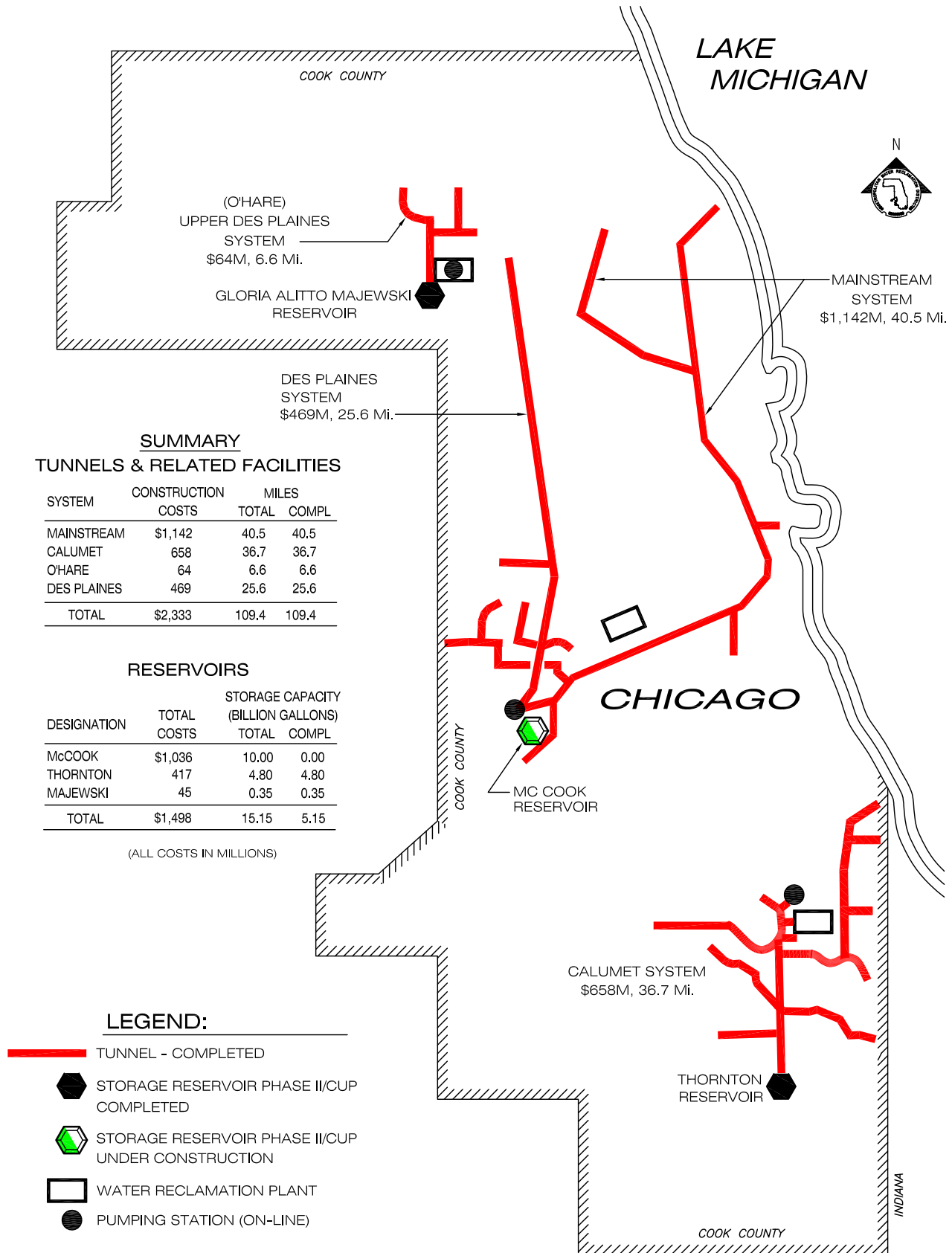
<b>Total McCook Reservoir Project Costs</b>	<b>\$1,038,752</b>
-Amount Ineligible for Cost Sharing	423,124
-Amount Eligible for Cost Sharing	615,628
<i>Corps' Share (75%)</i>	461,721
<i>District's Share (25%)</i>	153,907
District's Cash Payments to Date	124,019
District's Estimated Credits	25,322
Estimated Remaining Payments to Corps	4,566

Note: Through Q3 2015 the District has received \$12.4 million in royalty payments from Vulcan for the sale of rock mined from the site. It is estimated that the District will receive a total of \$36 million in royalties over the life of the project, offsetting some of the District's costs.

**Thornton Reservoir**

Project Name	Project Number	Estimated Cost (in thousands)				Eligible for Federal Cost Sharing	Status
		Outside Engineering	Construction	Total			
Vincennes Avenue Relocation	77-235-AF	\$467	\$3,931	\$4,398	\$4,398	Completed	
Thornton Transitional Reservoir	77-235-BF	2,970	51,737	54,707	32,079	Completed	
Transitional Reservoir GW Monitoring Wells	77-235-CF	0	529	529	0	Completed	
Overburden Removal and Berm Construction	JOC	0	1,674	1,674	0	Completed	
Chain Link Fence	77-235-2F	0	140	140	140	Completed	
MSC Hard Costs	77-235-2F	0	25,647	25,647	12,525	Completed	
MSC Lost Reserves/Capital Costs	77-235-2F	0	22,658	22,658	15,485	Completed	
Other Lands and Easements	77-235-2F	0	8,169	8,169	8,169	Mostly Completed	
Corps of Engineers LRR (Planning)	77-235-2F	6,345	0	6,345	6,345	Completed	
Tollway Dam, Grout Curtain, and Quarry Plugs	04-201-4F	17,107	72,699	89,806	89,806	Under Construction	
Connecting Tunnels and Gates	04-202-4F	13,308	136,563	149,871	149,871	Under Construction	
Final Reservoir Preparation	04-203-4F	9,850	51,034	60,884	60,884	Under Construction	
Surface Aeration	04-203-AF	408	432	840	840	Completed	
Army Corps Review	-	3,500	0	3,500	3,500	Ongoing	
<b>Total Project Costs</b>		<b>\$53,955</b>	<b>\$375,213</b>	<b>\$429,168</b>	<b>\$384,042</b>		

<b>Total Thornton Reservoir Project Costs</b>	<b>\$429,168</b>
-Amount Ineligible for Cost Sharing	45,126
-Amount Eligible for Cost Sharing	384,042
<i>Corps' Share (75%)</i>	288,031
<i>District's Share (25%)</i>	96,010



**SUMMARY**

**TUNNELS & RELATED FACILITIES**

SYSTEM	CONSTRUCTION COSTS	MILES	
		TOTAL	COMPL
MAINSTREAM	\$1,142	40.5	40.5
CALUMET	658	36.7	36.7
O'HARE	64	6.6	6.6
DES PLAINES	469	25.6	25.6
<b>TOTAL</b>	<b>\$2,333</b>	<b>109.4</b>	<b>109.4</b>

**RESERVOIRS**

DESIGNATION	TOTAL COSTS	STORAGE CAPACITY (BILLION GALLONS)	
		TOTAL	COMPL
McCOOK	\$1,036	10.00	0.00
THORNTON	417	4.80	4.80
MAJEWSKI	45	0.35	0.35
<b>TOTAL</b>	<b>\$1,498</b>	<b>15.15</b>	<b>5.15</b>

(ALL COSTS IN MILLIONS)

**TUNNEL and RESERVOIR PLAN PROJECT STATUS**



## West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP

**Project Number:** 04-128-3P

**Service Area:** Stickney

**Location:** Stickney WRP

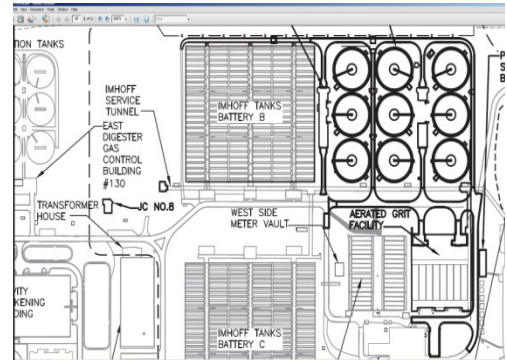
**Engineering Consultant:** Greeley & Hansen

**General Contractor:** IHC Construction Companies, LLC and Paschen, S.N. Nielsen Joint Venture

**Estimated Construction Cost:** \$226,208,000

**Contract Award Date:** December 2014

**Substantial Completion Date:** March 2018\*



**Project Description:** Construction of nine 160-foot diameter primary settling tanks (PST) and six 132-foot long aerated grit tanks, associated support facilities, service tunnels, and conduits. The aerated grit facility will include shaftless-screw conveyors, centrifugal and airlift pumps for grit removal, grit classifiers, and a dumpster-loading system. Grit tanks will be covered for odor control. Process air for the grit tanks and PSTs will be provided by new turbo blowers. The PST area will have tunnel access pump stations containing scum pumps, sludge airlifts, an electrical substation, odor control vessels and fans, and associated equipment. PST effluent weirs and troughs will be covered for odor control. The ability to bypass six PSTs will be provided. Additionally, modifications to the existing Monitoring & Research building at the Stickney WRP are included in this project. The work involves the installation of new air handling units, an absorption chiller, heat exchangers, pumps, and strobic fans. Replacement of associated controls, intake, supply, and exhaust ductwork, piping, conduit, and wiring at the Monitoring & Research building is also included. Equipment will be provided by the District, but installed by the contractor. Piping will be installed in Mechanical Room LC-118 to bypass and abandon leaking underground condenser water piping.

**Project Justification:** The West Side Imhoff tanks are being decommissioned and replaced with more modern and effective treatment equipment. Imhoff battery A and skimming tanks 1-8 have already been demolished in preparation for this project. The Imhoff tanks that have been in service since 1928 are labor-intensive to operate and provide inferior treatment to PSTs. Valves for sludge withdrawal are difficult to operate and have resulted in injuries to personnel. Skimming scum from Imhoff tanks requires personnel to walk narrow walkways above open sewage without fall protection. Certain areas of the structures have exhibited structural cracking and leakage from conduits. Maintenance and repair supplies are not readily available for antiquated systems. Sludge solids are digested in the lower anaerobic zone of the Imhoff tanks and the methane gas byproduct of digestion is impossible to capture and is emitted to the atmosphere. A significant increase in digester gas production will result from this project, allowing the District to proceed on the path to energy neutrality. The aerated grit facility will replace the existing West Side skimming tanks and provide superior grit removal, thus protecting downstream piping and equipment from damage due to scouring by grit. The existing skimming tanks and grit concentration utilize maintenance-intensive chain-and-flight mechanisms. In addition, the skimming tanks and existing grit concentration create a recycle load of up to 100 million gallons per day. There will be minimal recycling from the new facilities. The existing Imhoff and skimming tanks are significant generators of odor. Odors from new facilities will be captured and removed, in keeping with the District's good-neighbor policy. The central portion of the Monitoring & Research building was constructed in 1963 and much of the existing equipment in this area is original to the facility. The supply and exhaust ventilation can no longer meet the testing and ventilation needs of the facility staff. Increased maintenance needs and the increased risk of failure necessitate that it be replaced to ensure a reliable and safe environment for the employees.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Rehabilitation of the A/B and C/D Service Tunnels - Phase I, SWRP

**Project Number:** 04-131-2D

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** Klein & Hoffman and Stanley Consultants

**General Contractor:** F.H. Paschen, S. N. Nielsen and Associates, LLC.

**Estimated Construction Cost:** \$14,047,000

**Contract Award Date:** January 2013

**Substantial Completion Date:** August 2016\*



**Project Description:** This project will rehabilitate approximately 240 feet of the C/D service tunnel and 130 feet of the A/B service tunnel. Rehabilitation of pump discharge conduits 1 through 7 will also be performed at the West Side Pumping Station.

**Project Justification:** The A/B and C/D tunnels are approximately 69 to 79 years old. Significant deterioration has occurred since they were placed into service. Rehabilitating the tunnels will restore structural capacity, extend their service life, and prevent further damage to the utilities inside the tunnels.

Repairs on pump discharge conduits 1 through 7 at the West Side Pumping Station are required to repair erosion and spalling, which were observed in videotaped television inspections performed in August 2006 by the Sewer Control Section.

Repair of deteriorated concrete, leaking cracks, and joints in areas with active leaks and the installation of sump pumps within the Pump & Blower House will eliminate the water infiltration in those areas and prolong the building's service life.

**Project Status:** This project is under construction and nearing its completion.

\*Information shown is estimated.

**A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP**

**Project Number:** 04-132-3D

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design and Consultant, RME

**General Contractor:** To be determined

**Estimated Construction Cost:** \$22,000,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** December 2018\*



**Project Description:** This project will rehabilitate approximately 200 feet of the A/B service tunnel and 135 feet of the C/D service tunnel, and it will replace 150 feet of connecting tunnel between the A/B and C/D service tunnels.

**Project Justification:** The A/B and C/D service tunnels are approximately 69 to 79 years old, and significant deterioration has occurred since they were placed into service. Rehabilitating the tunnels will restore structural capacity, extend their service life, and prevent further damage to the utilities inside the tunnels.

**Project Status:** This project is being advertised.

\*Information shown is estimated.

## Final Reservoir Preparation, Thornton Composite Reservoir, CSA

**Project Number:** 04-203-4F

**Service Area:** Calumet

**Location:** South Holland and Thornton

**Engineering Consultant:** Black & Veatch Corporation, Inc.

**General Contractor:** Walsh/II in One Joint Venture

**Estimated Construction Cost:** \$49,088,000

**Contract Award Date:** December 2010

**Substantial Completion Date:** September 2016\*



**Project Description:** The purpose of this project is to complete all of the remaining work to make the Thornton Composite Reservoir operational and to decommission the Thornton Transitional Reservoir.

The project includes construction of a 20-foot diameter concrete lined connection tunnel and drop shaft, two reinforced concrete tunnel plugs within the existing Thorn Creek diversion tunnel, conversion of the diversion tunnel between the tunnel plugs into a drainage adit, concrete lining of the existing diversion tunnel, a 10-foot diameter access shaft and tunnel to the existing dewatering tunnel, replacement of two existing cone valves with a check valve in parallel with an in-line pump and check valve and installation of a drip ceiling in the existing valve chamber, reservoir level and tunnel inflow instrumentation, highwall stability measures as needed throughout the reservoir, decommissioning the Thornton Transitional Reservoir, inclinometers, and various site work, including access roads, walkways, ramps, an overlook, fencing, and landscaping.

**Project Justification:** The Thornton Composite Reservoir project is an essential part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from combined sewer overflows. Completion of the reservoir is part of the District's Combined Sewer Overflow Long-Term Control Plan for complying with requirements of the Clean Water Act. The project is estimated to provide an average of \$40 million in benefits annually to over 550,000 people in its service area.

**Project Status:** Total construction is 77 percent complete. The contractor has lined the existing diversion tunnel from the east tunnel plug to the existing Thorn Creek diversion structure. The portal area has been stabilized. Excavation of the 20-foot diameter drop shaft, connection tunnel, and 10-foot diameter access shaft is complete. Concrete lining of the 20-foot diameter connection tunnel and drop shaft is 75 percent complete. The overlook structure has been constructed.

\*Information shown is estimated.

## Salt Creek Intercepting Sewer 2 Rehabilitation, SSA

**Project Number:** 06-155-3S

**Service Area:** Stickney

**Location:** Proviso Township and Lyons Township

**Engineering Consultant:** In-house design

**General Contractor:** Kenny Construction Company

**Estimated Construction Cost:** \$43,878,000

**Contract Award Date:** December 2015

**Substantial Completion Date:** September 2018\*



**Project Description:** This project consists of rehabilitating approximately 32,800 feet of intercepting sewer with sizes ranging from 10" diameter to 7'0" x 7'0" semi-elliptic concrete pipe by using the cured-in-place pipe lining method, the channeline lining method, and/or the spray-on geopolymer lining system. This project also includes rehabilitating 81 manholes by the spray-on lining system and/or the fiber wrap system, rebuilding and raising 11 manholes, constructing one manhole, and making control structure modifications.

**Project Justification:** The sewers were inspected by the Maintenance & Operations Department in 2003 with a closed-circuit television inspection system. The video inspection tapes show cracks (circular and longitudinal), sewage solids deposits, sags, offset joints, root intrusion, infiltration, and concrete corrosion due to the action of hydrogen sulfide generated by the decomposition of settled solids. Physical inspection of the manholes revealed cracks and holes in the walls and on the bases of the manholes.

**Project Status:** The design for this project is 100 percent complete.

\*Information shown is estimated.



## Des Plaines River Intercepting Sewer Rehabilitation, SSA

**Project Number:** 06-158-3S

**Service Area:** Stickney

**Location:** Maywood, Melrose Park, River Forest, Forest Park

**Engineering Consultant:** In-house design

**General Contractor:** Kenny Construction Company

**Estimated Construction Cost:** \$13,694,000

**Contract Award Date:** May 2014

**Substantial Completion Date:** July 2016\*



**Project Description:** This project includes the rehabilitation of 18,569 feet of sewer, ranging in size from 10" diameter to 8' x 4'6" box sewer, by the cured-in-place pipe lining method and the spray-on lining system, rehabilitation of an inverted siphon, rehabilitation of 63 structures by the spray-on lining system, raising of two manholes, abandoning 290 feet of 20" pipe, cleaning 500 feet of 8' x 4'6" box sewer, and construction of an access manhole.

**Project Justification:** The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video inspection tapes show cracks (circular and longitudinal), sewage solids deposits, sags, offset joints, root intrusion, infiltration, and concrete erosion. Physical inspection of the manholes revealed cracks and holes in the walls and bases of the manholes.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Calumet TARP Pumping Station Improvements, CWRP

**Project Number:** 06-212-3M

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** AECOM

**General Contractor:** Sollitt/Sachi/Alworth Joint Venture

**Estimated Construction Cost:** \$35,288,000

**Contract Award Date:** May 2013

**Substantial Completion Date:** October 2017\*



**Project Description:** The purpose of this project is to replace the existing East 1 and West 1 Tunnel and Reservoir Plan (TARP) pumps with larger capacity pumps, replace their motors, and install new 4.6 kV variable frequency drives (VFDs) for the pumps. The suction and discharge piping will be modified to accommodate the new pumps. Also, the remaining four pumps, East 2 and 3 and West 2 and 3, will be replaced with new 72 million gallons per day (MGD) pumps, along with new motors and four 4.6 kV VFDs. The drives will be located on an elevated platform in each of the pump rooms. A low pressure steam line will be constructed from the high-level influent pumping station to TARP for heating needs. The grading, roads, and site work disturbed during construction will be completed and restored.

**Project Justification:** This project will increase the firm pumping capacity of each pump room to 150 MGD while restoring the dependability of the equipment at the Calumet TARP Station. There will be some increase in maintenance costs due to the addition of VFDs in place of the constant speed motors for the existing small pumps. However, VFDs will allow better control of pumping and reduce energy costs by matching pump speed with flow needs.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Sludge Thickening Facilities, SWRP

**Project Number:** 09-176-3P

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** AECOM

**General Contractor:** McHugh Construction

**Estimated Construction Cost:** \$167,275,000

**Contract Award Date:** March 2010

**Substantial Completion Date:** August 2016\*



**Project Description:** This project consists of the construction of a gravity thickening facility for primary settling tank sludge from both the southwest and future west side primary settling tanks, consisting of eight 80-foot diameter tanks, replacement of 12 of the existing 16 thickening centrifuges in the pre-digestion centrifuge building with new centrifuges to thicken waste activated sludge (WAS), replacement of four of the existing 16 thickening centrifuge frames, controls and motors in the pre-digestion centrifuge building with new units to thicken the O'Brien WRP sludge, construction of new pumping stations and underground pipes for the southwest preliminary tank sludge, WAS, and the O'Brien WRP, construction of a new 13.2kV/480V electrical substation to replace the existing substation at the southwest aerated grit facilities, replacement of corroded and undersized city water and effluent water piping throughout the plant, replacement of the Laramie Avenue Gate House, and reconfiguring the entrance road to accommodate increased construction traffic.

**Project Justification:** The purpose of this project is to improve the sludge thickening processes at the Stickney WRP by separating the three sludge streams within the plant and thickening each by the most effective and efficient method. Currently, the southwest preliminary tank sludge, WAS, and the O'Brien WRP sludge are blended together in the existing concentration building and partially thickened by gravity prior to additional centrifuge thickening. The existing gravity concentration tanks are undersized and maintenance intensive, and the present blend of sludge does not thicken well by gravity. This results in large volumes of sludge recycled back to the head end of the treatment plant. The large recycle flow adds an unnecessary biological oxygen demand loading to the aeration tanks and a higher suspended solids loading to the final settling tanks.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Battery C Airlift and Air Main Rehabilitation and Aeration Tanks No. 6, 7, 8 Diffuser Plate Replacement, SWRP

**Project Number:** 09-181-3P

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** Morrison Construction Company, Inc.

**Estimated Construction Cost:** \$4,906,000

**Contract Award Date:** November 2014

**Substantial Completion Date:** September 2016\*



**Project Description:** The purpose of this project is to replace airlift umbrellas, rehabilitate sludge boxes, and install slide gates and workways for the sludge box outlets to the return activated sludge (RAS) channel. Work also includes replacing all Dresser couplings and pipe spool pieces for air mains in manholes at the Y-walls of the aeration tanks and the channels around the aeration tanks and replacing the fine bubble diffuser plates in aeration tank Nos. 6, 7, and 8. All work under this project is located in aeration battery C.

**Project Justification:** The sludge box airlift umbrellas and concrete covers are deteriorating and need to be replaced. In order to facilitate an easier and safer means of isolating the sludge boxes from the RAS channel, new walkways and slide gates are required to be installed at the outlets. Improvements to the venting of the sludge boxes will eliminate the current spraying of a significant amount of sludge through existing vents onto walkways. The fine bubble diffuser plates in aeration tank Nos. 6, 7, and 8 are cracked and/or clogged and inefficient. The concrete plate holders are spalled and/or cracked, contributing to leaking air. The Dresser couplings on the air mains within the Y-walls and the vaults on the battery perimeter are severely corroded and leaking air. Repair and/or replacement of these items will save energy and provide a proper level of service and treatment.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## D799 Switchgear Replacement, SWRP

**Project Number:** 09-182-3E

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** Electrical Systems, Inc.

**Estimated Construction Cost:** \$12,645,000

**Contract Award Date:** December 2015

**Substantial Completion Date:** December 2017\*



**Project Description:** Replacement of the medium voltage (13.2kV) switchgear and medium voltage feeder cables in D799 at the Stickney WRP.

**Project Justification:** The medium voltage switchgear and cables are over 30 years old. Failure of a tie breaker in 2009 caused the Stickney WRP facility to be out of service. Replacement of the switchgear would improve reliability, reduce the risk of failure, provide enhanced safety features, and provide for future expansion (proposed new Monitoring & Research laboratory and disinfection facility). Due to the switchgear's condition, the increased risk of failure necessitates its replacement to ensure the appropriate level of service. Recent inspection and testing revealed the potential of an incipient failure of the cables. They should be replaced to avoid a catastrophic failure.

**Project Status:** This project has been awarded.

\*Information shown is estimated.

## TARP Control Structure Rehabilitation, NSA, SSA, and CSA

**Project Number:** 10-880-3H

**Service Area:** North, Calumet, and Stickney

**Location:** District-wide

**Engineering Consultant:** Donohue & Associates, Inc.

**General Contractor:** IHC Construction Companies, LLC.

**Estimated Construction Cost:** \$14,767,000

**Contract Award Date:** December 2013

**Substantial Completion Date:** January 2016\*



**Project Description:** This project consists of the rehabilitation and/or replacement of sluice gate actuators, equipment platforms, dehumidifiers, and other miscellaneous equipment, as well as the installation of new equipment including additional sump pumps, dehumidifiers, and gas detectors at the various Tunnel and Reservoir Plan (TARP) control structures.

**Project Justification:** The purpose of this project is to rehabilitate and/or replace various components of the control structures throughout the TARP system in order to ensure reliable operations and eliminate hydraulic communication between the tunnels and the structures.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Disinfection Facilities, OWRP

**Project Number:** 11-054-3P

**Service Area:** North

**Location:** O'Brien WRP

**Engineering Consultant:** Greeley and Hansen

**General Contractor:** Walsh Construction Company II, LLC.

**Estimated Construction Cost:** \$61,724,000

**Contract Award Date:** August 2013

**Substantial Completion Date:** January 2016\*



**Project Description:** Construction of ultraviolet (UV) light disinfection facilities and improvements to existing infrastructure at the O'Brien WRP. Construction consists of new flow conduits to intercept the flow from the existing effluent discharge conduit and reroute it to the new UV light disinfection facility, then back again to the discharge conduit. The UV disinfection facilities include disinfection channels and equipment, control gates, power distribution, instrumentation and controls, connection to the plant distributed control system, and a new building.

**Project Justification:** This project will provide disinfection to the effluent at the O'Brien WRP before it is discharged into the waterway, in order to protect public health and in recognition of the recreational uses of the Chicago Area Waterway System.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Phosphorus Recovery System, SWRP

**Project Number:** 11-195-AP

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** Black & Veatch Corporation, Inc.

**General Contractor:** Black & Veatch Corporation, Inc./Ostara USA, LLC.

**Estimated Construction Cost:** \$31,914,000

**Contract Award Date:** August 2014

**Substantial Completion Date:** September 2016\*



**Project Description:** The purpose of this project is to construct a facility to recover phosphorus from the pre- and post-centrifuge centrates. The scope of work will include the construction of a building to house the recovery process and product storage, installation of the Ostara Pearl® reactors, and installation of pumping equipment and appurtenances to transfer the centrates to this facility. As a result of Proposal 12-RFP-20, Phosphorus Recovery Plan at the Stickney WRP, the Black & Veatch Corporation, Inc./Ostara USA, LLC team was selected to design and construct this facility. The District will operate the facility, and Ostara USA, LLC will continue to market the product for the term of the agreement.

**Project Justification:** The District is voluntarily looking at means to reduce the phosphorus concentration in the Stickney WRP effluent. The District is further refining the enhanced biological phosphorus removal treatment occurring at the Stickney WRP to allow an increased uptake of phosphorus into our solids. The Ostara Pearl® Process will be utilized to recover the phosphorus from our system. The recovered phosphorus will be a marketable product. A combination of the enhanced biological phosphorus removal and the phosphorus recovery should effectively lower the District's effluent phosphorus concentration and recover a resource (phosphorus) that is being depleted in the world.

**Project Status:** This project is under construction.

\*Information shown is estimated.



## Calumet Intercepting Sewer 19F Rehabilitation, CSA

**Project Number:** 11-239-3S

**Service Area:** Calumet

**Location:** Bremen Township

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$12,000,000

**Contract Award Date:** July 2016\*

**Substantial Completion Date:** June 2017\*



**Project Description:** The rehabilitation of Calumet intercepting sewer 19F consists of 14,051 linear feet of 60-inch sewer pipe, 23 drop manholes, and one junction structure.

**Project Justification:** The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The manholes and structures exhibit similar signs of deterioration and need to be rehabilitated.

**Project Status:** This project has completed the 98 percent review and is awaiting final right of way approvals.

\*Information shown is estimated.

## Organic Waste Receiving Facility, CWRP

**Project Number:** 11-240-3P

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** To be determined

**General Contractor:** To be determined

**Estimated Construction Cost:** \$7,400,000

**Contract Award Date:** October 2016\*

**Substantial Completion Date:** June 2017\*



**Project Description:** The overall scope includes repurposing a decommissioned sludge screening building into an organic waste receiving and processing facility. Construction includes a receiving pit for slurries from pre-processed wet commercial waste, storage tanks for high strength liquid waste and fats, oils, and greases, screens, transfer pumps, transfer piping, masonry enclosure for odor control, and site work for handling truck traffic. In addition, a long-term agreement for supply of organic feedstock will be provided.

**Project Justification:** Biogas, generated as a by-product of the anaerobic digestion process at the Calumet WRP, has value as a fuel. Currently, the biogas is used to produce steam in boilers for plant heating. However, there are periods of time in the year when the steam demand is low and not all of the biogas is fully utilized. This project will increase biogas production by approximately 160 percent over the current volume by utilizing excess capacity in the digesters to take in organic waste material from outside sources. All of the biogas produced by plant solids and organic feedstock will then be fully utilized as an energy source, as a step towards energy neutrality. The biogas utilization facilities will be constructed under a separate project. Organic waste will be supplied under a long-term agreement to provide consistency and certainty of volume. Organic wastes will include high strength liquid waste from industrial sources, fats, oils, and greases, and the organic fraction of wet commercial waste. Different facilities are required to receive the three different types of organic feedstock.

**Project Status:** Proposals have been received via the request for proposal process and are under review. The contract is expected to be awarded in October 2016.

\*Information shown is estimated.

## Coarse Screens and Raw Sewage Pump Slide Gates Replacement, EWRP

**Project Number:** 11-405-3M

**Service Area:** North

**Location:** Egan WRP

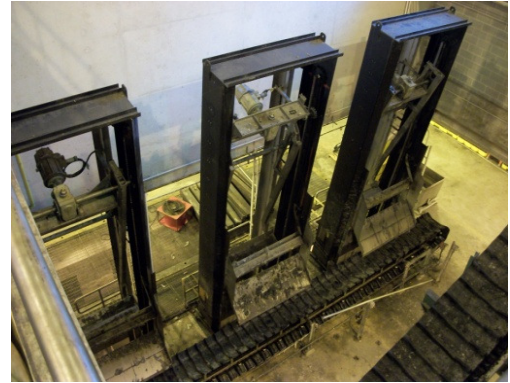
**Engineering Consultant:** In-house design

**General Contractor:** IHC Construction Companies, LLC.

**Estimated Construction Cost:** \$2,842,000

**Contract Award Date:** September 2014

**Substantial Completion Date:** August 2016\*



**Project Description:** This project includes the replacement of three coarse bar screens and associated controls, installation of new stop logs for the coarse bar screens, removal of grit from the coarse bar screen channel, replacement of five slide gates with stainless steel motor actuated slide gates for raw sewage pumps, replacement of six drain valves for raw sewage pumps, isolation of the electrical rooms and motor control center Nos. 1 and 2 from the adjacent classified areas and installation of a new air handling unit for the Operating Engineer's office in the dewatering building.

**Project Justification:** The existing coarse screen is a climber type screen and the drive assembly, rake, motor, gearbox, and drive train travel to remove debris from the screen. The motor assembly gets submerged during major storm events and requires emergency maintenance to repair the gearboxes in order to place the screen back in service. A different type of screen will be installed so that the screen operation will not be impacted by high influent flows.

The stop logs are necessary to isolate the coarse screen channels during replacement of coarse screens and to perform routine maintenance. Also, the existing upstream stop log grooves are approximately 16 feet away from the overhead monorail, and the stop logs need to be hand-carried to the existing stop log grooves once they are lowered to the screen channel elevation. Relocating the upstream stop log grooves directly below the path of the overhead crane's monorail will eliminate the double-handling of the stop logs. There is grit accumulation in the screen channel, which needs to be removed.

While operating a cast iron slide gate to isolate a raw sewage pump, it was observed that the gate was cracked in the middle and required immediate replacement. It was determined that the existing gates are underdesigned for current operating head conditions. The remaining five slide gates will be replaced under this project. The existing slide gates are manually operated. Motor operated actuators will be installed for all six slide gates to automatically isolate and protect the dry well area in the event of catastrophic failure in the raw sewage pump and piping.

The six drain valves for the raw sewage pumps are leaking and will be replaced.

Motor control center Nos. 1 and 2 are currently situated adjacent to classified areas. This project includes modifications to the motor control center structure and equipment. A physical separation for each electrical room is provided to comply with the National Fire Protection Association Standard 820.

Personnel located in the control room in the dewatering building have complained of foul odors emanating from the centrifuge area. Existing window air conditioning units will be removed, and an air handling unit will be installed to provide better indoor air quality per the American Society of Heating, Refrigerating, & Air Conditioning Engineers Standard 62, Ventilation for Acceptable Indoor Air Quality.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## McCook Reservoir Des Plaines Inflow Tunnel

**Project Number:** 13-106-4F

**Service Area:** Stickney

**Location:** Mainstream Pumping Station

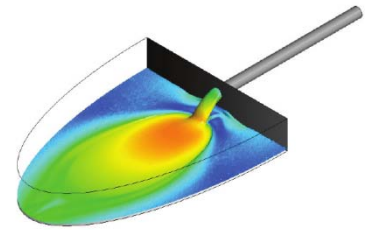
**Engineering Consultant:** Black & Veatch Corporation, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$139,000,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** September 2019\*



**Project Description:** This project consists of the construction of an approximately 20-foot diameter tunnel that will connect the Des Plaines tunnel directly to the McCook Reservoir including a gate shaft, primary gate, backup gate, gate control building, temporary construction access shaft, tunnel portal and highwall stability measures, and an energy dissipation apron with baffle blocks. The project also includes the demolition of an existing concrete tunnel plug, making a live connection to the existing Des Plaines Tunnel System and future McCook Reservoir, installation of reservoir level and tunnel inflow instrumentation, installation of ductbanks, conduits, wiring, lighting, and electrical equipment, installation of permanent perimeter fencing, and performance of other work.

**Project Justification:** The McCook Reservoir project is an essential part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from combined sewer overflows (CSO). The tunnel is required to provide adequate conveyance of CSOs from the Des Plaines tunnel to the reservoir. The tunnel will improve upon the conveyance plan formulated by the U.S. Army Corps of Engineers, which includes undesirable flow restrictions.

**Project Status:** This project is being advertised.

\*Information shown is estimated.

## Calumet TARP Screens, CWRP

**Project Number:** 13-246-3M

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** Rubinos & Mesia Engineers, Inc.

**General Contractor:** The George Sollitt Construction Company

**Estimated Construction Cost:** \$12,754,000

**Contract Award Date:** February 2015

**Substantial Completion Date:** December 2018\*



**Project Description:** The purpose of this project is to replace the existing bar screens, which are located upstream of the Tunnel and Reservoir Plan (TARP) pumping station approximately 350 feet below ground, with new screens which will be mechanically cleaned. The cleaning mechanism will be rail mounted at ground level and have a gripper, which will travel down the shaft and remove the screenings from the bar screens, returning them to the surface for disposal. The work will be performed in conjunction with Contract 06-212-3M, Calumet TARP Pumping Station Improvements.

**Project Justification:** This project will restore the dependability of the equipment at the Calumet TARP pumping station. Even with the addition of the screen cleaning mechanism, there will be a decrease in maintenance costs for the screens due to the elimination of the manual cleaning operation. However, there will be an increase in energy costs. The mechanism will provide more frequent cleanings and a safer operation, as workers will no longer need to be lowered into the wet shaft via a man basket in order to manually clean the screens.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Nitrogen Removal in Centrate, EWRP

**Project Number:** 13-409-3P

**Service Area:** North

**Location:** Egan WRP

**Engineering Consultant:** Veolia Water Solutions & Technologies North America, Inc.

**General Contractor:** Various

**Estimated Construction Cost:** \$2,675,000

**Contract Award Date:** May 2015

**Substantial Completion Date:** April 2016\*



**Project Description:** Partial nitrification-deammonification of centrate at the Egan WRP using ANITA™ Mox Moving Bed Biofilm Reactors. The process uses significantly less energy compared to conventional nitrogen removal.

Veolia will supply technical support, equipment, and seeded media at an estimated cost of \$4,428,115 in the Capital Improvements Bond Fund. Job order contracting (JOC) work has been completed for mixer bridge installation, drumfilter supports, and reactor tank modifications, at a total cost of \$682,400 from the Construction Fund. This contract is for work related to equipment installation, declassification of the thickener building, and equalization tank coating, awarded on May 21, 2015 for an estimated cost of \$2,808,750 from the Capital Improvements Bond Fund, for a total estimated contractor cost of \$7,919,265. The estimated cost for in-house trades labor and materials is \$320,000 in the Corporate Fund.

**Project Justification:** The Egan WRP treats sludge from the Egan and Kirie WRPs. The centrate from this process is pumped into a gravity sewer, comingled with combined sewage, and treated at the O'Brien WRP, located approximately 20 miles from the source. This operational strategy is inefficient, causes considerable odors and corrosion in the conduit that conveys the flow, and increases the load on the O'Brien WRP.

**Project Status:** JOC work has been completed for mixer bridge installation, drumfilter supports, and reactor tank modifications. The contract for the remaining work was awarded to IHC Construction Companies, LLC on May 21, 2015. It is anticipated that construction began in Summer 2015 and be substantially completed by the end of April 2016. A six month start-up operation period will continue through December 2016.

\*Information shown is estimated.

## Glenbrook Sanitary Sewer Rehabilitation, NSA

**Project Number:** 14-061-3S

**Service Area:** North

**Location:** Northfield Township

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$2,000,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** January 2017\*



**Project Description:** This project consists of the rehabilitation of 5,730 feet of 18-inch diameter circular pipe and 100 feet of 21-inch circular pipe by a cured-in-place pipe lining process and the rehabilitation of 20 manholes by spray-on products.

**Project Justification:** The sewers were inspected with a closed-circuit television inspection system. The video shows infiltration and concrete/metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The manholes and structures exhibit similar signs of deterioration and need to be rehabilitated.

**Project Status:** Design phase is 60 percent complete.

\*Information shown is estimated.

## Digester Gas Utilization Facilities, CWRP

**Project Number:** 14-250-3P

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** To be determined

**General Contractor:** To be determined

**Estimated Construction Cost:** \$13,000,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** May 2018\*



**Project Description:** Cleaning of digester gas from the plant's anaerobic digesters to produce "biomethane," a pipeline-quality renewable natural gas product. The project consists of connecting to the plant's digester gas collection piping system, installing a pressure swing absorption gas cleaning system in the vicinity of the anaerobic digester complex, installing gas compressors and a gas pipeline, and connecting to a commercial natural gas pipeline located near the Calumet WRP. The District will enter into an eight-year agreement with an offtaker who will purchase the cleaned digester gas from the District, including providing monetary compensation for the environmental attributes associated with the biomethane.

**Project Justification:** This project is a step toward achieving the District's goal of becoming energy neutral. By cleaning the digester gas produced in the anaerobic digesters from treated sludge and from off-site organic waste feedstock, the resulting "biomethane" can be sold to the natural gas pipeline, where it will be used for vehicle fuel. Although the biomethane will not be directly used on-site, by adding it to the natural gas pipeline, it off-sets the need for an equivalent volume of petroleum-based natural gas and represents the District's contribution towards the production of renewable energy. The project will reduce greenhouse gas emissions by an estimated 9,000 metric tons of carbon dioxide equivalent per year.

**Project Status:** The design contract was awarded in November 2015. The construction contract is expected to be awarded in April 2016.

\*Information shown is estimated.



## Drop Shaft 5 Inspection and Rehabilitation, NSA

**Project Number:** 14-372-3S

**Service Area:** North

**Location:** City of Des Plaines

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$2,700,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** February 2017\*



**Project Description:** The project consists of the rehabilitation of the following: Drop Shaft No. 5 by slip lining, 100 feet of 108-inch pipe by a cured-in-place pipe lining process, 75 feet of the drop shaft exit conduit by spray-on lining, and replacement of deteriorated appurtenances.

**Project Justification:** The drop shaft was inspected by the Maintenance & Operations and Engineering Departments by visual inspection. The results of the visual inspection show concrete and metal deterioration due to hydrogen sulfide. In order to restore the structure integrity of the sewer and structure, they need to be rehabilitated.

**Project Status:** The design phase is 10 percent complete.

\*Information shown is estimated.

## Rehabilitation of Bridges, NSA

**Project Number:** 14-824-3D

**Service Area:** North

**Location:** Linden, Maple, and Sheridan Road Bridges

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,174,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** October 2016\*



**Project Description:** This project provides for the replacement of sidewalks on the Linden and Maple Avenue bridges, removal of encasing concrete from the bottom flanges of steel girders and beams of the Sheridan Road bridge, strengthening of steel members, and painting of steel members. In addition, the Maple Avenue and Linden Avenue bridges will be modified to make them bicycle friendly.

**Project Justification:** The sidewalks of the Maple Avenue and Linden Avenue bridges are severely cracked and out of alignment. They need to be replaced for the safety of pedestrians. The concrete encasement on the steel girders and beams of the Sheridan Road bridge is cracked and loose. This concrete needs to be removed to protect the equipment inside the Wilmette Pumping Station (under the bridge) and for the safety of pedestrians walking under the bridge to the Wilmette Harbor. In addition, several steel members of the Maple Avenue and Linden Avenue bridges have section loss due to corrosion and need strengthening. All steel members will be painted for protection from further corrosion.

**Project Status:** This project is being advertised.

\*Information shown is estimated.

## Safety Railing around Tanks, OWRP

**Project Number:** 15-072-3D

**Service Area:** North

**Location:** O'Brien WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** July 2017\*



**Project Description:** Install safety railings around aeration tanks for worker safety and to meet Occupational Safety and Health Administration regulations.

**Project Justification:** The guard rails were never installed around some of these tanks and are required for worker safety.

**Project Status:** This project is being designed.

\*Information shown is estimated.

## Main Sewage Pump Seal Water System Modification, MSPS

**Project Number:** 15-118-3J

**Service Area:** Stickney

**Location:** Mainstream Pumping Station

**Engineering Consultant:** In-house design

**General Contractor:** Meccor Industries, Ltd.

**Estimated Construction Cost:** \$1,250,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** April 2017\*



**Project Description:** Installation of three break tanks to provide a break between the city water and the service water systems. The service water system is used to feed the pump seals on the main pump floor at approximately 340 feet below grade. The project will install the piping, valving, electrical conduits and wiring for power and controls along with the tanks and pumping equipment required to provide an air gap separation for the North and South Pump Houses and in the Gate House Control Building.

Paint all piping that was previously city water and is now service water to identify the water system as non-potable. Insulation and pipe painting will be performed in accordance with District standards.

Install vacuum breaker on a slop sink at grade level just outside of the North Pump House receiving room.

**Project Justification:** This project is being performed to update the city water system to the latest Illinois plumbing code.

**Project Status:** The project is being designed.

\*Information shown is estimated.

## Conversion of Old GCTs to the WASSTRIP® Process, SWRP

**Project Number:** 15-120-3P

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$15,000,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** April 2018\*



**Project Description:** The remaining old gravity concentration tanks will be converted to the Waste Activated Sludge Stripping to Remove Internal Phosphorus (WASSTRIP®) process to aid in the release of phosphorus which will be recovered from the pre-digestion centrate by the existing Ostara process.

**Project Justification:** The WASSTRIP® process will increase the quantity of phosphorus that will be recovered by the Ostara facility. This enhances the District's strategic plan toward sustainability and resource recovery. Additional benefits of this process will be the reduction of struvite formation in the digesters and post centrate piping as well as improving the dewaterability of our biosolids. The fermentation of primary sludge will create additional volatile fatty acids necessary for a more stable operation of the enhanced biological phosphorus removal treatment process.

**Project Status:** This project is being designed.

\*Information shown is estimated.

## Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP

**Project Number:** 15-122-3P

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$10,000,000

**Contract Award Date:** December 2016\*

**Substantial Completion Date:** December 2018\*



**Project Description:** This project will replace the existing manually operated angle globe valves with automated valves on the first seven drop locations of pass one in each aeration tank. The associated air drop piping will also be modified as necessary. The work includes aeration tanks in Batteries A, B, C, and D with the exception of tanks D-7 and D-8, which have been modified under a different contract.

**Project Justification:** The District has implemented enhanced biological phosphorus removal at the Stickney WRP. Better process control is needed in the first pass, which will include an anaerobic zone and a swing zone. Periodic mixing of the anaerobic zone is necessary for volatile fatty acid release from in-line fermentation. Automation of these air valves will allow for periodic mixing as well as adjusting the length of the anaerobic zone based on flow and other operating conditions.

**Project Status:** This project is being designed.

\*Information shown is estimated.

## Safety Railing around Tanks, SWRP

**Project Number:** 15-123-3D

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$9,000,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** March 2017\*



**Project Description:** Install safety railings at the Batteries A, B, and C aeration tanks along both sides of walkways for worker safety and to meet Occupational Safety and Health Administration regulations.

**Project Justification:** The guard rails were never installed around some of these tanks and are required for worker safety.

**Project Status:** This project is being designed.

\*Information shown is estimated.

## Conversion of Two New GCTs to Primary Sludge Fermenters and Installation of a Gas Detection System in New GCT Building, SWRP

**Project Number:** 15-124-3P

**Service Area:** Stickney

**Location:** Stickney WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** November 2016\*

**Substantial Completion Date:** February 2018\*



**Project Description:** This project will convert two of the new gravity concentration tanks into fermenters and install a pumping station to pump the fermentate directly into the West Side primary effluent conduit feeding the secondary aeration batteries. This project will also install a gas detection system for the new gravity concentration tank building.

**Project Justification:** The District is pursuing an Enhanced Biological Phosphorus Removal (EBPR) at the Stickney WRP for the recovery of phosphorus and meeting a new regulatory limit for phosphorus in the effluent. The fermentation of primary solids will result in an additional production of volatile fatty acids (VFAs) which will be fed directly in secondary treatment. The additional VFAs will be utilized in the EBPR process, resulting in a more stable and better performing process. Additionally, code requirements for an enclosed gravity concentration tank area requires the installation of a combustible gas detection system.

**Project Status:** This project is being designed.

\*Information shown is estimated.



## Safety Railing around Tanks, CWRP

**Project Number:** 15-265-3D

**Service Area:** Calumet

**Location:** Calumet WRP

**Engineering Consultant:** In-house design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** July 2017\*



**Project Description:** Install safety railings around aeration tanks, preliminary settling tanks, contact chambers, and final settling tanks for worker safety and to meet Occupational Safety and Health Administration regulations.

**Project Justification:** The guard rails were never installed around some of these tanks and are required for worker safety.

**Project Status:** This project is being designed.

\*Information shown is estimated.

## Thornton Reservoir Valve Shaft Chamber Cone Valve, Crane and Drip Ceiling Rehabilitation

**Project Number:** 15-266-3F

**Service Area:** Calumet

**Location:** South Holland, Thornton, and Calumet WRP

**Engineering Consultant:** Black & Veatch Corporation, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** June 2017\*



**Project Description:** The purpose of this project is to rehabilitate several items related to the existing valve shaft for the Thornton Transitional Reservoir dewatering tunnel, in addition to the completion of the remaining work related to the Final Preparation of the Thornton Composite Reservoir and miscellaneous work for the Calumet Service Area.

The project includes several items related to the existing valve chamber, including the rehabilitation of two existing 42-inch cone valves. Additionally, the existing valve chamber crane shall be removed, and a new 25-ton crane shall be furnished, delivered, and installed along with an access platform, ladder and other related appurtenances. A new fiberglass reinforced plastic drip ceiling shall also be furnished, delivered, and installed within the valve chamber. Within the Thorn Creek Upper Connection Tunnel, a concrete plug shall be installed to prevent combined sewer overflow (CSO) contamination within the existing unlined portion of the tunnel. Within the Thorn Creek Diversion Tunnel, loose rocks shall be scaled and rock anchors shall be provided as specified. At the Calumet WRP, an existing construction trailer shall be removed. Three radar units shall be furnished, delivered, and installed, with one each at the CDS-39, CDS-55, and 140th Street dropshafts.

**Project Justification:** The existing crane and 42-inch cone valves were installed as part of the Thornton Transitional Reservoir project (Contract Number 77-235-BF). The crane and cone valves were placed in service in 2003. After 13 years of use, maintenance is now required on both the crane and valves. Currently under harsh conditions, the crane does not operate. The new fiberglass reinforced plastic drip ceiling will assist in maintaining the life of the newly-installed crane. Rehabilitation of the cone valves will allow continued dewatering of the Thornton Transitional Reservoir, as the reservoir will remain in service for at least another five years. Currently, the cone valves are not fully functional.

The Thornton Composite Reservoir project is an essential part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from CSOs. Completion of the reservoir is part of the District's CSO Long-Term Control Plan for complying with requirements of the Clean Water Act. The project is estimated to provide an average of \$40 million in benefits annually to over 550,000 people in its service area.

**Project Status:** The design completion date is expected to be February 2016. The project is expected to be advertised in March 2016 and awarded in June 2016.

\*Information shown is estimated.

# SEWER DESIGN PROJECT MAP 2016



UPPER DES PLAINES  
INTERCEPTING SEWER 11D  
EXT. C REHABILITATION, NSA  
11-404-3S \$5,500,000

UPPER DES PLAINES  
INTERCEPTING SEWER 11D  
REHABILITATION, NSA  
12-369-3S \$5,500,000

UPPER DES PLAINES  
INTERCEPTING SEWER 14B  
REHABILITATION, NSA  
06-360-3S \$6,700,000

GLENBROOK SANITARY SEWER  
REHABILITATION, NSA  
14-061-3S \$2,000,000

NORTH SHORE 1  
REHABILITATION, NSA  
10-047-3S \$21,500,000

39th STREET CONDUIT  
REHABILITATION PHASE II, SSA  
01-103-AS \$24,700,000

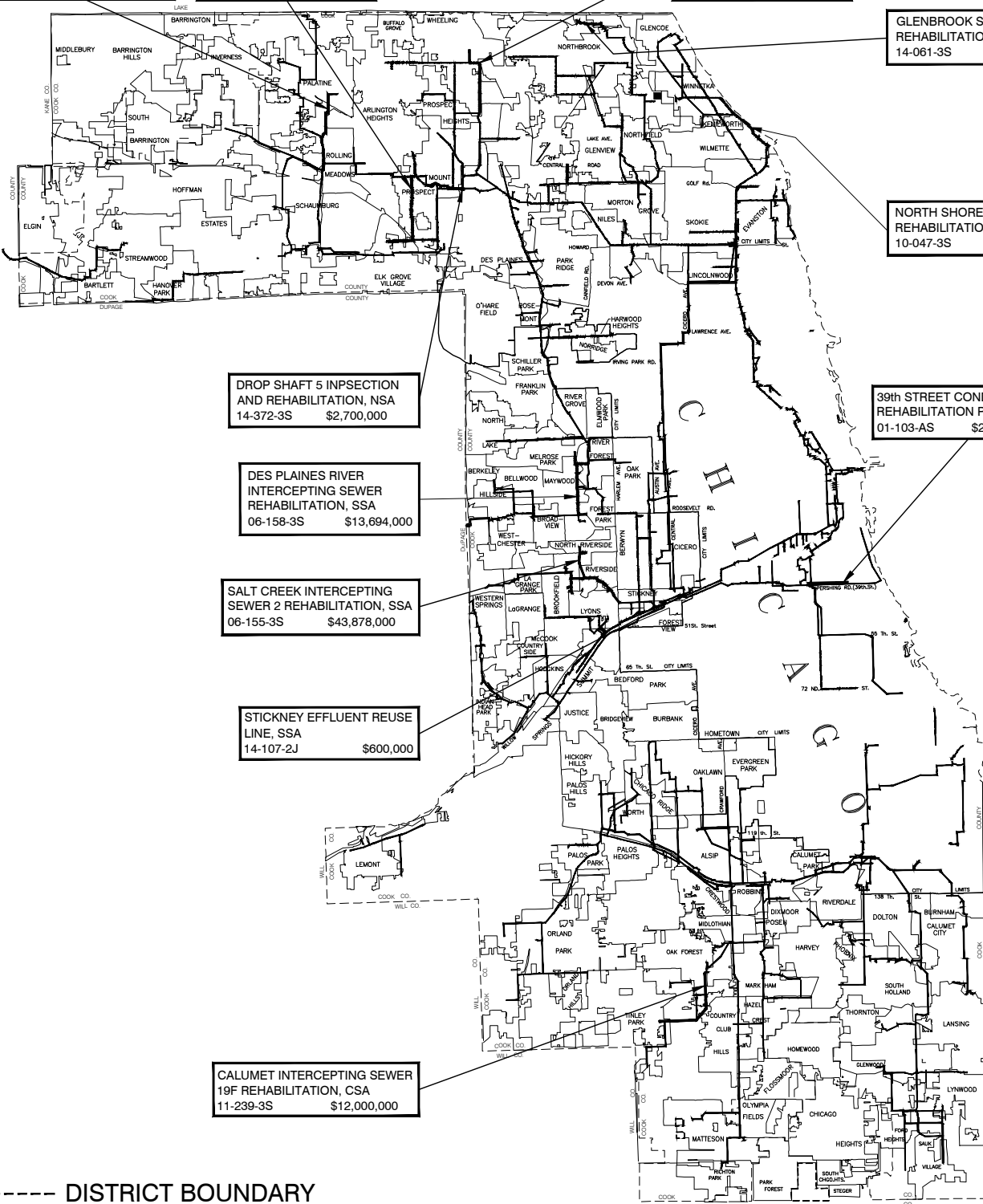
DROP SHAFT 5 INSECTION  
AND REHABILITATION, NSA  
14-372-3S \$2,700,000

DES PLAINES RIVER  
INTERCEPTING SEWER  
REHABILITATION, SSA  
06-158-3S \$13,694,000

SALT CREEK INTERCEPTING  
SEWER 2 REHABILITATION, SSA  
06-155-3S \$43,878,000

STICKNEY EFFLUENT REUSE  
LINE, SSA  
14-107-2J \$600,000

CALUMET INTERCEPTING SEWER  
19F REHABILITATION, CSA  
11-239-3S \$12,000,000



----- DISTRICT BOUNDARY



LOCATION MAP

39th STREET CONDUIT REHABILITATION -  
PHASE II, SSA  
REHABILITATE CONDUIT FROM LAKE  
SHORE DRIVE TO THE RACINE AVENUE  
PUMPING STATION  
COST: \$24,700,000

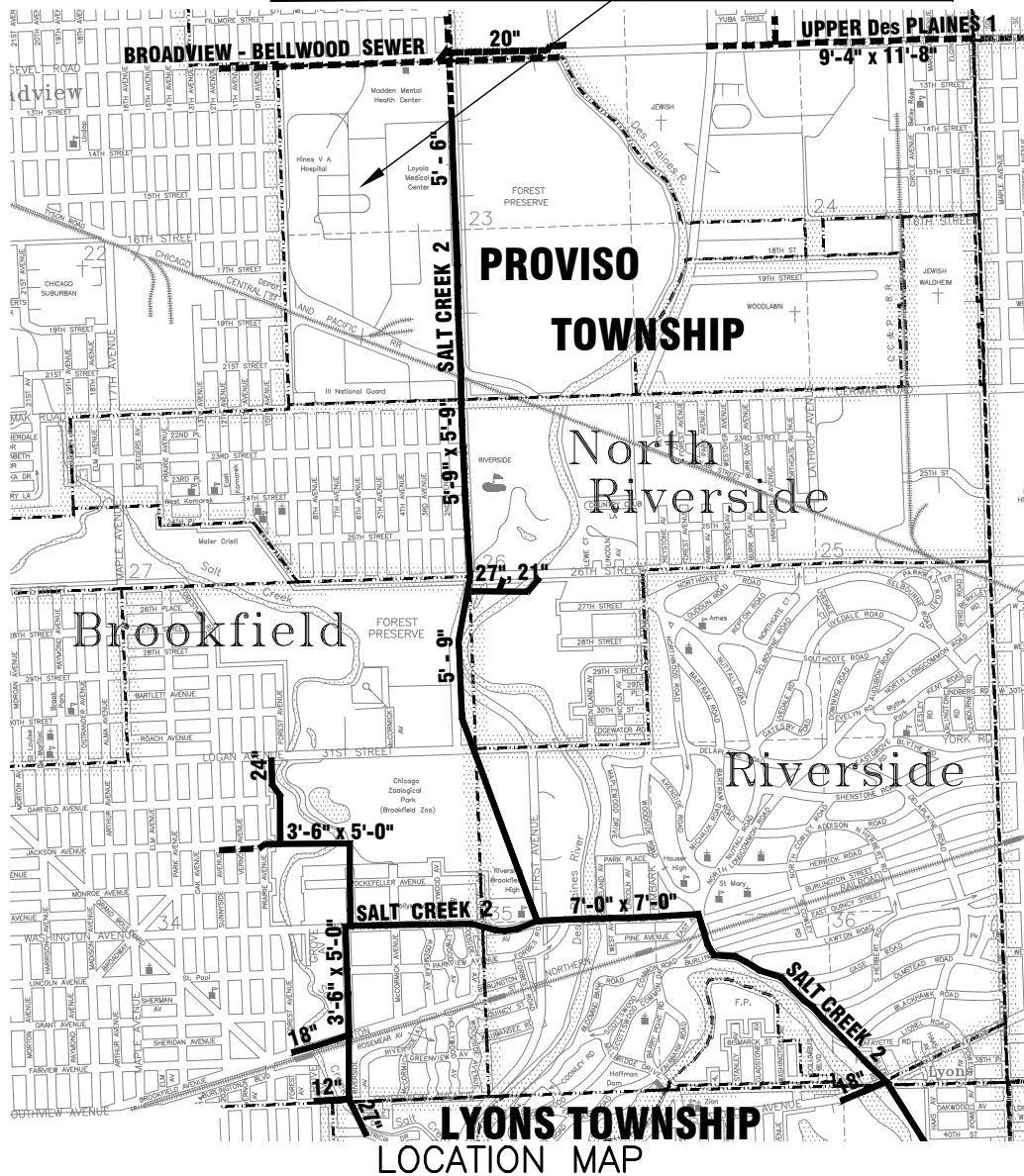
**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**39th STREET CONDUIT REHABILITATION - PHASE II, SSA  
CONTRACT 01-103-AS**



**SALT CREEK INTERCEPTING SEWER 2 REHABILITATION, SSA**  
 300 FEET OF 12-INCH DIAMETER SEWER  
 1,324 FEET OF 18-INCH DIAMETER SEWER  
 292 FEET OF 20-INCH DIAMETER SEWER  
 278 FEET OF 21-INCH DIAMETER SEWER  
 1,370 FEET OF 24-INCH DIAMETER SEWER  
 1,412 FEET OF 27-INCH DIAMETER SEWER  
 7,857 FEET OF 3' 6"x5'0" SEMIELLIPTICAL SEWER  
 12,509 FEET OF 5' 9"x5'9" SEMIELLIPTICAL SEWER  
 73 MANHOLES  
 CONTROL STRUCTURE MODIFICATION  
 COST: \$43,878,000



**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

**SALT CREEK INTERCEPTING SEWER 2 REHABILITATION, SSA  
 CONTRACT 06-155-3S**



**DES PLAINES RIVER INTERCEPTING SEWER REHABILITATION, SSA**  
 18,000-FOOT LONG SEWER VARYING IN SIZE FROM 20-INCH DIAMETER TO 8'x4'6" SEMIELLIPTICAL SEWER  
 COST: \$13,694,000

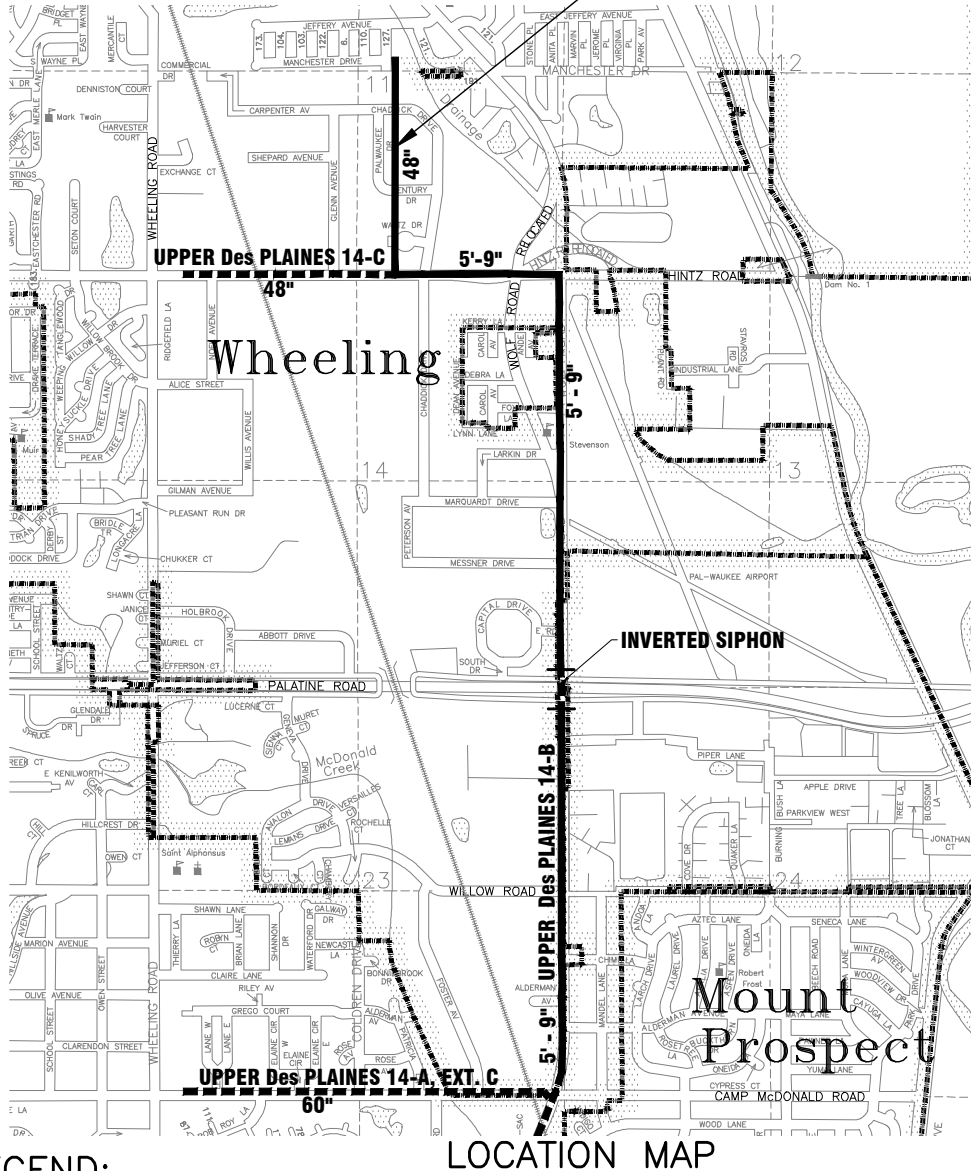


**LEGEND:** LOCATION MAP  
 ——— = SEWER TO BE REHABILITATED  
 - - - - - = EXISTING SEWER

**DES PLAINES RIVER INTERCEPTING SEWER REHABILITATION, SSA  
 CONTRACT 06-158-3S**



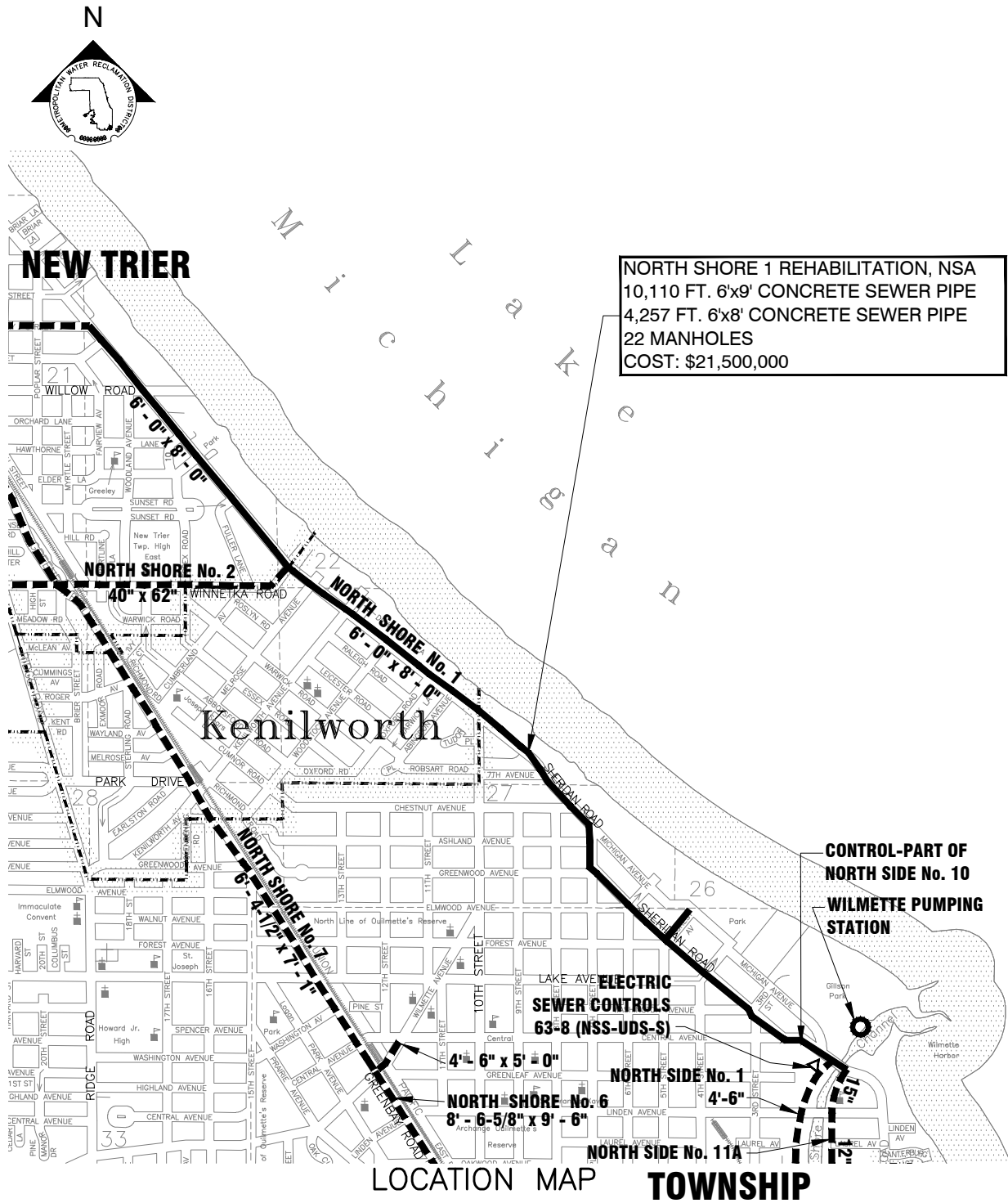
UPPER DES PLAINES INTERCEPTING SEWER 14B  
 REHABILITATION, NSA  
 3,000 FEET OF 48-INCH SEWER  
 11,000 FEET OF 69-INCH SEWER  
 26 MANHOLES/STRUCTURES  
 1 NEW MANHOLE  
 COST: \$6,700,000



**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

**UPPER DES PLAINES INTERCEPTING SEWER 14B REHABILITATION, NSA  
 CONTRACT 06-360-3S**

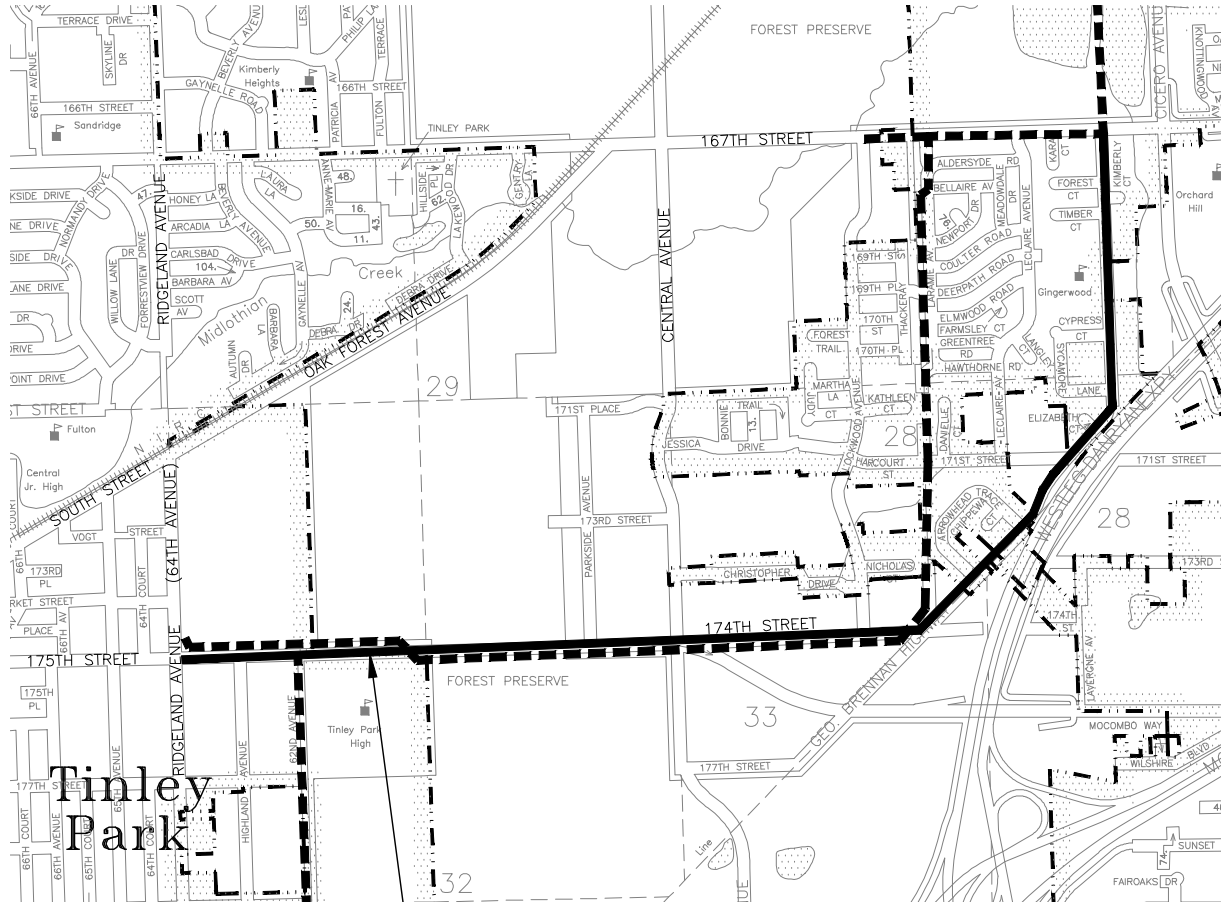


**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

**NORTH SHORE 1 REHABILITATION, NSA  
CONTRACT 10-047-3S**





**Tinley Park**

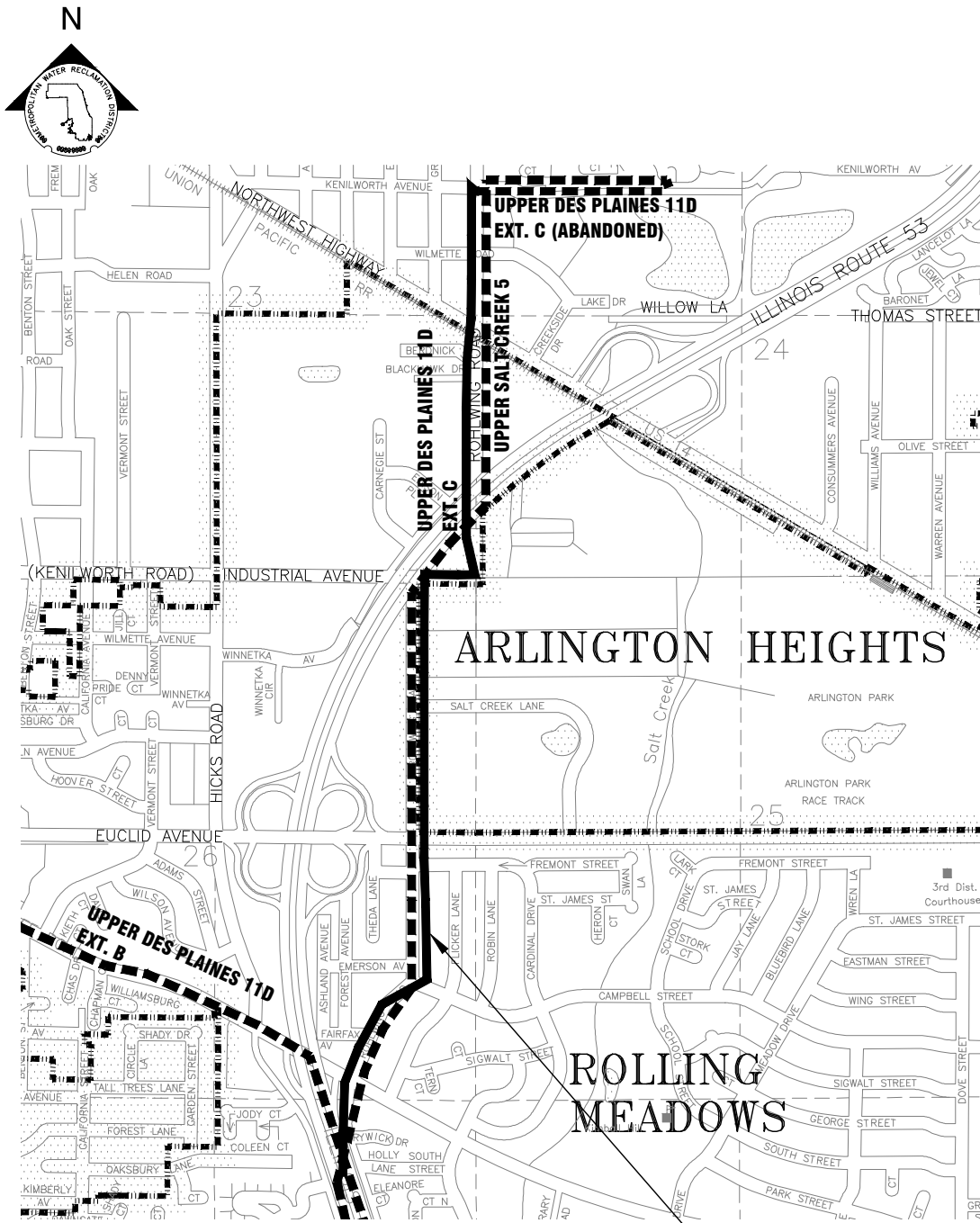
**LOCATION MAP**

**CALUMET INTERCEPTING SEWER 19F  
REHABILITATION, CSA  
10,432 FEET OF 60-INCH DIAMETER  
SEWER  
23 MANHOLES AND 1 JUNCTION  
STRUCTURE  
COST: \$12,000,000**

**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

**CALUMET INTERCEPTING SEWER 19F REHABILITATION, CSA  
CONTRACT 11-239-3S**



LOCATION MAP

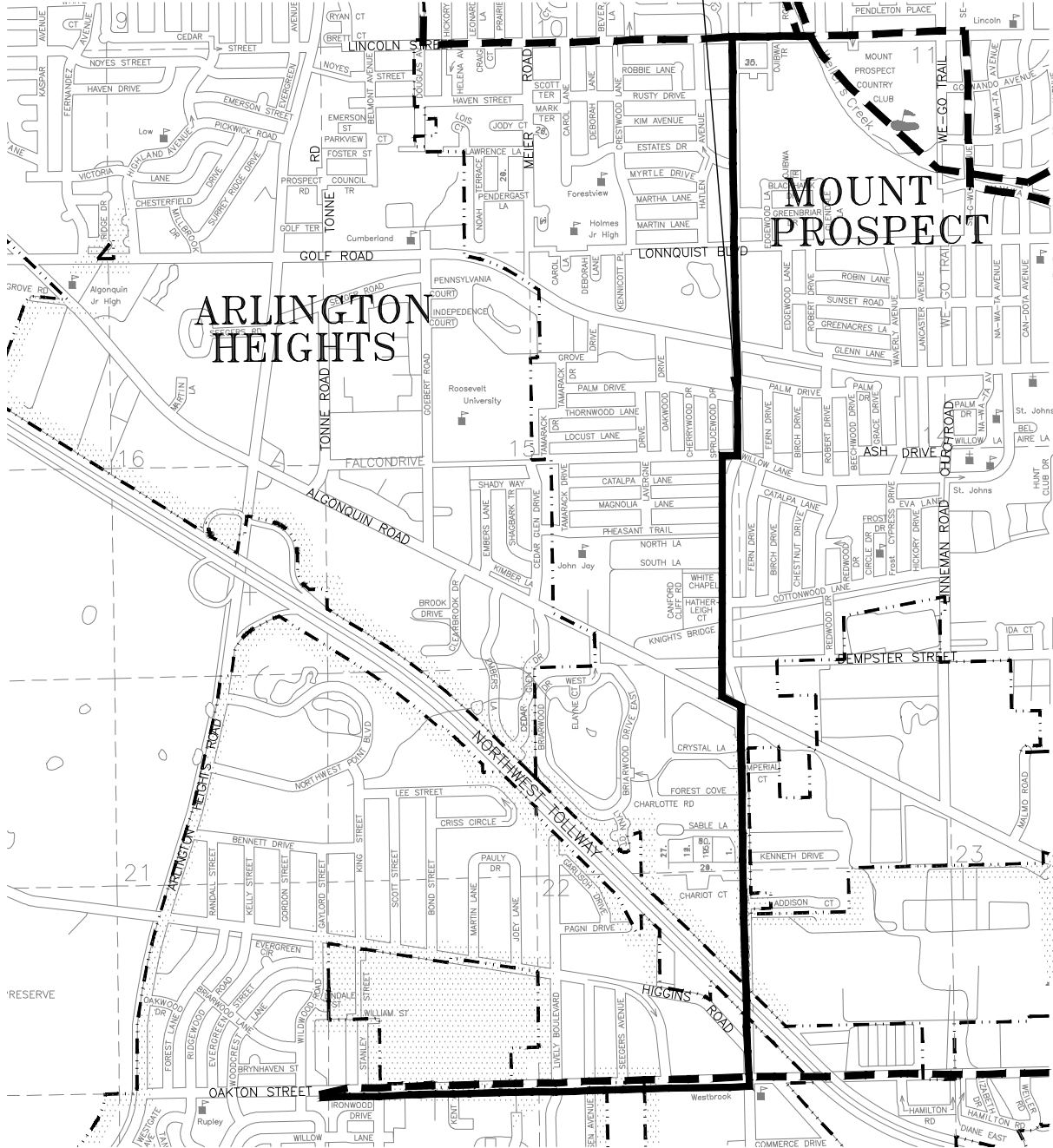
UPPER DES PLAINES INTERCEPTING SEWER 11D EXT. C REHABILITATION, NSA 10,828 FEET OF 36-INCH DIAMETER SEWER 24 MANHOLES AND 1 JUNCTION STRUCTURE COST: \$5,500,000

**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**UPPER DES PLAINES INTERCEPTING SEWER 11D EXT. C REHABILITATION, NSA CONTRACT 11-404-3S**

**UPPER DES PLAINES INTERCEPTING SEWER 11D  
REHABILITATION, NSA**  
 11,317 FEET OF 36-INCH SEWER  
 1,089 FEET OF 54-INCH SEWER  
 36 MANHOLES  
 COST: \$5,500,000



**LEGEND:**

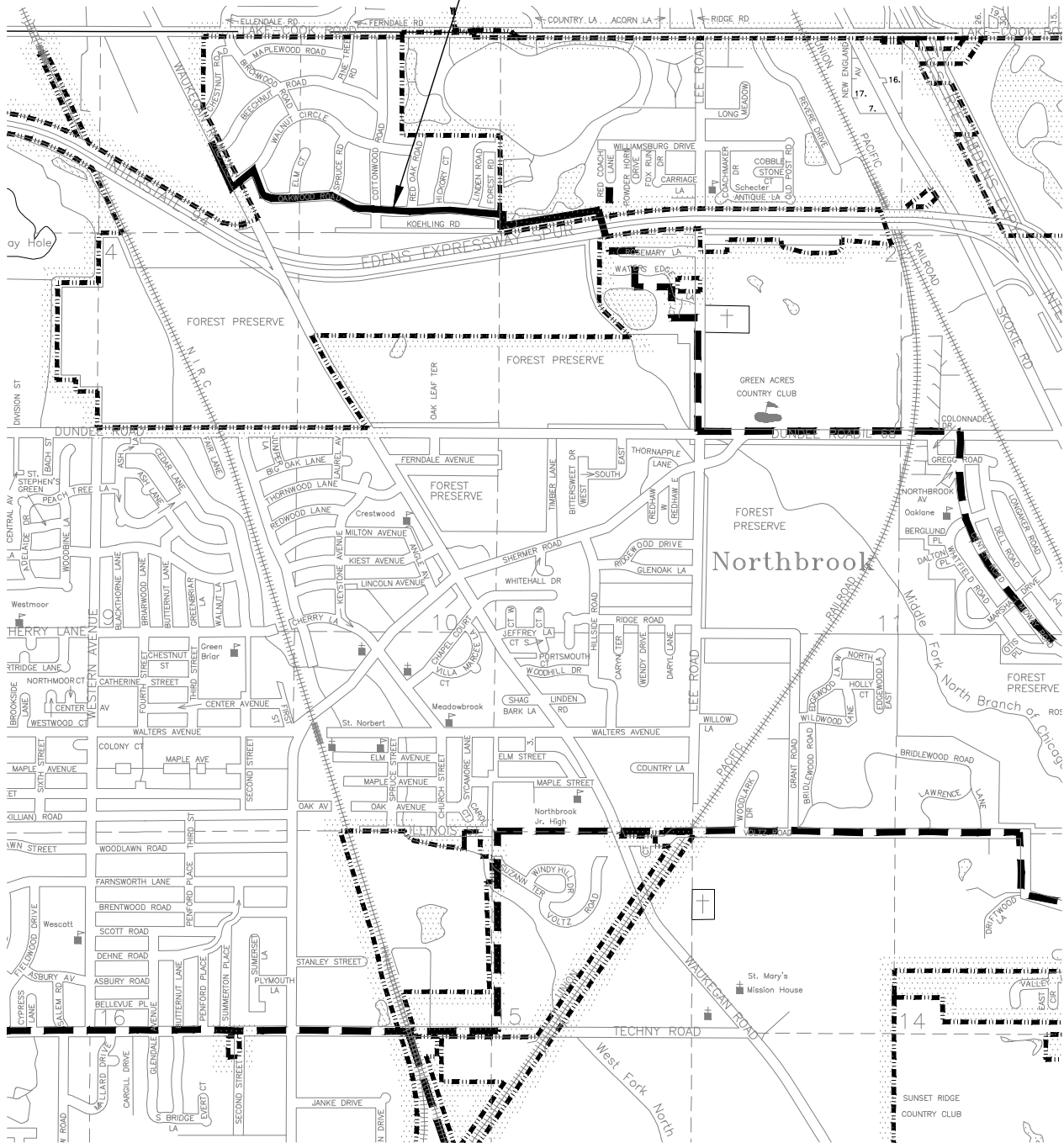
- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**LOCATION MAP**

