

**James Wadsworth Elementary School
AFTER**



**Metropolitan Water Reclamation District
of Greater Chicago**

2018 Budget

BUILDING A RESILIENT COOK COUNTY

Final Budget

**Adopted December 14, 2017
and Amended December 21, 2017**



**James Wadsworth Elementary School
BEFORE**



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Metropolitan Water Reclamation District of Chicago
Illinois**

For the Fiscal Year Beginning

January 1, 2017

Christopher P. Morill

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, 2017. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device.

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.



Metropolitan Water Reclamation District of Greater Chicago

2018 Budget

BUILDING A RESILIENT COOK COUNTY

Final Budget

Adopted December 14, 2017
and Amended December 21, 2017

Officers

David St. Pierre
Executive Director

Mary Ann Boyle
Treasurer

Allison Fore
Public and Intergovernmental Affairs Officer

Darlene A. LoCascio
Director of Procurement and Materials Management

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Director of Maintenance and Operations

Catherine A. O'Connor
Director of Engineering

Edward W. Podcerwinski
Director of Monitoring and Research

Beverly K. Sanders
Director of Human Resources

John H. Sudduth
Director of Information Technology

Jacqueline Torres
Clerk/Director of Finance

Board of Commissioners



Seated, from left to right:

Barbara J. McGowan
Vice President

Mariyana T. Spyropoulos
President

Frank Avila
Chairman of Finance

Standing, from left to right:

David J. Walsh

Kari K. Steele

Debra Shore

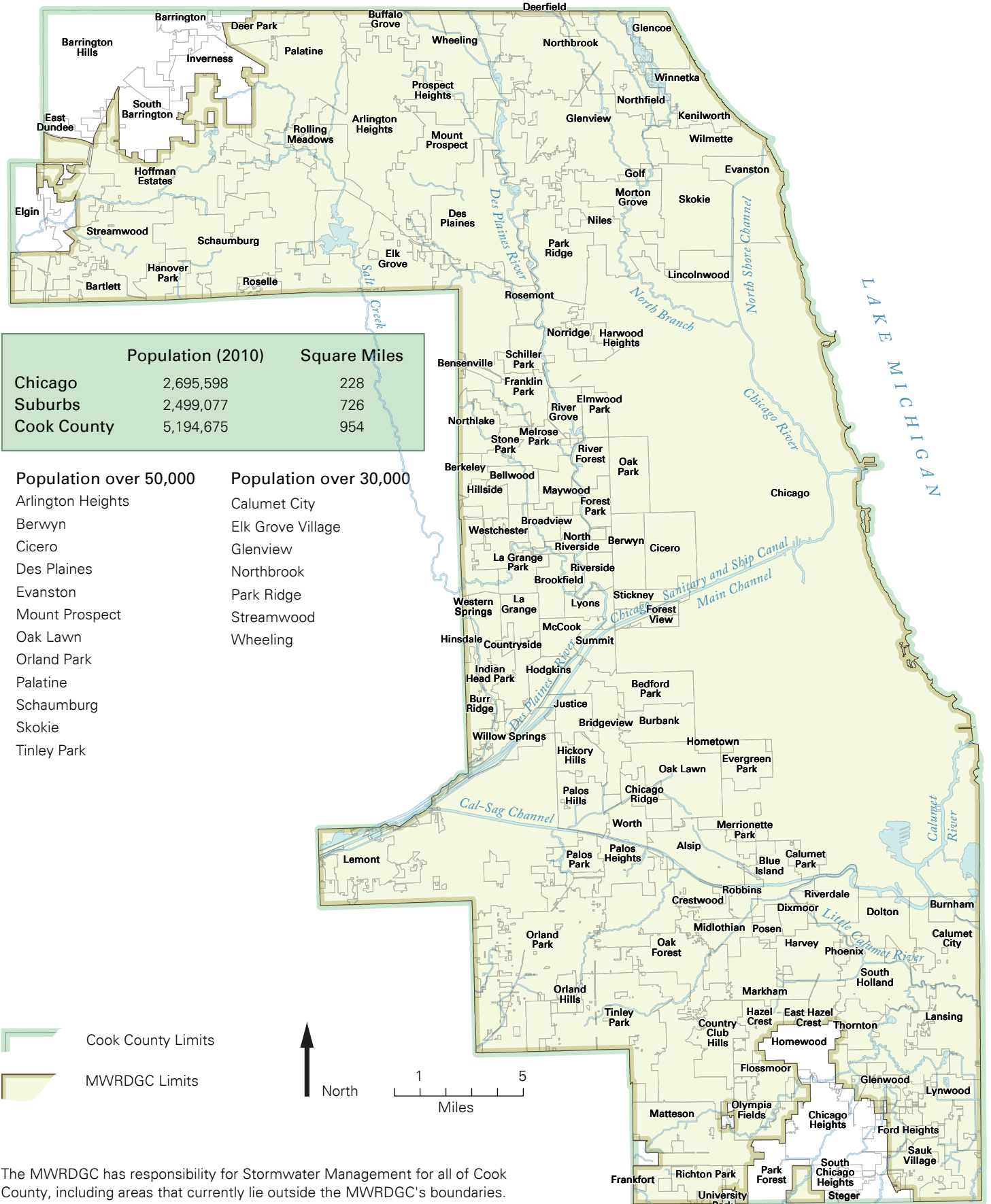
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Cook County and Metropolitan Water Reclamation District of Greater Chicago



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

Origin and History

The Metropolitan Water Reclamation District of Greater Chicago (District) is an independent government and taxing body encompassing approximately 92 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 882.1 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 23 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.