**UPPER DES PLAINES INTERCEPTING SEWER 11D REHABILITATION, NSA  
CONTRACT 12-369-3S**





**GLENBROOK SANITARY SEWER REHABILITATION, NSA**  
5,730 FEET OF 18" DIAMETER  
20 MANHOLES  
COST: \$2,000,000



LOCATION MAP

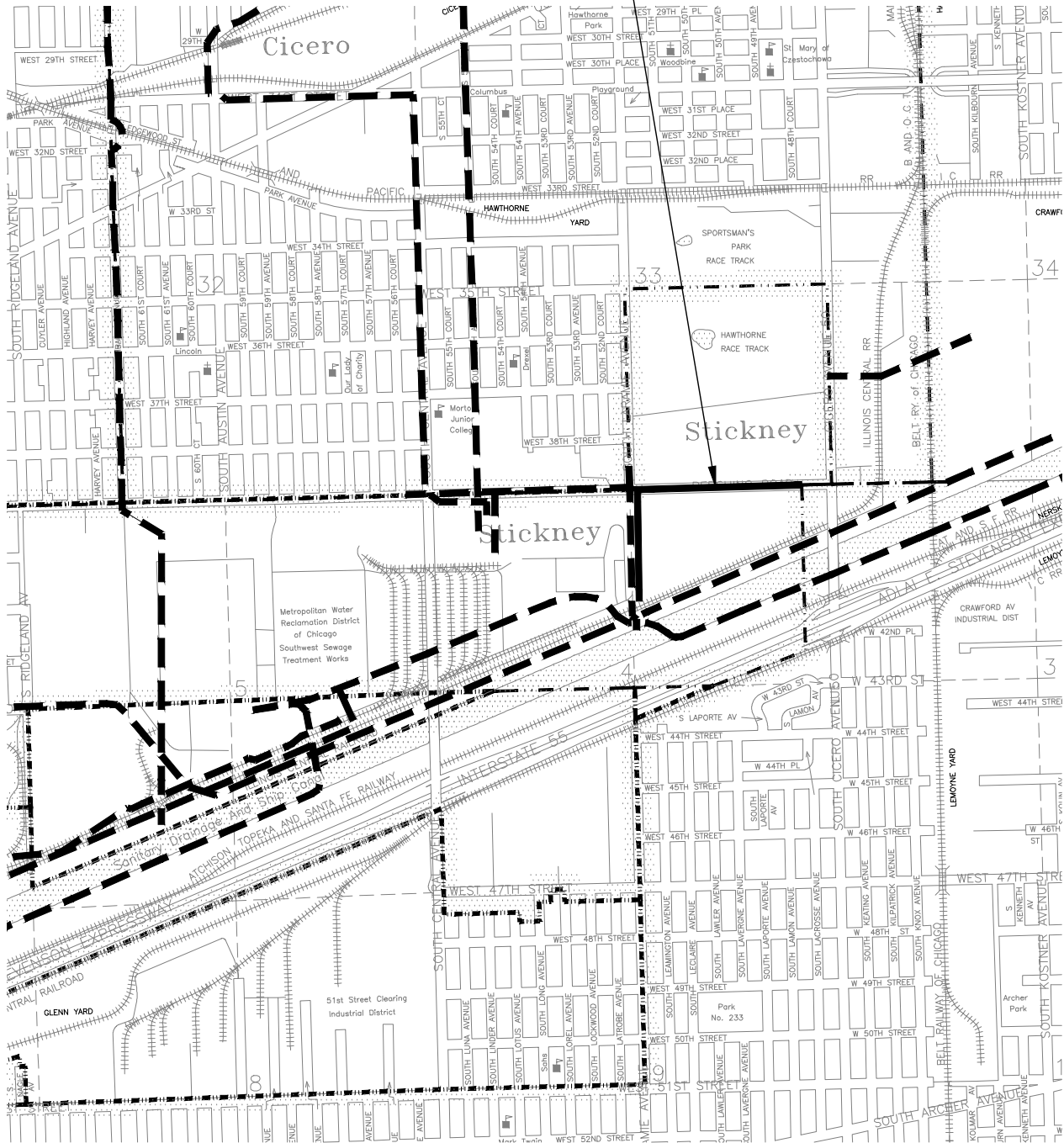
**LEGEND:**

-  = MWRD SEWER TO BE REHABILITATED
-  = MWRD SEWER NOT TO BE REHABILITATED

# GLENBROOK SANITARY SEWER REHABILITATION, NSA CONTRACT 14-061-3S





STICKNEY EFFLUENT REUSE LINE, SSA  
2,000 FEET OF 6-INCH DIAMETER FORCE MAIN  
COST: \$600,000

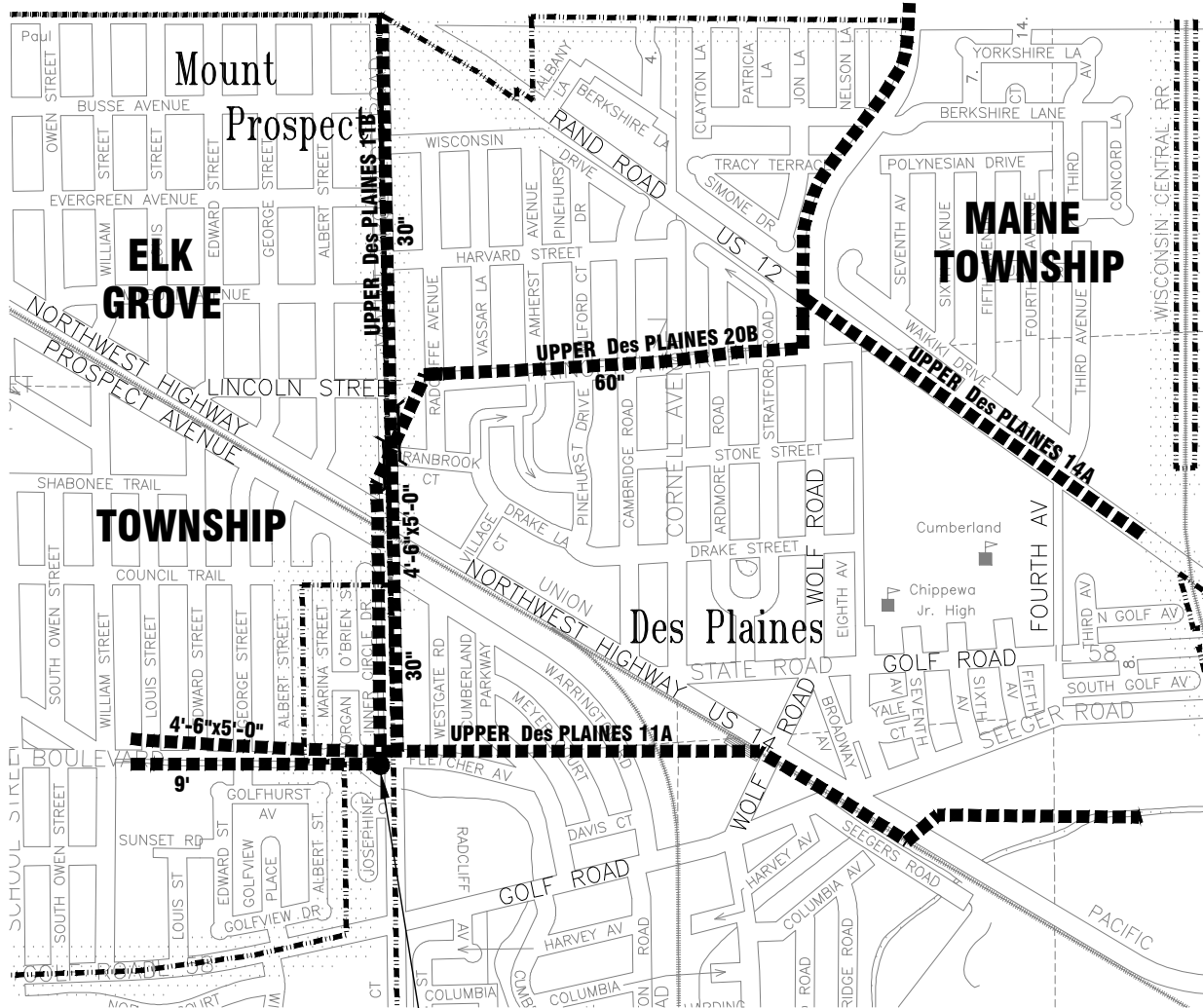


LOCATION MAP

**LEGEND:**

-  = PROPOSED MWRD FORCE MAIN
-  = MWRD SEWERS

# STICKNEY EFFLUENT REUSE LINE, SSA CONTRACT 14-107-2J



LOCATION MAP

DROP SHAFT 5 INSPECTION AND REHABILITATION, NSA  
 100 FEET OF 108" DIAMETER SEWER  
 75 FEET OF 108" DIAMETER DROP SHAFT  
 REPLACEMENT OF DETERIORATED METAL APPURTENANCES  
 COST: \$2,700,000

**LEGEND:**

- = MANHOLE TO BE REHABILITATED
- = EXISTING SEWER

**DROP SHAFT 5 INSPECTION AND REHABILITATION, NSA  
 CONTRACT 14-372-3S**

## Stormwater Management Capital Improvements Bond Fund Program

<b><u>Awards in 2016</u></b>		Project	Est. Construc- tion Cost	Dura- tion (days)	Est. Award Date
#	Project Name	Number			
1	Flood Control Project on the East Branch of Cherry Creek in Flossmoor, IL	10-883-CF	\$ 2,637	370	Jan-16
2	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood Prone Parcels of Real Property Located along the Des Plaines River	15-IGA-18	950	822	Jan-16
3	Controls for Northbrook Wescott Park	15-IGA-21	475	146	Jan-16
4	New Culvert between the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal	15-IGA-19	320	180	Feb-16
5	Albany Park Stormwater Diversion Tunnel	14-066-3F	24,750	730	Mar-16
6	Flood Control Project at Arrowhead Lake	10-883-BF	1,087	370	Mar-16
7	Flood Control Project for Deer Creek	10-884-BF	3,440	370	Mar-16
8	Streambank Stabilization Project on Melvina Ditch	13-248-3F	10,600	1,280	Mar-16
9	Installation of Green Infrastructure at Chicago Public Schools	15-IGA-20	3,000	250	Mar-16
10	Streambank Stabilization Project for the West Fork of the North Branch of the Chicago River	11-052-3F	449	370	Apr-16
11	* Streambank Stabilization Projects for Addison Creek	14-108-3F	625	366	Apr-16
12	Streambank Stabilization Project on Tinley Creek	10-882-AF	3,806	370	Apr-16
13	Streambank Stabilization Project along Calumet Union Drainage Ditch	10-882-BF	1,839	370	Apr-16
14	Prairie/Washington Pumping Station Improvements in Brookfield, IL	15-IGA-16	1,000	270	Apr-16
15	Buffalo Creek Reservoir Expansion	13-370-3F	15,882	540	Jun-16
16	Streambank Stabilization Project on Oak Lawn Creek	10-237-3F	4,175	370	Jul-16
17	Flood Control Project on Farmers and Prairie Creeks	12-056-3F	13,760	515	Aug-16
18	* Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, IL	15-IGA-14	3,483	370	Aug-16
19	Melvina Ditch Reservoir Improvements	14-263-3F	23,000	370	Sep-16
20	Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue in Oak Lawn, IL	15-IGA-22	3,000	730	Sep-16
21	Flood Control Project on the Des Plaines River in Lyons	13-199-3F	6,500	370	Nov-16
22	Melvina Ditch Pumping Station Improvements	14-263-AF	1,723	180	Nov-16
Total 2016 Awards			\$ 126,501		

## Stormwater Management Capital Improvements Bond Fund Program (continued)

### Projects Under Development

#	Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
23	Flood Control Project for the West Fork of the North Branch of the Chicago River	12-055-3F	\$ 25,000	730	Jan-17
24	Construction of Lavergne Avenue Flood Relief Project in Crestwood	15-IGA-04	133,000	90	Jan-17
25	Addison Creek Reservoir	11-186-3F	127,231	1,825	Oct-17
26	Addison Creek Channel Improvements	11-187-3F	43,069	730	Sep-19
Total Future Awards			\$ 328,300		
Cumulative 2016 and Future Awards			\$ 454,801		

\*These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund. Refer to Section VI Stormwater Management Fund for more information about the Stormwater Management Capital Improvement Program.

**Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.**

### Method of Financing

State				
Revolving	Fund	Alternate		
<u>Loans</u>	<u>Bonds</u>	<u>Grants</u>	<u>Total</u>	
\$ 190,720	\$ 254,081	\$ 10,000	\$ 454,801	



## Stormwater Management Capital Improvements Bond Fund Program Operating Impacts

#	Project Name	Project Number	Justification					Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Flood Control	Manpower	Energy	Chemical
<b><u>Awards in 2016</u></b>										
1	Flood Control Project on the East Branch of Cherry Creek in Flossmoor, IL	10-883-CF				x	x	=	=	=
2	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood Prone Parcels of Real Property Located along the Des Plaines River	15-IGA-18					x	=	=	=
3	Controls for Northbrook Wescott Park	15-IGA-21					x	=	=	=
4	New Culvert between the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal	15-IGA-19					x	=	=	=
5	Albany Park Stormwater Diversion Tunnel	14-066-3F				x	x	=	=	=
6	Flood Control Project at Arrowhead Lake	10-883-BF				x	x	=	=	=
7	Flood Control Project for Deer Creek	10-884-BF				x	x	=	=	=
8	Streambank Stabilization Project on Melvina Ditch	13-248-3F				x		=	=	=
9	Installation of Green Infrastructure at Chicago Public Schools	15-IGA-20					x	=	=	=
10	Streambank Stabilization Project for the West Fork of the North Branch of the Chicago River	11-052-3F				x		=	=	=
11	Streambank Stabilization Projects for Addison Creek	14-108-3F				x		=	=	=
12	Streambank Stabilization Project on Tinley Creek	10-882-AF				x		=	=	=
13	Streambank Stabilization Project along Calumet Union Drainage Ditch	10-882-BF				x		=	=	=
14	Prairie/Washington Pumping Station Improvements in Brookfield, IL	15-IGA-16					x	=	=	=
15	Buffalo Creek Reservoir Expansion	13-370-3F				x	x	=	=	=
16	Streambank Stabilization Project on Oak Lawn Creek	10-237-3F				x		=	=	=
17	Flood Control Project on Farmers and Prairie Creeks	12-056-3F				x	x	=	=	=
18	Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, IL	15-IGA-14					x	=	=	=
19	Melvina Ditch Reservoir Improvements	14-263-3F				x	x	=	=	=
20	Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue in Oak Lawn, IL	15-IGA-22					x	=	=	=
21	Flood Control Project on the Des Plaines River in Lyons	13-199-3F				x	x	=	=	=
22	Melvina Ditch Pumping Station Improvements	14-263-AF				x	x	=	=	=
<b><u>Projects Under Development</u></b>										
23	Flood Control Project for the West Fork of the North Branch of the Chicago River	12-055-3F				x	x	=	=	=
24	Construction of Lavergne Avenue Flood Relief Project in Crestwood	15-IGA-04					x	=	=	=
25	Addison Creek Reservoir	11-186-3F				x	x	=	=	=
26	Addison Creek Channel Improvements	11-187-3F				x	x	=	=	=

See legend on following page.

**LEGEND**

Under "**Justification**," the marked columns note the categories of benefits expected from each project.

+ or - Labor savings (+) or increases (-) expected to result in redirecting existing manpower away from or toward facility or process to other tasks with no net change in total position costs.

**Manpower**  
 ++ or -- Labor impact significant enough to ultimately result in reduction (++) or increase (--) in personnel. See additional cost details contained in the Project Fact Sheets.

+ or - Minor energy savings (+) or costs (-) having a negligible impact on the District's overall energy budget.

**Energy**  
 ++ or -- Major energy savings (++) or costs (--) expected to result in significant revisions to a facility's energy budget. See additional cost details contained in the Project Fact Sheets.

+ or - Chemical savings (+) or costs (-) having a negligible impact on the District's overall chemical costs.

**Chemical**  
 ++ or -- Major chemical savings (++) or costs (--) expected to result in significant revisions to the budgeted chemical expenditures for the associated process. See additional cost details contained in the Project Fact Sheets.

= No budgetary impact expected.

**50000 CAPITAL IMPROVEMENTS BOND FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. TREATMENT FACILITIES: Award seven construction projects: Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP, and six other projects that will reduce operation and maintenance costs or provide facility improvements.	\$ 65,000,000	13.4%
2. COLLECTION FACILITIES: Award five construction projects: Drop Shaft 5 Inspection and Rehabilitation, NSA, Glenbrook Sanitary Sewer Rehabilitation, NSA, and three other projects.	\$ 22,124,000	4.6%
3. SOLIDS PROCESSING & DISPOSAL FACILITIES: Award two construction projects: Organic Waste Receiving Facility, CWRP and Digester Gas Utilization Facilities, CWRP.	\$ 20,400,000	4.2%
4. FLOOD AND POLLUTION CONTROL: Award 15 construction projects: Buffalo Creek Reservoir Expansion and 14 other projects. Provide funding for Green Infrastructure and Intergovernmental Agreements.	\$ 265,501,000	54.9%
5. COMMUNITY FLOOD CONTROL PROGRAM: Provide financial assistance to communities for the identification and remediation of flood related problems, including the acquisition of flood-prone properties.	\$ 26,000,000	5.4%
6. LAND AND RIGHT-OF-WAY ACQUISITION COSTS: Acquisition of land for the expansion of reservoir projects and payments for land easements.	\$ 10,550,000	2.2%
7. PROJECT SUPPORT: Administration, design, and construction inspection for current and future contracts, funding support, and construction services, such as concrete and soil testing.	\$ 74,189,800	15.3%
<b>Total</b>	<b>\$ 483,764,800</b>	<b>100.0%</b>

MEASURABLE GOAL:	2014 Actual	2015 Estimated	2016 Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	16	29	29
Number of contracts awarded	6	6	29
Number of plans available for award	6	6	29
<p>The projects proposed for each year are based upon the requirements dictated by the Capital Improvement Program. The number of actual projects awarded may not, on face value, quantify performance. There are several factors that could either increase or decrease the number of projects awarded. Some of these factors are project size, project complexity, and unforeseen obstacles. These numbers are provided only as a general indicator of performance.</p>			

**50000 CAPITAL IMPROVEMENTS BOND FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014 Actuals	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
1700	Collection Design	\$ 161,804	2016	- \$ 1,500,000	\$ 1,500,000	100.0	a)
			2015	- \$ -			
1800	Collection Construction	\$ 20,255,303	2016	- \$ 19,835,000	\$(39,315,000)	(66.5)	b)
			2015	- \$ 59,150,000			
2700	Treatment Design	\$ 3,867,662	2016	- \$ 1,083,600	\$ (1,400,000)	(56.4)	c)
			2015	- \$ 2,483,600			
2800	Treatment Construction	\$ 62,074,887	2016	- \$ 73,502,600	\$ 33,827,600	85.3	d)
			2015	- \$ 39,675,000			
3700	Solids Processing Design	\$ 858,510	2016	- \$ -	\$ -	-	
			2015	- \$ -			
3800	Solids Processing Construction	\$ 20,813,533	2016	- \$ 21,707,600	\$ 3,445,600	18.9	e)
			2015	- \$ 18,262,000			
4300	Stormwater Management	\$ -	2016	- \$ 194,574,100	\$ 91,136,900	88.1	f)
			2015	- \$ 103,437,200			
4700	Flood & Pollution Control Design	\$ 2,625,960	2016	- \$ 2,550,000	\$ (450,000)	(15.0)	g)
			2015	- \$ 3,000,000			
4800	Flood & Pollution Control Construction	\$ 75,452,071	2016	- \$ 168,761,900	\$(57,952,800)	(25.6)	h)
			2015	- \$ 226,714,700			
5800	Solids Disposal Construction	\$ 4,389,765	2016	- \$ -	\$ (100,000)	(100.0)	i)
			2015	- \$ 100,000			
7740	Land and Easements	\$ 1,800	2016	- \$ 250,000	\$ -	-	
			2015	- \$ 250,000			
Totals		\$ 190,501,295	2016	- \$ 483,764,800	\$30,692,300	6.8%	
			2015	- \$ 453,072,500			

- a) Increase is due to the expected 2016 award of 14-820-3S, Civil Consulting Support Services (\$1,500,000).
- b) Decrease is due to the 2015 award of 06-155-3S, Salt Creek Intercepting Sewer 2 Rehabilitation, SSA (\$43,050,000) and an adjustment in funding for contract change order allowances with respect to active projects (\$2,450,000), offset by the expected 2016 award of 14-372-3S, Drop Shaft 5 Inspection and Rehabilitation, NSA (\$2,835,000), 14-061-3S, Glenbrook Sewer Rehabilitation, NSA (\$2,100,000), and 15-118-3J, Main Sewage Pump Seal Water System Modification, MSPS (\$1,250,000).
- c) Decrease is due to the 2015 award of 09-875-3D, Civil, Structural, and Architectural Support Services (\$2,400,000), offset by the expected 2016 award of 09-401-2P, Master Underground Piping Survey, EWRP (\$1,000,000).
- d) Increase is due to the expected 2016 award of 15-120-3P, Conversion of Old GCTs to the WASSTRIP® Process, SWRP (\$15,750,000), 15-122-3P, Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP (\$10,500,000), 15-124-3P, Conversion of Two New GCTs to Primary Sludge Fermenters and Installation of a Gas Detection System in the New GCT Building, SWRP (\$3,150,000), and installation of safety railings around tanks at the Stickney, O'Brien, and Calumet WRPs (\$11,550,000), 04-132-3D, A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP (\$12,600,000), Special Counsel, Legal Services (\$250,000), and Geotechnical Analysis (\$660,000), offset by the 2015 award of 09-182-3E, D799 Switchgear Replacement, SWRP (\$7,875,000) and contract change order allowances (\$12,757,400).
- e) Increase is due to the 2016 award of 11-240-3P, Organic Waste Receiving Facility, CWRP (\$7,770,000), offset by the 2015 award of 13-409-3P, Nitrogen Removal in Centrate, EWRP (\$3,675,000) and a decrease in estimated costs for bond issuances (\$649,400).
- f) Increase is due to the expected 2016 award of 13-370-3F, Buffalo Creek Reservoir Expansion (\$16,673,700) and 13-248-3F, Streambank Stabilization Project on Melvina Ditch (\$2,730,000), Intergovernmental Agreements (\$23,933,400), 14-263-3F, Flood Control Project for Melvina Ditch Reservoir Improvements (\$13,650,000), the reallocation of funds for the Community Flood Control Project from Program Number 4800 (\$26,000,000), and the Stormwater Management Phase II - Bond Fund (\$8,000,000).
- g) Decrease is due to an adjustment in funding for contract change order allowances with respect to active contracts (\$700,000) offset by additional funding for consulting services for the Community Flood Control Program (\$250,000).
- h) Decrease is due to the 2015 award of 13-246-3M, Calumet TARP Screens, CWRP (\$10,290,000), 02-111-3M, TARP Pump #8 Rehabilitation, MSPS (\$4,725,000), and 04-203-AF, Furnish, Deliver, and Install Seven Solar Aeration Units (\$422,700), and due to a decreased estimate for 13-106-4F, McCook Reservoir Des Plaines Inflow Tunnel (\$16,800,000), and a reallocation of funds for the Community Flood Control Program to Program Number 4300 (\$26,000,000).
- i) Decrease is due to an adjustment in funding for contract change order allowances with respect to active projects.

401 50000	Fund: Capital Improvements Bond Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original * Appropriation	Adjusted ** Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601170	Payments for Professional Services	\$ 147,199	\$ 1,700,000	\$ 2,309,375	\$ 266,000	\$ -	\$ -	\$ -
601410	Personal Services Exp for Prelim Engineering Rpts & Studies	253,077	250,000	764,000	678,400	-	-	-
601420	Personal Services Exp for Constr Drawings, Specs, & Cost Est	8,898,311	10,900,000	23,005,476	5,393,200	-	-	-
601440	Personal Svcs for Post-Award Engr for Construction Projects	4,661,509	2,000,000	28,425,942	7,946,000	-	-	-
100	TOTAL PERSONAL SERVICES	13,960,096	14,850,000	54,504,792	14,283,600	-	-	-
612090	Reprographic Services	-	10,000	44,000	5,000	10,000	10,000	10,000
612240	Testing and Inspection Services	60,149	-	814,868	78,100	-	-	-
612250	Court Reporting Services	6,610	5,000	20,191	6,100	5,000	5,000	5,000
612380	Soil and Rock Mechanics Investigation	99,725	-	581,365	105,300	660,000	660,000	660,000
612400	Intergovernmental Agreements	-	-	34,000,000	8,000,000	65,708,500	65,708,500	70,978,400
612430	Payments for Professional Services	-	-	-	-	3,183,600	3,183,600	3,183,600
612440	Personal Services Exp for Prelim Engineering Rpts & Studies	-	-	-	-	250,000	250,000	50,000
612450	Personal Services Exp for Constr Drawings, Specs, & Cost Est	-	-	-	-	8,750,000	8,750,000	17,896,000
612470	Personal Svcs for Post-Award Engr for Construction Projects	-	-	-	-	2,550,000	3,000,000	3,000,000
612490	Contractual Services, N.O.C.	-	9,333,600	9,333,600	1,000,000	-	-	-
612780	Safety Repairs and Services	-	100,000	100,000	25,000	100,000	100,000	100,000
200	TOTAL CONTRACTUAL SERVICES	166,483	9,448,600	44,894,023	9,219,500	81,217,100	81,667,100	95,883,000
634620	Equipment for Waterway Facilities	-	422,700	422,700	422,700	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	-	422,700	422,700	422,700	-	-	-
645600	Collection Facilities Structures	43,487,613	11,290,000	78,495,734	35,872,000	1,000,000	2,250,000	2,250,000
645620	Waterway Facilities Structures	32,201,045	53,365,400	133,056,234	35,615,000	78,427,700	79,427,700	75,427,700
645630	Army Corps of Engineers Services	5,285,000	176,199,000	176,199,000	13,667,000	13,449,000	159,399,000	159,399,000
645650	Process Facilities Structures	60,313,852	37,200,000	358,355,364	116,411,000	68,700,200	70,800,200	70,012,600
645680	Buildings	47,371	100,000	1,197,535	-	100,000	100,000	-
645690	Capital Projects, N.O.C.	493,157	34,750,000	750,000	-	750,000	750,000	-
645700	Preservation of Collection Facility Structures	10,119,150	62,875,000	87,192,245	11,278,400	7,435,000	20,035,000	17,585,000

401 50000	Fund: Capital Improvements Bond Department: Engineering Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original * Appropriation	Adjusted ** Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
645720	Preservation of Waterway Facility Structures	2,645,130	22,321,800	22,767,989	900,000	22,309,800	24,459,800	28,654,300
645750	Preservation of Process Facility Structures	17,147,989	17,200,000	34,830,323	6,933,700	2,500,000	2,500,000	23,150,000
645780	Preservation of Buildings	-	1,000,000	10,578,700	-	1,000,000	1,000,000	-
500	TOTAL CAPITAL PROJECTS	171,740,307	416,301,200	903,423,125	220,677,100	195,671,700	360,721,700	376,478,600
656010	Land	242,844	10,300,000	10,300,000	10,200,000	10,300,000	10,300,000	10,300,000
600	TOTAL LAND	242,844	10,300,000	10,300,000	10,200,000	10,300,000	10,300,000	10,300,000
667340	Payments for Easements	1,800	250,000	250,000	240,000	250,000	250,000	250,000
727102	Principal Expense - Capital Lease	2,142,383	-	47,273,231	2,247,500	-	-	-
727112	Interest Expense - Capital Lease	2,247,382	-	18,480,036	2,142,300	-	-	-
767300	Bond Issuance Costs	-	1,500,000	1,500,000	744,800	853,200	853,200	853,200
700	TOTAL FIXED AND OTHER CHARGES	4,391,565	1,750,000	67,503,268	5,374,600	1,103,200	1,103,200	1,103,200
<b>TOTAL CAPITAL IMPROVEMENTS BOND</b>		<b>\$190,501,295</b>	<b>\$453,072,500</b>	<b>\$1,081,047,907</b>	<b>\$260,177,500</b>	<b>\$288,292,000</b>	<b>\$453,792,000</b>	<b>\$483,764,800</b>

\* The Capital Improvements Bond Fund is budgeted and accounted for on an obligation basis.

\*\* The appropriation in the Capital Improvements Bond Fund is adjusted to carry forward open value of contracts from the prior year.

NOTES: 1. Amounts may not add up due to rounding.

2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

3. The Capital Improvements Bond Fund appropriation is controlled on the Summary Object level.

4. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

# SECTION VI

## STORMWATER MANAGEMENT FUND

Stormwater Management is organized with all revenues and expenditures accounted for in a separate fund. The District assumed responsibility for stormwater management following the passage of Public Act 093-1049 in November 2004. This law gives the District responsibility for stormwater management for all of Cook County, including areas that currently lie outside the District's boundaries.

The District has established seven watershed planning councils. The purpose of the watershed planning councils is to advise the District on the development and implementation of the countywide stormwater management plan, representing concerns of local governments. Municipal leagues are responsible for coordinating activities of the watershed planning councils.

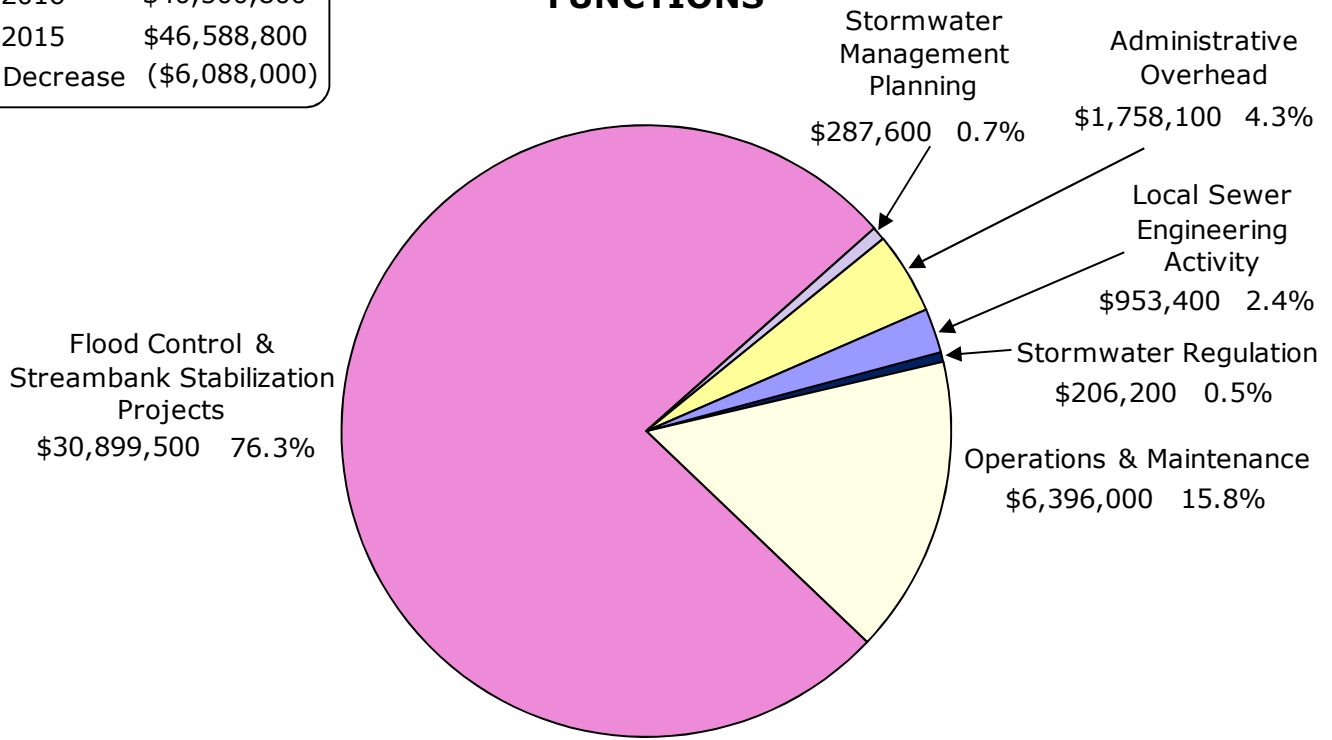
### Stormwater Management Fund:

Appropriations, Expenditures, & Budgeted FTE Positions, 2007 – 2016 .....	475
Organization Chart .....	476
Budget Narrative .....	477
Project List and Operating Impacts .....	480
Project Fact Sheets .....	482
Project Exhibits .....	515
Objectives and Program Summary .....	520
Performance Data .....	522
Line Item Analysis .....	524
Position Analysis .....	526

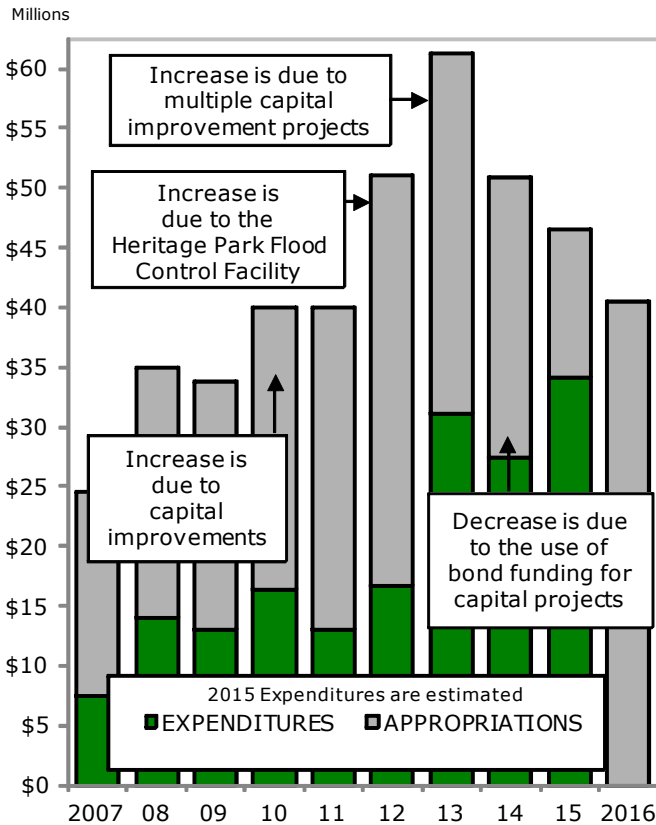
# STORMWATER MANAGEMENT

2016	\$40,500,800
2015	\$46,588,800
Decrease	(\$6,088,000)

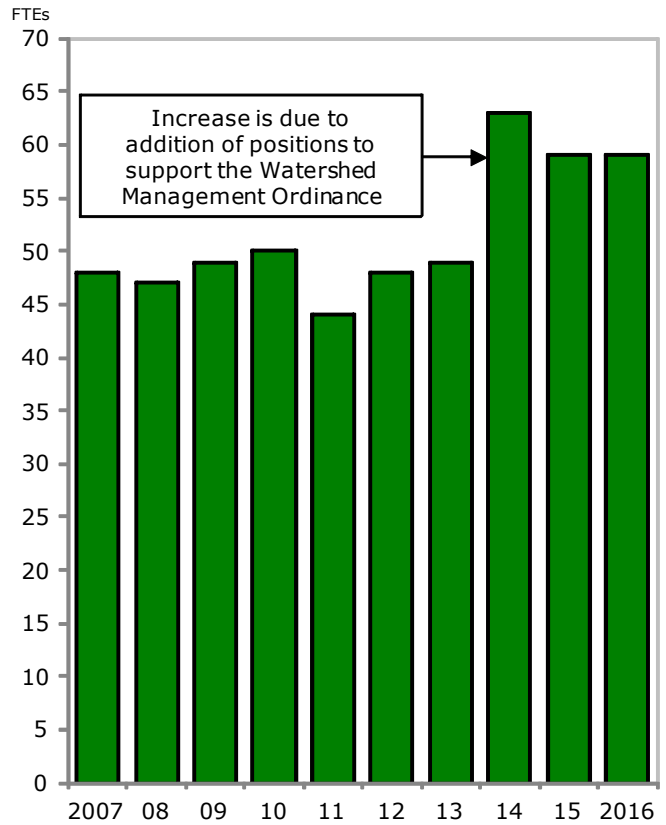
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

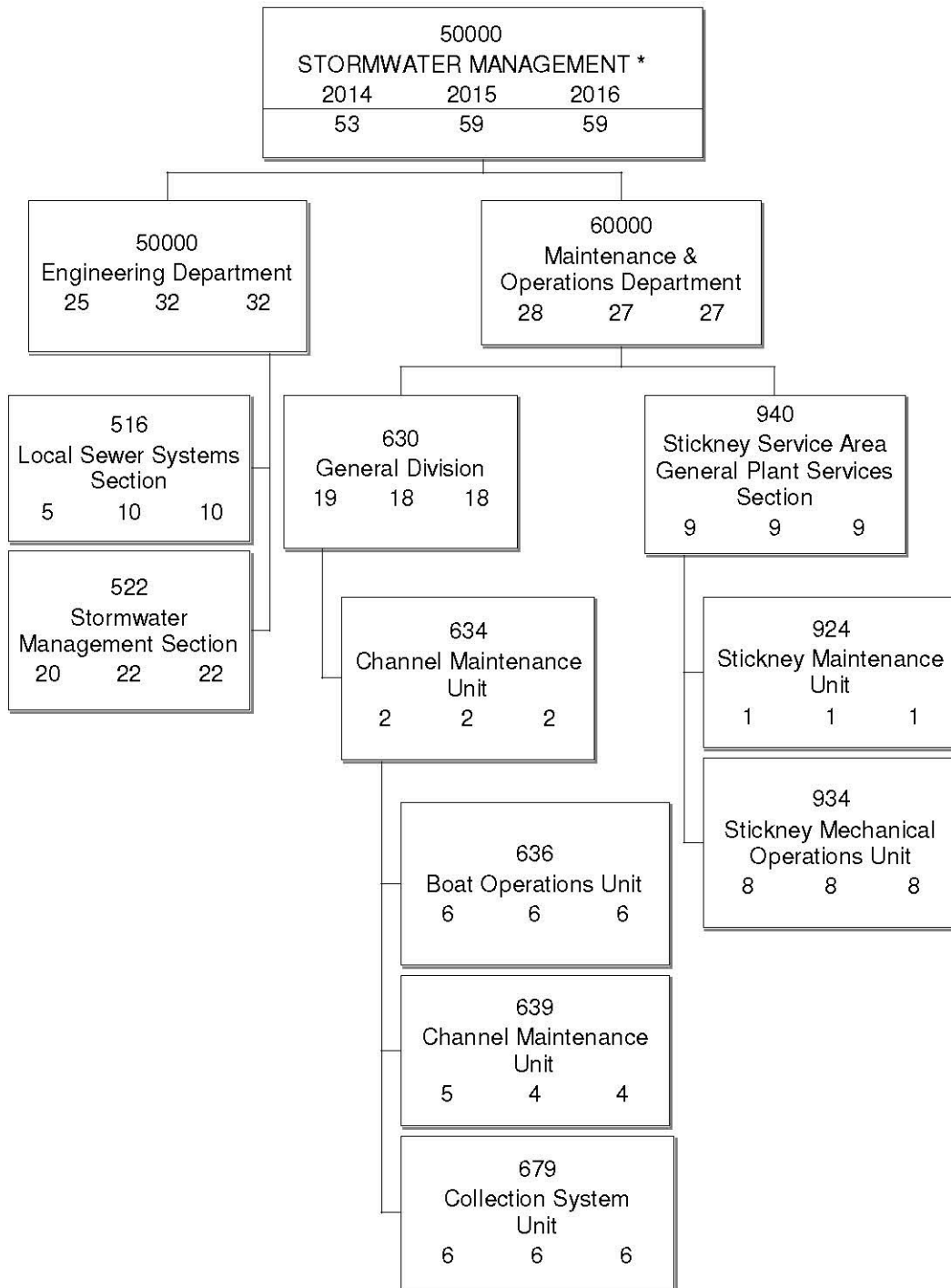


## BUDGETED FTE POSITIONS





# STORMWATER MANAGEMENT



\* Positions funded by the Stormwater Management Fund are operationally controlled by the Engineering and Maintenance & Operations Departments.

## STORMWATER MANAGEMENT FUND

**The mission of the Stormwater Management Fund is to protect the safety of Cook County's residents and minimize flooding damage by coordinating, planning, implementing, financing, and operating regional stormwater management projects and to develop and enforce reasonable rules with respect to watershed development.**

### Fund Summary

The fund consolidates the stormwater management activities of the Engineering and Maintenance & Operations (M&O) Departments and supports the activities outlined in the Cook County Stormwater Management Plan, which serves as a framework for the District's countywide Stormwater Management Program. Under this program, the District has completed Detailed Watershed Plans (DWPs) for all six major watersheds in Cook County, initiated a Stormwater Management Capital Improvement Program, initiated a Small Streams Maintenance Program (SSMP), and adopted and implemented the Watershed Management Ordinance. Information on the Stormwater Management Program can be found at [stormwater.mwrdd.org](http://stormwater.mwrdd.org).

### Summary of 2015 Accomplishments

- Completed construction of two streambank stabilization projects originally identified in the DWPs;
- Awarded three flood control, streambank stabilization, and green infrastructure construction projects, two of which are budgeted in the Capital Improvements Bond Fund (CIBF), including:
  - 10-883-AF, Flood Control/Streambank Stabilization Project on Tinley Creek;
  - 10-884-AF, Flood Control Project for Upper Salt Creek (CIBF);
  - 14-254-3FR, Blue Island Green Infrastructure Project (CIBF);
- Entered into five Intergovernmental Agreements (IGAs) for Stormwater Management Phase II projects to allow for construction of local flood control projects;
- Continued design of Phase I "regional" projects recommended from the DWPs for the established watersheds of Cook County, including the projects summarized below:
  - Streambank stabilization projects on reaches of Tinley Creek, Midlothian Creek, Illinois & Michigan (I&M) Canal Tributary D, Melvina Ditch, Oak Lawn Creek, Calumet Union Drainage Ditch, the Middle Fork and the West Fork of the North Branch of the Chicago River, and Addison Creek;
  - Flood control projects on reaches of Upper Salt Creek, Deer Creek, Tinley Creek, Navajo Creek, Cherry Creek East Branch, Addison Creek, Buffalo Creek, Des Plaines River, the West Fork of the North Branch of the Chicago River, and Farmers Prairie Creek;
- Continued the SSMP with the objective of removing debris and blockages from 532 miles of small streams and rivers;
- Completed construction of green infrastructure at two Chicago Public School campuses in collaboration with the City of Chicago Department of Water Management and the Chicago Public Schools System, which is budgeted in the CIBF.

### Budget Highlights

The 2016 Stormwater Management Fund appropriation is \$40,500,800, a decrease of \$6,088,000, or 13.1 percent, from 2015. The staffing level of 59 positions remains unchanged, with the drop of an Assistant Civil Engineer position and the addition of an Engineering Technician IV position.

Significant features of the 2016 budget are:

- Continue engineering design for Phase I projects from the DWPs and begin construction of projects that have completed final design and have been approved by the Board of Commissioners;
- Continue post-award engineering for performance monitoring of native plantings installed along Higgins Creek, McDonald Creek, and I&M Canal Tributary D;
- Further develop the District's Green Infrastructure Program (GIP);
- Continue the SSMP to reduce flooding in urbanized areas;
- Expand the online content related to the Chicago Area Waterway System and the SSMP to provide educational materials, as well as general information regarding the management of the system before, during, and after a storm;
- Continue preliminary design, final design, or construction of Stormwater Management Phase II projects, which will focus on localized flooding problems;
- Support funding partnerships for CIBF-budgeted projects: the construction of the Glenwood Floodwall, Addison Creek Alternative 7-B, Glenwood Relief Sewer, Chicago Public Schools Green Infrastructure, and Albany Park Tunnel.

**2016 Initiatives in Support of the Strategic Business Plan Include the Following:**

- **Add Value**

The Stormwater Management Capital Improvement Program (CIP) utilizes benefit-to-cost ratios developed for the recommended alternatives in the DWPs as the primary basis for prioritizing individual projects.

- **Excellence**

Stormwater staff approach each project with attention to detail, in the spirit of excellence, in order to deliver stormwater management projects that meet or exceed the expectation of the communities served. Staff attend various community meetings to explain the District’s role as the stormwater management authority for Cook County to the general public.

- **Resource Recovery**

Stormwater projects, particularly the Stormwater Management Phase II projects, will include a mix of both gray and green infrastructure elements. Wherever practical, stormwater recovery and reuse will be included in the project.

- **Develop Employees**

The dedicated staff from the Engineering and M&O Departments includes numerous licensed professional engineers and certified floodplain managers who are leaders in the field. Staff regularly attend and present papers at various conferences and seminars related to stormwater management.

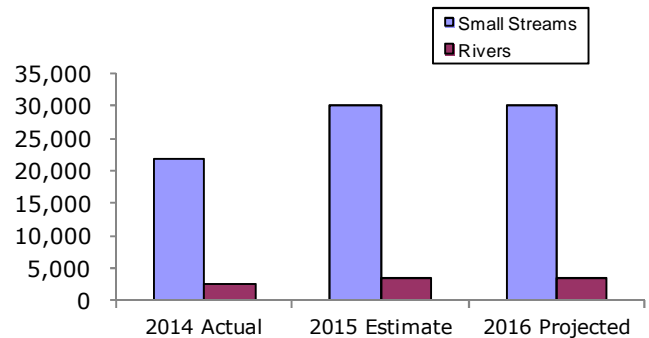
- **Leading Partnerships**

The District has initiated a GIP that facilitates the planning, design, and construction of multiple green infrastructure projects throughout Cook County, in partnership with a variety of stakeholders. Program framework and guidelines will continue to be developed in 2016 in collaboration with stakeholders. Currently, the District is partnered with the City of Chicago Department of Water Management and the Chicago Public Schools to design and construct large green infrastructure projects at six Chicago Public School campuses. The District is also partnered with other local municipalities to design and construct 63 regional and local stormwater management projects.

**SMALL STREAMS MAINTENANCE PROGRAM**

Through the management of the SSMP, the M&O Department works to reduce flooding in urbanized areas. Cook County has little elevation; therefore, its streams tend to move slowly and are naturally prone to flooding. Many developed areas were originally uninhabited muddy marshes with meandering streams that often overtopped their banks. The streams that flow through the neighborhoods of Cook County are more than just a scenic part of the landscape or a habitat for wildlife. They serve the vital function of draining stormwater and preventing flooding. In order to function properly, the streams must be maintained. The SSMP’s top priorities are removing blockages, such as log jams, beaver dams, and other material and debris from the streams and preventing future blockages by removing dead and unhealthy trees and invasive species, such as buckthorn and honeysuckle, which choke out native vegetation, from the streambanks.

**Cubic Yards of Debris Removed from Small Streams and Rivers in Cook County**



**CAPITAL IMPROVEMENT PROGRAM**

The focus of many of the Stormwater CIP projects is on regional waterways in highly urbanized areas. During the design of these projects, the District focuses on utilizing natural methods for addressing streambank erosion, including the use of biostabilization measures, such as vegetated geogrids, geocells, turf reinforcing mats, and native vegetation, wherever practical.

The Board of Commissioners prioritizes, for funding purposes, potential projects arising from the DWPs on a countywide basis. Two categories have been established for DWP projects. The first category is streambank stabilization, which involves addressing critical active streambank erosion threatening public safety, structures, and/or infrastructure. The second category is flood control, which addresses regional overbank flooding.

**Streambank Stabilization Projects**

A map of streambank stabilization project locations is provided on page 516.

**Flood Control Projects**

A map of flood control project locations is provided on page 517. The following flood control project is in the preliminary design stage, and the feasibility of construction has yet to be determined:

- **ADCR-6B (Addison Creek)**  
 Watershed: Lower Des Plaines River  
 Location: Northlake, Stone Park, Melrose Park, Bellwood, and Westchester  
 Description: Construct a 960 acre-foot reservoir and conveyance improvements  
 Conceptual Cost Estimate: \$133,921,000  
 Status: Preliminary engineering

**FLOOD-PRONE PROPERTY ACQUISITION PROGRAM**

On June 18, 2014, Public Act 98-0652 was signed into law. This legislation amended the District's authority for Stormwater Management in Cook County to allow for the acquisition of flood-prone properties. Subsequent to amending the Cook County Stormwater Management Plan to be consistent with Public Act 98-0652, the District's Board of Commissioners adopted a policy on selection and prioritization of projects for acquiring flood-prone property, which is comprised of three distinct components, as follows:

- **Local Sponsorship Assistance Program:** The District's top priority will be to facilitate the Illinois Emergency Management Agency's federally funded program by assisting local sponsor communities in providing their share of the cost for property acquisition;
- **District Initiated Program:** The cost of a property acquisition alternative will be estimated for any approved project and compared to the estimated cost of the structural project determined through a preliminary engineering analysis. Should the cost of the property acquisition alternative be less than the structural project, and the benefits at least equivalent, the acquisition alternative will be pursued in lieu of the structural project;
- **Local Government Application Program:** The District will consider applications directly from local governments requesting property acquisition of specific flood-prone structures.

**2015 Acquisition Projects**

- Partnered with the Village of Glenview and the Illinois Department of Natural Resources to acquire 17 flood-prone residential structures;
- Negotiated an IGA to partner with the City of Des Plaines to acquire 13 flood-prone residential structures;
- Partnered with Cook County to assess the feasibility of acquiring flood-prone homes in unincorporated Riverside Lawn;
- Prioritized municipal applications to the District for assistance with the acquisition of flood-prone structures located throughout Cook County.

In 2016, the District plans to assist roughly five more communities with the acquisition of approximately 75 properties.

## Stormwater Management Fund Program

<b><u>Awards in 2016</u></b>			Est. Constr- uction Cost	MWRD 2016 Appro- priation	Dura- tion (days)	Est. Award Date
#	Project Name	Project Number				
1	Construction of Alternative ADCR-7B in Northlake, Illinois	15-IGA-13	\$ 1,000	\$ 1,000	370	Jan-16
2	Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills	10-882-DF	794	734	370	Jan-16
3	Construction of a Relief Storm Sewer Along Glenwood Avenue in Glenwood, Illinois	15-IGA-15	820	820	126	Mar-16
4 *	Streambank Stabilization Projects for Addison Creek	14-108-3F	625	625	366	Apr-16
5 *	Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, Illinois	15-IGA-14	387	387	370	Aug-16
Total 2016 Awards			<u>\$ 3,626</u>	<u>\$ 3,566</u>		

<b><u>Projects Under Development</u></b>			Est. Constr- uction Cost	Cumulative Const. Cost	Dura- tion (days)	Est. Award Date
#	Project Name	Project Number				
6	Intergovernmental Agreements	Various	\$ 20,000	\$ 23,626	Various	TBD
Total Future Awards			<u>\$ 20,000</u>			
Cumulative 2016 and Future Awards			<u>\$ 23,626</u>	<u>\$ 23,626</u>		

\*This project is funded by the Capital Improvements Bond Fund and the Stormwater Management Fund. Refer to Section V Capital Budget for more information about Stormwater Management projects funded by alternative bonds.

**Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.**

## Stormwater Management Fund Program Impacts

#	Project Name	Project Number	Justification					Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Flood Control	Manpower	Energy	Chemical
<b><u>Awards in 2016</u></b>										
1	Construction of Alternative ADCR-7B in Northlake, Illinois	15-IGA-13					x	=	=	=
2	Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills	10-882-DF				x		=	=	=
3	Construction of a Relief Storm Sewer Along Glenwood Avenue in Glenwood, Illinois	15-IGA-15					x	=	=	=
4	Streambank Stabilization Projects for Addison Creek	14-108-3F				x		=	=	=
5	Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, Illinois	15-IGA-14					x	=	=	=
<b><u>Projects Under Development</u></b>										
6	Intergovernmental Agreements	Various					x	=	=	=

**LEGEND**

Under "**Justification**", the marked columns note the categories of benefits expected from each project.

+ or - Labor savings (+) or increases (-) expected to result in redirecting existing manpower away from or toward facility or process to other tasks with no net change in total position costs.

+ or - Minor energy savings (+) or costs (-) having a negligible impact on the District's overall energy budget.

+ or - Chemical savings (+) or costs (-) having a negligible impact on the District's overall chemical costs.

= No budgetary impact expected.

**Manpower**

++ or -- Labor impact significant enough to ultimately result in reduction (++) or increase (--) in personnel. See additional cost details contained in "Description of Capital Projects" section.

**Energy**

++ or -- Major energy savings (++) or costs (--) expected to result in significant revisions to a facility's energy budget. See additional cost details in "Description of Capital Projects" section.

**Chemical**

++ or -- Major chemical savings (++) or costs (--) expected to result in significant revisions to the budgeted chemical expenditures for the associated process. See additional cost details contained in "Description of Capital Projects" section.

## Streambank Stabilization Project on Oak Lawn Creek

**Project Number:** 10-237-3F

**Service Area:** Calumet

**Location:** Oak Lawn, IL

**Engineering Consultant:** MWH Americas, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$4,175,000

**Contract Award Date:** July 2016\*

**Substantial Completion Date:** June 2017\*



**Project Description:** Stabilization of approximately 1,200 linear feet of Oak Lawn Creek, from Central Avenue to Massasoit Avenue in Oak Lawn, using soldier piles and precast concrete panels. Trees and other plantings will be installed upon the completion of the wall.

**Project Justification:** Safety/Regulatory. The creek banks have deteriorated due to hydraulic erosion and slope failures, thus potentially compromising the slopes and impacting residential structures that are in the vicinity.

**Project Status:** Design is complete. Permits have been received. This project is currently awaiting funding from Illinois Environmental Protection Agency State Revolving Fund loan program.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Streambank Stabilization Project on Tinley Creek

**Project Number:** 10-882-AF

**Service Area:** Calumet

**Location:** Orland Park, IL

**Engineering Consultant:** Michael Baker Jr., Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,806,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** April 2017\*



**Project Description:** This project will stabilize Tinley Creek at two locations in the Village of Orland Park: approximately 2,200 linear feet between 86th Avenue and Crystal Creek Drive and 2,800 linear feet between 151st Street and Oriole Court.

**Project Justification:** Safety/Regulatory. This project will protect structures and infrastructure in imminent danger of failure due to active streambank erosion.

**Project Status:** This project is at the 98 percent design stage.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.



## Streambank Stabilization Project along Calumet Union Drainage Ditch

**Project Number:** 10-882-BF

**Service Area:** Calumet

**Location:** Markham, IL

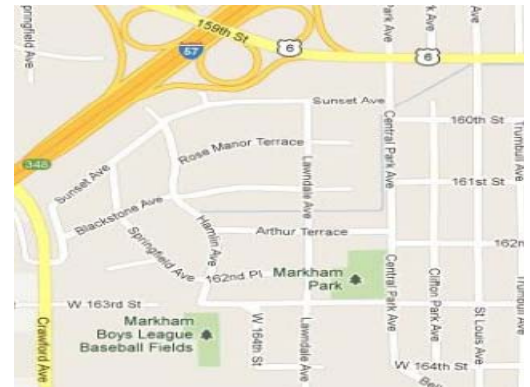
**Engineering Consultant:** Michael Baker, Jr., Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,839,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** April 2017\*



**Project Description:** This project will stabilize approximately 3,559 linear feet of the Calumet Union Drainage Ditch, between Sunset and Central Park Avenues, in the City of Markham.

**Project Justification:** Safety/Regulatory. This project will protect structures and infrastructure in imminent danger of failure from active streambank erosion and flooding.

**Project Status:** This project is at the 98 percent design stage. An intergovernmental agreement with the City of Markham has been executed. The District is procuring easements from affected property owners.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Streambank Stabilization Project along Midlothian Creek

**Project Number:** 10-882-CJ

**Service Area:** Calumet

**Location:** Tinley Park, IL

**Engineering Consultant:** Michael Baker, Jr., Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$307,000

**Contract Award Date:** December 2015\*

**Substantial Completion Date:** June 2017\*



**Project Description:** This project will stabilize approximately 495 linear feet of Midlothian Creek from 66th Court, north of 173rd Street, extending east approximately 300 feet, in the Village of Tinley Park.

**Project Justification:** Safety/Regulatory. This project will protect structures and infrastructure in imminent danger of failure from active streambank erosion and flooding.

**Project Status:** This project is at the 98 percent design stage. An intergovernmental agreement is under municipal review and the necessary easement requests were submitted to the affected property owners.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Streambank Stabilization/Flood Control Project on Tinley Creek

**Project Number:** 10-882-DF

**Service Area:** Calumet

**Location:** Orland Hills, IL

**Engineering Consultant:** CH2M Hill Engineers, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$794,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** January 2017\*



**Project Description:** This project will provide naturalized channel stabilization/flood control on Tinley Creek, from Lake Lorin to 88th Avenue in Orland Hills.

**Project Justification:** Safety/Regulatory. This project will protect against erosion along a segment of Tinley Creek and reduce the risk of overtopping of the Lake Lorin outlet structure.

**Project Status:** The project design has been finalized and bid documents are being prepared.

\*Information shown is estimated.

## Flood Control/Streambank Stabilization Project on Tinley Creek

**Project Number:** 10-883-AF

**Service Area:** Calumet

**Location:** Crestwood, IL

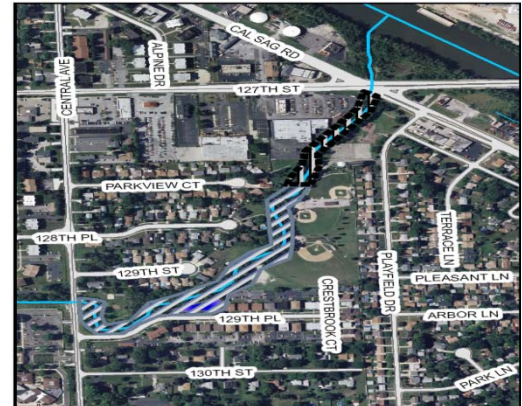
**Engineering Consultant:** CH2M Hill Engineers, Inc. and Infrastructure Engineering, Inc.

**General Contractor:** Industria Inc.

**Estimated Construction Cost:** \$7,223,000

**Contract Award Date:** September 17, 2015

**Substantial Completion Date:** October 2016\*



**Project Description:** This project will increase the conveyance capacity of Tinley Creek, downstream of Central Avenue, and will stabilize approximately 1,000 linear feet of Tinley Creek, downstream of the conveyance improvements.

**Project Justification:** Safety/Regulatory. This project will provide protection from the 100-year flood event for approximately 173 structures, and it will protect an existing bike path, a commercial building, two pedestrian bridges, and a potable water infrastructure from failure due to erosion of the streambank.

**Project Status:** This project is under construction.

\*Information shown is estimated.

## Flood Control Project at Arrowhead Lake

**Project Number:** 10-883-BF

**Service Area:** Calumet

**Location:** Palos Heights, IL

**Engineering Consultant:** CH2M Hill Engineers, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,087,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** March 2017\*



**Project Description:** This project will raise an existing bicycle trail on the north side of Arrowhead Lake, in unincorporated Palos Heights, to increase stormwater storage in the lake.

**Project Justification:** Safety/Regulatory. This project will remove approximately 70 structures from the Federal Emergency Management Agency Zone A floodplain.

**Project Status:** This project is currently at the 98 percent design completion stage. The District is currently pursuing a permit from the Illinois Department of Natural Resources and negotiating an intergovernmental agreement with the Forest Preserve District of Cook County and the City of Palos Heights.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Flood Control Project on the East Branch of Cherry Creek in Flossmoor, IL

**Project Number:** 10-883-CF

**Service Area:** Calumet

**Location:** Flossmoor, IL

**Engineering Consultant:** CH2M Hill Engineers, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$2,637,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** January 2017\*



**Project Description:** This project includes the construction of an overflow channel on Homewood-Flossmoor High School's property, west of Governors Highway. It will also replace two collapsed culverts and create shelf storage on Cherry Creek.

**Project Justification:** Safety/Regulatory. This project will remove 16 structures from the regulatory floodplain.

**Project Status:** The District is currently preparing final project plans and specifications. The District is finalizing an intergovernmental agreement with the Village of Flossmoor and Homewood-Flossmoor High School.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Flood Control Project for Upper Salt Creek

**Project Number:** 10-884-AF

**Service Area:** North

**Location:** Palatine, IL

**Engineering Consultant:** Black & Veatch Corporation

**General Contractor:** Industria, Inc.

**Estimated Construction Cost:** \$1,350,000

**Contract Award Date:** September 2015

**Substantial Completion Date:** July 2016\*



**Project Description:** This project will reduce flooding damage by bypassing flow from an inundated area south of Dundee Road to an outfall into Upper Salt Creek, which will be located south of Cherry Brook Village, in the Village of Palatine. The proposed project includes approximately 1,100 linear feet of storm sewer, an engineered berm, and backflow preventers.

**Project Justification:** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding affecting 18 structures within the Village of Palatine.

**Project Status:** Contract plans and specifications, right-of-way, permits, and intergovernmental agreements are finalized. On May 12, 2015, the Board of Commissioners approval to bid was granted, and the contract was advertised on June 10, 2015. All the bids were received on July 14, 2015, and Industria, Inc. was the lowest bidder on the contract. Board approval to award the contract was granted on September 3, 2015.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Flood Control Project for Deer Creek

**Project Number:** 10-884-BF

**Service Area:** Calumet

**Location:** Ford Heights, IL

**Engineering Consultant:** Black & Veatch Corporation

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,440,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** March 2017\*



**Project Description:** This project will reduce flood damage by improving channel conveyance and raising a berm for approximately 3,000 feet, between U.S. Route 30 and Hammond Lane, within the Village of Ford Heights. This project includes the construction of a vegetated berm, stabilization of bank slopes, placement of pools and rock riffles, and planting of diverse native landscaping.

**Project Justification:** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding, which affects approximately 270 structures within the Village of Ford Heights.

**Project Status:** The District has executed an intergovernmental agreement with the Village of Ford Heights for this project. The project is at the 98 percent design completion stage. The District is currently working to obtain the required easements and acquisitions for the project. Permits need to be finalized with the United States Army Corps of Engineers and the Illinois Department of Natural Resources.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.



## Streambank Stabilization Project for the West Fork of the North Branch of the Chicago River

**Project Number:** 11-052-3F

**Service Area:** North

**Location:** Northbrook, IL

**Engineering Consultant:** AMEC E&I, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$449,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** September 2016\*



**Project Description:** This project will stabilize the eastern streambank along the West Fork of the North Branch of the Chicago River through construction of a 155-foot gravity retaining wall. This project will protect two residential properties and utilities from active streambank erosion.

**Project Justification:** Safety/Regulatory. This project will address public safety and protect two structures and utilities in imminent danger of failure due to active streambank erosion.

**Project Status:** Final design plans are being prepared.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Flood Control Project on Farmers and Prairie Creeks

**Project Number:** 12-056-3F

**Service Area:** North

**Location:** Des Plaines, Park Ridge, and Maine Township

**Engineering Consultant:** HNTB Corporation

**General Contractor:** To be determined

**Estimated Construction Cost:** \$13,760,000

**Contract Award Date:** August 2016\*

**Substantial Completion Date:** January 2018\*



**Project Description:** This project includes flood storage and conveyance improvements along Farmers and Prairie Creeks, including channel modifications, detention expansion, diversion sewer construction, and streambank stabilization.

**Project Justification:** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding to approximately 128 structures and protecting numerous buildings through streambank stabilization.

**Project Status:** This project is in the final design stage. Sixty percent of the documents were issued in December 2014.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Flood Control Project on the Des Plaines River in Lyons

**Project Number:** 13-199-3F

**Service Area:** Stickney

**Location:** Lyons, IL

**Engineering Consultant:** MC Consulting, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$6,500,000

**Contract Award Date:** November 2016\*

**Substantial Completion Date:** November 2017\*



**Project Description:** The Lyons Levee is located on the east bank of the Des Plaines River and is approximately 4,000 feet long, beginning at Joliet Road at the upstream end and extending approximately 700 feet downstream of 47th Street. The scope of the project involves the restoration and improvement of the levee to a condition that will elevate the levee to modern design standards, provide flood protection, and prevent overtopping by events up to a 100-year design flood.

**Project Justification:** Safety/Regulatory. This project will provide protection against overtopping of the levee during a 100-year flood. Overtopping has resulted in major flooding in the recent past (2013), impacting the Village of Forest View that is located east of the levee. Overtopping could also jeopardize the ComEd substation that is located east of Forest View and create the potential for power disruptions or failures at Midway Airport and the Stickney Water Reclamation Plant.

**Project Status:** This project is in the final design stage. Short-term, temporary stabilization measures were implemented in 2014, pending long-term restoration measures.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Streambank Stabilization Project on Melvina Ditch

**Project Number:** 13-248-3F

**Service Area:** Calumet

**Location:** Oak Lawn and Chicago Ridge, IL

**Engineering Consultant:** MWH Americas, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$10,600,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** December 2017\*



**Project Description:** This project involves streambank stabilization along Melvina Ditch, from 95th Street to 99th Street. Approximately 150 linear feet of the ditch at the north end of the project site will be stabilized with twin box culverts. The remaining 2,500 linear feet of the ditch will be stabilized with a precast concrete modular block retaining wall system.

**Project Justification:** Safety/Regulatory. The banks have deteriorated due to hydraulic erosion and slope failures, potentially compromising roadways and structures that are in the vicinity.

**Project Status:** 98 percent documents were issued.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Buffalo Creek Reservoir Expansion

**Project Number:** 13-370-3F

**Service Area:** North

**Location:** Buffalo Grove, IL

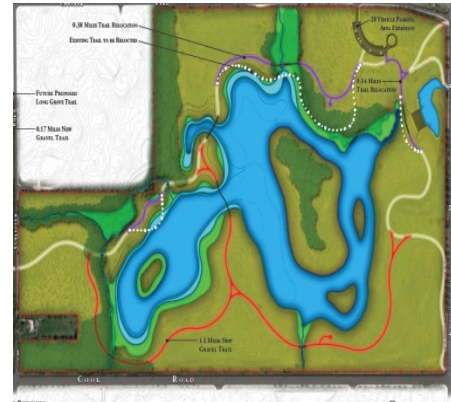
**Engineering Consultant:** Hey & Associates, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$15,882,000

**Contract Award Date:** June 2016\*

**Substantial Completion Date:** December 2017\*



**Project Description:** This project will increase the impoundment capacity of the existing Buffalo Creek Reservoir by approximately 180 acre-feet. Pedestrian bridges and boardwalks will be replaced and existing trails will be relocated to remove them from the ten-year storm event.

**Project Justification:** Safety/Regulatory. Approximately 104 structures will receive flood protection from the expansion.

**Project Status:** This project is currently at the 60 percent design completion stage. The District is currently pursuing a permit from the Illinois Department of Natural Resources and negotiating an Intergovernmental Agreement with the Lake County Forest Preserve District and the Village of Buffalo Grove.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Albany Park Stormwater Diversion Tunnel

**Project Number:** 14-066-3F

**Service Area:** North

**Location:** Chicago, Illinois

**Engineering Consultant:** MWH Americas, Inc. under contract with Chicago Department of Transportation (CDOT)

**General Contractor:** To be determined

**Estimated Construction Cost:** \$24,750,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** September 2017\*



**Project Description:** Flood control project along the North Branch of the Chicago River that will install a stormwater diversion tunnel to alleviate overland flooding in the Albany Park neighborhood in Chicago. CDOT proposes to construct a large-diameter tunnel that would divert a portion of flood flows in the North Branch of the Chicago River from an inlet structure near Foster Avenue and N. Springfield Avenue to an outlet on the North Shore Channel near Foster Avenue and Virginia Avenue. The proposed project includes an inlet shaft with inlet facilities, approximately 5,800 feet of 18-foot diameter rock tunnel, and an outlet shaft with outlet facilities.

**Project Justification:** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding affecting 336 structures in the Albany Park neighborhood in Chicago.

**Project Status:** 60 percent documents were issued August 27, 2014.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Streambank Stabilization Projects for Addison Creek

**Project Number:** 14-108-3F

**Service Area:** Stickney

**Location:** Northlake and North Riverside, IL

**Engineering Consultant:** Burns & McDonnell Engineering Company, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,250,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** April 2017\*



**Project Description:** The scope of this project involves stabilization of approximately 750 feet of Addison Creek adjacent to Fullerton Avenue in Northlake and 410 linear feet of streambank adjacent to 19th Avenue in the Village of North Riverside. Stabilization methods include the installation of native vegetation, a vegetated geogrid, turf reinforcing mat, and the placement of riprap.

**Project Justification:** Safety/Regulatory.

**Project Status:** Project design is complete. The District is preparing bid documents.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [CIBF = \$625,000; Stormwater Management Fund = \$625,000].

\*Information shown is estimated.

## Controls for Dearborn Homes

**Project Number:** 14-113-3F

**Service Area:** Stickney

**Location:** SWRP Service Area

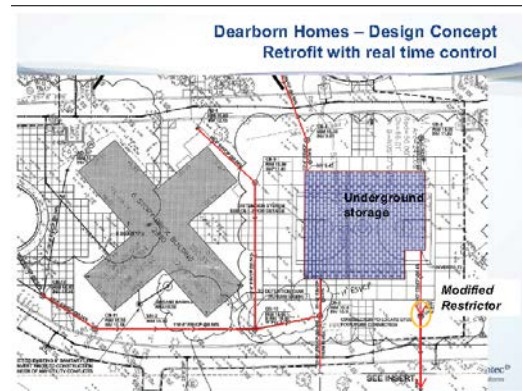
**Engineering Consultant:** Geosyntec Consultants

**General Contractor:** Geosyntec Consultants

**Estimated Construction Cost:** \$1,220,000

**Contract Award Date:** December 2015

**Substantial Completion Date:** March 2017\*



**Project Description:** Construct and install storm sewers, structures, irrigation equipment, rainwater harvesting pumps, water service connections, and the OptiRTC control tool to reuse the detained stormwater for irrigation of nearby landscaping for seven buildings within the complex.

**Project Justification:** This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

**Project Status:** This project is currently in the design stage.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.



## Melvina Ditch Reservoir Improvements

**Project Number:** 14-263-3F

**Service Area:** Calumet

**Location:** Burbank, IL

**Engineering Consultant:** V3 Companies of Illinois, Ltd.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$23,000,000

**Contract Award Date:** September 2016\*

**Substantial Completion Date:** September 2017\*



**Project Description:** This project consists of expanding the existing Melvina Ditch Reservoir by up to 195 acre-feet to increase its storage capacity (up to 118 percent increase), modifying the pump station to accommodate the reservoir expansion, and installing a new emergency overflow weir to reduce the likelihood of reservoir overtopping. Reservoir expansion will include work within the existing reservoir footprint (District property) and may also include additional private properties around the perimeter of the reservoir. Local stakeholders have been engaged to get feedback on possible configurations for the proposed reservoir expansion. The figure depicts the limits of the expansion areas under consideration.

**Project Justification:** The Melvina Ditch Reservoir has exceeded its capacity in recent storm events, resulting in flooding in Burbank and Oak Lawn.

**Project Status:** This project is currently in the preliminary engineering stage. Construction of the Melvina Ditch Reservoir Improvements is anticipated to take 12-24 months, depending upon the selected alternative chosen to address the existing flooding problem. It is possible that the work could be phased under separate contracts.

A portion of this project will be funded through a grant from the State of Illinois through its Build Illinois Bond funds.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.



## Construction of Cleveland Street Relief Sewer in Niles, Illinois

**Project Number:** 15-IGA-02

**Service Area:** North

**Location:** Niles, IL

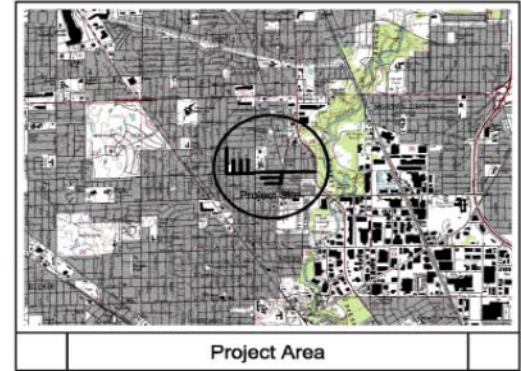
**Engineering Consultant:** Village of Niles

**General Contractor:** To be determined

**Estimated Construction Cost:** \$2,000,000

**Contract Award Date:** February 2015

**Substantial Completion Date:** May 2016\*



**Project Description:** The Village of Niles' Cleveland Street Relief Sewer project consists of approximately 11,200 feet of new storm sewer to provide relief from surface water flooding for the area generally bounded by Main Street to the north, Harlem Avenue to the east, Monroe Street to the south, and Oketo Avenue to the west. The Village is responsible for the design, construction, operation, and maintenance.

**Project Justification:** The new relief sewer provides capacity to convey surface water away from these areas into the North Branch of the Chicago River in order to minimize surface water flood damages and reduce the amount of surface water discharging to the existing combined sewer system in this area.

**Project Status:** This Village is currently taking bids for this contract.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Silver Creek Channel Improvements from Riverside Drive to Scott Street

**Project Number:** 15-IGA-07

**Service Area:** Stickney

**Location:** Franklin Park, IL

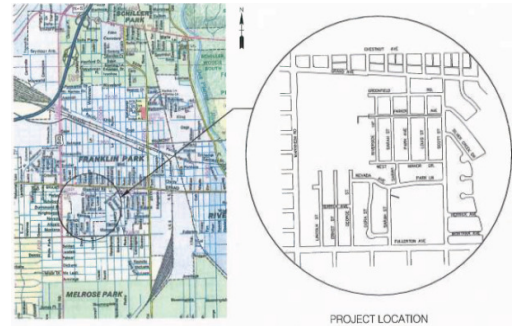
**Engineering Consultant:** Village of Franklin Park

**General Contractor:** Copenhaver Construction

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** June 2015

**Substantial Completion Date:** June 2016\*



**Project Description:** Channel improvements on Silver Creek from Riverside Drive to Scott Street. The village is responsible for the design, construction, operations, and maintenance.

**Project Justification:** Numerous structures along Silver Creek flood during extreme storms. This project will help to alleviate flooding of approximately 76 structures in the Village of Franklin Park.

**Project Status:** This project is under construction.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Stony Island Ditch and Lansing Manor Detention Basin and Pumping Station Modifications

**Project Number:** 15-IGA-09

**Service Area:** Calumet

**Location:** Lansing, IL

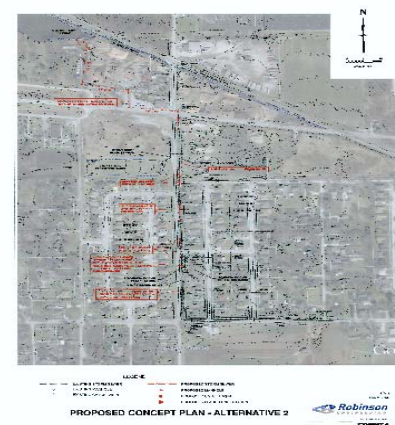
**Engineering Consultant:** By Municipality (Robinson Engineering Ltd.)

**General Contractor:** LGS Plumbing

**Estimated Construction Cost:** \$1,173,000

**Contract Award Date:** February 2015

**Substantial Completion Date:** July 2016\*



**Project Description:** The Village of Lansing proposes to excavate and regrade the existing ditch in Stony Island Avenue, upgrade an existing pumping station, modify a detention pond, and reroute the storm sewer outfall piping from the regraded ditch to a new location.

**Project Justification:** Severe local flooding occurs in the vicinity of 181st Street and Stony Island Avenue due to the Stony Island ditch exceeding its banks. Stony Island Avenue, 181st Street, Brittany Lane, and Crystal Lane are area roadways that often flood during severe storms and negatively affect the residents of the Lansing Manor Subdivision. The Village of Lansing will design a modification to, construct, operate, and maintain the Stony Island Avenue Ditch and Lansing Manor Detention Basin & Pumping Station in order to mitigate the flooding problem.

**Project Status:** This project has been awarded.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## New Storm Sewers on Shermer Road and Cherry Lane in Northbrook, IL

**Project Number:** 15-IGA-10

**Service Area:** North

**Location:** Northbrook

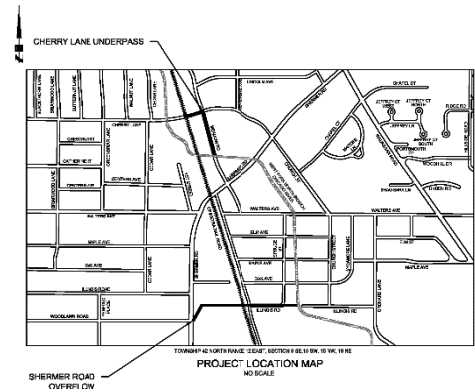
**Engineering Consultant:** Bollinger, Lach & Associates, Inc.

**General Contractor:** Berger Excavating Contractors, Inc.

**Estimated Construction Cost:** \$1,050,000

**Contract Award Date:** February 2015

**Substantial Completion Date:** August 2016\*



**Project Description:** The Village of Northbrook will design, construct, operate and maintain new storm sewers on Shermer Road and Cherry Lane, ranging from 24" to 72" in diameter. These new stormwater facilities also include additional inlets and a new outlet to the West Fork of the North Branch of the Chicago River.

**Project Justification:** The project will provide direct flood reduction benefits to an estimated 18 residential structures and will reduce storm related access impacts for approximately 32 homeowners in the project area.

**Project Status:** Under construction. IGA executed April 29, 2015.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.



## Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, IL

**Project Number:** 15-IGA-14

**Service Area:** Calumet

**Location:** Glenwood, IL

**Engineering Consultant:** K-Plus Engineering, LLC

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,870,000

**Contract Award Date:** August 2016\*

**Substantial Completion Date:** October 2017\*



**Project Description:** This project will provide a levee at Arquilla Park to protect residential structures from overbank flooding.

**Project Justification:** This project will protect approximately 31 residential structures from overbank flooding along Thorn Creek.

**Project Status:** This project is currently in the design stage.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [CIBF = \$3,483,000; Stormwater Management Fund = \$387,000].

\*Information shown is estimated.



## Construction of a Relief Storm Sewer along Glenwood Avenue in Glenwood, Illinois

**Project Number:** 15-IGA-15

**Service Area:** Calumet

**Location:** Glenwood, IL

**Engineering Consultant:** Robinson Engineering, Ltd.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$820,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** July 2016\*



**Project Description:** This project will provide a new relief storm sewer along Glenwood Avenue and outfall to Thorn Creek.

**Project Justification:** This project will alleviate residential and roadway flooding.

**Project Status:** This project is currently in the design stage.

\*Information shown is estimated.

## Prairie/Washington Pumping Station Improvements in Brookfield, IL

**Project Number:** 15-IGA-16

**Service Area:** Stickney

**Location:** Brookfield, IL

**Engineering Consultant:** Village of Brookfield

**General Contractor:** To be determined

**Estimated Construction Cost:** \$1,000,000

**Contract Award Date:** April 2016\*

**Substantial Completion Date:** January 2017\*



**Project Description:** The Village of Brookfield proposes to install a new pumping station and back-up generator near the Washington Avenue/Forest Avenue intersection, a box culvert under Forest Avenue, a new detention pond west of Forest Avenue, and other miscellaneous storm sewer improvements and restorations for the public benefit of reducing flooding in the general area. The village is responsible for design, construction, operation, and maintenance.

**Project Justification:** Roadway and residential flooding due to Salt Creek flood levels, causing area storm sewers to back up.

**Project Status:** The project is being designed by the municipality. The village and the District will enter into an intergovernmental agreement for the design, construction, operations, and maintenance of the project, subject to approval by the respective Boards.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## **Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood Prone Parcels of Real Property Located along the Des Plaines River**

**Project Number:** 15-IGA-18

**Service Area:** Stickney

**Location:** Des Plaines, IL

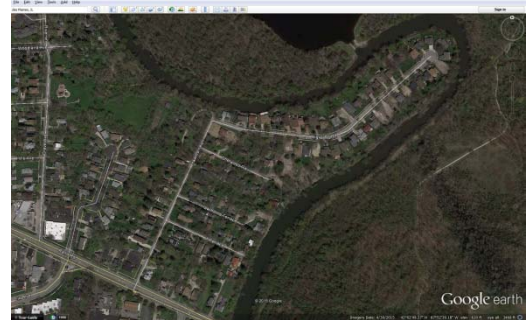
**Engineering Consultant:** Not applicable

**General Contractor:** Not applicable

**Estimated Construction Cost:** \$950,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** December 2017\*



**Project Description:** Purchase 13 flood prone homes along the Des Plaines River.

**Project Justification:** Purchase of these homes will reduce the flood hazard risk in Des Plaines.

**Project Status:** The intergovernmental agreement has been prepared.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## New Culvert Between the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal

**Project Number:** 15-IGA-19

**Service Area:** Calumet

**Location:** Lemont

**Engineering Consultant:** Frank Novotny & Associates, Inc.

**General Contractor:** To be determined

**Estimated Construction Cost:** \$320,000

**Contract Award Date:** February 2016\*

**Substantial Completion Date:** October 2016\*



**Project Description:** The Village of Lemont plans to replace an existing 24-inch, and two 48-inch, corrugated metal pipe culverts with three 6'x10' concrete box culverts. The culverts will be located under a roadway near the confluence of the Illinois & Michigan Canal with the Chicago Sanitary & Ship Canal and should alleviate localized flooding in the area.

**Project Justification:** Currently there are two industrial complexes that are susceptible to flooding during high intensity storm events. The flood prone properties include the KA Steel Chemicals, located a half a mile east of downtown Lemont, and the Powell Duffryn Terminals, located 2.5 miles east of downtown Lemont. The drainage in the area around KA Steel Chemicals is clogged with debris and sediment making it difficult to drain water coming from the I&M Canal during flooding conditions; the flood waters flow into the operational area of the sites quarry causing significant damage. The 48-inch culverts near the Powell Duffryn parking lot are undersized causing the lot to flood during major flood events and attempts to mitigate this flooding by installing a temporary overflow ditch and a 24" PVC pipe in the near by ditch were inadequate.

**Project Status:** IGA in MWRD Drafting.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Installation of Green Infrastructure at Chicago Public Schools

**Project Number:** 15-IGA-20

**Service Area:** North, Calumet, and Stickney

**Location:** All Service Areas

**Engineering Consultant:** To be determined

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** March 2016\*

**Substantial Completion Date:** November 2016\*



**Project Description:** The District, the Chicago Department of Water Management, and the Chicago Public Schools are partnering to design and install playgrounds at various Chicago Elementary Schools utilizing green infrastructure. The projects will reduce flooding, reduce the load on the combined sewer system, and educate students and neighbors about green infrastructure techniques and purpose. Four playgrounds were transformed in 2014, two more in 2015, and an additional 28 schools will be done in 2016, 2017, 2018, and 2019.

**Project Justification:** This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

**Project Status:** This project is in the initial planning stage.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

## Controls for Northbrook Wescott Park

**Project Number:** 15-IGA-21

**Service Area:** North

**Location:** North Service Area

**Engineering Consultant:** To be determined

**General Contractor:** To be determined

**Estimated Construction Cost:** \$475,000

**Contract Award Date:** January 2016\*

**Substantial Completion Date:** June 2016\*



**Project Description:** The Village of Northbrook will be constructing a 7.5 million gallon stormwater storage vault under Wescott Park, at a cost of approximately \$10,300,000. The District will fund an electronic control system and irrigation system, at a cost of \$475,000, to allow the reuse of the stormwater, as well as to keep it out of the North Branch of the Chicago River.

**Project Justification:** This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

**Project Status:** This project is currently in the design stage.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

**Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue in Oak Lawn, IL**

**Project Number:** 15-IGA-22

**Service Area:** Calumet

**Location:** 103rd Street, Cicero Ave to Central Ave

**Engineering Consultant:** Village of Oak Lawn design

**General Contractor:** To be determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** September 2016\*

**Substantial Completion Date:** December 2017\*



**Project Description:** Oak Lawn proposes to install box culvert and back flow preventer under 103rd Street to provide underground stormwater detention storage.

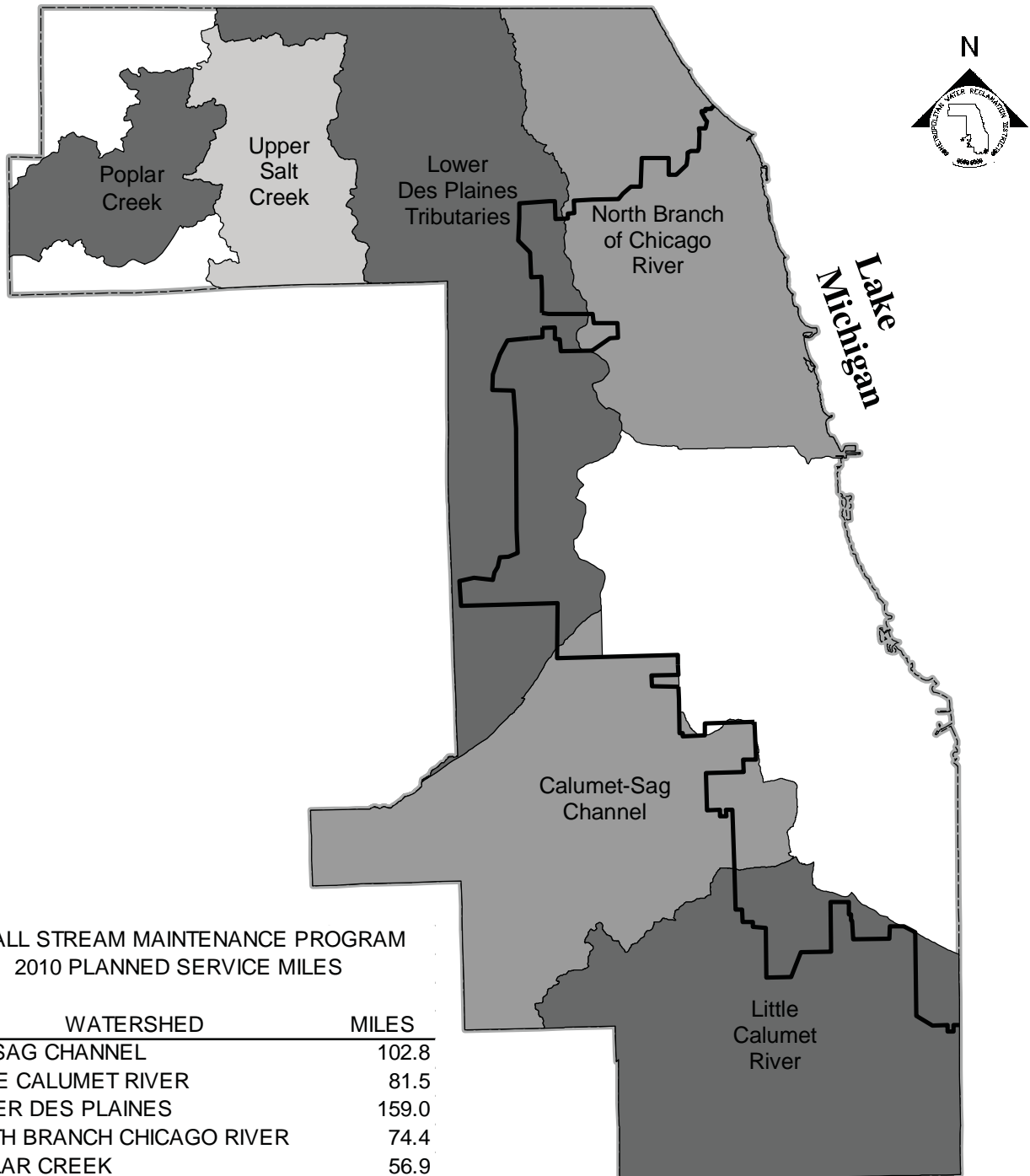
**Project Justification:** Project will reduce flooding to residents of Oak Lawn. Also it will reduce flooding downstream by preventing flow backup into the Oak Lawn sewer system.

**Project Status:** In design.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

\*Information shown is estimated.