The District recycles all of its biosolids through a farm land application program in nearby counties and local use of Exceptional Quality biosolids and composted biosolids in the Chicago metropolitan area.

Governance

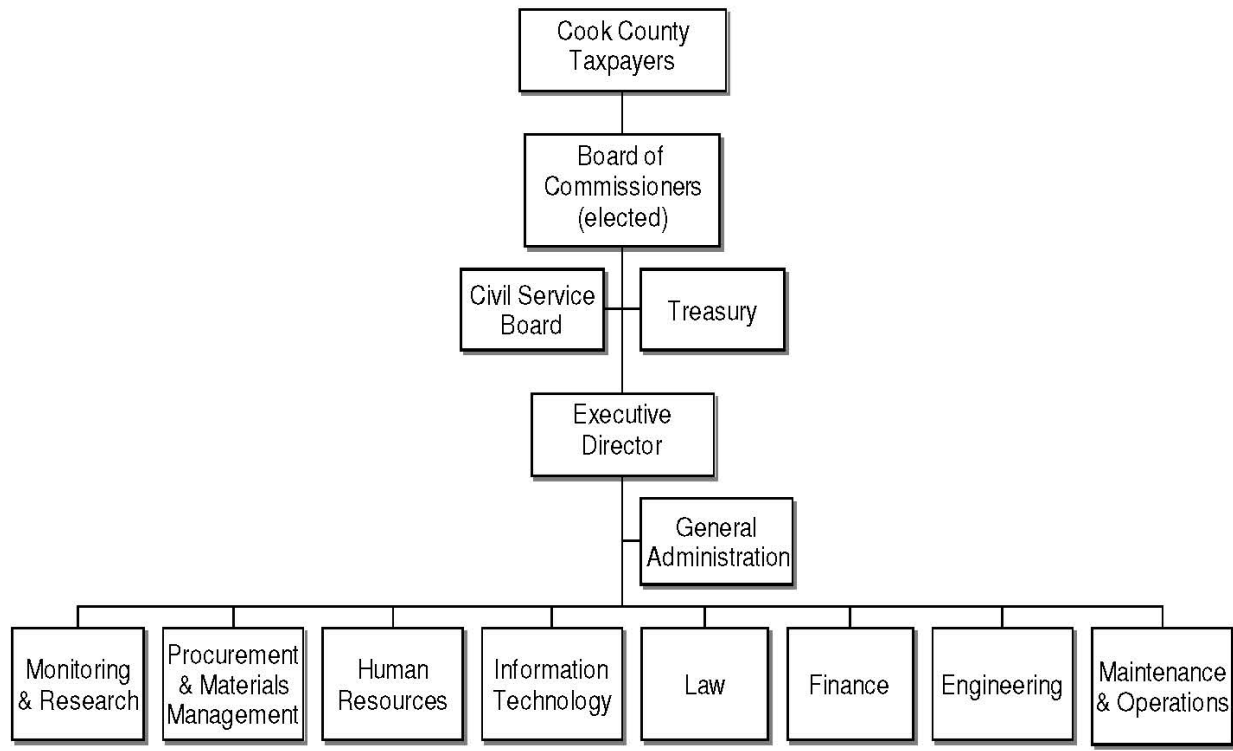
The District is governed by a nine-member Board of Commissioners (Board). Commissioners are elected at large and serve on a salaried basis. Three Commissioners are elected every two years for six-year terms. Biannually, the Board elects from its membership a President, Vice President, and Chairman of 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 and 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 2018.
- 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 schedules for pay plans and grades, as shown in the Position Analysis, are included in the Appendix.

Organization Unit Number		
Organization Unit Name		
2016	2017	2018
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 are 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 and 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, awards, and organizational memberships.

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

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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 2018 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 2018 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 2018 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.

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Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

January 2, 2018

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

The Board of Commissioners (Board) and staff are pleased to present the 2018 Budget, as recommended by the Executive Director and revised by the Committee on Budget and Employment, 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 on Budget and Employment received the Executive Director’s Recommendations on October 17, 2017. A hearing on these recommendations was conducted on November 2, 2017, when the Executive Director and his Executive Team presented 2017 accomplishments and initiatives for the 2018 Budget. The Executive Director presented a financial summary of the 2018 Budget. The District has a stable Corporate Fund, a sustainable capital program, and remains committed to funding the Other Postemployment Benefits (OPEB) Trust. The Retirement Fund has a funded ratio of 56.2 percent. The District continues to expand stormwater management efforts that will build a resilient Cook County.



The first stage of the McCook Reservoir opened on December 4, 2017, providing 3.5 billion gallons of storage capacity. The final stage of the TARP system is scheduled to be completed in 2029.

Budget Message

In 2018, the District’s budget priorities continue to be guided by the Strategic Business Plan, *Recovering Resources, Transforming Water*, adopted in 2015. In 2017, we continued to implement strategies to meet our goals and long-term vision. On December 4, 2017, the first stage of the McCook Reservoir with a storage capacity of 3.5 billion gallons was formally unveiled, initiating the final phase of the historic Tunnel and Reservoir Plan (TARP).