# STORMWATER MANAGEMENT WATERSHEDS



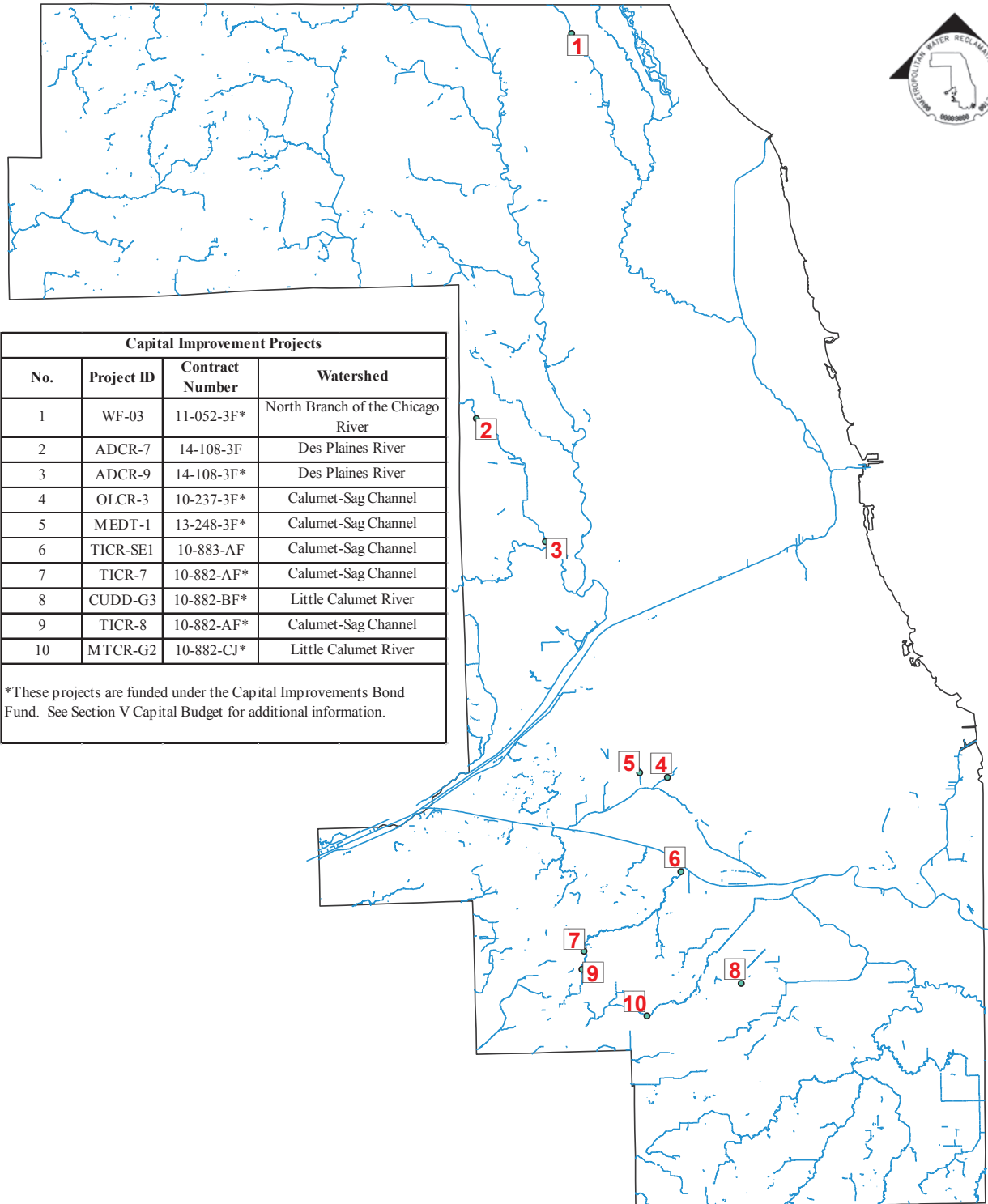
SMALL STREAM MAINTENANCE PROGRAM  
2010 PLANNED SERVICE MILES

WATERSHED	MILES
CAL-SAG CHANNEL	102.8
LITTLE CALUMET RIVER	81.5
LOWER DES PLAINES	159.0
NORTH BRANCH CHICAGO RIVER	74.4
POPLAR CREEK	56.9
UPPER SALT CREEK	57.1
<b>TOTAL</b>	<b>531.7</b>

— Combined Sewer Area Boundary



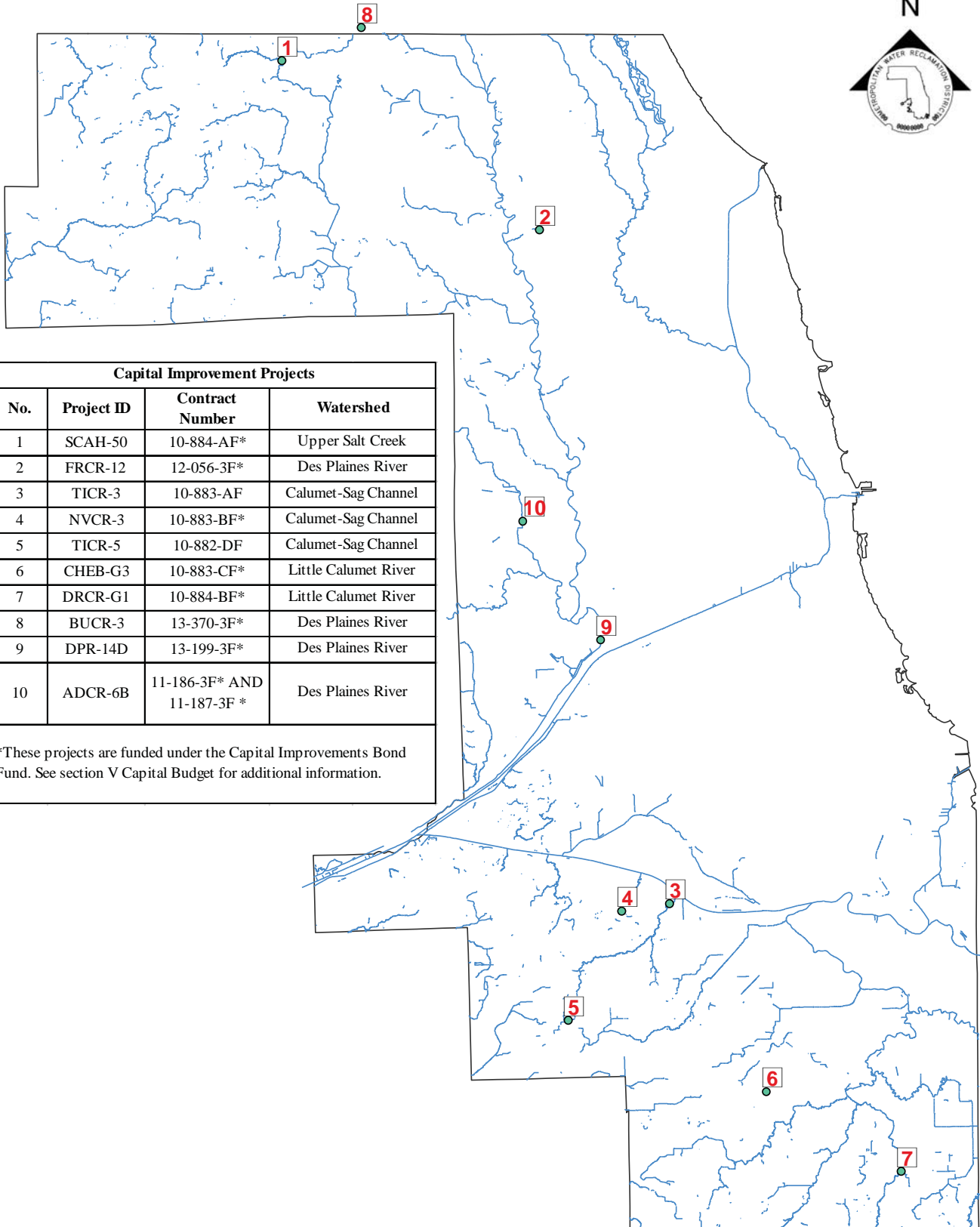
# STORMWATER MANAGEMENT PROJECTS STREAMBANK STABILIZATION



Capital Improvement Projects			
No.	Project ID	Contract Number	Watershed
1	WF-03	11-052-3F*	North Branch of the Chicago River
2	ADCR-7	14-108-3F	Des Plaines River
3	ADCR-9	14-108-3F*	Des Plaines River
4	OLCR-3	10-237-3F*	Calumet-Sag Channel
5	MEDT-1	13-248-3F*	Calumet-Sag Channel
6	TICR-SE1	10-883-AF	Calumet-Sag Channel
7	TICR-7	10-882-AF*	Calumet-Sag Channel
8	CUDD-G3	10-882-BF*	Little Calumet River
9	TICR-8	10-882-AF*	Calumet-Sag Channel
10	MTCR-G2	10-882-CJ*	Little Calumet River

\*These projects are funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

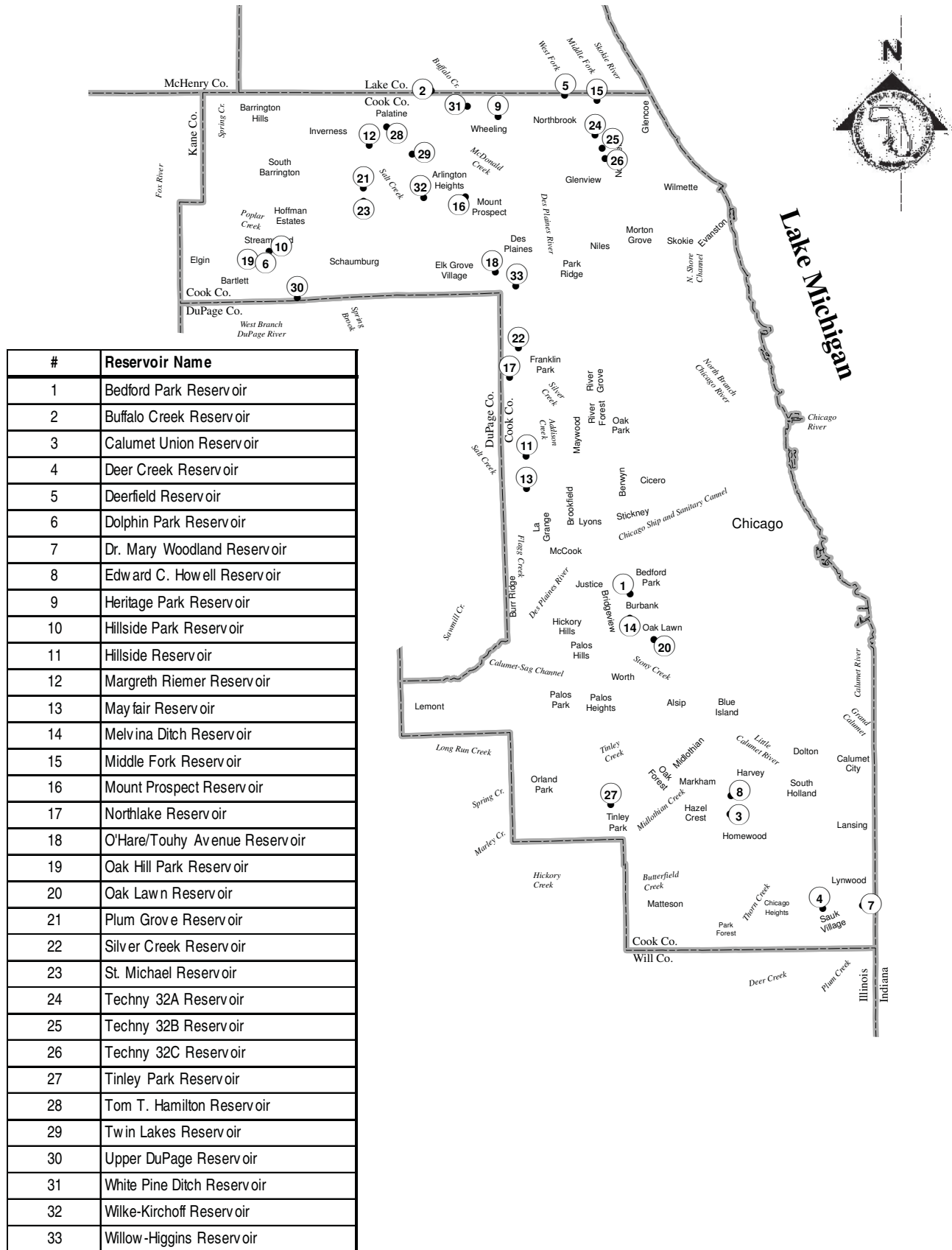
# STORMWATER MANAGEMENT PROJECTS FLOOD CONTROL



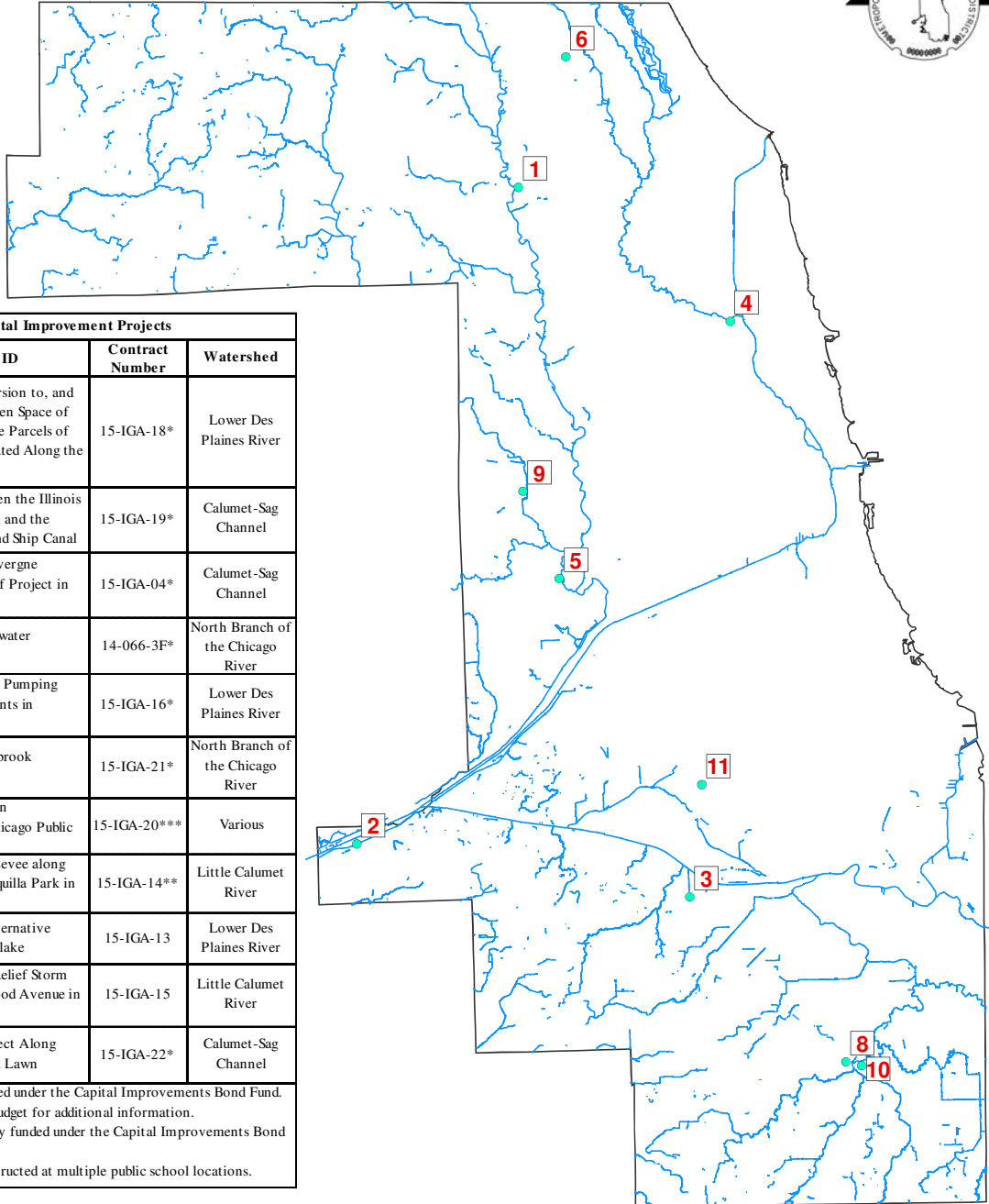
Capital Improvement Projects			
No.	Project ID	Contract Number	Watershed
1	SCAH-50	10-884-AF*	Upper Salt Creek
2	FRCR-12	12-056-3F*	Des Plaines River
3	TICR-3	10-883-AF	Calumet-Sag Channel
4	NVCR-3	10-883-BF*	Calumet-Sag Channel
5	TICR-5	10-882-DF	Calumet-Sag Channel
6	CHEB-G3	10-883-CF*	Little Calumet River
7	DRCR-G1	10-884-BF*	Little Calumet River
8	BUCR-3	13-370-3F*	Des Plaines River
9	DPR-14D	13-199-3F*	Des Plaines River
10	ADCR-6B	11-186-3F* AND 11-187-3F *	Des Plaines River

\*These projects are funded under the Capital Improvements Bond Fund. See section V Capital Budget for additional information.

# EXISTING MWRD SUPPORTED FLOOD CONTROL RESERVOIRS



# STORMWATER MANAGEMENT PROJECTS GREEN INFRASTRUCTURE AND INTERGOVERNMENTAL AGREEMENTS



Capital Improvement Projects			
No.	Project ID	Contract Number	Watershed
1	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood Prone Parcels of Real Property Located Along the Des Plaines River	15-IGA-18*	Lower Des Plaines River
2	New Culvert Between the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal	15-IGA-19*	Calumet-Sag Channel
3	Construction of Lavergne Avenue Flood Relief Project in Crestwood	15-IGA-04*	Calumet-Sag Channel
4	Albany Park Stormwater Diversion Tunnel	14-066-3F*	North Branch of the Chicago River
5	Prairie/Washington Pumping Station Improvements in Brookfield	15-IGA-16*	Lower Des Plaines River
6	Controls for Northbrook Wescott Park	15-IGA-21*	North Branch of the Chicago River
7	Installation of Green Infrastructure at Chicago Public Schools*	15-IGA-20***	Various
8	Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood	15-IGA-14**	Little Calumet River
9	Construction of Alternative ADCR-7B in Northlake	15-IGA-13	Lower Des Plaines River
10	Construction of a Relief Storm Sewer along Glenwood Avenue in Glenwood	15-IGA-15	Little Calumet River
11	Flood Control Project Along 103rd Street in Oak Lawn	15-IGA-22*	Calumet-Sag Channel

\*These projects are funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.  
 \*\*This project is partially funded under the Capital Improvements Bond Fund.  
 \*\*\*Project is being constructed at multiple public school locations.

**50000 STORMWATER MANAGEMENT FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Implementation of the Watershed Management Ordinance. Initiation of the program to improve flood control, manage runoff, improve water quality throughout Cook County, and clearly define uniform rules and regulations.	\$ 3,192,400	8.0%
2. Planning, design, and construction of stormwater management projects by the District or outside agencies under agreement.	\$ 30,912,400	76.2%
3. Operation and maintenance of natural and manmade drainageways for the purpose of stormwater management.	\$ 6,396,000	15.8%
<b>Total</b>	<b>\$ 40,500,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2014 Actual	2015 Estimated	2016 Proposed
1. Award contracts for the continued implementation of the Stormwater Management Capital Improvement Plan.				
Number of contracts to be advertised		2	3*	16**
Number of contracts to be awarded		2	3*	16**
2. Commit funds for the acquisition of flood-prone properties.***	Dollars Committed	-	\$9,000,000	\$17,000,000
3. Commit funds for eligible stormwater management projects.	Dollars Committed	\$10,632,559	\$16,458,500	\$20,025,200
4. Remove 33,500 cubic yards of debris from 532 miles of small streams and rivers.	Debris Cubic Yards Removed	24,495	33,500	33,500

\* Two of these projects are budgeted in the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.  
 \*\* Fifteen of these projects are budgeted in the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.  
 \*\*\* Funds for the Community Flood Control program are budgeted in the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

**50000 STORMWATER MANAGEMENT FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2014	Budgeted		Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
1500	Local Sewer Engineering Activity	\$ 246,010	2016 10	\$ 953,400	\$ 29,200	3.2	
			2015 10	\$ 924,200			
4310	Stormwater Management Planning	\$ 86,088	2016 -	\$ 287,600	\$ 170,000	144.6	a)
			2015 1	\$ 117,600			
4320	Stormwater Management Regulation	\$ 149,627	2016 1	\$ 206,200	\$ 45,600	28.4	b)
			2015 1	\$ 160,600			
4330	Operations and Maintenance	\$ 5,165,047	2016 26	\$ 6,330,400	\$ 1,044,300	19.8	c)
			2015 26	\$ 5,286,100			
4340	Flood Mitigation Projects	\$ 20,860,639	2016 20	\$ 30,899,500	\$ (7,841,500)	(20.2)	d)
			2015 19	\$ 38,741,000			
4350	Administrative Overhead	\$ 872,767	2016 2	\$ 1,758,100	\$ 398,800	29.3	e)
			2015 2	\$ 1,359,300			
7604	Social Security and Medicare Contributions	\$ -	2016 -	\$ 65,600	\$ 65,600	100.0	f)
			2015 -	\$ -			
Totals		\$ 27,380,178	2016 59	\$ 40,500,800	\$ (6,088,000)	(13.1%)	
			2015 59	\$ 46,588,800			

- a) Increase is due to the addition of funding for a watershed release rate study (\$253,000), offset by the reallocation of salaries to more accurately reflect current activities (\$83,500).
- b) Increase is due to a new request for wetland specialist services (\$100,000), offset by the reallocation of salaries to more accurately reflect current activities (\$54,400).
- c) Increase is due to the need for additional funding for the rain barrel program based on 2015 estimated expenditures (\$910,000) and the planned purchase of a pontoon boat (\$100,000).
- d) Decrease is due to the overall reduction in requests for joint funding agreements with other agencies (\$7,431,000) and consulting services (\$3,483,300), offset by an increase in requests for land acquisitions, easements, and related legal services (\$2,150,000), increases in construction costs (\$644,700), and the reallocation of salaries to more accurately reflect current activities (\$221,800).
- e) Increase is due to an increased request for mitigation fees (\$302,000), and the reallocation of salaries to more accurately reflect current activities (\$60,100).
- f) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
1500	Local Sewer Engineering Activity					
1530	Local Sewer Permit Activity	Cost	\$ 170,650	\$ 722,700	\$ 614,000	a)
1560	Local Sewer Public Service Coordination	Cost	\$ 53,435	\$ 144,800	\$ 287,600	b)
1570	Local Sewer Rehabilitation	Cost	\$ 21,925	\$ 56,700	\$ 51,800	
4310	Stormwater Management Planning					
4311	Watershed Councils	Cost	\$ 15,367	\$ 20,300	\$ 21,700	
4312	Mapping, Surveys, and Soil Testing	Cost	\$ -	\$ -	\$ 253,000	c)
4314	Publications and Public Information	Cost	\$ 37,104	\$ 53,600	\$ 12,900	d)
4315	GIS System	Cost	\$ 33,617	\$ 43,700	\$ -	d)
4320	Stormwater Regulation					
4321	Permits	Cost	\$ -	\$ -	\$ 134,700	e)
4322	Storm & Flood Ordinance Development	Cost	\$ 138,701	\$ 149,600	\$ 60,000	d)
4323	Inspections	Cost	\$ 10,926	\$ 11,000	\$ 11,500	
4330	Operations & Maintenance					
4331	Stormwater Detention Reservoir Activity	Cost	\$ 1,428,455	\$ 1,168,400	\$ 1,148,400	
4332	Small Stream Maintenance	Cost	\$ 3,586,687	\$ 3,966,100	\$ 4,926,300	f)
	Debris Cubic Yards Removed		24,495	33,500	33,500	
	Cost per Cubic Yard		\$ 146.43	\$ 118.39	\$ 147.05	
4334	Operations & Maintenance Contracted with Other Governments	Cost	\$ 149,905	\$ 151,600	\$ 155,700	
4335	Waterways Debris Removal	Cost	\$ -	\$ -	\$ 100,000	g)

- a) Decrease is due to the drop of one Assistant Civil Engineer position (\$75,800) and the reallocation of salaries to more accurately reflect current activities (\$65,000), offset by the addition of one Engineering Technician IV position (\$32,000).
- b) Increase is due to the addition of one Engineering Technician IV position (\$32,000) and the reallocation of salaries to more accurately reflect current activities (\$110,800).
- c) Increase is due to the addition of a watershed release rate study as required under the Watershed Management Ordinance.
- d) Decrease is due to the reallocation of salaries to more accurately reflect current activities.
- e) Increase is due to a new request for wetland specialist consulting services (\$100,000) and the reallocation of salaries (\$34,700) to more accurately reflect current activities.
- f) Increase is due to the need for additional funding to support the rain barrel program based on 2015 estimated expenditures (\$910,000).
- g) Increase is due to the planned purchase of a pontoon boat to collect debris and floatables.

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity Title		2014 Actual	2015 Budgeted	2016 Estimated	
4340	Flood Mitigation Projects					
4341	Planning/Design	Cost	\$ 6,193,656	\$ 14,242,800	\$ 10,745,200	h)
4342	Contract Administration	Cost	\$ 382,675	\$ 614,000	\$ 628,800	
4343	Construction	Cost	\$ 4,900,429	\$ 8,704,700	\$ 9,410,100	i)
4344	Flood Mitigation Projects Contracted with Other Governments	Cost	\$ 9,045,131	\$ 11,309,600	\$ 3,972,200	j)
4345	Land & Easements	Cost	\$ 338,748	\$ 679,900	\$ 2,870,500	k)
7601	Capital Financing Program and Other Related Costs	Cost	\$ -	\$ 3,190,000	\$ 3,272,700	
4350	Administrative Overhead	Cost	\$ 872,767	\$ 1,359,300	\$ 1,758,100	l)
7604	Social Security and Medicare Contributions	Cost	\$ -	\$ -	\$ 65,600	m)
<b>Total</b>			<b>\$ 27,380,178</b>	<b>\$46,588,800</b>	<b>\$40,500,800</b>	

- h) Decrease is due to the overall reduction in requests for preliminary engineering consulting services due to the completion of projects and reduced requests for carryforwards (\$3,002,200) and final design consulting services (\$544,100).
- i) Increase is due to an increased carryforward balance for 10-883-AF, Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, IL (\$4,032,700) and a Heritage Park - Post Award (\$67,900), offset by reduced requests for waterway facilities projects due to the completion of two streambank stabilization construction contracts in 2015 (\$3,432,500).
- j) Decrease is due to the reduction in requests and the anticipated completion of various intergovernmental agreements (\$8,431,000), offset by a new request for 15-IGA-13, Northlake IGA for Alternative ADCR-7B (\$1,000,000) and the reallocation of salaries to more accurately reflect current activities (\$93,600).
- k) Increase is due to the addition of funding for land acquisitions (\$1,000,000) and increased requests for related legal services and easements (\$1,150,000) for stormwater construction contracts.
- l) Increase is due to an increased request for mitigation fees (\$302,000), and the reallocation of salaries to more accurately reflect current activities (\$60,100).
- m) Increase is due to the reallocation of budgeting for the required employer contributions for Medicare and Social Security from the Human Resources Department to the departments where the positions are actually budgeted.



501 50000	Fund: Stormwater Management Department: Stormwater Management Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 4,175,112	\$ 5,506,000	\$ 5,506,000	\$ 5,050,000	\$ 5,659,700	\$ 5,659,700	\$ 5,768,100
601060	Compensation Plan Adjustments	118,570	163,000	163,000	139,000	179,200	179,200	179,900
601070	Social Security & Medicare Contributions	-	-	-	-	65,600	65,600	65,600
601080	Salaries of Nonbudgeted Employees	-	-	-	-	20,000	20,000	20,000
601100	Tuition and Training Payments	7,980	10,000	10,000	5,500	10,000	10,000	10,000
601170	Payments for Professional Services	-	275,000	235,000	40,000	-	-	-
601250	Health and Life Insurance Premiums	506,524	578,000	578,000	566,400	550,000	550,000	550,000
601270	General Salary Adjustments	-	-	-	-	40,800	40,800	-
601410	Personal Services Exp for Prelim Engineering Rpts & Studies	3,112,313	10,348,400	12,344,500	7,718,200	-	-	-
601420	Personal Services Exp for Constr Drawings, Specs, & Cost Est	2,043,615	2,246,800	2,135,000	1,716,800	-	-	-
601440	Personal Svcs for Post-Award Engr for Construction Projects	208,628	358,000	158,000	72,900	-	-	-
100	TOTAL PERSONAL SERVICES	10,172,742	19,485,200	21,129,500	15,308,800	6,525,300	6,525,300	6,593,600
612010	Travel	1,643	2,000	2,000	1,500	2,000	2,000	2,000
612030	Meals and Lodging	5,720	4,700	4,700	4,000	5,600	5,600	5,600
612040	Postage, Freight, and Delivery Charges	727	1,000	1,000	1,000	1,500	1,500	1,500
612050	Compensation for Personally-Owned Automobiles	15,939	24,000	24,000	23,000	24,000	24,000	24,000
612080	Motor Vehicle Operating Services	338	800	800	700	800	800	800
612240	Testing and Inspection Services	458	20,000	20,000	1,200	20,000	20,000	20,000
612250	Court Reporting Services	13,761	10,000	10,000	8,800	10,000	10,000	10,000
612330	Rental Charges	-	-	-	-	2,500	2,500	2,500
612380	Soil and Rock Mechanics Investigation	-	25,000	25,000	6,000	20,000	20,000	20,000
612400	Intergovernmental Agreements	-	-	7,915,000	4,678,500	4,231,000	4,231,000	4,231,000
612410	Governmental Service Charges	-	500	500	500	-	-	-
612430	Payments for Professional Services	-	-	-	-	900,000	900,000	900,000
612440	Personal Services Exp for Prelim Engineering Rpts & Studies	-	-	-	-	7,599,200	7,599,200	7,599,200
612450	Personal Services Exp for Constr Drawings, Specs, & Cost Est	-	-	-	-	2,960,600	1,914,100	1,702,700
612470	Personal Svcs for Post-Award Engr for Construction Projects	-	-	-	-	75,900	75,900	75,900

501 50000	Fund: Stormwater Management Department: Stormwater Management Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612490	Contractual Services, N.O.C.	9,500,356	11,759,000	2,644,000	2,467,800	356,400	356,400	356,400
612520	Waste Material Disposal Charges	34,365	54,000	54,000	47,200	55,000	55,000	55,000
612600	Repairs to Collection Facilities	-	50,000	50,000	-	-	-	-
612620	Repairs to Waterway Facilities	2,064,925	2,500,000	2,500,000	2,490,000	2,500,000	2,500,000	2,500,000
612990	Repairs, N.O.C.	6,839	5,000	5,000	2,000	6,000	6,000	6,000
200	TOTAL CONTRACTUAL SERVICES	11,645,072	14,456,000	13,256,000	9,732,200	18,770,500	17,724,000	17,512,600
623130	Buildings, Grounds, Paving Materials, and Supplies	-	-	-	-	5,000	5,000	5,000
623520	Office, Printing, & Photo Supplies, Equipment, & Furniture	2,930	5,000	5,000	5,000	11,500	11,500	11,500
623560	Processing Chemicals	3,417	5,000	5,000	4,400	5,000	5,000	5,000
623680	Tools and Supplies	4,707	2,000	2,000	1,800	11,000	11,000	11,000
623700	Wearing Apparel	1,983	2,000	2,000	2,000	2,000	2,000	2,000
623990	Materials and Supplies, N.O.C.	33,325	330,000	1,805,000	1,066,700	1,240,000	1,240,000	1,240,000
300	TOTAL MATERIALS AND SUPPLIES	46,361	344,000	1,819,000	1,079,900	1,274,500	1,274,500	1,274,500
634790	Marine Equipment	-	-	-	-	100,000	100,000	100,000
400	TOTAL MACHINERY AND EQUIPMENT	-	-	-	-	100,000	100,000	100,000
645620	Waterway Facilities Structures	5,193,003	4,352,300	3,043,000	1,791,400	7,013,500	8,056,600	8,056,600
645690	Capital Projects, N.O.C.	75,000	448,000	28,000	28,000	750,000	750,000	750,000
645720	Preservation of Waterway Facility Structures	-	4,063,300	3,873,300	3,873,300	715,800	715,800	940,800
500	TOTAL CAPITAL PROJECTS	5,268,003	8,863,600	6,944,300	5,692,700	8,479,300	9,522,400	9,747,400
656010	Land	-	-	-	-	1,000,000	1,000,000	1,000,000
600	TOTAL LAND	-	-	-	-	1,000,000	1,000,000	1,000,000
667020	Equity Transfer	-	3,190,000	3,190,000	2,124,000	3,269,300	3,272,700	3,272,700
667340	Payments for Easements	248,000	250,000	250,000	215,000	1,000,000	1,000,000	1,000,000
700	TOTAL FIXED AND OTHER CHARGES	248,000	3,440,000	3,440,000	2,339,000	4,269,300	4,272,700	4,272,700
<b>TOTAL STORMWATER MANAGEMENT</b>		<b>\$ 27,380,178</b>	<b>\$ 46,588,800</b>	<b>\$ 46,588,800</b>	<b>\$ 34,152,600</b>	<b>\$ 40,418,900</b>	<b>\$ 40,418,900</b>	<b>\$ 40,500,800</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.  
 3. Effective 01/01/2016, professional services previously included in Personal Services (accounts 601170, 601410, 601420, 601430, and 601440) were reclassified to Contractual Services (accounts 612430, 612440, 612450, 612460, and 612470 respectively).

Fund: Stormwater Management Dept: Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>50000</b>	<b>Engineering Department</b>					
	<b>516 Local Sewer Systems Section</b>					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	1	2		2	
HP15	Associate Civil Engineer	2	3		3	
HP14	Assistant Civil Engineer	1	3		2	
HP12	Engineering Technician IV	-	1		2	
TOTAL	Local Sewer Systems Section	5	10	923,369.72	10	955,126.12
	<b>522 Stormwater Management Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	2	3		3	
HP17	Senior Civil Engineer	7	7		7	
HP15	Associate Civil Engineer	6	6		6	
HP14	Assistant Civil Engineer	2	4		4	
HP11	Administrative Specialist	2	1		1	
TOTAL	Stormwater Management Section	20	22	2,273,760.84	22	2,432,748.76
TOTAL	Engineering Department	25	32	3,197,130.56	32	3,387,874.88
<b>60000</b>	<b>Maintenance &amp; Operations Department</b>					
	<b>630 General Division</b>					
	<b>634 Channel Maintenance Unit</b>					
HP17	Senior Civil Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
TOTAL	Channel Maintenance Unit	2	2	219,471.46	2	226,055.70
	<b>636 Boat Operations Unit</b>					
HP14	Engineering Technician V	1	1		1	
HP14	Engineering Technician V #4	1	1		1	
HP12	Engineering Technician IV	1	1		1	
HP12	Engineering Technician IV #4	1	1		1	

Fund: Stormwater Management Dept: Division:		POSITION ANALYSIS				
		2014	2015		2016	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8650	Maintenance Laborer Class A Shift	2	2		2	
TOTAL	Boat Operations Unit	6	6	520,465.14	6	540,787.78
<b>639</b>	<b>Channel Maintenance Unit</b>					
HP14	Engineering Technician V	1	1		1	
HP14	Engineering Technician V #4	1	1		1	
NR8331	Laborer Foreman	2	-		-	
NR8650	Maintenance Laborer Class A Shift	1	2		2	
TOTAL	Channel Maintenance Unit	5	4	357,256.64	4	367,963.70
<b>679</b>	<b>Collection System Unit</b>					
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
PR6473	Truck Driver	1	1		1	
TOTAL	Collection System Unit	6	6	462,467.20	6	475,155.20
TOTAL	General Division	19	18	1,559,660.44	18	1,609,962.38
<b>940</b>	<b>Stickney Service Area General Plant Services Section</b>					
<b>924</b>	<b>Stickney Maintenance Unit</b>					
PR7773	Pipefitter	1	1		1	
TOTAL	Stickney Maintenance Unit	1	1	95,680.00	1	97,760.00
<b>934</b>	<b>Stickney Mechanical Operations Unit</b>					
NR6831	Operating Engineer I	4	4		4	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
TOTAL	Stickney Mechanical Operations Unit	8	8	680,992.00	8	701,376.00
TOTAL	Stickney Service Area General Plant Services Section	9	9	776,672.00	9	799,136.00
TOTAL	Maintenance & Operations Department	28	27	2,336,332.44	27	2,409,098.38
TOTAL	Stormwater Management	53	59	5,533,463.00	59	5,796,973.26

Note: The positions budgeted are funded by the Stormwater Management Fund, while the operations remain in the Engineering and Maintenance & Operations Departments.

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.

**NOTE PAGE**

# SECTION VII

## OTHER FUNDS

Other funds included in the annual District Budget are: the Reserve Claim Fund, Bond Redemption & Interest Fund, Retirement Fund, Corporate Working Cash Fund, Construction Working Cash Fund, and Stormwater Working Cash Fund.

The Reserve Claim Fund is used to accumulate resources for the payment of claims and judgments against the District, as well as for emergency repair or replacement of District facilities. A narrative description of the purpose and operation of this fund is contained in this section along with an appropriation schedule. A tax levy ordinance for this Fund is presented in Section VIII of this Budget.

The Bond Redemption & Interest Fund is used to accumulate the proceeds from property taxes and investment income, which are set aside to pay the principal and interest on the outstanding bond issues of the District. These funds are segregated and accounted for by each bond issue. A narrative description of this fund and an appropriation schedule, detailing payment of principal and interest during 2016, are included in this section. A tax levy ordinance for the principal and interest due in 2017 and 2018 from the Bond Redemption & Interest Fund is included in Section VIII of this Budget. Statements of Outstanding Bonds and Estimated Statutory Debt Margin, with a graphic illustration of past, current, and estimated future debt service, are included in the Budgetary and Financial Summaries section, pages 52 and 53.

The Retirement Fund is the pension plan for District employees, accounted for in a trust fund the Illinois Compiled Statutes established as a legal entity separate and distinct from the District. This section contains an appropriation of taxes the District received on behalf of the Retirement Fund. A tax levy ordinance for this Fund is presented in Section VIII of this Budget.

The District utilizes Corporate and Construction Working Cash Funds, as authorized by Illinois Compiled Statutes, to make temporary loans to the Corporate and Construction Funds, and Stormwater Working Cash Fund. Loans are repaid to the Working Cash Funds from the tax levies of the Funds. The use of Working Cash Funds eliminates the need to issue short-term financing. There will be no tax levies for the Corporate, Construction, or Stormwater Working Cash Funds in 2016.

Reserve Claim Fund:	
Description of Fund, Purpose, and Operation.....	529
Line Item Analysis.....	530
Bond Redemption & Interest Fund:	
Description of Fund, Purpose, and Operation.....	531
Appropriation for Payment of Outstanding Bonds, 2016 .....	533
Retirement Fund:	
Description of Fund, Purpose, and Operation.....	535
Appropriation Ordinance .....	537

# RESERVE CLAIM FUND

## Description of Fund, Purpose, and Operation

The Reserve Claim Fund is the District’s self-insurance fund. It is maintained at an appropriation level adequate to meet potential liabilities. The fund is capable of providing coverage for those risks that can be expected to be encountered and is able to pay such claims without exposing the agency to financial risk that could curtail normal operations of protecting the public health, safety, and welfare.

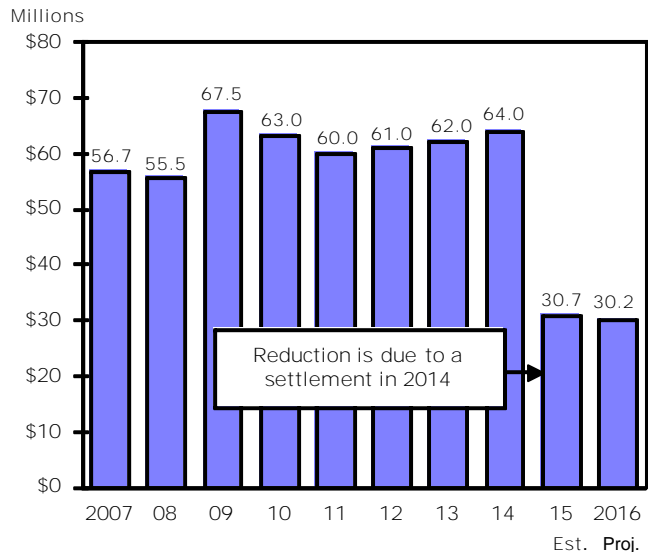
A property tax levy limited by law at 0.5 cents per \$100 of equalized assessed valuation (EAV) provides funds for this purpose. The accumulation of funds, per Illinois State Statute, is not to exceed .05 percent of the EAV, or approximately \$62.9 million. Resources are accumulated in this fund to the extent that revenue from the annual tax levy, personal property replacement tax, and investment income on the fund balance is reduced by the payment of claims.

The policy, set by the Board of Commissioners, is to accumulate a reserve fund balance towards the statutory limit and to levy at the statutory tax rate limit; however, due to the downturn in the economy, only a portion of the tax rate limit will be levied. This policy is similar in function to insurance company reserves. The estimated 2015 year-end fund balance is \$24.3 million and the projection for 2016 is \$25.2 million.

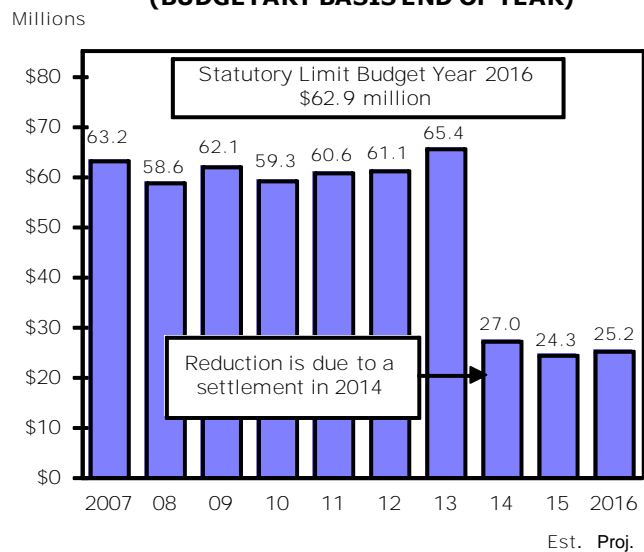
The appropriation for the Reserve Claim Fund is not designed to be spent during any one budget year. The available fund balance plus new revenue to be received must be appropriated each year to authorize the District to fund emergencies and to settle large claims or lawsuits. Designation is also provided for accounts payable and other contingent liabilities. For 2016, accounts payable and other liabilities are estimated at \$0.2 million. The designation for liabilities is reviewed and adjusted on an annual basis.

The fund is appropriated in two line items, Account 601090 (Employee Claims) and Account 667220 (General Claims and Emergency Repair and Replacement Costs). Account 601090 is for the payment of workers' compensation and other District employee claims, while Account 667220 is used to pay general claims or judgments against the District, as well as emergency repairs or replacements of District facilities. District staff makes considerable efforts to control claim expenditures by implementing aggressive safety training programs and returning employees to work as soon as possible.