Streambank stabilization along Tinley Creek in Crestwood.

We have another year of experience with phosphorus recovery at the Stickney Water Reclamation Plant (WRP) and disinfection at the O’Brien and Calumet WRPs. Five stormwater pilot studies were completed throughout Cook County, examining numerous engineering techniques to help communities solve local flooding issues. The successes of 2017 have prepared us to meet our next challenges with a focus on community partnerships to address local flooding issues and build a resilient Cook County.

The 2018 Budget represents a comprehensive plan to meet the Strategic Business Plan’s goals in a fiscally responsible manner. The Corporate Fund budget remains virtually flat to the 2017 appropriation, increasing by 0.3 percent, as we continue to prioritize spending while controlling cost increases. Our Capital Improvement Program continues to utilize a mix of funding options including low interest State Revolving Fund loans, bonds, and pay-as-you-go funding, providing the best value for

taxpayers while modernizing our water reclamation plants and investing in Cook County infrastructure. The total appropriation increases by 0.7 percent from 2017.

Building a Resilient Cook County

The 2018 Budget highlights the District's commitment to reduce flooding. The Stormwater Management Fund budget is a \$19.8 million increase over the 2017 appropriation that will further our investment in flood control projects and continue to support local stormwater issues.

The Stormwater Management Program is aggressively working to minimize flooding damage caused by historic rain patterns consisting of intense, short bursts that overwhelm community systems. Through flood-prone property acquisition, community partnerships and cost-sharing agreements for local stormwater projects, the District is leveraging tax dollars and investing in both green infrastructure projects and large capital projects. Green infrastructure projects can maximize environmental and community benefits at a lower overall cost than traditional gray infrastructure. Project design utilizing outcome engineering provides a design framework that will utilize the best technologies for each site while providing the best taxpayer value.

The 2018 Stormwater Management Fund budget includes \$26.3 million for Intergovernmental Agreements to fund cost-shared local stormwater projects. In July 2017, the District received 50 project applications for new Green Infrastructure projects. Examples of the projects that the District is actively partnering with local governments or has recently completed include the following:

- The District will continue the successful Space to Grow Program with the Chicago Department of Water Management, Chicago Public Schools, the Healthy Schools Campaign, and Openlands, transforming schoolyards with green infrastructure. Five schools were completed in 2015 and 2016 with a retention capacity of 753,152 gallons per rain event. Construction will begin on six additional schools beginning in 2018.
- The District has partnered with the Village of Robbins to develop a plan for stormwater improvements to address flooding along Midlothian Creek impacting approximately 140 acres and over 100 homes. Since flooding issues were identified as a significant barrier to economic opportunities in the Village, a holistic approach to stormwater management has been developed to serve as a catalyst for positive socioeconomic change.
- The Heritage Park Flood Control project in Wheeling was completed in coordination with the Wheeling Park District's master plan for recreational improvements while providing compensatory storage for the Army Corps of Engineers' Levee 37, protecting over 600 homes and businesses.
- Green infrastructure improvements in Blue Island, including two permeable parking areas and rain gardens, address urban flooding.
- An underground detention control system at Wescott Park in Northbrook enables stored stormwater to irrigate the park instead of entering the local sewer system.
- Streambank stabilization along Tinley Creek in Crestwood will protect 173 structures, pedestrian bridges, and an existing bike path.
- To reduce overbank flooding that impacts structures along Addison Creek from Northlake to Broadview, the District is constructing a 600 acre-foot flood control reservoir in Bellwood. This project will be completed in 2020.
- In partnership with the City of Chicago, the Albany Park Tunnel project will provide an 18 foot diameter rock tunnel from the North Branch of the Chicago River to the North Shore Channel to reduce overbank flooding that impacts 336 structures.

Environmental Leadership

The District has continued its environmental leadership focus with a commitment to improving water quality of the Chicago Area Waterway System (CAWS). In 2016, five of seven water reclamation plants received National Association for Clean Water Agencies Platinum Peak Performance Awards for maintaining 100.0 percent compliance with National Pollutant Discharge Elimination Permits, while all plants received awards. All seven plants have earned 99.6 percent or higher compliance since 2007 and similar results anticipated for 2017. Disinfection upgrades were implemented at the Calumet WRP in 2015, and an ultraviolet radiation disinfection system was introduced at the O'Brien WRP in 2016.

As water quality continues to improve, recreational activities are growing. During 2017, the District introduced a mapping tool to help the public understand the health of the CAWS, making monitoring data available to the public. The application can be found at gispub.mwrdr.org/awqa and covers water quality, fish monitoring, and continuous dissolved oxygen and pinpoints the



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.

data to a map of sampling stations. The Citizen Incident Reporting Application, found on the District's website or via a mobile application, allows citizens to report incidents of odors, stream blockages, and other environmental-related issues. Dispatchers monitor both the online reporting system and a hotline 24 hours per day.

Resource Recovery

The District understands the obligation to implement sustainable practices and has invested in research and development of resource recovery programs. In 2017, the District continued both phosphorus and nitrogen recovery, which will provide significant environmental benefits to the CAWS and downstream through the Mississippi River to the Gulf of Mexico. Excess phosphorus in waterways can cause algae to grow and bloom, creating toxic conditions that destroy aquatic life and severely limit recreational activities. Phosphorus recovery at the Stickney WRP began in 2016 while we are working toward implementation at the Calumet WRP by 2022.



Recreational use of local waterways is growing. The District's new interactive mapping tool keeps users informed of local water quality.



From L to R: Franklin Park Village Trustee Andy Ybarra, MWRD Managing Civil Engineer Ahmad Laban, MWRD Commissioner Kari Steele, Franklin Park Village President Barrett Pedersen, Franklin Park Utilities Deputy Commissioner Andrew Smolen, and MWRD Environmental Soil Scientist Dominic Brose check out the sunflowers in Franklin Park's new garden that rose from a bed of MWRD biosolids to astonishing heights.

order to reach our goal of energy neutrality by 2023. In addition to implementing a food-to-energy program that will maximize use of digester capacity, the District is marketing electrical capacity at the Lockport Powerhouse, optimizing aeration processes that will reduce energy consumption by 25 percent, and introducing solar thermal and sewer thermal systems to heat water at the water reclamation plants.

Financial Summary

The District continues to maintain a AAA bond rating with Fitch Ratings and a AA+ bond rating from Standard & Poor's. The District's funding policies for both the Retirement Fund and Other Postemployment Benefits Fund demonstrate the District's commitment to long-term fiscal management and contribute to strong credit ratings. Further illustrating the District's commitment to sustainable capital program funding, the Bond Redemption & Interest Fund budget includes a pre-payment of \$28.4 million on several State Revolving Fund loans that will result in \$9.6 million in interest savings. These accomplishments, in the midst of an uncertain Illinois financial environment, are outstanding achievements and speak to the careful, thoughtful management of the agency as directed by the District's Board of Commissioners.

The 2018 Budget and the Five-Year Financial Plan were developed to maintain budgetary fund balances using the Strategic Business Plan as a guideline to establish priorities. The operation, maintenance, and investment in the District's infrastructure, flood control projects, and other essential services will continue to receive primary focus. The District has been aggressive over

During 2018, we will continue to pursue water reuse applications for high quality water produced at our plants in the Stickney and Calumet industrial corridors. We have made our first water sale. Chicago is a tough market for water reuse but we continue to pursue this road to promote the value of water and encourage a circular economy.

The District's Exceptional Quality (EQ) biosolids and EQ biosolids blend that is composted with wood chips continue to be successful compost products. 2017 is the first year EQ is recognized by the State of Illinois to be a viable, marketable product. The District began to sell compost to the public this year while continuing to support villages, park districts, and non-profit organizations. Our efforts included delivering 110 tons of compost to the Park District of Ford Heights for the construction of a youth baseball field and 127 tons to a park in Franklin Park. EQ Biosolids can be used anywhere that soil amendments and chemical fertilizers are used. In 2018, we plan to continue growing sales of our compost to private partners. This produces some revenue and considerable saving for the District in handling costs.

During 2018, the District will continue to evaluate and design treatment processes to optimize energy efficiency in

the past year in addressing some of the primary drivers of the budget, including energy costs, personnel and health care costs, and unfunded pension liabilities.

The 2018 Budget continues 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 2018 Final Budget, compared to the 2017 Budget as Adjusted is:

	<u>2018</u>	<u>2017 (Adjusted)</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
Total Tax Levy	\$621,317,594	\$599,925,800	\$22,032,222	3.7%
Aggregate Levy	\$329,699,997	\$319,555,195	\$10,144,802	3.2%
Appropriation	\$1,151,051,386	\$1,142,749,813	\$8,301,573	0.7%

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 2018 aggregate levy is equal to the estimated CPI plus new property for 2018.

Conclusion

Please take the time to review the 2018 update to the Strategic Business Plan in full on the following pages. The challenges are many. Our role is clear. We are committed as an agency to continue providing the excellent service expected of the District. We are raising the bar on water quality initiatives, recovering resources, neutralizing energy usage, and managing stormwater. In 2018, we will continue to implement our Strategic Business Plan as we build a resilient Cook County.

Respectfully submitted,



Mariyana T. Spyropoulos
President of the Board of Commissioners



Kari K. Steele
Chairman, Committee on Budget and Employment

STRATEGIC BUSINESS PLAN

Recovering Resources, Transforming Water

2018 UPDATE TO THE 2015-2020 STRATEGIC BUSINESS PLAN

In 2015, the Executive Team reviewed the 2011–2014 Strategic Business Plan (SBP) 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 served the District well. Although it remains important to keep our eyes focused on these areas to ensure that we continue to maintain excellence, the team set new goals for the next five years based on the Board of Commissioners’ input and recommendations.

During the past SBP, the District passed a Watershed Management Ordinance (2013) and a new infiltration and inflow program (2014). These programs are aimed at improving flood controls throughout the county and maintaining important infrastructure. The Illinois General Assembly granted the District the authority to support local flood mitigation projects and to purchase flood-prone properties – two important tools that are used in our work to protect the community from the impacts of severe storms (2014).

During the current SBP cycle, the Thornton Composite Reservoir came online (2015) and the first phase of McCook Reservoir was placed into service (2017). This dynamic duo provides over 10 billion gallons of flood protection to residents and water quality improvements to the Chicago Area Waterway System. The Illinois General Assembly amended the Illinois Environmental Protection Act to create the new definition of Exceptional Quality biosolids which clarifies their importance as a natural alternative to fertilizer (2015). Additionally, the District received authority to recover resources from the treatment process and resell these assets to help offset treatment costs (2015). 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.