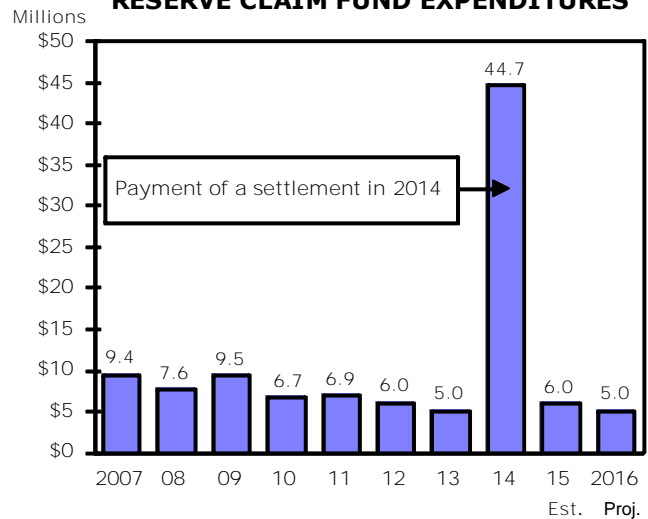
### RESERVE CLAIM FUND APPROPRIATIONS



### RESERVE CLAIM FUND BALANCE (BUDGETARY BASIS END OF YEAR)



### RESERVE CLAIM FUND EXPENDITURES



901	Fund: Reserve Claim Department: Division:	LINE ITEM ANALYSIS						
		2014	2015			2016		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/15	Estimated Expenditure 12/31/15	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601090	Employee Claims	\$ 3,594,355	\$ 10,000,000	\$ 10,000,000	\$ 3,900,000	\$ 8,000,000	\$ 8,000,000	\$ 8,000,000
100	TOTAL PERSONAL SERVICES	3,594,355	10,000,000	10,000,000	3,900,000	8,000,000	8,000,000	8,000,000
667220	General Claims & Emerg Repair & Replacement Costs	41,391,369	20,700,000	20,700,000	2,098,200	22,175,900	22,175,900	22,175,900
700	TOTAL FIXED AND OTHER CHARGES	41,391,369	20,700,000	20,700,000	2,098,200	22,175,900	22,175,900	22,175,900
<b>TOTAL RESERVE CLAIM FUND</b>		<b>\$ 44,985,724</b>	<b>\$ 30,700,000</b>	<b>\$ 30,700,000</b>	<b>\$ 5,998,200</b>	<b>\$ 30,175,900</b>	<b>\$ 30,175,900</b>	<b>\$ 30,175,900</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Public Act 098-0069 signed into law by the Governor on July 15, 2013, amends the District Act to expand the type of claims payable from the Reserve Claim Fund, as well as the legal costs in defense of such claims, and lastly, removes the \$10,000 threshold for repairs to the District's facilities in the event of fire or emergency.



# BOND REDEMPTION & INTEREST FUND

## Description of Fund, Purpose, and Operation

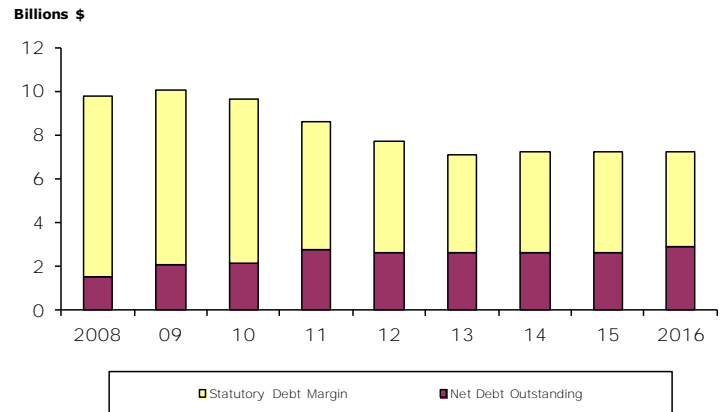
The District's Bond Redemption & Interest Fund is a debt service fund established to account for annual property tax levies and certain other revenues, principally interest on investments, which are used for the payment of interest and redemption of general obligation bond issues. Sub-funds are established for each debt issue.

### Debt Limits, Margins, and Borrowing Authority

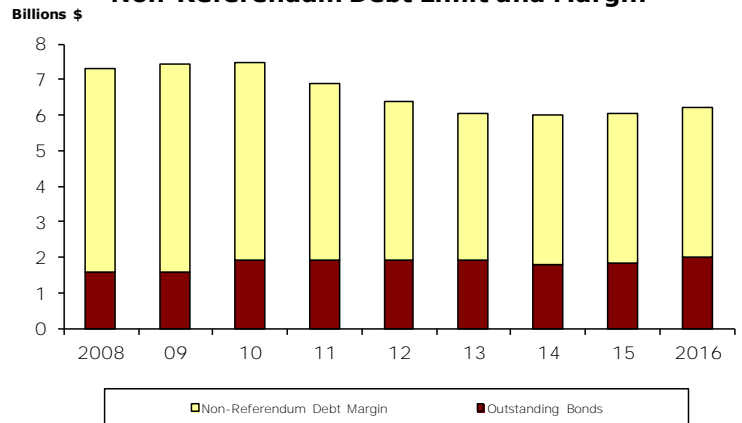
Applicable Illinois Statutes establish the following limitations relative to the District:

- General Obligation Notes may be issued at an amount not to exceed 85 percent of the current General Corporate Fund tax levy.
- The District may fund up to 100 percent of the aggregate total of the estimated amount of taxes levied or to be levied for corporate purposes plus the General Corporate Fund portion of the personal property replacement tax allocation certified for distribution during the budget year, through borrowing from the Corporate Working Cash Fund and the issuance of tax anticipation notes or warrants.
- The District's debt may not exceed 5.75 percent of the last published equalized assessed valuation (EAV) of taxable real property (\$125.7 billion for 2014) within the District. On December 31, 2015, the District's statutory debt limit is estimated at \$7.2 billion, with a net applicable debt of \$2.9 billion and an estimated statutory debt margin of \$4.4 billion.
- The amount of non-referendum Capital Improvements Bonds which may be outstanding may not exceed 3.35 percent of the last-known EAV of taxable real property within the District. On December 31, 2015, it is estimated that the District's outstanding capital improvement and refunding bonds will total \$2.0 billion with a non-referendum statutory debt limit of \$4.2 billion and a non-referendum bonded debt margin of \$2.2 billion.
- The Illinois Compiled Statutes provide authorization for the funding of the District's Capital Improvement Program by the issuance of non-referendum Capital Improvements Bonds through the year 2024, as extended, effective January 1, 2011. Bonds may be issued during any one budget year in an amount not to exceed \$150 million plus the amounts of any bonds authorized and unissued during the three preceding budget years. This amount was increased from \$100 million during 2003 as the result of Public Act 93-279. The extension of non-referendum bonding authority is a significant change that accommodates funding of the capital program as planned. Build America Bonds were issued in the amount of \$600 million in August 2009, and were exempted from the non-referendum authority by statute.
- This non-referendum authority had been significantly impacted by enactment of the Tax Cap laws, Public Acts 89-1 and 89-385. Public Act 89-1 restricted the District's non-referendum authority to only apply to projects initiated prior to October 1, 1991. There was a specific exception, essentially to exclude debt for the TARP project, to the more restrictive provisions of the Act which require referendum approval of all new debt. A subsequent law, Public Act 89-385, provides additional non-referendum authority to the District by authorizing the issuance of "limited bonds". These "limited bonds" allow the District to issue non-referendum debt for projects initiated after October 1, 1991. Limited bonds can be issued to the extent that the total debt service requirements of any new debt when combined with existing debt service, does not exceed the debt service extension base established by the Act. The debt service extension limitation for the District, related to the 2015 tax year, is \$158.2 million.

**Net Debt and Statutory Debt Margin**



**Non-Referendum Debt Limit and Margin**



# BOND REDEMPTION & INTEREST FUND

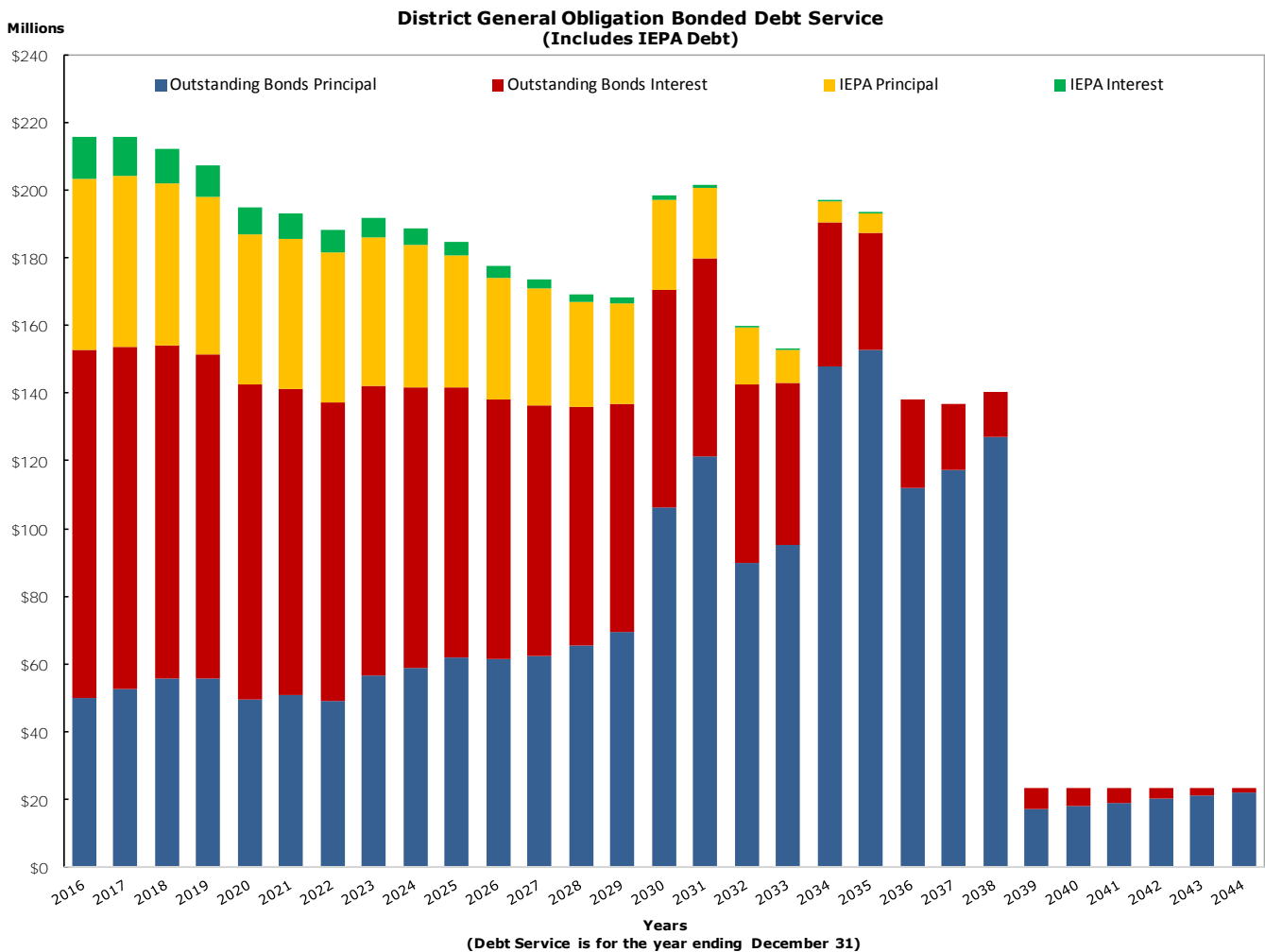
## Description of Fund, Purpose, and Operation (continued)

- Additional legislation was passed in 1997 to expand the “limited bond” authority for the District. Public Act 90-485 excludes debt associated with the TARP program from the limitations imposed by prior Tax Cap legislation. Public Act 96-0501 allows for an annual increase in this debt service extension limitation base by the lesser of five percent or the percentage increase in the CPI beginning with the 2009 levy.
- The amount of non-referendum Corporate Working Cash Bonds which, when added to a) proceeds from the sale of working cash bonds previously issued, b) any amounts collected from the corporate working cash fund levy, and c) amounts transferred from the construction working cash funds, may not exceed 90 percent of the amount produced by multiplying the maximum general corporate tax rate (41 cents per \$100 of EAV) permitted by the last known EAV of all property in the District (\$125.7 billion for 2014) at the time the bonds are issued, plus 90 percent of the last-known entitlement of the Personal Property Replacement Tax. At December 31, 2014 (last audited numbers), the District’s remaining Corporate Working Cash Fund Bond authorization equaled \$236.2 million.

### Current and Future Bond Debt Service

The exhibit below reflects the current debt service obligation of the District. Bond sale proceeds provide partial financing for the ongoing new construction and rehabilitation program of the District. As current State Revolving Fund loans are converted to bonds, additional annual debt service will be added. These amounts will be in the range of \$4 to \$6 million per year.

The debt for future bond sales is not included in this exhibit. Future bond sales are based on estimated cash flow requirements of the Capital Improvements Bond Fund new construction and rehabilitation program. The estimates for total debt service assuming future bond sales are included in the Five-Year Financial Forecast included in Section II, Financial Summaries by Fund, of this budget document.



**BOND REDEMPTION & INTEREST FUND**

**Appropriation for Payment of Outstanding Bonds During the Year 2016**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2016		JULY 1, 2016		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
<b>Capital Improvements Bonds - Series:</b>						
July 2006 Limited Tax	5.0	\$ 287,875 (1)	\$ -	\$ 287,875 (2)	\$ 11,515,000 (2)	\$ 12,090,750
August 2009 Limited Tax	5.72	17,160,000 (1)	-	17,160,000 (2)	- (2)	34,320,000
July 2011 Limited Tax Series A	0.891 to 2.229	59,403 (1)	-	59,403 (2)	5,330,000 (2)	5,448,806
July 2011 Limited Tax Series B	5.0	6,703,922 (1)	-	6,703,922 (2)	- (2)	13,407,844
July 2011 Unlimited Tax Series C	3.0 to 5.0	1,446,616 (1)	-	1,446,616 (2)	9,850,000 (2)	12,743,232
2014 Unlimited Tax Series A	5.0	2,500,000 (1)	-	2,500,000 (2)	- (2)	5,000,000
2014 Alt Rev Tax Unltd Series B	2.0 to 5.0	1,176,325 (1)	-	1,176,325 (2)	920,000 (2)	3,272,650
2014 Limited Tax Series C	2.0 to 5.0	1,857,600 (1)	-	1,857,600 (2)	1,160,000 (2)	4,875,200
<b>State Revolving Fund Bonds - Series:</b>						
94R SRF L 170820	2.50	-	-	72,288	1,627,459	1,699,747
92S SRF L 170875	2.50	-	-	5,679	454,243	459,922
92T SRF L 170876	2.50	-	-	37,536	1,190,705	1,228,241
92U SRF L 170877	2.50	-	-	58,784	1,323,426	1,382,210
94V SRF L 171150	2.50	-	-	142,428	2,014,779	2,157,207
97AA SRF L 170822	2.506	-	-	290,951	2,972,830	3,263,781
97BB SRF L 171151	2.535	-	-	73,881	581,339	655,220
97CC SRF L 172031	2.535	-	-	346,911	2,034,790	2,381,701
97DD SRF L 171152	2.905	-	-	208,100	830,949	1,039,049
01A SRF L 172126	2.57	-	-	721,162	3,075,511	3,796,673
01B SRF L 172127	2.50	-	-	791,483	3,063,666	3,855,149
01C SRF L 172128	2.50	-	-	763,058	2,631,231	3,394,289
04A SRF L 172485	2.50	-	-	399,723	1,179,185	1,578,908
04B SRF L 172488	2.50	-	-	466,955	1,377,518	1,844,473
04C SRF L 172493	2.50	-	-	42,097	130,553	172,650
04D SRF L 172494	2.50	-	-	40,370	125,197	165,567
04E SRF L 172495	2.50	-	-	135,727	381,555	517,282
04F SRF L 172496	0.00	-	-	-	198,735	198,735
04G SRF L 172611	2.50	-	-	65,583	203,387	268,970
04H SRF L 172849	2.50	-	-	992,199	2,545,244	3,537,443
07A SRF L 172625	2.50	-	-	825,987	1,944,471	2,770,458
07B SRF L 172850	2.50	-	-	567,675	1,282,599	1,850,274
07C SRF L 172770	0.00	-	-	-	3,333,334	3,333,334
07D SRF L 172763	2.50	-	-	188,399	443,513	631,912
09A SRF L173074	1.25	-	-	504,643	2,174,264	2,678,907
09B SRF L 173064	0.00	-	-	-	382,890	382,890
09C SRF L 173063	0.00	-	-	-	111,958	111,958
09D SRF L174588	2.30	-	-	818,710	1,639,575	2,458,285
09E SRF L 173005	1.25	-	-	405,133	1,873,863	2,278,996
09F SRF L 174557	1.25	-	-	685,858	2,958,433	3,644,291
09G SRF L173075	1.25	-	-	332,884	1,388,181	1,721,065
09H SRF L 173800	0.00	-	-	-	36,793	36,793
09I SRF L 174675	1.25	-	-	109,231	521,931	631,162
12A SRF L 174710	2.295	-	-	162,911	315,385	478,296
12B SRF L 174712	2.295	-	-	135,615	262,541	398,156
12D SRF L 174988	1.930	-	-	514,015	1,114,240	1,628,255
12E SRF L 174709	1.930	-	-	133,261	196,835	330,096
12F SRF L 174989	1.930	-	-	643,129	1,394,123	2,037,252
12H SRF L 174924	1.930	-	-	359,767	779,874	1,139,641
12J SRF L 175172	1.995	-	-	43,213	92,852	136,065
12K SRF L 174925	1.995	-	-	200,770	418,263	619,033
12O SRF L 175166	1.995	-	-	35,400	73,749	109,149

(1) Interest Payable June 1, 2016.

(2) Interest and Principal Payable December 1, 2016.

**BOND REDEMPTION & INTEREST FUND**

**Appropriation for Payment of Outstanding Bonds During the Year 2016 (continued)**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2016		JULY 1, 2016		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
<b>Refunding Bonds - Series:</b>						
May 2006 Unlimited	5.035	8,665,000 (1)	-	8,665,000 (2)	- (2)	17,330,000
May 2006 Limited	5.035	1,269,750 (1)	-	1,269,750 (2)	- (2)	2,539,500
March 2007 Unlimited Series A	4.0 to 5.0	3,729,500 (1)	-	3,729,500 (2)	20,585,000 (2)	28,044,000
March 2007 Unlimited Series B	4.0 to 5.0	2,410,932 (1)	-	2,410,931 (2)	- (2)	4,821,863
March 2007 Limited Series C	4.0 to 5.0	2,673,825 (1)	-	2,673,825 (2)	- (2)	5,347,650
2014 Limited Tax Series D	2.0 to 5.0	1,766,075 (1)	-	1,766,075 (2)	270,000 (2)	3,802,150
<b>TOTAL</b>		<b>\$ 51,706,823</b>	<b>\$ -</b>	<b>\$ 64,028,338</b>	<b>\$ 100,311,969</b>	<b>\$216,047,130</b>

(1) Interest Payable June 1, 2016.

(2) Interest and Principal Payable December 1, 2016.

# RETIREMENT FUND

## Description of Fund, Purpose, and Operation

The Metropolitan Water Reclamation District Retirement Fund (Fund) is a defined benefit public employee retirement system that provides retirement, death, and disability benefits to the employees of the Metropolitan Water Reclamation District of Greater Chicago according to Chapter 40, Act 5, Articles 1, 13, and 20 of the Illinois Compiled Statutes.

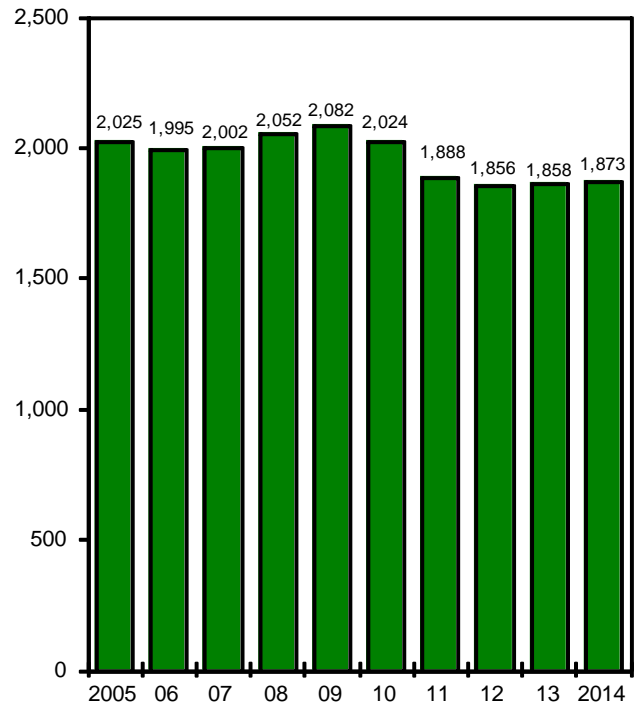
On August 3, 2012, the Governor signed Public Act 97-0894. This law increased the required contributions one percent per year for three years beginning in 2013 for employees who first became a member of the Fund or certain reciprocal systems before January 1, 2011. The employee contribution rate will be reduced to nine percent when the funded ratio reaches 90 percent. This bill also changes the manner in which the District calculates the annual tax levy. Beginning in 2013, the tax levy will be based on the Fund’s actuarially determined contribution requirement but shall not exceed an amount equal to employee contributions two years prior multiplied by 4.19.

As of December 31, 2014, there were 1,873 active (contributing) participants in the Fund and 2,375 beneficiaries. Annuitants accounted for 2,343 of these beneficiaries, including 1,729 retired employees, 593 surviving spouses, and 21 children. Additionally, the Fund paid disability benefits to 32 District employees.

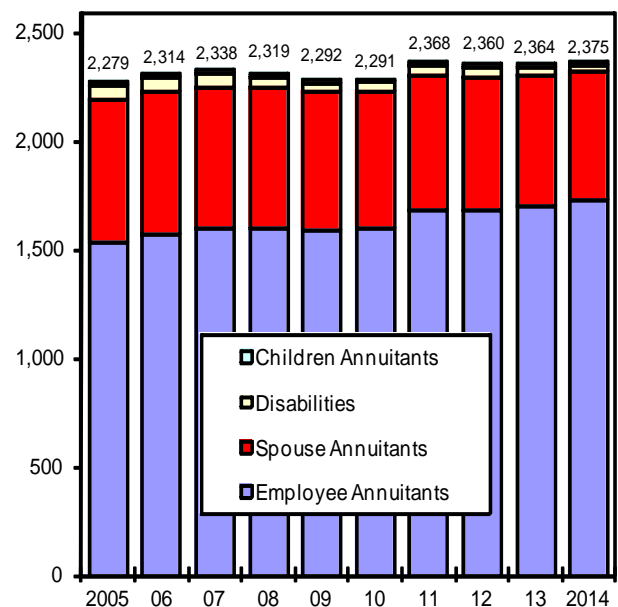
Gross income for the Fund is composed of the following items:

- **Employee contributions** – beginning in 2015, employees hired prior to January 1, 2011 contribute 12 percent of salary to the Fund. Employees hired on or after January 1, 2011 contribute nine percent of salary to the Fund since they are entitled to reduced benefits under the new provisions which include a higher retirement age and a longer final average salary period.
- **Employer contributions** - include real estate property tax levies and the Personal Property Replacement Tax. In 2016, the District shall annually levy a tax which will produce a sum that will be sufficient to meet the Fund’s actuarially determined contribution requirement but shall not exceed an amount equal to the employee contributions two years prior multiplied by 4.19. The tax levy calculation is defined under the Illinois Compiled Statutes and is only changed upon recommendation by the Trustees of the Fund based on Fund requirements and approval by the Illinois State Legislature.
- **Investment income** - includes dividends and interest, as well as realized and unrealized appreciation (depreciation) in the fair value of the investments.

**Active Participants**



**Beneficiaries**



Gross income for 2014 was \$180.4 million which is a combination of employee and employer contributions of \$92.9 million, investment income of \$87.1 million, securities lending income of \$435 thousand, and other income of \$4 thousand; reflecting an income of \$161.0 million less than in 2013. Total investment income in 2014 was lower than the prior year primarily due to lower returns in the U.S. and non-U.S. equity markets during 2014.

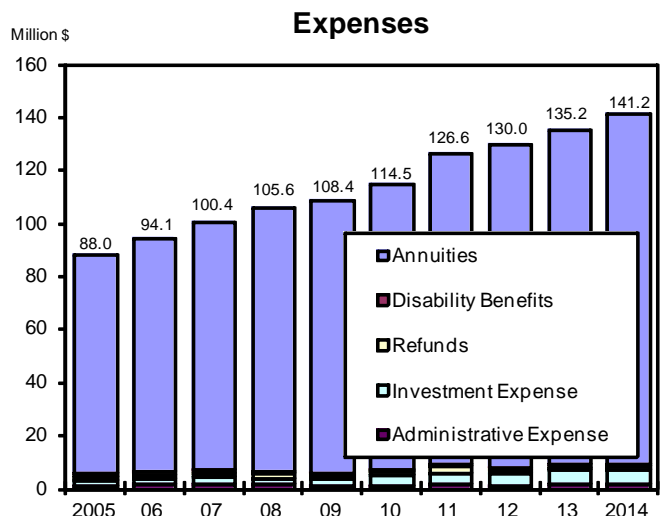
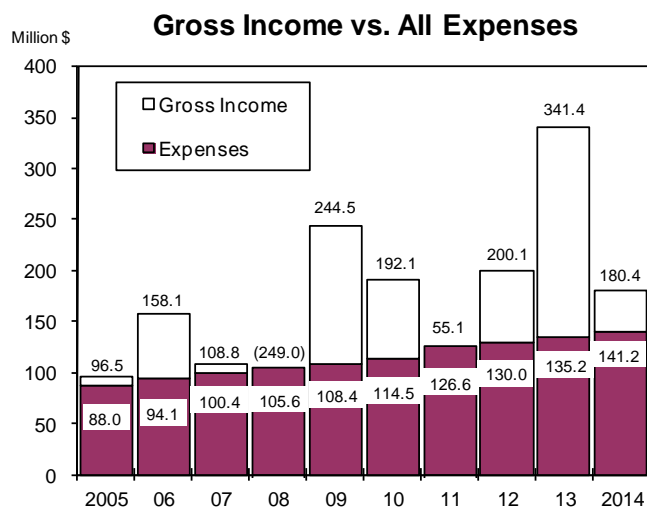
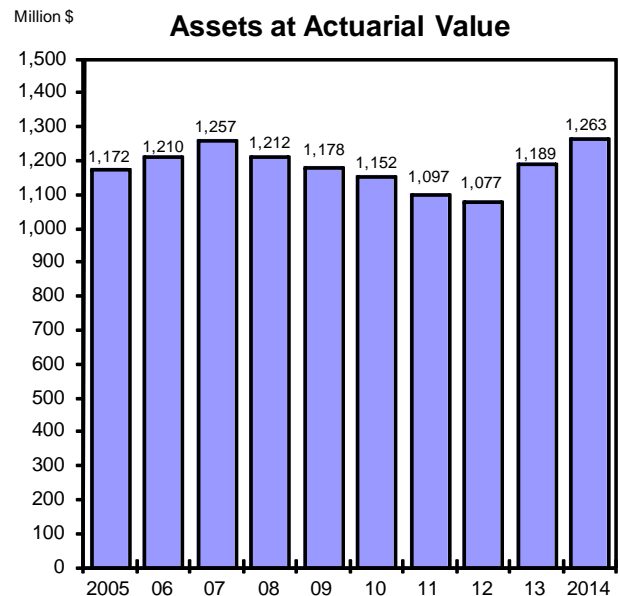
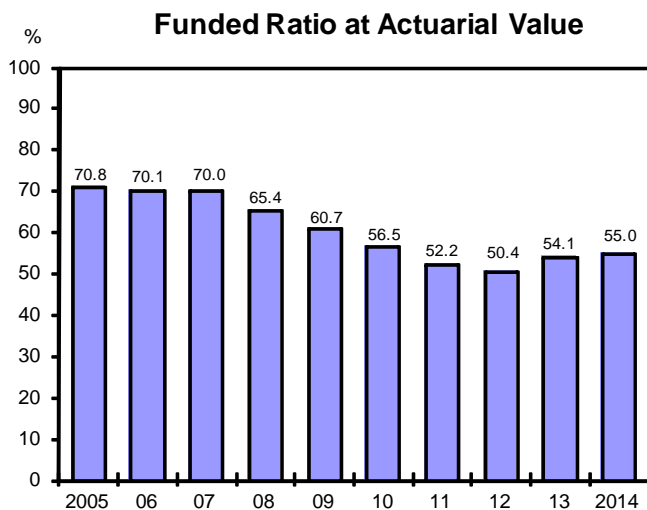
# RETIREMENT FUND

## Description of Fund, Purpose, and Operation (continued)

Expenses for 2014 include annuity and disability benefit payments of \$132.9 million, investment management expenses of \$5.9 million, administrative expenses of \$1.4 million, and refunds of \$1.0 million for a total of \$141.2 million.

As of December 31, 2014, the funded ratio of the Fund was 55.0 percent. Beginning in 1997, Fund assets and this ratio are reported at the new Actuarial Asset Value required by the Governmental Accounting Standards Board. The funded ratio has been in the range of 50.4 percent to 70.8 percent during the last ten years. The District’s Board of Commissioners adopted a Funding Policy recommended by the Retirement Fund Board of Trustees to ensure the long-term financial health of the pension program while balancing the interests of the employees, retirees, taxpayers, and the District. The funding policy establishes maximum contribution amounts equal to the maximum contribution allowed by Statute and minimum contribution levels that are intended to exceed the minimum contribution required by Statute. The funding goal of the policy is to contribute annually to the Fund an amount that over time will increase the funded ratio to 100 percent by the year 2050. The Policy was adopted by the Board of Commissioners on October 2, 2014.

For the 2016 Budget, the gross levy totals \$65.2 million, an increase of \$7.2 million, or 12.3 percent, above the 2015 adjusted levy. The 2016 appropriation is \$70.8 million, an increase of \$9.1 million, or 14.8 percent, above the 2015 Adjusted Budget.



**Appropriation Ordinance**

**THE METROPOLITAN WATER RECLAMATION DISTRICT RETIREMENT FUND**

And an amount of Estimated Expenditures for the Purpose of the Metropolitan Water Reclamation District Retirement Fund of \$70,772,000.

*Section 9.* That the appropriation herein of the amounts for the payment of “unpaid bills” or “contractual liabilities,” or to defray the expense of any project or purpose, shall not be construed as an approval or an admission of liability by the Board of Commissioners of any said bills or contractual liabilities, or of any project or purpose mentioned herein but shall be regarded only as the provision of a fund or funds, for the payment thereof when

said bills or contractual liabilities have been found to be valid and legal obligations against the Metropolitan Water Reclamation District of Greater Chicago and when properly vouchered and audited by the Department of Finance, or when any project or purpose is approved and authorized by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago, as the case may be.

*Section 10.* This ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:



Head Assistant Attorney



General Counsel

Approved:



President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago

**NOTE PAGE**



# SECTION VIII

## TAX LEVY ORDINANCES

The Tax Levy Ordinances are the means by which tax levies, enacted by the Board of Commissioners under authority of the Illinois Compiled Statutes, are given legal effect.

Each tax levy states the revenue which is to be raised, through the collection of property taxes, to finance the operations of a specific fund. The gross tax levy, which allows for loss in collection, is presented with the amount of estimated loss, where applicable. A factor of 3.5 percent for loss in collection is used for 2016 levies.

This section includes 2016 Tax Levy Ordinances for the Retirement Fund, Corporate Fund, Construction Fund, Reserve Claim Fund, and Stormwater Management Fund. A Tax Levy Ordinance, to pay the interest on outstanding bonds and to discharge the principal thereof, along with a detailed schedule of the 2016 Tax Levy for Payment of Outstanding Bonds, can be found in this section.

Retirement Fund and Corporate Fund .....	539
Construction Fund .....	540
Bond Redemption and Interest Fund:	
Tax Levy Ordinance for Outstanding Bonds .....	541
Tax Levy for Payment of Outstanding Bonds, 2016.....	543
Reserve Claim Fund .....	545
Stormwater Management Fund .....	546

**ORDINANCE NUMBER O15-004A**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
UPON ALL TAXABLE PROPERTY WITHIN THE TERRITORIAL LIMITS OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO  
AS SAID TERRITORIAL LIMITS EXIST ON JANUARY 1, 2016  
FOR THE PURPOSE OF PROVIDING REVENUES FOR  
THE METROPOLITAN WATER RECLAMATION DISTRICT  
RETIREMENT FUND AND CORPORATE FUND**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* That there be and is hereby levied upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, for the fiscal year ending December 31, 2016, the amounts of money hereinafter stated as follows:

For the amount certified to the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago by the Retirement Board of the Metropolitan Water Reclamation District Retirement Fund for the purpose of providing the revenue for the Retirement Fund of the Metropolitan Water Reclamation District pursuant to Article 13 of the Illinois Pension Code, "the sum of \$65,161,200 which includes the sum of \$2,280,642 as a reserve for loss in collection of taxes," distributed as

Contributions for Service Retirement Allowances and Spouses' Allowances .....	\$12,631,500
Contributions for Ordinary Disability Benefits .....	904,300
Contributions for Duty Disability Benefits .....	256,600
Contributions for Expense of Administration .....	1,270,900
Contributions for Children's Annuities .....	129,100
Contributions for Current and Past Service Requirements.....	<u>49,968,800</u>
	<u>\$65,161,200</u>

For Corporate Purposes of the said Metropolitan Water Reclamation District of Greater Chicago "the sum of \$226,109,300 which includes the sum of \$7,913,826 as a reserve for loss in the collection of taxes."

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the several amounts above set forth to be raised by taxation in the year 2016 and to file a certified copy of the Ordinance with the said County Clerk of Cook County and said County Clerk of Cook County aforesaid, is hereby directed to cause the aforesaid amounts of money to be extended upon and against the taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, all in accordance with the laws and statutes of the State of Illinois in such case made and provided, and the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby directed to cause this Ordinance to be published at least once in a newspaper published within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago and to incur the necessary expenses therefor.

*Section 3.* This Ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:

Approved:

Head Assistant Attorney

President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago

General Counsel

**ORDINANCE NUMBER O15-005**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
UPON ALL TAXABLE PROPERTY WITHIN THE TERRITORIAL LIMITS OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO  
AS SAID TERRITORIAL LIMITS EXIST ON JANUARY 1, 2016  
FOR THE PURPOSE OF PROVIDING REVENUES  
FOR THE CONSTRUCTION FUND**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* That there be and is hereby levied upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, for the fiscal year ending December 31, 2016, to provide revenue for the replacement, remodeling, completion, alteration, construction, and enlargement, including alterations, enlargements and replacements which will add appreciably to the value, utility, or the useful life of sewage treatment works or flood control facilities, and additions therefor, pumping stations, tunnels, conduits and intercepting sewers connecting therewith, and outlet sewers together with the equipment and appurtenances necessary thereto, and for the acquisition of the sites and rights of way necessary thereto, and for engineering expenses for designing and supervising the construction of the works above described, "the sum of \$16,600,000 which includes the sum of \$581,000 as a reserve for loss in collection of taxes."

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the amount above set forth to be raised by taxation in the year 2016 and to file a certified copy of the Ordinance with the

said County Clerk of Cook County, and said County Clerk of Cook County aforesaid, is hereby directed to cause the aforesaid amount of money to be extended upon and against the taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, all in accordance with the laws and statutes of the State of Illinois in such case made and provided, and subject to reduction as provided in the text below, and the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby directed to cause this Ordinance to be published at least once in a newspaper published within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago and to incur the necessary expenses therefor.

*Section 3.* That said County Clerk of Cook County, as tax extension officer for said District, is hereby directed to *reduce this levy of taxes* by the District for the year 2016 by the amount necessary to enable said District's aggregate tax levies to comply with the Property Tax Extension Limitation Law; that is, the entire reduction in the aggregate of all tax levies for said District for the year 2016 required by said Law shall be taken against the Construction Fund levy as set forth in this Ordinance.

*Section 4.* This Ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:



Head Assistant Attorney



General Counsel

Approved:



President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago

**ORDINANCE NUMBER O15-006**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
TO PAY THE INTEREST ON OUTSTANDING BONDS AND TO  
DISCHARGE THE PRINCIPAL THEREOF**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* For the purpose of creating a sinking fund to pay the principal and interest on outstanding bonds, there is hereby levied upon all taxable property within the territorial limits of the Metropolitan Water

Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, and all taxable property in townships or parts of townships disconnected from the Metropolitan Water Reclamation District of Greater Chicago prior to January 1, 2016, but after the issuance of any bonds, the amounts of money hereinafter stated:

Capital Improvement Bonds – Series:

August 2009 Limited Tax .....	08-26-09 .....	35,564,767
July 2011 Limited Tax Series A .....	07-21-11 .....	20,230,925
July 2011 Unlimited Tax Series C .....	07-21-11 .....	7,622,520
Dec. 2014 Unlimited Tax Series A .....	01-06-15 .....	5,181,347
Dec. 2014 Alt Rev Tax Unltd Tax Series B.....	01-06-15 .....	3,387,824
Dec. 2014 Limited Tax Series C.....	01-06-15 .....	15,540,933

State Revolving Funds Bonds – Series:

92U SRF L170877 .....	716,171
94R SRF L170820 .....	880,697
94V SRF L171150 .....	2,235,447
97AA SRF 170822 .....	3,382,155
97BB SRF L171151 .....	678,984
97CC SRF L172031 .....	2,468,083
97DD SRF L171152 .....	1,076,735
01A SRF L172126.....	3,934,374
01B SRF L172127.....	3,994,972
01C SRF L172128 .....	3,517,399
04A SRF L172485 .....	1,636,174
04B SRF L172488 .....	1,911,370
04C SRF L172493 .....	178,912
04D SRF L172494.....	171,572
04E SRF L172495 .....	536,044
04F SRF L172496.....	205,942
04G SRF L172611 .....	278,724
04H SRF L172849.....	3,665,744
07A SRF L172625 .....	2,870,940
07B SRF L172850 .....	1,917,381
07C SRF L172770 .....	3,454,231
07D SRF L172763.....	654,830
09A SRF L173074.....	2,776,069
09B SRF L173064 .....	396,777
09C SRF L173063 .....	116,018
09D SRF L174558 .....	2,547,445
09E SRF L173005 .....	2,361,654
09F SRF L174557.....	3,776,466
09G SRF L173075 .....	1,783,487
09H SRF L173800.....	38,127
09I SRF L174675 .....	705,867
12A SRF L174710.....	495,641
12B SRF L174712 .....	412,597
12C SRF L174621 .....	735,751
12D SRF L174988.....	1,687,310
12E SRF 174709.....	342,067

**ORDINANCE NUMBER O15-006**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
TO PAY THE INTEREST ON OUTSTANDING BONDS AND TO  
DISCHARGE THE PRINCIPAL THEREOF  
(CONTINUED)**

State Revolving Funds Bonds – Series:

12F SRF L174989.....	2,111,141
12H SRF L174924.....	1,180,975
12I SRF L175222.....	274,611
12J SRF L175172.....	140,999
12K SRF L174925.....	803,109
12L SRF L175161.....	1,777,202
12N SRF L175164.....	155,440
12O SRF L175166.....	113,108
14A SRF L173076.....	4,331,606
14B SRF L175171.....	150,259
14C SRF L174559.....	901,554

Refunding Bonds – Series:

May 2006 Unlimited Tax.....	05-01-06.....	17,958,549
May 2006 Limited Tax.....	05-01-06.....	2,631,606
March 2007 Unlimited Tax Series A.....	03-21-07.....	25,279,534
March 2007 Unlimited Tax Series B.....	03-21-07.....	4,996,749
March 2007 Limited Tax Series C.....	03-21-07.....	5,541,606
2014 Limited Tax Series D.....	01-06-15.....	<u>15,494,041</u>
		<u>\$229,912,562</u>

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the several amounts above set forth to be raised by taxation in the year 2016 for the purpose of providing the funds to pay the interest on bonds and discharge the principal thereof, and to file a certified copy of this Ordinance with said County Clerk of Cook County, and said County Clerk of Cook County is hereby directed to cause aforesaid amounts of money to be extended upon and against taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, and the County Clerk of Cook County is further directed to extend upon all taxable property in all townships or

parts of townships disconnected from the Metropolitan Water Reclamation District of Greater Chicago prior to January 1, 2016 those amounts aforesaid necessary to pay the principal and interest for any bonds issued prior to the date of disconnection, all in accordance with the laws and statutes of the State of Illinois in such case made and provided, and the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby directed to cause this Ordinance to be published at least once in a newspaper published within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago and to incur the necessary expenses therefor.