The District’s Mission Statement and Values continue to guide the District’s future. So, without further ado, the District is excited to introduce the 2018 update to the SBP.

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 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 882.1 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 SBP 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 SBP 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 flood 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 wood chips in biosolids compost blend;
- Work with community to revitalize the urban forest through the “Restore the Canopy” program;
- Utilize Fulton County property for nutrient control.

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

- Establish contract turnaround timeframe agreements for all contract classes;
- Develop planning schedules and adhere to project timeframes;
- Streamline and simplify the budget process.

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 schedule.

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

- Develop automatic measures that indicate performance to our public.

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 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 WRP by 2016;
- Implement recovery process at the Calumet and Egan WRPs by 2022;
- Explore algae nutrient reduction processes as an additional recovery resource.

Energy: Achieve energy neutrality by 2023.

- Implement food-to-energy, doubling 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.

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

- Successfully bid the sale of biosolids to private partners.

Recycle and Prevention: Promote environmental stewardship through recycling and preventative measures.

- Recycle demolition material on all District projects;
- Ensure availability of medical disposal options;
- Explore opportunities for recycle partnerships;
- Develop prevention education materials to add to the new “Water Wellness” collection.

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 information technology vision;
- Ensure consistent data input from all users to produce useful information;
- Enhance use of current technology platforms.

SUMMARY

The District's SBP is used throughout the year to measure results and communicate progress to the Board of Commissioners and staff. This plan is reviewed and updated on an annual basis. It serves as a guiding document until replaced by a new SBP.

Budget Message / Highlights

The following pages illustrate how the District is implementing the Strategic Business Plan by summarizing major policies, ongoing programs, and initiatives that directly support the development of the District's 2018 annual budget. Specific strategies for each Goal highlight how the District is meeting our mission and the vision of "Recovering Resources, Transforming Water."

Goal 1 – Add Value

Develop and implement effective flood mitigation programs for our customers. 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 administer uniform rules for 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 regional projects identified within the DWPs and approved by the Board. In 2014, the Illinois General Assembly expanded the authority of the District's Stormwater Management Program to allow the District to address local drainage problems and acquire flood-prone property from property owners on a voluntary basis. These legislative changes allow the District to identify and assist municipalities with the implementation of projects that address local flooding concerns.

Structure a multi-dimensional, culture changing strategy around flood implementation. Building a resilient Cook County includes not only building traditional flood control measures, but also incorporating green infrastructure (GI) into regional planning. In 2017, the District accepted applications to help fund local government projects that utilize GI to better manage stormwater. GI can reduce wet-weather flows to combined sewer systems, reducing combined sewer overflows to local waterways and protecting water quality in these vital waterways. GI also reduces runoff volumes and improves water quality in separate sewer service areas. GI also provides social benefits that enhance the livability of communities. The 2018 Budget includes \$26.3 million in the Stormwater Management Fund for Intergovernmental Agreements that include GI projects and other stormwater improvements.

Work with community to revitalize the urban forest through the "Restore the Canopy, Plant a Tree" program. The District launched the "Restore the Canopy, Plant a Tree" program in April 2016 to replenish Cook County's tree canopy that was decimated due to emerald ash borer and extreme weather events. The District is distributing trees to community groups, municipalities, schools, and residents throughout Cook County. Since the program began, the District has partnered with approximately 125 different entities and has distributed more than 40,000 red oak, pin oak, swamp white oak, black oak, and pecan saplings.

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 76.1 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

Budget Message / Highlights

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 over 180 leases, 382 easements, and 73 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 leasing 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 \$21.5 million in 2018 in rental and fee income.

Goal 2 – Excellence

Manage resources to ensure financial stability targets are met.

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 health care 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 the 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, 2016, \$122.4 million has been contributed by the District to the OPEB Trust. The advance funding contribution for 2017 was \$5.0 million and the 2018 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.

The accumulated unfunded OPEB obligation is \$137.3 million as of December 31, 2015, 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.

Optimize energy intensive processes. The District began working with the Public Building Commission of Chicago (PBC) to conduct an Investment Grade Energy Audit of the District's facilities in 2014. The Investment Grade Energy Audit was completed by Noresco, an Energy Service Company (ESCO). The audit resulted in a comprehensive list of energy conservation projects that meet District requirements and objectives. Under the Investment Grade Energy Audit report, projects identified to be beneficial to the District include the installation of steam blanket insulation in eleven locations at the Calumet WRP, HVAC control upgrades in several buildings at the Calumet WRP, and upgrading the interior lighting with LED fixtures at the Stickney and Calumet WRPs. The District will save an estimated \$272,000 annually, resulting in a simple payback of 15.6 years. In addition, the District anticipates receiving Illinois Department of Commerce and Economic Opportunity rebates in the amount of \$314,000 for natural gas and \$243,400 for electricity.



Construction at the confluence of the McCook Reservoir Connecting Tunnel (left) and Mainstream Tunnel (right).

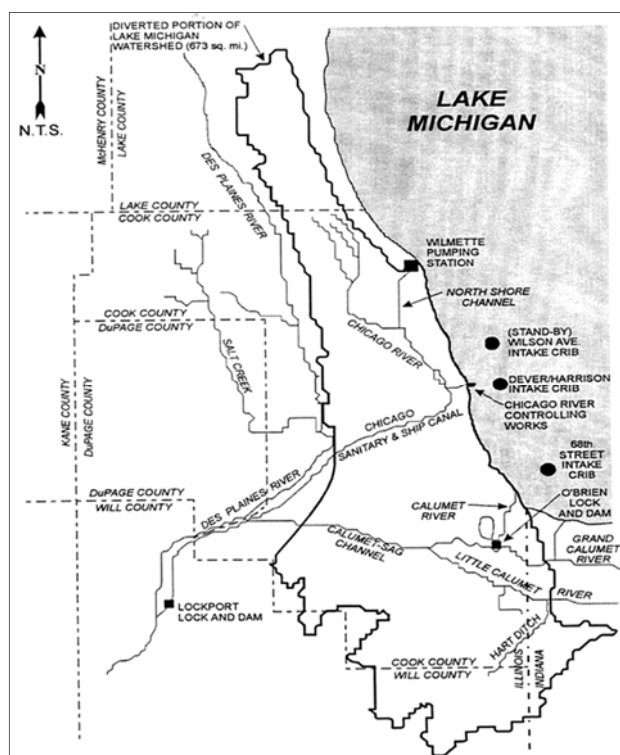
Budget Message / Highlights

Optimize chemical intensive processes. The District will cost-effectively collect and treat approximately 503.7 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. 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 was completed in 2015 and placed into service during 2016.

Establish excellence in maintenance and operations. The following examples demonstrate the District's commitment to excellence in maintenance and operations.

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.

Protect aquatic life: The District operates instream 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 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 2017, the District began implementing a preliminary operational optimization plan for Lake Michigan discretionary diversion and aeration stations to utilize these resources most efficiently, while improving water quality in the CAWS.



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.

Provide flood protection and improved water quality 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, three planned storage reservoirs provide an additional 11.7 billion gallons of capacity. See page 429 for the TARP system project status map.

Majewski Reservoir: This 350 million gallon reservoir was completed in 1998 and has prevented over 5.5 billion gallons of combined sewer overflow from entering the waterways and mitigated over \$380 million in flood damage.

Thornton Composite Reservoir: In November 2015, construction of the Thornton Composite Reservoir became operational. Through July of 2017, more than 11.0 billion gallons of polluted water have been captured.

McCook Reservoir: The McCook Reservoir, the last component of the TARP system, will service 3.1 million people in 37 communities in southwest Cook County, providing a total volume of 10.0 billion gallons. The first stage opened on December 4, 2017 with 3.5 billion gallons of storage. The second stage will provide 6.5 billion gallons of storage and is

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expected to be completed in 2029. The McCook Reservoir is projected to bring more than \$140 million annually in flood reduction benefits to residents in its service area.

The McCook Reservoir is being constructed on District property between the Des Plaines River and the Sanitary and Ship Canal. In 2016, mining of stage one was completed and stage two was 18 percent complete as of August 2017. A new 20-foot diameter inflow tunnel and gate shaft, scheduled to be completed in 2019, is being constructed to connect the existing Des Plaines Tunnel system directly to the McCook Reservoir. The new tunnel will provide a greater benefit to the communities served by the Des Plaines Tunnel than using the inflow/outflow tunnels.

Provide sewage collection and treatment and maintain award-winning plants.

In 2018, the District expects to collect and treat approximately 503.7 billion gallons of wastewater at our seven WRPs. These services will be performed in compliance with discharge permits issued by the US Environmental Protection Agency, 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 a 99.97 percent overall compliance with the National Pollutant Discharge Elimination System (NPDES) requirements in 2016. This compliance resulted in one Silver, one Gold and five Platinum Awards from the National Association of Clean Water Agencies (NACWA). Operating performance in 2017 is expected to achieve higher performance levels. See page 13 for Collection, Treatment, and Solids Utilization data.

The District is currently awaiting responses from the Illinois Environmental Protection Agency for the following renewal applications: Stickney WRP CAAPP Title V permit, Kirie WRP NPDES, Hanover Park WRP NPDES, Lemont WRP NPDES, Egan WRP NPDES, Lockport Powerhouse and General Stormwater NPDES.



In 2017, the Calumet WRP received the NACWA Platinum Award for 25 consecutive years of 100 percent discharge permit compliance.

Expedite capital improvement program projects in design, bid, contract award, and construction schedule. The District owns and operates seven modern and effective WRPs, 560 miles of intercepting sewers and force mains, 109.4 miles of TARP tunnels, 23 pumping stations, 34 flood control reservoirs, and three TARP reservoirs. Through preventive maintenance management, modernization, rehabilitation, and planned replacement, the District will ensure the long-term reliability and cost-effectiveness of operations. To aid planning and prioritize projects for both the near term, defined as zero to five years, and the long-term, projects in a five to 20-year timeframe, the District implemented procedures for project vetting and Long-Term Capital Plan evaluation. The project evaluation process requires review and approval from all of the operational departments.

Goal 3 – Resource Recovery

Recover phosphorus in a slow release fertilizer for environmentally-friendly reuse. In partnership with Ostara Nutrient Recovery Technologies, the District opened the world's largest nutrient recovery facility at the Stickney WRP. Phosphorus and nitrogen recovery will provide significant environmental benefits to the CAWS and downstream through the Mississippi River to the Gulf of Mexico. Excess phosphorus in waterways can cause algae to grow and bloom, creating toxic conditions that destroy aquatic life and severely limit recreational activities. Ostara's technology recovers phosphorus and nitrogen to create a high value fertilizer that is both economically and environmentally viable. The 2018 Budget includes \$1.6 million revenue estimate for phosphorus recovery efforts.