*Section 3.* This Ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:

*Helen Shields-Wright*  
Head Assistant Attorney

*Ronald M. Hill*  
General Counsel

Approved:

  
President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago

## BOND REDEMPTION & INTEREST FUND

### 2016 Tax Levy for Payment of Outstanding Bonds

BOND ISSUE	ISSUE DATED	INTEREST PAYMENT DATES	INTEREST	PRINCIPAL	RESERVE FOR UNCOLLECTED TAX (A)	GROSS LEVY
<b>Capital Improvement Bonds - Series:</b>						
August 2009 Limited Tax	08-26-09	6/1/17- 12/1/17	\$ 34,320,000	\$ -	\$ 1,244,767	\$ 35,564,767
July 2011 Limited Tax Series A	07-21-11	6/1/17- 12/1/17	13,407,843	6,115,000	708,082	20,230,925
July 2011 Unlim Tax Series C	07-21-11	6/1/17- 12/1/17	2,400,732	4,955,000	266,788	7,622,520
2014 Unlim Tax Series A	01-06-15	6/1/17- 12/1/17	5,000,000	-	181,347	5,181,347
2014 Alt Rev Unlim Tax Series B	01-06-15	6/1/17- 12/1/17	2,334,250	935,000	118,574	3,387,824
2014 Limited Tax Series C	01-06-15	6/1/17- 12/1/17	3,692,000	11,305,000	543,933	15,540,933
<b>State Revolving Funds Bonds - Series:</b>						
92U SRF L170877	07-01-00	7/1/17- 1/1/18	8,532	682,573	25,066	716,171
94R SRF L170820	07-01-99	7/1/17- 1/1/18	10,492	839,381	30,824	880,697
94V SRF L171150	01-01-03	7/1/17- 1/1/18	117,243	2,039,963	78,241	2,235,447
97AA SRF L170822	01-08-99	7/1/17- 1/1/18	253,701	3,010,079	118,375	3,382,155
97BB SRF L171151	10-24-00	7/1/17- 1/1/18	66,512	588,708	23,764	678,984
97CC SRF L172031	04-27-02	7/1/17- 1/1/18	321,120	2,060,580	86,383	2,468,083
97DD SRF L171152	08-01-03	7/1/17- 1/1/18	171,363	867,686	37,686	1,076,735
01A SRF L172126	01-15-04	7/1/17- 1/1/18	681,641	3,115,030	137,703	3,934,374
01B SRF L172127	01-15-05	7/1/17- 1/1/18	753,187	3,101,961	139,824	3,994,972
01C SRF L172128	06-27-08	7/1/17- 1/1/18	730,168	2,664,122	123,109	3,517,399
04A SRF L172485	06-30-08	7/1/17- 1/1/18	354,949	1,223,959	57,266	1,636,174
04B SRF L172488	06-30-08	7/1/17- 1/1/18	449,736	1,394,736	66,898	1,911,370
04C SRF L172493	06-05-07	7/1/17- 1/1/18	40,465	132,185	6,262	178,912
04D SRF L172494	06-05-07	7/1/17- 1/1/18	38,805	126,762	6,005	171,572
04E SRF L172495	06-30-08	7/1/17- 1/1/18	130,958	386,324	18,762	536,044
04F SRF L172496	12-01-09	7/1/17- 1/1/18	-	198,734	7,208	205,942
04G SRF L172611	06-05-07	7/1/17- 1/1/18	63,040	205,929	9,755	278,724
04H SRF L172849	02-27-09	7/1/17- 1/1/18	960,383	2,577,060	128,301	3,665,744
07A SRF L172625	06-16-10	7/1/17- 1/1/18	752,154	2,018,303	100,483	2,870,940
07B SRF L172850	07-01-10	7/1/17- 1/1/18	518,973	1,331,300	67,108	1,917,381
07C SRF L172770	02-01-11	7/1/17- 1/1/18	-	3,333,333	120,898	3,454,231
07D SRF L172763	06-09-10	7/1/17- 1/1/18	171,558	460,353	22,919	654,830
09A SRF L173074	07-01-13	7/1/17- 1/1/18	463,620	2,215,287	97,162	2,776,069
09B SRF L173064	10-27-09	7/1/17- 1/1/18	-	382,890	13,887	396,777
09C SRF L173063	08-26-11	7/1/17- 1/1/18	-	111,957	4,061	116,018
09D SRF L174558	07-01-14	7/1/17- 1/1/18	761,617	1,696,667	89,161	2,547,445
09E SRF L173005	08-26-11	7/1/17- 1/1/18	369,778	1,909,218	82,658	2,361,654
09F SRF L174557	06-09-10	7/1/17- 1/1/18	667,367	2,976,923	132,176	3,776,466
09G SRF L173075	06-09-10	7/1/17- 1/1/18	324,208	1,396,857	62,422	1,783,487
09H SRF L173800	06-09-10	7/1/17- 1/1/18	-	36,793	1,334	38,127
09I SRF L174675	06-21-11	7/1/17- 1/1/18	149,384	531,778	24,705	705,867
12A SRF L174710	07-01-14	7/1/17- 1/1/18	151,928	326,366	17,347	495,641
12B SRF L174712	07-01-14	7/1/17- 1/1/18	126,473	271,683	14,441	412,597
12C SRF L174621	07-01-15	7/1/17- 1/1/18	710,000	-	25,751	735,751
12D SRF L174988	07-01-14	7/1/17- 1/1/18	481,445	1,146,809	59,056	1,687,310
12E SRF L174709	07-01-14	7/1/17- 1/1/18	95,971	234,124	11,972	342,067
12F SRF L174989	07-01-14	7/1/17- 1/1/18	602,378	1,434,873	73,890	2,111,141
12H SRF L174924	07-01-14	7/1/17- 1/1/18	336,971	802,670	41,334	1,180,975
12I SRF L175222	07-01-14	7/1/17- 1/1/18	265,000	-	9,611	274,611
12J SRF L175172	07-01-14	7/1/17- 1/1/18	40,406	95,658	5,259	140,999

**BOND REDEMPTION & INTEREST FUND****2016 Tax Levy for Payment of Outstanding Bonds (continued)**

<b>BOND ISSUE</b>	<b>ISSUE DATED</b>	<b>INTEREST PAYMENT DATES</b>	<b>INTEREST</b>	<b>PRINCIPAL</b>	<b>RESERVE FOR UNCOLLECTED TAX (A)</b>	<b>GROSS LEVY</b>
<b>State Revolving Funds Bonds - Series:</b>						
12K SRF L174925	07-01-15	7/1/17- 1/1/18	775,000	-	28,109	803,109
12L SRF L175161	07-01-15	7/1/17- 1/1/18	1,715,000	-	62,202	1,777,202
12N SRF L175164	07-01-15	7/1/17- 1/1/18	150,000	-	5,440	155,440
12O SRF L175166	07-01-14	7/1/17- 1/1/18	33,171	75,978	3,959	113,108
14A SRF L173076			4,180,000	-	151,606	4,331,606
14B SRF L175171			145,000	-	5,259	150,259
14C SRF L174559			870,000	-	31,554	901,554
<b>Refunding Bonds - Series:</b>						
May 2006 Unlimited Tax	05-01-06	6/1/17- 12/1/17	17,330,000	-	628,549	17,958,549
May 2006 Limited Tax	05-01-06	6/1/17- 12/1/17	2,539,500	-	92,106	2,631,606
March 2007 Unlimited Tax A	03-21-07	6/1/17- 12/1/17	6,439,750	17,955,000	884,784	25,279,534
March 2007 Unlimited Tax B	03-21-07	6/1/17- 12/1/17	4,821,863	-	174,886	4,996,749
March 2007 Limited Tax C	03-21-07	6/1/17- 12/1/17	5,347,650	-	193,956	5,541,606
2014 Limited Tax Series D	01-06-15	6/1/17- 12/1/17	3,526,750	11,425,000	542,291	15,494,041
<b>TOTAL</b>			<b>\$ 121,170,035</b>	<b>\$ 100,695,592</b>	<b>\$ 8,047,259</b>	<b>\$ 229,912,562</b>

(A) Reserve at 3.5%

**ORDINANCE NUMBER O15-007**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
UPON ALL TAXABLE PROPERTY WITHIN THE TERRITORIAL LIMITS OF  
THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO  
AS SAID TERRITORIAL LIMITS EXIST ON JANUARY 1, 2016  
FOR THE PURPOSE OF PROVIDING REVENUES  
FOR THE RESERVE CLAIM FUND**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* That there is hereby levied the sum of \$5,800,000 upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago as said territorial limits exist on January 1, 2016, for the fiscal year ending December 31, 2016, for the purpose of providing revenues for establishing and maintaining a reserve fund for the payment of claims, awards, losses, judgments, liabilities, settlements, or demands and associated attorney’s fees and costs that might be imposed on or incurred by such Metropolitan Water Reclamation District in matters including, but not limited to, the Worker’s Compensation Act or the Workmen’s Occupational Diseases Act, any claim in tort, any claim of deprivation of any constitutional or statutory right or protection, for all expenses, fees, and costs, both direct and in support of the repair or replacement of any property owned by such sanitary district which is damaged by fire, flood, explosion, vandalism or any other peril, natural or manmade.

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the amount above set forth to be raised by taxation in the year 2016 and to file a certified copy of the Ordinance with the said County Clerk of Cook County and said County Clerk of Cook County aforesaid, is hereby directed to cause the aforesaid amount of money to be extended upon and against the taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, all in accordance with the laws and statutes of the State of Illinois in such case made and provided, and the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby directed to cause this Ordinance to be published at least once in a newspaper published within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago and to incur the necessary expenses therefor.

*Section 3.* This Ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:

  
Helen Shields-Wright  
Head Assistant Attorney

  
Ronald M. Hill  
General Counsel

Approved:

  
President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago



**ORDINANCE NUMBER O15-008**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2016 AND ENDING DECEMBER 31, 2016  
UPON ALL TAXABLE PROPERTY WITHIN THE TERRITORIAL LIMITS OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO  
AS SAID TERRITORIAL LIMITS EXIST ON JANUARY 1, 2016  
FOR THE PURPOSE OF PROVIDING REVENUES  
FOR THE STORMWATER MANAGEMENT FUND**

**BE IT ORDAINED** by the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago:

*Section 1.* That there be and is hereby levied upon all taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, for the fiscal year ending December 31, 2016, to provide revenue for the development, design, planning and construction, operation, and maintenance of regional and local stormwater facilities provided for in the countywide stormwater management plan and the acquisition of real property in furtherance of its regional and local stormwater management activities, and for payment of principal and interest on bonds issued for stormwater projects as authorized under the District’s Act, “the sum of \$34,250,000 which includes the sum of \$1,198,750 as a reserve for loss in collection of taxes”.

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the amount above set forth to be raised by taxation in the year 2016 and to file a certified copy of the Ordinance with the said County Clerk of Cook County, and said County Clerk of Cook County aforesaid, is hereby directed to cause the aforesaid amount of money to be extended upon and against the taxable property within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago, as said territorial limits exist on January 1, 2016, all in accordance with the laws and statutes of the State of Illinois in such case made and provided, and the Clerk of the Metropolitan Water Reclamation District of Greater Chicago is hereby directed to cause this Ordinance to be published at least once in a newspaper published within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago and to incur the necessary expenses therefor.

*Section 3.* This Ordinance shall take effect January 1, 2016.

Approved as to Form and Legality:

  
Helen Shields-Wright  
Head Assistant Attorney

  
Ronald M. Hill  
General Counsel

Approved:

  
President,  
Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago

# SECTION IX

## APPENDIX

This section explains the structure of the District's compensation plan and financial and technical terminology contained in the District's Budget. It also details the various awards the District has received for its accomplishments over the last 42 years.

Compensation Plan Narrative .....	547
Salary Schedules .....	548
User Charge Rates/Property Tax Levies and Collections .....	549
Property Tax Base .....	550
Awards and Achievements Recognition .....	552
Financial Glossary .....	560
Glossary of Technical Terms .....	564
Acronyms.....	566

## COMPENSATION PLAN NARRATIVE

In accordance with Illinois State Statute, Chapter 70, Section 2605/4.2, a Department of Human Resources for the District is created, the executive officer of which is the Director of Human Resources. The Director shall, with the consent and approval of the Civil Service Board of the District, classify all non-exempt and non-represented positions in the District for the purpose of establishing pay grades.

For the purpose of establishing uniformity of pay and title for positions, the Director prescribes the minimum and maximum pay for each grade and title.

While maintaining internal balance as established by the relative evaluation of classes, the compensation for non-represented and non-exempt positions shall be at least equal to the median compensation provided by other employers for similar work in the Metropolitan Chicago labor market or other appropriate labor market. Compensation for non-represented positions is defined in the Salary Schedule for Technical, Administrative, and Managerial (HP) Employees.

Salary advancement within salary ranges for non-represented positions and certain exempt positions is provided to recognize growth in the job, and the rate of advance shall be based primarily upon the quality of performance. Salary advancement stages are defined as "steps" within the salary schedules for each grade of position.

Employees in positions covered by collective bargaining agreements shall be compensated on the basis of negotiations between unions representing such employees and the management of the District. The rates paid to all such employees shall be adjusted in accordance with changes caused by the duly prescribed negotiations, provided that any change in rates may be made applicable at the beginning of the next budget year following the date of change in the rate, in the event necessary funds are not available. Compensation for these positions is defined in the Salary Schedule for Labor Trades (LT).

Compensation for exempt positions is established by the Board of Commissioners, with the exception of their own compensation, which is established by Illinois Compiled Statutes. Compensation for exempt positions is defined in the Salary Schedule for Exempt (EX) Employees.

## SALARY SCHEDULES (bi-weekly rates)

### Exempt (EX)

EX01	\$2,884.62	EX09	\$576.92	EX17	\$8,866.70
EX02	\$2,692.31	EX10	\$8,866.70	EX18	\$4,987.54
EX03	\$6,725.03	EX11	\$9,975.04	EX19	None
EX04	\$2,453.51 to \$3,818.95	EX12	\$9,975.04	EX20	None
EX05	\$8,866.70	EX13	\$8,866.70	EX21	\$2,884.62
EX06	\$2,453.51 to \$3,818.95	EX14	\$9,975.04	EX22	\$3,076.92
EX07	\$11,083.43	EX15	\$9,975.04	EX23	\$3,651.91
EX08	\$8,866.70	EX16	\$673.08	EX24	\$3,651.91

### Technical, Administrative, and Managerial (HP)

HP07	\$1,274.76 to \$1,856.60	HP13	\$2,453.51 to \$3,818.95	HP19	\$4,570.94 to \$6,501.51
HP08	\$1,387.39 to \$2,044.02	HP14	\$2,638.09 to \$4,089.72	HP20	\$4,840.53 to \$7,339.00
HP09	\$1,522.49 to \$2,269.05	HP15	\$2,895.48 to \$4,410.90	HP21	\$5,307.62 to \$7,963.82
HP10	\$1,702.68 to \$2,569.04	HP16	\$3,213.38 to \$4,807.60	HP22	\$5,858.77 to \$8,701.11
HP11	\$1,912.96 to \$2,919.01	HP17	\$3,586.82 to \$5,273.60	HP23	\$6,514.40 to \$9,476.28
HP12	\$2,168.22 to \$3,344.00	HP18	\$4,025.92 to \$5,821.45	TM01	\$1,040.00

### Labor Trades (LT)

NR1541	\$2,989.00	NR6272	\$4,060.80	PR5153	\$3,548.00	PR5973	\$3,536.00	PR7573	\$3,628.00
NR1835	\$2,682.40	NR6275	\$4,473.60	PR5155	\$3,708.00	PR5975	\$3,696.00	PR7575	\$3,828.00
NR1853	\$3,028.00	NR6441	\$3,228.80	PR5159	\$3,748.00	PR5989	\$3,816.00	PR7579	\$3,908.00
NR1857	\$3,228.80	NR6810	\$3,165.60	PR5353	\$3,502.40	PR6453	\$3,848.00	PR7743	\$3,876.00
NR2483	\$3,028.00	NR6831	\$3,716.00	PR5553	\$3,444.00	PR6459	\$4,168.00	PR7773	\$3,760.00
NR3641	\$2,170.40	NR6832	\$3,850.40	PR5555	\$3,659.20	PR6473	\$2,854.40	PR7775	\$4,000.00
NR3642	\$2,374.40	NR7393	\$4,060.80	PR5753	\$3,780.00	PR6479	\$3,114.40	PR7779	\$4,160.00
NR5369	\$3,044.00	NR7394	\$4,830.40	PR5755	\$3,940.00	PR7343	\$3,600.00	PR1025	\$1,995.20 to \$3,265.60
NR6210	\$3,331.20	NR7399	\$3,291.20	PR5759	\$4,020.00	PR7347	\$4,080.00	TR3509	\$1,978.56
NR6232	\$3,498.40	NR8331	\$3,228.80	PR5933	\$3,600.00	PR7349	\$3,840.00		
NR6233	\$3,672.80	NR8650	\$3,028.00	PR5935	\$3,880.00	PR7423	\$3,800.00		
NR6251	\$4,261.60	NR8651	\$2,883.20	PR5953	\$3,378.40	PR7424	\$4,200.00		
NR6271	\$4,290.40	NR8652	\$2,010.40	PR5955	\$3,682.40	PR7425	\$4,520.00		

The Position Analysis for each Department shows the Pay Plan and Grade for each budgeted position. The Salary Schedules above display the salary ranges associated with each Pay Plan and Grade. For example, in Section 922 of the Stickney Service Area Division of the Maintenance & Operations Department, the Principal Mechanical Engineer position is associated with the HP (Technical, Administrative, and Managerial) Pay Plan at Grade 18. By looking up HP18 in the second table above, the salary range for this or any other title at that Pay Plan and Grade is \$4,025.92 to \$5,821.45 bi-weekly. By multiplying those rates by 26, it can be determined that the annual salary range for such positions is \$104,673.92 to \$151,357.70. For the HP and some EX Pay Plans, the actual salary earned in a position is dependent on the "step" of the incumbent occupying the position. Where applicable, there are nine steps in each Pay Plan and Grade. Which step an incumbent is at is determined by a combination of the incumbent's longevity in the title and at the District. Incumbents with the greatest longevity factors will be at the highest steps, assuming satisfactory job performance.

## USER CHARGE RATES

Year	Large Commercial/Industrial Users				O, M&R Factor	Tax-Exempt Users			Revenues in \$ millions
	Flow per million gallons	BOD <sub>5</sub> per 1,000 pounds	SS per 1,000 pounds			Flow per million gallons	BOD <sub>5</sub> per 1,000 pounds	SS per 1,000 pounds	
2016	\$ 255.02	\$ 234.95	\$ 148.33	34.4%	\$ 255.02	\$ 234.95	\$ 148.33	\$ 49.0	
2015	250.51	240.49	154.08	39.1%	250.51	240.49	154.08	51.3	
2014	246.08	245.75	159.72	43.5%	246.08	245.75	159.72	45.0	
2013	241.73	250.76	165.25	42.4%	245.18	254.34	167.60	53.7	
2012	256.48	259.22	195.95	48.6%	263.48	266.27	201.24	77.6	
2011	243.99	247.48	191.18	47.3%	250.31	253.89	199.21	48.3	
2010	262.44	270.68	200.33	55.7%	269.25	277.70	205.33	48.7	
2009	229.37	231.90	174.25	50.4%	235.96	238.56	179.25	45.0	
2008	223.72	229.23	178.11	49.9%	230.29	235.98	183.35	54.4	
2007	224.87	228.39	173.01	50.4%	231.07	234.69	177.77	53.6	
2006	225.80	239.79	183.41	56.8%	235.40	249.99	191.20	53.6	
2005	210.91	226.64	174.33	56.8%	219.30	235.65	181.26	44.1	
2004	202.39	215.86	168.16	56.9%	209.31	223.25	173.92	50.8	
2003	217.74	227.39	182.75	62.4%	223.29	233.19	187.41	50.5	

BOD<sub>5</sub> Biochemical Oxygen Demand based on standard 5-day test

SS Suspended Solids

O, M&R Portion of real estate taxes credited to users for the District's Operations, Maintenance, and Replacement costs

User charges are calculated based on sewer discharge volumes and representative sampling of the discharge for concentrations of BOD<sub>5</sub> and suspended solids. Loadings in thousands of pounds annually are extrapolated from the volume and concentration measurements, with the rates listed above applied. Users are given a credit for real estate taxes paid to the District multiplied by the O, M&R factor. Users owing more than \$12,000 annually pay monthly estimates.

## PROPERTY TAX LEVIES AND COLLECTIONS

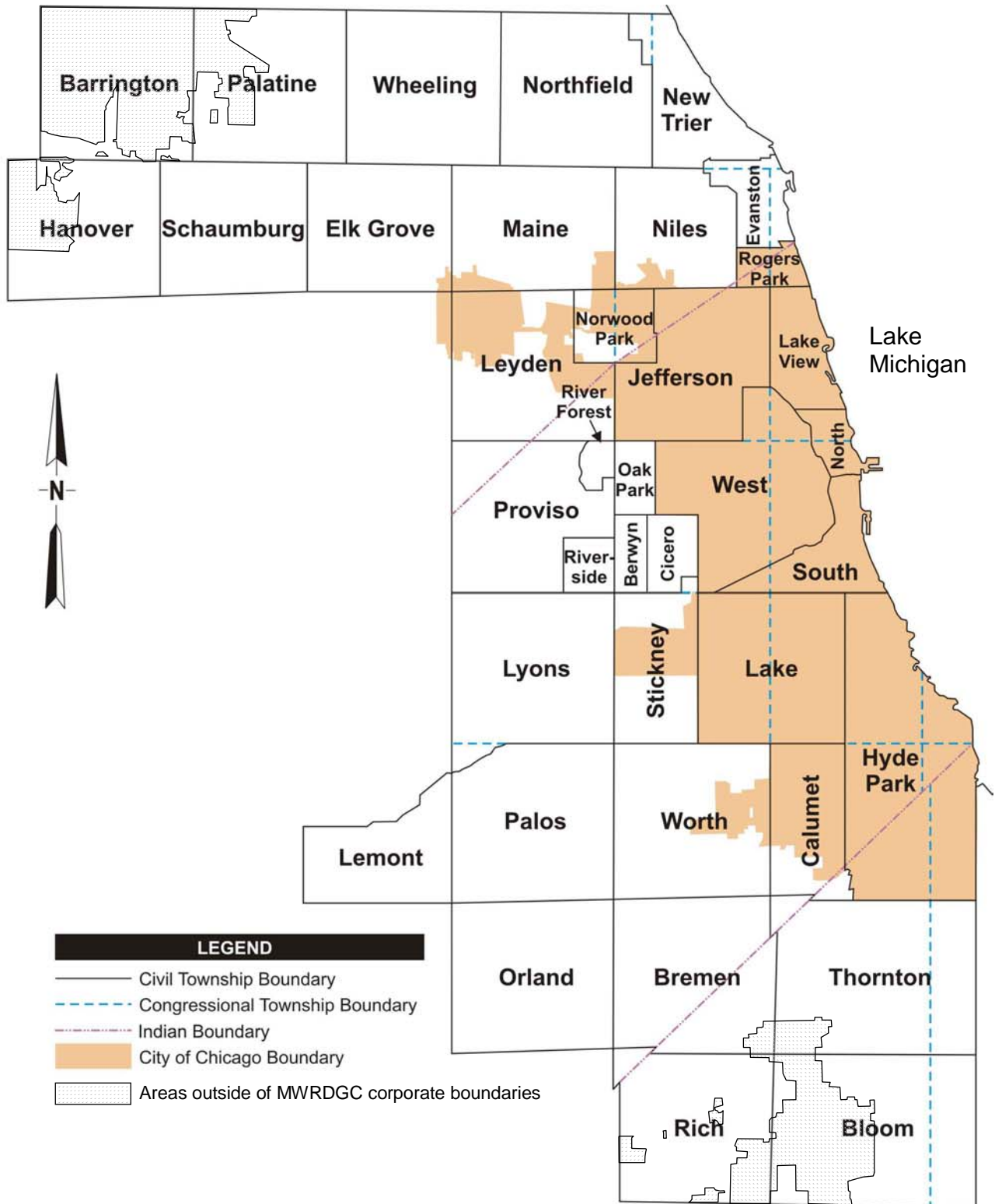
(in thousands of dollars)

Fiscal Year Ended Dec. 31	Taxes Levied for the Fiscal Year	Collected within the First Year			Collections in Subsequent Years	Total Collections to Date	
		Amount	Percentage of Levy	Final Due Date		Amount	Percentage of Levy
2014	540,250	-	-	08/01/15	-	-	-
2013	515,590	497,452	96.5	08/01/14	-	497,452	96.5
2012	493,673	476,881	96.6	08/01/13	15,225	492,106	99.7
2011	476,955	460,618	96.6	08/01/12	9,253	469,871	98.5
2010	457,356	435,009	95.1	10/01/11	14,390	449,399	98.3
2009	455,361	383,612	84.2	12/13/10	72,531	456,143	100.2
2008	428,645	400,048	93.3	12/01/09	16,277	416,325	97.1
2007	410,208	390,440	95.2	11/03/08	9,528	399,968	97.5
2006	401,771	353,566	88.0	12/03/07	35,228	388,794	96.8
2005	411,348	398,343	96.8	09/01/06	1,864	400,207	97.3

Note: The source for Property Tax Levies and Collection is the Comprehensive Annual Financial Report of the Metropolitan Water Reclamation District of Greater Chicago for the Year Ended December 31, 2014.

# PROPERTY TAX BASE

The Metropolitan Water Reclamation District of Greater Chicago receives the majority of its income from local real estate taxes. Taxes are collected by the Cook County Treasurer based on property values established by the Cook County Assessor. North, South and City of Chicago townships are reassessed on a three-year rotation.



The underlying county township map is derived from the Illinois Secretary of State Archives: <http://www.cyberdriveillinois.com/departments/archives/IRAD/cook.html>

# PROPERTY TAX BASE

## MWRDGC Equalized Assessed Valuation by Township 2009 - 2014

(in \$ millions)

Township	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Average Annual Change</u>
<b>Suburban</b>							
Barrington	\$ 447	\$ 457	\$ 389	\$ 353	\$ 325	\$ 328	-26.67%
Berwyn	915	935	753	688	647	596	-38.22%
Bloom	701	698	551	503	474	450	-38.99%
Bremen	2,190	2,204	1,853	1,689	1,566	1,469	-35.59%
Calumet	247	244	202	184	176	177	-30.11%
Cicero	895	914	678	625	586	555	-41.08%
Elk Grove	4,790	4,456	3,996	3,652	3,128	3,184	-38.59%
Evanston	3,306	3,042	2,727	2,515	2,202	2,245	-33.42%
Hanover	2,193	2,018	1,808	1,647	1,406	1,426	-38.62%
Lemont	1,012	1,001	841	778	733	715	-29.54%
Lyden	3,468	3,193	2,891	2,655	2,331	2,332	-37.34%
Lyons	4,826	4,857	3,961	3,680	3,465	3,469	-27.72%
Maine	5,714	5,349	4,881	4,531	3,729	3,778	-37.94%
New Trier	6,349	5,507	4,947	4,595	4,151	4,201	-36.94%
Niles	5,664	5,246	4,696	4,333	3,810	3,886	-35.17%
Northfield	7,048	6,339	5,676	5,290	4,722	4,787	-35.52%
Norwood Park	1,085	1,035	929	859	726	745	-34.68%
Oak Park	1,844	1,851	1,597	1,470	1,369	1,383	-23.83%
Orland	3,919	3,915	3,366	3,098	2,921	2,829	-28.16%
Palatine	3,950	3,559	3,240	3,001	2,597	2,628	-36.81%
Palos	1,924	1,944	1,583	1,459	1,369	1,330	-31.85%
Proviso	3,811	3,811	3,130	2,893	2,723	2,652	-32.22%
Rich	1,558	1,531	1,241	1,138	1,044	988	-41.14%
River Forest	641	704	573	529	493	488	-20.19%
Riverside	692	700	592	541	505	489	-31.42%
Schaumburg	6,047	5,379	4,835	4,460	3,949	3,999	-38.42%
Stickney	1,408	1,377	1,139	1,049	972	935	-37.14%
Thornton	2,646	2,584	2,064	1,867	1,718	1,662	-41.68%
Wheeling	6,391	5,805	5,289	4,875	4,185	4,253	-36.97%
Worth	4,198	4,178	3,497	3,194	3,011	2,847	-34.40%
<b>City of Chicago</b>							
Hyde Park	5,038	4,884	4,453	3,748	3,576	3,648	-27.90%
Jefferson	14,516	14,363	13,317	11,060	10,529	10,741	-26.52%
Lake	8,552	8,593	8,122	6,488	6,227	6,364	-25.03%
Lake View	12,140	11,730	10,389	8,886	8,416	8,654	-28.21%
North Chicago	15,949	15,056	13,717	12,745	12,079	12,509	-20.88%
Rogers Park	2,040	1,984	1,750	1,391	1,299	1,318	-37.57%
South Chicago	15,561	15,001	13,717	12,616	12,050	13,277	-10.90%
West Chicago	10,791	10,478	9,658	8,317	8,188	8,398	-21.80%
Total EAV	174,468	166,918	149,048	133,398	123,400	125,736	-29.16%

Shaded figures indicate assessed values following triennial reassessments.

**AWARDS AND ACHIEVEMENTS RECOGNITION**

Academy of Interactive and Visual Arts	2014	<i>The Interactive Multimedia Communicator Award for "National Save for Retirement Week Campaign"</i>
American Academy of Environmental Engineers	2012	<i>Excellence in Environmental Engineering Grand Prize for the University Research for Chicago Health, Environmental Exposure, and Recreation Study (CHEERS)</i>
	2010	<i>Excellence in Environmental Engineering Honor Award in Research for the Microbial Risk Assessment for Recreational Use of the Chicago Area Waterways</i>
	1995	<i>Honor Award for the Sidestream Elevated Pool Aeration Stations</i>
	1989	<i>Grand Prize Award for Planning the Sidestream Elevated Pool Aeration Stations</i>
American Council of Engineering Companies of Illinois	2010	<i>Special Achievement Award for the Calumet Isolation Chamber</i>
American Public Works Association	2012	<i>Chicago City Branch: Project of the Year in the Environmental \$25 to \$75 Million Category for the design of the Calumet Central Boiler Facility</i>
		<i>Chicago Metro Chapter: Project of the Year in the Environmental \$25 to \$75 Million Category for the design of the Calumet Central Boiler Facility</i>
		<i>Chicago Metro Chapter: Public Works Project Excellence Award for the design of the Calumet Central Boiler Facility</i>
	2003	<i>Environmental Project of the Year, Over \$10 Million Category, for the Thornton Transitional Reservoir</i>
	2000	<i>Reversal of the Chicago River, one of the "Top Ten Public Works Projects of the Century"</i>
		<i>Tunnel and Reservoir Plan Phase I, one of the "Top Ten Chicago Area Public Works Projects of the 20th Century"</i>
	1995	<i>The American Public Works Association Award for the District's Innovative Energy Audit and Control Program</i>
	1981	<i>Outstanding Public Works Project of the Year for the Tunnel and Reservoir Plan</i>
American Rivers, Incorporated	1994	<i>Scientific or Engineering Breakthrough Award for the Calumet River System Sidestream Elevated Pool Aeration Project</i>
American Society of Civil Engineers - Illinois Section	2003	<i>Outstanding Civil Engineering Achievement of the Year Award, Over \$5 Million Category, for the Thornton Transitional Reservoir</i>
	2000	<i>District's wastewater treatment system was recognized as representing one of civil engineering's "Monuments of the Millennium" of the 20th century</i>
	1998	<i>Outstanding Civil Engineering Achievement Award for the O'Hare-CUP Reservoir Project</i>
	1996	<i>Public Sector Employer Recognition Award</i>
	1994	<i>Outstanding Civil Engineering Achievement received for Sidestream Elevated Pool Aeration Project</i>
	1986	<i>Outstanding Civil Engineering Achievement received for Tunnel and Reservoir Plan</i>
		<i>Outstanding Civil Engineering Achievement of Past 100 Years in Illinois for the Tunnel and Reservoir Plan</i>



**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

American Society of Civil Engineers - Illinois Section (continued)	1985	<i>Tunnel and Reservoir Plan Mainstream System, Phase 1, the "Outstanding Civil Engineering Achievement of 1985"</i>
	1974	<i>Special Civil Engineering Achievement Award received for the Prairie Plan in Fulton County</i>
Black Contractors United	1994	<i>Agency of the Year for Affirmative Action Program</i>
Center for Active Design	2014	<i>Excellence Award (Honorable Mention) for the Space to Grow program, a collaboration between the District, Chicago Public School Systems, and the City of Chicago Department of Water Management. Space to Grow was the only submission from Chicago to be recognized. Fellow award recipients span the globe</i>
Chatham Business Association	2015	<i>Partner Award</i>
Chicago Federation of Labor - AFL CIO	2001	<i>Michael J. Bruton Workplace Safety Award</i>
Chicago Public Schools	2011-2010	<i>Certificate of Appreciation for providing outstanding work-based learning experiences for Chicago Public School Career and Technical Education students through participation in the Work-Based Learning Program</i>
Chicago Southland Convention and Visitor Bureau	2009	<i>Hospitality Award of Merit for outstanding work on behalf of the Calumet-Sag Trail</i>
Chicago Wilderness and United States Environmental Protection Agency	2007	<i>Conservation and Native Landscaping Award for Native Prairie Restorations at the Lemont and North Side Water Reclamation Plants</i>
City of Chicago	2000	<i>Best Practices in expanding employment opportunities for people with disabilities</i>
Conservation Foundation & DuPage River Coalition	2002	<i>DuPage River Clean Water Award</i>
	2006-2005	<i>Clean Water Award for Hanover Park Water Reclamation Plant</i>
Engineering News Record	1999	<i>Construction of the Chicago Sanitary and Ship Canal in 1900 and Tunnel and Reservoir Plan in 1985 named as two of the top 125 engineering projects of the past 125 years</i>
Federation of Women Contractors	2012	<i>Outstanding Program of the Year Award for the MWRD Affirmative Action Program</i>
	2007	<i>Advocacy Award for Affirmative Action Program</i>
Government Finance Officers Association of the United States and Canada	2015-1985	<i>Budget document recognized for Distinguished Budget Presentation</i>
	2015	<i>Budget document received outstanding in the overall category of Communications Device</i>
	2014-2007	<i>Certificate of Achievement for Excellence in Financial Reporting for the MWRD Retiree Health Care Trust - Comprehensive Annual Financial Report for Fiscal Years 2007 through 2014</i>
	2014-1975	<i>Certificate of Achievement for Excellence in Financial Reporting - Comprehensive Annual Financial Report for Fiscal Years 1975 through 2014</i>
	2014-1993	<i>Certificate of Achievement for Excellence in Financial Reporting for the MWRD Retirement Fund - Comprehensive Annual Financial Report for Fiscal Years 1993 through 2014</i>
	1999, 1996-1993	<i>Outstanding Achievement in Popular Annual Financial Reporting</i>

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

Government Finance Officers Association of the United States and Canada (continued)	1998-1988	<i>Budget document recognized as "Especially Notable" or "Outstanding" in various categories</i>
Illinois Association for Floodplain and Stormwater Management	2014	<i>Sustainability Award for the Space to Grow program for the redevelopment of four school properties using a variety of Best Management Practices for creating green space</i>
Illinois Engineering Council	2006	<i>Outstanding Engineering Achievement Award for Tunnel and Reservoir Plan</i>
Illinois Environmental Protection Agency	1994, 1983, 1981	<i>Certificate of Excellence Award for Wastewater Safety for James C. Kirie Water Reclamation Plant</i>
	1993-1992	<i>Certificate of Excellence Award for Safety received by various treatment plants</i>
	1992-1987	<i>Certificate of Excellence Award for Wastewater Safety received by various treatment plants</i>
	1991-1988	<i>Letters of Commendation of Excellence on Maintenance, Operation, and Compliance for various treatment plants</i>
	1988	<i>Hanover Park Treatment Plant named Plant of the Year</i>
Illinois Safety Council and Greater Chicago Safety Council	2007	<i>Safety and Health Outstanding Safety Performance Award for North Side and Calumet Water Reclamation Plants</i>  <i>Fleet and Transportation Outstanding Safety Performance Award - District-wide</i>
	2006	<i>Safety and Health Outstanding Safety Performance Award for Calumet and Stickney Water Reclamation Plants</i>
	2005	<i>Safe Driving Award - District-wide, Fulton County Prairie Plan, Main Office Building, Main Office Building Annex, Lockport Powerhouse, John E. Egan, Hanover Park, James C. Kirie, Lemont, North Side, and Stickney Water Reclamation Plants</i>  <i>Health and Safety Award for North Side Water Reclamation Plant</i>
	2004, 2001	<i>Transportation Award for Outstanding Safety Performance - District-wide</i>
	2004	<i>Health and Safety Award - Fulton County Prairie Plan, James C. Kirie Water Reclamation Plant, Lawndale Avenue Solids Management Area, Racine Avenue Pumping Station, Main Office Building Annex, Lemont, North Side, and Stickney Water Reclamation Plants</i>  <i>Outstanding Safety Performance Award</i>
	2003	<i>Health and Safety Award - District-wide, Fulton County Prairie Plan, Lockport Powerhouse, Main Office Building, Main Office Building Annex, John E. Egan, Hanover Park, James C. Kirie, Lemont, and North Side Water Reclamation Plants</i>
	2003-2002 1996-1994	<i>Safety and Health Award for Outstanding Safety Performance</i>
	2002, 2000	<i>Outstanding Safety Performance in maintaining a safe and healthy working environment for its employees</i>
Illinois Society of Professional Engineers	2010	<i>Chicagoland Excellence in Engineering Project Award, Mechanical Division, for the Calumet Central Boiler Facility</i>
	1986	<i>MWRDGC System deemed one of the "Ten Outstanding Engineering Achievements in Illinois in the Last 100 Years"</i>
	1985	<i>Outstanding Engineering Accomplishment Award for the Tunnel and Reservoir Plan - Phase I System</i>

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

Illinois Society of Professional Engineers (continued)	1984	<i>Outstanding Engineering Accomplishment Award for Upper Salt Creek Watershed Floodwater Management Plan</i>
Illinois Water Environment Association	2013	<i>Debra Shore, Commissioner, is the recipient of the inaugural Public Official of the Year award. The Public Official of the Year award is presented to an elected or appointed public official that has made a documented significant contribution in the areas of clean water legislation, public policy, government service, or another area of public prominence that resulted in improvements to the water environment</i>
	2010	<i>Best Technical Presentation Award: Protozoa as Indicators of Activated Sludge Treatment System Conditions</i>
	2008	<i>Best Technical Presentation Award: Concerns about Endocrine Disrupting Chemicals in Land Applied Biosolids - Media Hype or Reality?</i>
International Personnel Management Association	1995	<i>Award for Excellence - Best personnel department in a medium-sized agency</i>
Lake Michigan Water Analysts	1995	<i>Award of Excellence</i>
Metropolitan Chicago Masonry Council	1981	<i>"Excellence in Masonry '80" for James C. Kirie Water Reclamation Plant Masonry Design</i>
National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewage Agencies	2014	<i>Excellence in Management Platinum Award for excellence in utility management and successful implementation of programs that address the range of management challenges facing public wastewater utilities in today's competitive environment</i>
		<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 23 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 18 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for ten consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for nine consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; and Platinum Award for seven consecutive years of full compliance for Hanover Park Water Reclamation Plant</i>
		<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan and Stickney Water Reclamation Plants</i>
	2013	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 22 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 17 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for nine consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for eight consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; and Platinum Award for six consecutive years of full compliance for Hanover Park Water Reclamation Plant</i>
		<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan and Stickney Water Reclamation Plants</i>
		<i>Richard Lanyon, former Executive Director, was inducted into the Hall of Fame and became the fifth former District executive in its ranks. The other four are former Director of M&amp;R Dr. Cecil Lue-Hing and former General Superintendents Bart Lynam, Hugh McMillan, and Ben Sosewitz</i>

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

National Association of Clean Water Agencies, formerly known as Association of Metropolitan Sewage Agencies (continued)	2012	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 21 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 16 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for eight consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for seven consecutive years of full compliance for North Side Water Reclamation Plant; and Platinum Award for five consecutive years of full compliance for Hanover Park Water Reclamation Plant</i></p>
		<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i></p>
	2011	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 20 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 15 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for seven consecutive years of full compliance for James C. Kirie Water Reclamation Plant; and Platinum Award for six consecutive years of full compliance for North Side Water Reclamation Plant</i></p>
		<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant</i></p>
		<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i></p>
	2010	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 19 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 14 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for six consecutive years of full compliance for John E. Egan and James C. Kirie Water Reclamation Plants; and Platinum Award for five consecutive years of full compliance for North Side Water Reclamation Plant</i></p>
		<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant</i></p>
	2009	<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park and North Side Water Reclamation Plants</i></p>
		<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for John E. Egan, James C. Kirie, Stickney, Calumet, and Lemont Water Reclamation Plants</i></p>
	2008	<p><i>National Environmental Achievement Award in Public Information and Education - Education Program category for "Mission Possible: Educating People to Promote Beneficial Use of Biosolids"</i></p>
		<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan, Hanover Park, James C. Kirie, and North Side Water Reclamation Plants</i></p>
		<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 17 consecutive years of full compliance for Calumet Water Reclamation Plant and Platinum Award for 12 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants</i></p>

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

National Association of Clean Water Agencies, formerly known as Association of Metropolitan Sewage Agencies (continued)	2007	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for Hanover Park Water Reclamation Plant</i>
		<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney, Calumet, and Lemont Water Reclamation Plants</i>
		<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for James C. Kirie, John E. Egan, and North Side Water Reclamation Plants</i>
	2006	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney, Calumet, and Lemont Water Reclamation Plants</i>
		<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for James C. Kirie, John E. Egan, Hanover Park, and North Side Water Reclamation Plants</i>
	2005-2003	<i>Certificate of Recognition for Excellence in Management for excellence in utility management and successful implementation of programs that address the range of management challenges facing public wastewater utilities in today's competitive environment</i>
	2005	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for North Side Water Reclamation Plant</i>
		<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, James C. Kirie, John E. Egan, Hanover Park, and Lemont Water Reclamation Plants</i>
	2004	<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, North Side, and Lemont Water Reclamation Plants</i>
		<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for James C. Kirie, John E. Egan, and Hanover Park Water Reclamation Plants</i>
2003	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, North Side, Hanover Park, John E. Egan, James C. Kirie, and Lemont Water Reclamation Plants</i>	
2002	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Hanover Park, North Side, and Calumet Water Reclamation Plants</i>	
	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan, James C. Kirie, Stickney, and Lemont Water Reclamation Plants</i>	
2001	<i>Research and Technology Award on "Biosolids as a Topsoil Substitute for the Germination and Growth of Turf, Forage, Prairie Grasses and Wild Flower Plants"</i>	
	<i>National Environmental Achievement Award for Excellence in Research and Technology</i>	
	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney and Lemont Water Reclamation Plants</i>	
	<i>Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i>	

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

National Association of Clean Water Agencies, formerly known as Association of Metropolitan Sewage Agencies (continued)	2001	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park, James C. Kirie, North Side, and Calumet Water Reclamation Plants</i>
	2000	<i>Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan and James C. Kirie Water Reclamation Plants</i>  <i>Award for Full Compliance with National Pollution Discharge System Permit Standards, Gold Award for Hanover Park, North Side, Stickney, Calumet, and Lemont Water Reclamation Plants</i>
	1999	<i>Gold Award for 100% Compliance with National Pollution Discharge System Permit Standards - Stickney, Calumet, North Side, Hanover Park, John E. Egan, James C. Kirie, and Lemont Water Reclamation Plants</i>  <i>National Environmental Achievement Award - Research and Technology for Optimization of Conventional Low Technology Sludge Process to Produce Class A Sludge</i>
	1998	<i>Gold Award for 100% Compliance with National Pollution Discharge System Permit Standards - Stickney, Calumet, North Side, Hanover Park, James C. Kirie, and Lemont Water Reclamation Plants</i>
	1997	<i>National Achievement Outstanding Operations Award to North Side Water Reclamation Plants for its Instrumentation Project</i>  <i>Platinum Award for 100% Compliance for more than five years with National Pollution Discharge System Permit Standards - Calumet and North Side Water Reclamation Plants</i>  <i>Gold Award for 100% Compliance with National Pollution Discharge System Permit Standards - James C. Kirie, Lemont, and Stickney Water Reclamation Plants</i>  <i>Silver Award for 99.9% Compliance with National Pollution Discharge System Permit Standards - John E. Egan and Hanover Park Water Reclamation Plants</i>
	1993	<i>Outstanding Operations Award for Sidestream Pool Aeration Stations</i>
National Association of Government Defined Contribution Administrators	2013, 2009	<i>Leadership Recognition Award of Distinction for National Save for Retirement Week Campaign</i>
National Biosolids Partnership (Water Environment Federation and National Association of Clean Water Agencies)	2008	<i>Certificate of Achievement for meeting all the requirements for admittance and certification to the National Biosolids Partnership Environmental Management System Program</i>
National Institute of Governmental Purchasing	2016-2003	<i>Outstanding Agency Accreditation Achievement Award</i>
National Physical Plan Alliance	2014	<i>Champion Award for the Space to Grow program for the collaborative efforts of the District, Chicago Public Schools, and the Department of Water Management in transforming Chicago's underused and outdated schoolyards into vibrant outdoor spaces that benefit students, communities and the environment</i>
National Purchasing Institute	2006-2005	<i>Achievement of Excellence in Procurement</i>
National Society of Professional Engineers	1985	<i>Outstanding Engineering Accomplishment Award for the Tunnel and Reservoir Plan - Phase I System</i>

**AWARDS AND ACHIEVEMENTS RECOGNITION (continued)**

National Society of Professional Engineers (continued)	1973	<i>Outstanding Engineering Achievements in the United States for the Brookfield LaGrange Rock Tunnel</i>
Structural Engineers Association of Illinois	1985	<i>Honor Award for the Structural-Geotechnical Design of the Tunnel and Reservoir Plan Mainstream Pumping Station</i>
The Consulting Engineers Council of Illinois	1985	<i>Engineering Excellence Honor Award for the Tunnel and Reservoir Plan Mainstream System Phase I</i>
United States Department of Defense	2003	<i>Certificate of Appreciation for Outstanding Achievement through Value Engineering</i>
United States Environmental Protection Agency	2008	<i>Exemplary Biosolids Management Award - First Place in the Public Acceptance Category</i>
	2004	<i>National Second Place Clean Water Act Recognition Award, James C. Kirie Water Reclamation Plant, for Outstanding Operations and Maintenance, Large Advanced Plant</i>
	2003	<i>Certificate of Recognition as a Clean Water Partner for the 21st Century</i>
	1998	<i>Designation of the Chicago River as "One of the 25 Outstanding Success Stories in the Nation on the Occasion of the 25th Anniversary of the Clean Water Act"</i>
	1996	<i>Award of Excellence for First Place in Category Five in the National Pretreatment Program</i>
	1995	<i>National Pretreatment Award recognizing excellence in the administration of the District's Pretreatment Program</i>
	1994	<i>National First Place Award recognizing the District's Outstanding Combined Sewer Overflow Control Program</i>
		<i>Award for Excellence in Maintenance and Operations Category in Region V as the Best Large Advanced Plant - James C. Kirie Water Reclamation Plant</i>
	1993	<i>Second Place for Outstanding Treatment Facility by Stickney and John E. Egan Water Reclamation Plants in the Area of Maintenance and Operations</i>
	1992	<i>North Side Treatment Plant named "Best in the Midwest" for Municipal Pollution Control</i>
		<i>Affirmative Action Program named "Best in the Country"</i>
	1991	<i>Special Award for Sustained Outstanding Long-Term Contribution to the Beneficial Use of Sludge at the Prairie Plan, Fulton County</i>
		<i>Award for the Affirmative Action Program</i>
U.S. Green Building Council	2014	<i>Emerald award for the Space to Grow Program in the Chapter Mission category recognizes the impact collaborations can have in building better, brighter, and healthier spaces to live, learn, and work</i>
Water Environment Federation	1992	<i>Recognition for the Solids Dewatering Prototype at the Stickney Water Reclamation Plant</i>
	1999-1989	<i>Award for Outstanding Achievement in Water Quality Improvement</i>
Water Environment Research Foundation	2013	<i>Award for Excellence in Innovation</i>
The Waterfront Center	2008	<i>Excellence on the Waterfront Award for Sidestream Elevated Pool Aeration Project</i>

## **FINANCIAL GLOSSARY**

**Abatement:** A complete or partial cancellation of tax levy imposed by a government.

**Accrual Basis of Accounting:** The basis of accounting under which transactions are recognized when they occur, regardless of the timing of cash receipts and disbursements.