Pursue the sale of biosolids to the marketplace for repackaging. Due to changes in Illinois law in 2015, the District can sell Exceptional Quality (EQ) biosolids and EQ biosolids blend, produced by composting biosolids with wood chips, to the general public.

*Budget Message / Highlights***Collection, Treatment, and Solids Utilization for the Maintenance & Operations Department**

	Budgeted 2018	Budgeted 2017	Actual 2016	% Change 2017-2018
Total cost of collection (millions)	\$51.2	\$48.5	\$44.9	5.6%
Total cost of treatment (millions)	\$69.6	\$69.1	\$65.3	0.7%
Total cost of solids utilization (millions)	\$21.4	\$21.5	\$19.7	(0.5%)
Number of full time equivalent employees:				
Collection	243	237	239	2.5%
Treatment	378	382	384	(1.0%)
Solids Utilization	38	42	45	(9.5%)

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

Stickney WRP – Secondary	1,200/1,440	1,200/1,440	1,200/1,440
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

	Budgeted 2018	Budgeted 2017	Actual 2016	% Change 2017-2018
Outputs:				
Amount of wastewater collected and treated by plant:				
Stickney WRP (million gallons)	284,000	260,000	249,153	9.2%
Calumet WRP (million gallons)	100,000	100,000	92,800	--
O'Brien WRP (million gallons)	89,000	89,000	82,304	--
Kirie WRP (million gallons)	14,000	14,400	13,837	(2.8%)
Egan WRP (million gallons)	10,200	10,200	8,682	--
Hanover Park WRP (million gallons)	3,500	3,500	3,514	--
Fox River WRP (contract agreement)	2,000	2,000	2,206	--
Lemont WRP (million gallons)	1,000	1,000	1,000	--

	Budgeted 2018	Budgeted 2017	Actual 2016	% Change 2017-2018
Outputs:				
Dry tons of biosolids utilized by area:				
North Service Area	1,000	1,000	650	--
Calumet Service Area	29,000	29,000	15,347	--
Stickney Service Area	70,000	60,000	46,127	16.7%

Outcomes:

Achievement of water reclamation plant pollution permit requirements by plant:

	2016	2015	2014	2013
Stickney WRP	99.77%	100.00%	99.94%	99.71%
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%	100.00%	100.00%
Egan WRP	100.00%	100.00%	100.00%	99.96%
Hanover Park WRP	100.00%	100.00%	100.00%	100.00%
Lemont WRP	100.00%	100.00%	100.00%	100.00%

Budget Message / Highlights

Achieve Energy Neutrality by 2023. 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's Resource Recovery Ordinance established in 2016 has opened opportunities for industries to deliver high strength organic waste to the WRPs for co-digestion and biogas production. 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.

Pursue reuse applications for the high quality water produced at our plants. In 2015, the District began to investigate use of gray-water industrial reuse of treated water for 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.

Goal 4 – Develop Employees

Develop a culture that recognizes the value of every employee. The District's female and minority workforce rates are 26 and 41 percent, respectively, as of December 31, 2017. The rates are calculated based on published data from the 2010 census.

The District continues implementation of a reorganization plan focused on eliminating layers within the organization and consolidating the number of job classifications. The goal is to gain flexibility in the utilization of staff, increase the efficiency of operations throughout the District, and provide increased promotional opportunities to District employees.

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 or General Service 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 1,966 positions are budgeted for 2018, a decrease of 76 budgeted positions from 2017, including the drop of 58 Apprentice positions due to changes in the program. Through partnerships with unions, the program will seek to increase representation of females and minorities in selected trades classifications.

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, not including benefits, 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.

Develop and implement leadership initiatives that support succession planning. The District also develops employees of the organization by providing training, coaching, and leadership opportunities for supervisors and leaders. The combination of these endeavors in addition to employee selection efforts will build depth in the talent of the organizations' staff and provide ample selection for succession planning.



Clark, the Cubs mascot, helped celebrate the grand opening of a new baseball diamond in Ford Heights. The District provided 110 tons of biosolids compost for the project.

Budget Message / Highlights

Develop and implement competency-based individual development plans. The District plans to develop employees on an individual basis through improving its competency based performance evaluation process by including expanding measurable competencies and providing more opportunities for supervisors and employees to set goals, provide coaching, feedback, and individual development plans.

Goal 5 – Leading Partnerships

Develop strategic relationships with constituents through active involvement in a variety of venues and organizations on a local, state, and national level. The District is actively developing strategic partnerships such as those described below. For a complete list of professional memberships, please see page 618.

- On August 31, 2017, the District established a three-year Memorandum of Understanding with Current Innovations, NFP (Current) to support research and identify innovative water technologies and to streamline pilot testing or demonstrations beneficial to District operations. Current is a Chicago-based not-for-profit organization, launched in 2016 as a partnership of the City of Chicago, the District, and World Business Chicago. Current serves as a leading platform to validate, demonstrate, commercialize and scale innovative water technologies and promote research to solve critical water challenges.
- The Local Governmental Law Consortium that the Law Department established in 2015 provides a professional network with other local government in-house counsel in Cook County. Regular semi-annual meetings have been conducted and the Consortium is currently comprised of 16 public bodies, including eight Cook County municipalities, the City of Chicago Corporation Counsel, City of Chicago Department of Water Management, City Colleges, Chicago Housing Authority, Forest Preserve District of Cook County, Metropolitan Pier and Exposition Authority, and the Public Building Commission of Chicago.