**Accrued:** The accumulation of a receivable or payable during a given period even though no explicit transaction occurs within that period.

**Activities:** The major programs and projects performed by an organizational unit.

**Ad Valorem Tax:** A tax levied in proportion to the value of the property against which it is levied (also known as property tax).

**Appropriation:** An amount of money in the budget, authorized by the Board of Commissioners, for expenditure or obligation within organizational units for specific purposes. The Corporate Fund appropriates money for operating and general purposes. The Capital Improvements Bond Fund appropriates money for major improvements, plant expansion, sewers, etc.

**Assessed Valuation:** The value of all taxable property within the boundaries of the District as a basis for levying taxes (i.e., the property's value). See tax base.

**Assets:** Resources owned or held by the District which have monetary value.

**Balance Sheet:** A statement showing the financial position at a given time, disclosing assets, liabilities and fund balances.

**Balanced Budget:** Budgeted resources are equal to budgeted requirements.

**Bond:** A written promise to pay a specified sum of money (called the principal) at a specified date in the future, together with periodic interest at a specified rate. In the budget document, these payments are identified as debt service.

**Bond Redemption & Interest Fund (Debt Service Fund):** Established to account for annual property tax levies and certain other revenues, primarily interest on investments, which are used for the payment of principal and interest of general obligation bond issues.

**Budget:** A balanced financial plan for a given period of time, which includes appropriations and tax levy ordinances for the various sources of revenue which finance the various funds. The budget is not only a financial plan; it also serves as a policy guide, as an operations guide and as a communications medium.

**Capital Equipment:** Fixed assets such as vehicles, marine equipment, computers, furniture, technical instruments etc., which have a life expectancy of more than one year and a value over \$5,000.

**Capital Improvement Program:** The aggregate compilation of those individual construction projects identified as necessary for new facilities, or to rehabilitate, replace, or expand existing District facilities for the District to continue to meet its statutory service mandates in keeping with existing regulatory requirements.

**Capital Improvements Bond Fund:** Established to account for the proceeds of bonds authorized by the Illinois General Assembly, government grants and certain other revenues, all to be used in connection with improvements, replacements and additions to the District's facilities.

**Capital Outlay:** Expenditures which result in the acquisition of, or addition to, fixed assets, including land, buildings, improvements, machinery and equipment. Most equipment or machinery is included in the annual operating budget. Capital improvements such as acquisition of land, construction and engineering expenses are included in the Capital Budget.

**Capital Projects Fund:** Established to account for all resources, principally bond proceeds and construction grants, which are used for the acquisition or construction of capital facilities. Included in Capital Projects Funds are the Capital Improvements Bond Fund and the Construction Fund.

**Capitalized:** Capital outlays recorded as additions to the asset account, not as expenses.

**Carryover (Net Assets Applicable):** That resource balance left after subtracting Current Liabilities and Designated Fund Balances from Current Assets.

**Cash Basis of Accounting:** Revenues are not recorded until cash is received, and expenditures are recorded only when cash is disbursed.

**Cash Management:** A conscious effort to manage cash flows in such a way that interest and penalties paid are minimized and interest earned is maximized. Funds received are deposited on the day of receipt and invested as soon as the funds are available. The District maximizes the return on all funds available for investment without sacrifice of safety or necessary liquidity.

**Classification of Budgetary Code Accounts:** A manual published yearly which specifies the official code designations set forth in the annual budget for the purposes of accounting and expenditure control. Budgetary code listings for funds, organizations, locations, programs and line items are included.

**Commitment Items:** Expenditure classifications established to account for and budget the appropriations approved. Also referred to as Line Item.

**Construction Fund:** Established to account for an annual property tax levy and certain other revenues to be used in connection with improvements, replacements and additions to the District's facilities.



**FINANCIAL GLOSSARY (continued)**

**Construction Working Cash Fund:** Established to make temporary loans (repayable from the tax levy of the applicable year) to the Construction Fund, reducing the need for issuing short-term debt and the resultant interest expense.

**Consumer Price Index (CPI):** A measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

**Corporate Fund:** Established to account for an annual property tax levy and certain other revenues which are to be used for the operations and payments of general expenditures of the District not specifically chargeable to other funds.

**Corporate Working Cash Fund:** Established to make temporary loans (repayable from the tax levy of the applicable year) to the Corporate Fund, thus reducing the need for issuing short-term debt and the resultant interest expense.

**Crosshatch (#):** The crosshatch mark (#) indicates a restriction on the filling of a vacated position.

**Current Assets:** Cash plus assets that are expected to be converted to cash, sold or consumed during the next twelve months or as a part of the normal operating cycle.

**Current Liabilities:** Obligations that will become due within the next year or within the normal operating cycle, if longer than a year.

**Debt Service Fund:** See Bond Redemption & Interest Fund.

**Debt Service Requirements:** The amount of money required to pay interest and principal on outstanding debt.

**Delinquent Taxes:** Taxes remaining unpaid on and after the date to which a penalty for nonpayment is attached.

**Depreciation:** The allocation of the acquisition cost of plant, property and equipment to the particular periods or products that benefit from the utilization of the asset in service.

**Disbursements:** Payments made on obligations.

**Encumbrances:** Obligations incurred in the form of orders, contracts and similar items that will become payable when goods are delivered or services rendered.

**Equalization:** After the County Assessor has established the assessed valuation for a given year, and following any revisions by the Board of (Tax) Appeals, the Illinois Department of Revenue is required by statute to review the assessed valuation. The Illinois Department of Revenue establishes an equalization factor, commonly called the "multiplier," for each county to make all valuations uniform among the 102 counties in the state.

**Equalized Assessed Valuation (EAV):** Once the equalization factor (multiplier) is established, the assessed valuation, as revised by the Board of (Tax) Appeals, is multiplied by the equalization factor (multiplier) to determine the EAV.

**Expenditure:** An amount of money disbursed or obligated. Expenditures include current operating expenses requiring the present or future use of net current assets, debt service, and capital outlays. (see Accrual and Cash Basis of Accounting).

**Fiduciary Funds:** Established to account for transactions related to assets held in trust for a public purpose.

**Fiscal Year:** The time frame to which the budget applies. For the District, this is the period from January 1 through December 31.

**Fixed Assets:** Long-term tangible assets that have a normal use expectancy of more than one year and do not lose their individual identity through use. Fixed assets include buildings, equipment, improvements other than buildings and land.

**Function:** A group of related tasks, such as sewage treatment and collection, or the reduction of water pollution, which is aimed at accomplishing a major service or regulatory program for which a governmental unit is responsible.

**Fund:** An accounting entity established to account for sums of money or other resources, such as taxes, charges, fees, etc., to conduct specified operations and to attain certain objectives. Funds are frequently under specific limitations. For more information regarding specific funds, refer to the Financial Narrative in Section III, "Financial Statements by Fund."

**Fund Accounting:** A governmental accounting system which is organized and operated on a fund basis.

**Fund Balance:** The cumulative difference of all revenues and all expenditures of the fund from the time the governmental entity was established. Fund balance is also considered to be the difference between fund assets and fund liabilities and is sometimes referred to as "fund equity."

**Generally Accepted Accounting Principles (GAAP):** Uniform minimum standards of, and guidelines for, external financial accounting and reporting. They govern the form and content of the basic financial statements of an entity. GAAP encompasses the conventions, rules, and procedures necessary to define accepted accounting practices at a particular time. They include not only broad guidelines of general application, but also detailed practices and procedures. GAAP provides a standard by which to measure financial presentations. The primary authoritative statement on the application of GAAP to state and local governments is Government Accounting Standards Board (GASB) pronouncements.

**General Obligation Bonds:** Bonds, the payment for which the full faith and credit of the issuing government are pledged.

**Governmental Funds:** Group of funds utilized to account for revenues and expenditures in compliance with the legal requirements and constraints of current statutes for governmental agencies.

**FINANCIAL GLOSSARY (continued)**

**Grant:** A contribution by one governmental unit to another unit. The contribution is usually made to aid in the support of a specified function, such as sewer construction, pollution control, etc.

**Home-Rule Unit:** The principle or practice of self-government in the internal affairs of a dependent political unit. In Illinois, any municipality with population of more than 25,000 is a home-rule unit unless it elects by referendum not to be a home-rule unit. Any other municipality may elect by referendum to become a home-rule unit.

**Internal Control:** Methods and procedures that are mainly concerned with the authorization of transactions, safeguarding of assets, and accuracy of the financial records.

**Liabilities:** Obligations incurred in past or current transactions requiring present or future settlement.

**Limited Tax Bonds:** A form of nonreferendum bonding authority granted by Illinois PA 89-385 allowing the District to issue additional debt for projects initiated after October 1, 1991. Limited Tax Bonds can be issued to the extent that the total debt service requirements of any new debt, when combined with existing debt service, do not exceed the debt service extension base established by the Act.

**Line Items:** Expenditure classifications established to account for and budget the appropriations approved. Also referred to as Commitment Item.

**Mid-Year Reviews:** Twice during the fiscal year (in May and August), the current year budget is evaluated based on spending to date and current projections. The primary areas reviewed and analyzed are (1) current year budget versus previous year revenues and expenditures; (2) year-to-date expenditure and revenue status plus expenditure and revenue projections for the remainder of the year; and (3) data to support recommendations for budget transfers.

**Modified Accrual Basis of Accounting:** The basis of accounting under which revenues are recognized when measurable and available to pay liabilities, and expenditures are recognized when the liability is incurred except for interest on long-term debt which is recognized when due.

**Multiplier:** See Equalization.

**Net Assets Appropriable:** That resource balance left after subtracting Current Liabilities and Designated Fund Balances from Current Assets. Commonly referred to as carryover.

**Net Present Value:** A mathematical formula used to measure the expected return on investments by calculating how much money needs to be invested today to result in a certain sum at a future time.

**Object Classification:** A grouping of expenditures on the basis of goods or services purchased (e.g., personal services, materials and supplies, equipment, etc.), also referred to as Object of Expenditure.

**Objectives:** The yearly organizational levels of achievement expected. A statement of purpose defined more specifically than a goal. (A goal can include several related objectives.) Objectives are listed in order of priorities with their associated costs including estimates of salaries, equipment, supplies, etc.

**Obligations:** Amounts which a government may be legally required to meet out of its resources. They include not only actual liabilities, but also encumbrances not yet paid.

**Ordinance:** A bill, resolution or order by means of which appropriations are given legal effect. It is the method by which the appropriation of the annual budget is enacted into law by the Board of Commissioners per authority of state statutes.

**Other Postemployment Benefits (OPEB):** Cost of retiree health insurance benefits recognized over the active service life of the employees rather than on a pay-as-you-go basis.

**Performance:** The measurable unit of types of work, related to District activities and, where meaningful, the costs of operation that are used to develop the costs for each unit of activity (i.e., dollars per one million gallons of sewage treated).

**Personal Property Replacement Tax:** Since July 1979, this income tax on corporations, partnerships and invested capital of utilities replaces the personal property taxes previously levied.

**Pollution Control Facilities:** The State of Illinois directly assesses all pollution control facilities which have been certified by the Pollution Control Board. Pollution control facilities include any system, method, construction, device or appliance appurtenant that is designed, constructed, installed or operated for the primary purpose of eliminating, preventing or reducing air and water pollution as defined in the Environmental Protection Act. This does not include any pollution control facility used for radioactive waste, nuclear generation of electric power or for sewage disposal or treatment.

**Programs:** The essential activities performed by the District such as collection, treatment, flood and pollution control, etc., including specific and related sub-activities.

**Property Tax Extension Limitation Laws:** Illinois Public Act 89-1 provides for limitations on real estate property tax levies. As applicable to the District, the 1994 tax levy, payable in 1995 is limited to a 5 percent increase from the 1993 levy. Future levies are limited to increases of the lesser of 5 percent or the percentage change in the national consumer price index (CPI-U).

**Property Tax Rate:** The amount of tax stated in terms of a unit of the tax base, expressed as dollars per \$100 of equalized assessed valuation.

**Railroad Property:** The State of Illinois directly assesses railroad property which includes all railroad "operating property." Tracks and right-of-way, all structures, equipment, and all property connected with or used in the operation of the railroad along with real estate held for expansion. Nonoperating railroad property is assessed by the County Assessor.

**FINANCIAL GLOSSARY (continued)**

**Real Property:** Real Estate, including land and improvements (buildings, fences, pavements, etc.) classified for purposes of assessment.

**Refunding Bonds:** Bonds issued to retire bonds already outstanding.

**Reserve Claim Fund:** Established for the payment of claims, awards, losses, judgments or liabilities which might be imposed against the District, and for the emergency repair or replacement of damaged District property.

**Resources:** The actual assets of a governmental unit, such as cash, taxes receivable, land, buildings, etc., including estimated revenues applying to the current fiscal year, and bonds authorized and unissued.

**Retirement Fund:** Established to account for annual pension costs and supported in part by property taxes which are levied in accordance with statutory requirements.

**Revenue:** Income generated by taxes, notes, bonds, investment income, land rental, user charge, sludge and scrap sales as well as federal and state grants.

**Sinking Fund:** See Bond Redemption & Interest Fund.

**Special District:** A governmental entity established by the State of Illinois for a specific purpose or purposes. The District was originally organized under an act of the General Assembly of the State of Illinois in 1889.

**State Revolving Fund (SRF):** Under the Water Quality Act Amendment of 1987, federal authorization created State Revolving Funds administered by State agencies which provide loans from these funds to municipal agencies for their wastewater construction programs. These loans carry interest rates which are below general rates available in the municipal bond market. Therefore, pollution control facilities receive subsidies which can provide the approximate equivalent of a 25 to 30 percent grant.

**Tax Base:** The aggregate value of the items being taxed. The base of the District's real property tax is the market value of all taxable real estate within the boundaries of the District. See assessed valuation.

**Tax Cap:** (Property Tax Extension Limitation Laws). Illinois Public Act 89-1 provides for limitations on real estate property tax levies. As applicable to the District, the 1994 tax levy, payable in 1995 is limited to a 5 percent increase from the 1993 levy. Future levies are limited to increases of the lesser of 5 percent or the percentage change in the National Consumer Price Index (CPI-U).

**Tax Levy:** An amount of money raised through the collection of property taxes to finance each fund operation.

**Tax Levy Ordinance:** An ordinance through which taxes are levied. See ordinance.

**Tax Rate:** See Property Tax Rate.

**Taxes:** Mandatory charges levied by a governmental unit for the purpose of financing services performed for the common benefit.

**User Charge System:** In compliance with the 1977 Clean Water Act, the District is required to augment the ad valorem property tax system with a charge related to the actual use of waste treatment services. Users exceeding their ad valorem amount pay additional amounts for services received.

**Working Cash Funds (Corporate, Construction, and Stormwater):** Authorized by Illinois State Statutes to make temporary loans to the Corporate, Construction, and Stormwater Management Funds. Loans are repaid to the Working Cash Funds from the tax levies of the funds. The use of Working Cash funds eliminates the need for the issuance of short-term financing.

## **GLOSSARY OF TECHNICAL TERMS**

**Biochemical Oxygen Demand (BOD):** The quantity of oxygen used in the biochemical oxidation of organic matter in a specified time, at a specific temperature, and under specific conditions; the BOD analysis is a standard test used in assessing wastewater strength. See “Carbonaceous Biochemical Oxygen Demand.”

**Biological Oxidation:** The process whereby living organisms in the presence of oxygen, convert the organic matter contained in wastewater into new cells and subsequently into more stable compounds.

**Biosolids:** The nutrient-rich organic materials resulting from the treatment of domestic sewage in a wastewater treatment facility. These organic materials are generated when solids (sewage sludge) generated during the treatment of domestic sewage are treated further to meet the 40 CFR (Code of Federal Regulations) Part 503 sewage sludge regulatory requirements for beneficial reuse.

**Carbonaceous Biochemical Oxygen Demand (CBOD):** The portion of BOD attributable to organic matter containing carbon; does not include nitrogenous oxygen demand.

**Centrifuge:** A mechanical device in which centrifugal force is used to separate solids from liquids and/or to separate liquids of different densities, i.e., a dewatering device.

**Coarse and Fine Screens:** A coarse screen is a bar screen with approximate 3” openings located at the point of incoming wastewater which is used to capture large objects and other debris; this device protects the sewage pumps. A fine screen is a bar screen with approximately 5/8” openings to collect and remove small debris via a traveling rake. The screening is conveyed to a scavenger disposal box.

**Collection System:** A system of underground conduits/sewers collecting wastewater from a source and conveying it to the treatment facility.

**Combined Sewer:** A sewer that transports wastewater and (in wet weather conditions) stormwater.

**Design Capacity:** The maximum rate of sewage flow which a treatment plant is capable of treating, on a long-term basis, to continuously attain required effluent quality.

**Dewatering:** Water removal or concentration of solids by filtration, centrifugation, or drying.

**Digestion, Anaerobic:** The biological decomposition of organic matter in the absence of oxygen, resulting in partial gasification, liquidation, and mineralization. The digester gas is collected, compressed and used to fuel the plant boilers.

**Drying Bed:** Large areas on which solids are placed for dewatering by gravity, drainage, and evaporation.

**Effluent:** The resulting product of the wastewater treatment process which is also used for tank cleaning, grass watering, and conveyor belt cleaning.

**Exceptional Quality (EQ):** Exceptional Quality refers to biosolids or composted biosolids that meet the Class A pathogen standard, lowest metal concentration limits, and vector attraction reduction requirement specified in 40 CFR Part 503. Biosolids meeting the EQ criteria can be beneficially used without any restrictions.

**503 Regulations:** The U.S. EPA issued on February 19, 1993, comprehensive federal sewage sludge use and disposal regulations which are organized in five parts: general provisions, land application, surface disposal, pathogens and vector attraction reduction, and incineration. Parts addressing standards for land application, surface disposal, and incineration practices consist of sections covering applicability and special requirements, management practices, frequency of monitoring, record keeping, and reporting requirements.

**Industrial User (IU):** A person who conducts any industrial, manufacturing, agricultural, trade, or business process or who conducts the development, recovery or processing of natural resources.

**Industrial Waste:** All solid, liquid, or gaseous waste resulting from an industrial user.

**Infrastructure:** Assets that are long-lived capital assets that normally are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. Examples from our infrastructure holdings include: wastewater tankage, LASMA Drying sites, SEPA stations, the Deep Tunnel, and sewerage interceptors.

**Interceptor:** A larger sewer which “intercepts” the wastewater from smaller and/or local sewers.

**Interceptor Inspection and Rehabilitation Program (HRP):** The inspection and repair of District sewers and interceptors.

**Lagoon, Solids:** An earthen basin which is used for the storage, continued stabilization, and dewatering of solids.

**Lysimeter:** A device used for collecting water from the pore spaces of soils and for determining the chemical composition of the water that percolates through a certain depth of soil.

**MGD:** Millions of gallons per day.

**Maintenance Management System (MMS):** A District-wide computerized system to assist management in maintaining the District’s infrastructure.

**National Pollutant Discharge Elimination System (NPDES):** The permit and regulation system governing direct discharges into navigable waters administered by the IEPA and USEPA.

**Odor Control Program:** The systematic modifying or altering of certain processes to minimize obnoxious odors. Ferric chloride, ozonation (conversion of oxygen into ozone), and deodorants are some of the various methods used in combating odors.

**GLOSSARY OF TECHNICAL TERMS (continued)**

**Phycoremediation:** The process of using algae (macro-algae or micro-algae) for the removal of pollutants, like nutrients (nitrogen and phosphorus), from the wastewater and carbon dioxide (CO<sub>2</sub>) from waste air.

**Pretreatment (Industrial):** Any method, construction, device, arrangement, or appliance installed for the purpose of treating, neutralizing, stabilizing, disinfecting, or disposing of sewage, industrial waste, or other wastes prior to entry into the District's sewerage system.

**Pretreatment Program:** The District's efforts to identify, monitor and control by enforcement, the discharge of industrial waste from industrial sources into the District's sewerage system, in conformance with federal regulations promulgated pursuant to the Clean Water Act.

**Primary Treatment:** The District uses a series of large screens to remove large debris from the wastewater which can clog the machinery. Heavy solids like sand and grit are then removed in the grit chamber. Any remaining heavy solids settle to the bottom of the primary settling tanks.

**Reservoirs, Storm:** Temporary storage areas for containing surface waters during extreme storm conditions.

**Secondary Treatment Process:** The wastewater flows to aeration tanks which have been seeded with bacteria. Filtered air is pumped through the liquid to provide oxygen for the bacteria. The bacteria consume organic materials in the wastewater, grow and multiply. The mixture of bacteria and water then flow into a secondary settling tank. The bacteria clump together and become heavy "flocs" which settle to the bottom of the tank and are removed. At this point, the water can be discharged to a nearby waterway after disinfection, with over 90 percent of its contaminants removed.

**Sewage:** Water-carried human wastes or a combination of water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such ground, surface, storm, or other waters as may be present.

**Sewage and Waste Control Ordinance:** An ordinance to provide for the abatement and prevention of pollution by regulating and controlling the quantity and quality of sewage and industrial waste admitted to or discharged into the sewerage systems, sewage treatment facilities, and waterways under the jurisdiction of the District. This ordinance was originally adopted by the District's Board of Commissioners in 1969 and continues to be amended as necessary.

**Sewerage System:** Sewers, intercepting sewers, pipes or conduits, pumping stations, force mains, constructed drainage ditches, surface water intercepting ditches, and all other constructions, devices, and appliances used for collecting or conducting sewage, industrial waste, or other wastes to a point of treatment or ultimate disposal.

**Sidestream Elevated Pool Aeration (SEPA):** A process in which a portion of the flow of a body of water is pumped up approximately 15 feet; the water is then allowed to cascade

downward over a series of weirs, thus increasing the dissolved oxygen content of the body of water.

**Solids:** The accumulated solids separated from wastewater during processing. The precipitate or product from chemical treatment, coagulation, or sedimentation of wastewater.

**Solids Content:** The weight of total solids in sludge per unit total weight of sludge, expressed in percent. Water content plus solids content equal 100 percent.

**Solids Processing:** A variety of settling or filtering operations (grit and scum dewatering, raw sludge concentration, sludge stabilization, dewatered stabilized sludge air drying, for example) used to collect solid material from wastewater or other liquids for subsequent utilization.

**Spoil Pile:** Excavated materials such as soil and rock that are piled for storage as the result of canal construction activities.

**Struvite:** A salt precipitate of Magnesium, Ammonium, and Phosphate in wastewater treatment facilities which may build up to the level that cause operational blockages.

**Suspended Solids:** Solid material that either floats on the surface of, or contained in suspension in, wastewater or other liquids. This material is largely removed by settling or filtering processes at a treatment plant. (See Solids Processing, above.)

**TARP (Deep Tunnel):** The Tunnel and Reservoir Plan (TARP) improves water quality by capturing combined sewer overflows (CSOs), storing this polluted wastewater, and then pumping it to a treatment plant for processing.

**Tertiary Treatment:** The third stage of wastewater treatment which purifies the wastewater by removal of fine particles, nitrates, and phosphates with sand filtration. This process removes 99 percent of the impurities.

**USEPA:** The United States Environmental Protection Agency. This federal agency is responsible for setting the guidelines and policies related to wastewater effluents and solids disposal. The Illinois EPA issues the District's National Pollutant Discharge Elimination System permit and other regulatory constraints.

**Utilization:** Solids used for daily landfill cover, final cover for a landfill closure, and to reclaim severely disturbed soil such as strip-mining land.

**Wastewater Treatment:** Processes which involve physical removal of contaminants from the wastewater by use of coarse screens, fine screens, grit tanks and settling tanks (primary treatment); further treatment via aeration and clarification (secondary treatment); and in some cases, the physical or chemical separation and removal of impurities from secondary-treated effluent (tertiary treatment).

**Wetlands:** Areas which are inundated by surface or groundwater at a frequency which maintains saturation. The wetlands can be natural (marshes, bogs, swamps, for example) or man-made.

**ACRONYMS**

<b>ABAP</b>	Advanced Business Application Programming language	<b>HMO</b>	Health Maintenance Organization
<b>AC</b>	Appropriation Controlled position	<b>HPWRP</b>	Hanover Park Water Reclamation Plant
<b>ACH</b>	Automated Clearing House	<b>HVAC</b>	Heating, Ventilation, and Air Conditioning
<b>AED</b>	Automated External Defibrillator	<b>I/I</b>	Infiltration/Inflow
<b>ALD</b>	Analytical Laboratories Division	<b>IAS</b>	Instream Aeration Station
<b>ASCE</b>	American Society of Civil Engineers	<b>ICAP</b>	Infiltration/inflow Corrective Action Program
<b>ATP</b>	Advisory Technical Panel	<b>IEPA</b>	Illinois Environmental Protection Agency
<b>BOD</b>	Biochemical Oxygen Demand	<b>IGA</b>	Intergovernmental Agreement
<b>BMP</b>	Best Management Practices	<b>ILDCEO</b>	Illinois Department of Commerce and Economic Opportunity
<b>BSC</b>	Business Services Center	<b>iPACS</b>	The internet-based Publicly owned treatment works Administration and Compliance System
<b>CAFR</b>	Comprehensive Annual Financial Report	<b>IRS</b>	Internal Revenue Service
<b>CALSMA</b>	Calumet Solids Management Area	<b>IT</b>	Information Technology
<b>CAWS</b>	Chicago Area Waterway System	<b>ITD</b>	Information Technology Department
<b>CBOD</b>	Carbonaceous Biochemical Oxygen Demand	<b>ITSPC</b>	Information Technology Strategic Planning Committee
<b>CFM</b>	Cubic Feet per Minute	<b>IU</b>	Industrial Users
<b>CIBF</b>	Capital Improvement Bond Fund	<b>IWD</b>	Industrial Waste Division
<b>CIP</b>	Capital Improvement Program	<b>kWh</b>	kiloWatt hour
<b>CPI</b>	Consumer Price Index	<b>KWRP</b>	Kirie Water Reclamation Plant
<b>CPR</b>	Cardio-Pulmonary Resuscitation	<b>LASMA</b>	Lawndale Avenue Solids Management Area
<b>CSA</b>	Calumet Service Area	<b>LF</b>	Linear Feet
<b>CSO</b>	Combined Sewer Overflow	<b>LIMS</b>	Laboratory Information Management System
<b>CUP</b>	Chicago Underflow Plan	<b>LPH</b>	Lockport Powerhouse
<b>CWRP</b>	Calumet Water Reclamation Plant	<b>LSSS</b>	Local Sewer Systems Section
<b>DCS</b>	Distributed Control System	<b>LWRP</b>	Lemont Water Reclamation Plant
<b>DO</b>	Dissolved Oxygen	<b>M&amp;O</b>	Maintenance & Operations
<b>DT</b>	Dry Tons	<b>M&amp;R</b>	Monitoring & Research
<b>DWP</b>	Detailed Watershed Plan	<b>MBE</b>	Minority Business Enterprise
<b>EAM</b>	Enterprise Asset Management	<b>MGD</b>	Million Gallons per Day
<b>EAP</b>	Employee Assistance Program	<b>MMS</b>	Maintenance Management System
<b>EAV</b>	Equalized Assessed Valuation	<b>MOB</b>	Main Office Building – 100 E. Erie St., Chicago, Illinois
<b>EBPR</b>	Enhanced Biological Phosphorus Removal	<b>MOBA</b>	Main Office Building McMillan Pavilion – 111 E. Erie St., Chicago, Illinois
<b>EEO</b>	Equal Employment Opportunity	<b>MOBC</b>	Main Office Building Complex – MOB & MOBA
<b>EGWP</b>	Employer Group Waiver Plan	<b>MSC</b>	Material Service Corporation
<b>EIS</b>	Economic Impact Study	<b>MSPS</b>	Mainstream Pumping Station
<b>EM&amp;RD</b>	Environmental Monitoring and Research Division	<b>MWRD</b>	Metropolitan Water Reclamation District
<b>EMS</b>	Environmental Management System	<b>NAA</b>	Net Assets Appropriate
<b>EQ</b>	Exceptional Quality	<b>NACWA</b>	National Association of Clean Water Agencies
<b>ESS</b>	Employee Self-Service	<b>NBP</b>	National Biosolids Partnership
<b>EWRP</b>	Egan Water Reclamation Plant	<b>NBPS</b>	North Branch Pumping Station
<b>F&amp;D</b>	Furnish and Deliver	<b>NCBP</b>	Non-Core Business Projects
<b>FD&amp;I</b>	Furnish, Deliver, and Install	<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>FDIC</b>	Federal Deposit Insurance Corporation	<b>NRI</b>	Notification and Request for Inspection permits
<b>FESOP</b>	Federally Enforceable State Operating Permit	<b>NSA</b>	North Service Area
<b>FICA</b>	Federal Insurance Contributions Act tax to fund Social Security and Medicare	<b>NSWRP</b>	North Side Water Reclamation Plant (renamed OWRP)
<b>FMLA</b>	Family Medical Leave Act	<b>OM&amp;R</b>	Operations, Maintenance, and Replacement costs
<b>FOIA</b>	Freedom of Information Act	<b>OPA</b>	Office of Public Affairs
<b>FTE</b>	Full-Time Equivalent	<b>OPEB</b>	Other Postemployment Benefits
<b>GAAP</b>	Generally Accepted Accounting Principles	<b>ORS</b>	Online Reporting System
<b>GASB</b>	Government Accounting Standards Board	<b>OSHA</b>	Occupational Safety and Health Administration
<b>GFOA</b>	Government Finance Officers Association	<b>OWRP</b>	O'Brien Water Reclamation Plant (formerly known as NSWRP)
<b>GIP</b>	Green Infrastructure Program		
<b>GIS</b>	Geographic Information System		
<b>gpcpd</b>	gallons per capita per day		
<b>GRC</b>	Governance, Risk, and Compliance		
<b>HASMA</b>	Harlem Avenue Solids Management Area		

**ACRONYMS (continued)**

<b>P&amp;B</b>	Pump and Blower
<b>PBF</b>	Public Budget Formulation
<b>PCB</b>	Poly-Chlorinated Bi-phenols
<b>PCE</b>	Protected Class Enterprise
<b>PFC</b>	perfluorinated compound
<b>PIMS</b>	Pretreatment Information Management System
<b>P&amp;MM</b>	Procurement & Materials Management
<b>PO</b>	Purchase Order
<b>PPO</b>	Participating Provider Option
<b>PPRT</b>	Personal Property Replacement Tax
<b>PS</b>	Pumping Station
<b>PST</b>	Primary Settling Tank
<b>RAPS</b>	Racine Avenue Pumping Station
<b>RAS</b>	Return Activated Sludge
<b>REI</b>	Request for Expression of Interest
<b>RFP</b>	Request for Proposal
<b>SAN</b>	Storage Area Network
<b>SAP</b>	SAP is a German computer software firm
<b>SBE</b>	Small Business Enterprise
<b>SBP</b>	Strategic Business Plan
<b>scfm</b>	standard cubic feet per minute
<b>SEPA</b>	Sidestream Elevated Pool Aeration stations
<b>SIU</b>	Significant Industrial User
<b>SPO</b>	Sewer Permit Ordinance
<b>SRF</b>	State Revolving Fund loan program
<b>SS</b>	Suspended Solids
<b>SSA</b>	Stickney Service Area
<b>SSMP</b>	Small Streams Maintenance Program
<b>SWCO</b>	Sewage and Waste Control Ordinance
<b>SWRP</b>	Stickney Water Reclamation Plant
<b>TARP</b>	Tunnel And Reservoir Plan
<b>TCO</b>	Total Cost of Operations
<b>TGM</b>	Technical Guidance Manual
<b>TIF</b>	Tax Increment Financing district
<b>UAA</b>	Use Attainability Analysis
<b>UCO</b>	User Charge Ordinance
<b>USEPA</b>	United States Environmental Protection Agency
<b>UV</b>	Ultraviolet
<b>VESSA</b>	Victims' Economic Security and Safety Act
<b>VFD</b>	Variable Frequency Drive
<b>WAN</b>	Wide Area Network
<b>WAS</b>	Waste Activated Sludge
<b>WBE</b>	Women-owned Business Enterprise
<b>WEFTEC</b>	Water Environment Federation Technical Exhibition and Conference
<b>WMO</b>	Watershed Management Ordinance
<b>WRP</b>	Water Reclamation Plant
<b>WSPS</b>	West Side Pumping Station

**NOTE PAGE**





## Metropolitan Water Reclamation District of Greater Chicago Historical Information And Milestones

- 1837** Chicago was incorporated as a city. The city's primary source of drinking water is Lake Michigan. Due to poor drainage and discharges to Lake Michigan, water-borne diseases plagued the city throughout the 1800s.
- 1856** Sewers were constructed to collect the city's wastewater. These sewers emptied into the Chicago River, ultimately becoming a health hazard.
- 1885** A torrential rainstorm flushed pollution from the river into Lake Michigan prompting public concern for ways to safeguard the quality of the drinking water.
- 1886** A Drainage and Water Supply Commission was created to study the growing problem of contamination of the city's water supply.
- 1889** Illinois Legislature passed an act enabling the establishment of the Sanitary District of Chicago to keep sewage pollution out of Lake Michigan. Referendum passed creating the Sanitary District of Chicago.
- 1892** Ground was broken on the 28-mile Main Channel of the Sanitary and Ship Canal. The canal would reverse the flow of the Chicago River by linking it to the Des Plaines River, and thus prevent pollution of Lake Michigan by the river.
- 1900** Main Channel of the Sanitary and Ship Canal opened.
- 1907** Main Channel Extension including Lockport Powerhouse and Lock completed.
- 1910** North Shore Channel completed.
- 1919** District's Board of Commissioners passed an ordinance committing the District to the construction and operation of treatment plants.
- 1922** The 16-mile Calumet-Sag Channel became operational; Calumet Treatment Plant placed into operation.
- 1928** North Side Treatment Plant placed into operation.
- 1930** U.S. Supreme Court Decree issued reducing diversion of Lake Michigan in steps. Effective January 1, 1939, diversion reduced to 1,500 cubic feet per second; West Side Treatment Plant placed into operation.
- 1939** Southwest Treatment Plant placed into operation.
- 1949** West and Southwest Treatment Plants combined.
- 1955** District's name changed to the Metropolitan Sanitary District of Greater Chicago (MSDGC); the Chicago Sewage Disposal System named one of the Seven Wonders of Modern Engineering by the American Society of Civil Engineers (ASCE), recognizing the size of the system, including intercepting sewers, treatment plants, and waterways.
- 1956** Referendum, enabled by legislation, passed adding 412 square miles to the District.
- 1961** Lemont Treatment Plant placed into operation.
- 1963** Hanover Park Treatment Plant placed into operation.
- 1969** Board adopted the Sewage and Waste Control Ordinance, prohibiting any waste discharge into Lake Michigan.
- 1971** Fulton County "Prairie Plan" began whereby abandoned strip-mines were reclaimed into agriculturally productive land; won "Special Civil Engineering Achievement Award" in 1974 from the ASCE.
- 1972** District adopted the Tunnel and Reservoir Plan (TARP) as recommended by a committee of representatives from the state, city, county, and MSDGC. The plan provided for the collection, transportation, storage, and treatment of combined rainwater and sewage that in periods of heavy rain overflowed into waterways, underpasses, and basements.
- 1975** Construction began on the 31-mile Mainstream tunnel system; Egan Treatment Plant placed into operation.
- 1977** Construction began on the Calumet tunnel system.
- 1980** O'Hare Treatment Plant (later renamed Kirie Water Reclamation Plant) and Upper Des Plaines TARP tunnel system placed into operation.
- 1985** Mainstream tunnel system placed into operation-capable of storing one billion gallons of combined sewage and stormwater.
- 1986** Mainstream tunnel system received award for "Outstanding Civil Engineering Achievement" from the ASCE; 9.2 mile Calumet tunnel system placed into operation.
- 1988** Water quality improvements recognized as causing increased real estate development along the waterway system; construction began on the Des Plaines TARP tunnel.
- 1989** District celebrated its 100th anniversary. As part of the Centennial Celebration, the District changed its name to the Metropolitan Water Reclamation District of Greater Chicago and dedicated the Centennial Fountain.
- 1990** Army Corps of Engineers and the District began construction of the O'Hare-CUP Reservoir, the first of three reservoirs in the TARP program.
- 1992-1994** District's five Sidestream Elevated Pool Aeration Stations (SEPA) completed along the Calumet River system. These stations add oxygen to the waterways to enhance the aquatic environment. The District received "Outstanding Civil Engineering Achievement" in 1994 by ASCE for these projects.
- 1998** O'Hare-CUP Reservoir placed into operation, capable of storing 350 million gallons of combined sewage and stormwater; North Branch tunnel placed into operation.
- 1999** Des Plaines tunnel placed into operation; construction began on the McCook Reservoir.
- 2000** District celebrated the 100th anniversary of the reversal of the Chicago River and completed a century of protecting Chicago's water environment; construction began on Thornton Reservoir.
- 2003** Construction began on the major capital improvement program for the Calumet, North Side, and Stickney Water Reclamation Plants.
- 2004** By an act of the Illinois Legislature, the District became responsible for stormwater management in Cook County.
- 2006** TARP Phase I 109-mile tunnel system completed; all four TARP tunnel systems in operation.
- 2007** District celebrated 100th anniversary of the Lockport Powerhouse and Dam.
- 2009** Construction of the Thornton Composite Reservoir began.
- 2010** District celebrated the 100th anniversary of the North Shore Channel.
- 2012** Northside Water Reclamation Plant renamed Terrence J O'Brien Water Reclamation Plant.
- 2014** District celebrated its 125th anniversary.
- 2015** Disinfection facility at the Calumet Water Reclamation Plant placed into operation. Thornton Composite Reservoir placed into operation.

# Managing Today's Water

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) is managing today's water by eliminating flooding through dynamic strategies that preserve our environment and improve water quality. As the increase in impermeable ground in Cook County meets an increase in significant rain events, local sewer systems do not always have the capacity to retain stormwater runoff. Given this challenge, the MWRD has sought new partnerships that focus on individual communities and lead toward broader solutions for the entire region. These initiatives in stormwater management and flood control are providing local communities with instant benefits and creating new tools in the MWRD's pursuit of managing today's water needs.

**Heritage Park Flood Control Facility** The Heritage Park Flood Control Facility, a partnership between the MWRD, Village of Wheeling and Wheeling Park District, will provide compensatory floodplain storage for the U.S. Army Corps Of Engineers' Levee 37 Project on the Des Plaines River that protects more than 600 homes and businesses in Mount Prospect and Prospect Heights. It also provides Wheeling with increased stormwater detention at Heritage Park. The end product is six stormwater storage areas with a total capacity of more than 49 million gallons, as well as recreational improvements to Heritage Park, including new walkways, a pavilion, a band shell, soccer fields and a baseball complex.



**Mayfair Reservoir Expansion Project** The Mayfair Reservoir Expansion Project in Westchester will provide direct flood reduction benefits to an estimated 60 residential structures and will reduce storm-related impacts for approximately 120 homeowners. Initially placed into service in 1977, the Mayfair Reservoir was designed to hold 84 acre-feet of stormwater, but due to the devastation caused by recent storms, the Westchester Park District agreed to relinquish their lease on the MWRD property adjoining the reservoir and designate the property for a 34 acre-foot expansion to provide additional sewer improvements. Working with Westchester, the MWRD is minimizing future storm impacts and improving the quality of life.

**The Greenest Street in America** MWRD partnered with the Chicago Department of Transportation (CDOT) to create a Sustainable Streetscape Project (SSP). This two-mile stretch of Blue Island Avenue and Cermak Road in the Pilsen neighborhood mitigates stormwater runoff. The SSP includes permeable pavers, infiltration basins, planters, and bioswales designed to absorb the flow of a two-year storm event. These best management practices provide combined sewer overflow abatement, improved aesthetics of the urban environment, and reduction of wet weather flow and pollutant loading to treatment plants. Dubbed the "Greenest Street in America," the SSP improves the urban ecosystem, promotes economic development, and increases safety and usability.



**Morton Civic Center Porous Pavement** In its latest endeavor, the MWRD is partnering with the city of Evanston to rehabilitate the Morton Civic Center parking lot. Evanston's first city-owned sustainable public parking lot will use various permeable pavements, rain gardens, and native plantings to substantially reduce stormwater runoff. The MWRD is funding nearly half of the project cost. The civic center parking lot will feature three different porous pavement materials that will be evaluated for stormwater infiltration and durability, and the impact of snow and ice removal. The permeable pavement will improve water quality, groundwater recharge, and delayed stormwater discharge.

**Space to Grow** A joint venture operated through the financial support of the MWRD, Space to Grow is managed by the Healthy Schools Campaign and Openlands organizations. Space to Grow transforms Chicago schoolyards into community spaces for physical activity, outdoor learning, environmental literacy, and engagement with art while addressing neighborhood flooding issues. In addition to providing community members in low-income neighborhoods with safe outdoor spaces to play and stay active, Space to Grow schoolyards help Chicago Public Schools meet daily recess and physical education requirements for elementary schools. (On the cover, a student helps plant native plants at one of Leland Elementary School's new rain gardens.)