Promote the District as one of the top leaders in the water industry. The District has partnered with the Army Corps of Engineers and the Chicago Park District on a project to remove the North Branch Dam from the Chicago River and restore riparian areas to provide better habitat for wildlife and improve connectivity in the waterway.

Currently, the District is leading the CAWS Chloride Reduction Initiative Work Group to address the water quality standards for chlorides within the CAWS. An important purpose of the group is to develop and implement Best Management Practices to address chloride issues within the CAWS due to the usage of road salt, particularly in the winter. The chlorides work group consists of municipalities, private industry, and nongovernmental organizations. The group includes four committees: social and economic impact, legal, water quality, and data acquisition, which all seek to provide insight on the most effective method to reduce chlorides within the CAWS.

Goal 6 – Technology

Provide reliable system services to every user. The District's Information Technology Department (ITD) aims to successfully integrate people, process and technology by fostering partnerships and consistently delivering solutions. The customer and business needs drive the organization. To become more agile in providing technology services to business partners, ITD has adopted an organizational model focused on service delivery. Success in this service-aligned organization is dependent on a clear understanding of how various departments in the District conduct business and the challenges they face. The introduction of the Project Management Office Section and the introduction of an IT Service Catalog are two vital steps towards helping the ITD gain this understanding. The new IT Service Catalog provides customers the ability to request services online using a self-service, web-based tool. Customers can see a list of available services, timeframes for service delivery, service history, and track progress for active service requests.

Utilize current capability and develop a shared information technology vision. The Project Management Office works closely with departments developing knowledge and understanding of their business processes, objectives and technology needs. By employing strong business skills to support equally strong technical capabilities, ITD achieves a better understanding of how services are consumed by the business; how ITD's actions affect customers' productivity, and how ITD can provide innovative solutions.

*Budget Message / Highlights***Tax Levy, Tax Rate, and Appropriations**

The overall 2018 tax levy required to finance the 2018 Budget is \$621.3 million, an increase of \$22.0 million, or 3.7 percent, from the 2017 Adjusted Budget. This overall increase is driven by a 17.1 percent increase in the Stormwater Management Fund, supporting the District's efforts to address flooding issues throughout Cook County, a 2.1 percent increase in the Bond Redemption & Interest Fund, and an aggregate 3.2 percent increase in the Corporate, Construction, Retirement, and Reserve Claim Funds. Among the funds subject to the Property Tax Extension Limitation law, a \$16.5 million increase in the Corporate Fund after four consecutive years of declining Corporate Fund levies is offset by decreases of \$4.6 million in the Construction Fund and \$1.9 million in the Retirement Fund. The Reserve Claim Fund has an increase of \$0.1 million, or 1.7 percent.

The overall tax rate for 2018, based on the most recent Equalized Assessed Valuation (EAV), totals 41.58 cents, a 0.25 cent increase from the 2017 Adjusted Tax Rate. The allowance for loss in collection of property taxes is budgeted at 3.5 percent, the same as 2017. The budgeted loss will be maintained at this level, based on trends in the required refunds of prior property tax payments.

Overall appropriations for 2018 total \$1,151.1 million, an increase of \$8.3 million, or 0.7 percent, from the 2017 Adjusted Budget. The increase is driven by a \$27.5 million increase in the Bond Redemption & Interest Fund, which includes a \$28.4 million pre-payment, a \$19.8 million increase in the Stormwater Management Fund, and a \$10.1 million increase in the Retirement Fund, and a \$1.3 million increase in the Corporate Fund. These increases are offset by a \$41.6 million decrease in the Capital Improvements Bond Fund and an \$8.4 million decrease in the Construction Fund. Explanations of these changes are provided in the following detailed Fund summaries.

<u>Levies</u>	<u>2018</u>	<u>2017 Adjusted</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
Corporate Fund	\$240,465,800	\$223,946,065	\$16,519,735	7.4%
Construction Fund	11,700,000	16,270,995	(4,570,995)	(28.1%)
Stormwater Management Fund	47,826,000	40,856,008	6,969,992	17.1%
Retirement Fund	71,534,197	73,438,135	(1,903,938)	(2.6%)
Reserve Claim Fund	6,000,000	5,900,000	100,000	1.7%
Bond Redemption & Interest Fund	243,791,597	238,874,169	4,917,428	2.1%
TOTAL	\$621,317,594	\$599,285,372	\$22,032,222	3.7%
<u>Appropriations</u>	<u>2018</u>	<u>2017 Adjusted</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
Corporate Fund	\$370,209,200	\$368,925,800	\$1,283,400	0.3%
Construction Fund	26,080,600	34,450,400	(8,369,800)	(24.3%)
Capital Improvements Bond Fund	312,982,900	354,625,600	(41,642,700)	(11.7%)
Stormwater Management Fund	65,581,000	45,800,100	19,780,900	43.2%
Retirement Fund	89,604,000	79,505,000	10,099,000	12.7%
Reserve Claim Fund	30,289,500	30,617,100	(327,600)	(1.1%)
Bond Redemption & Interest Fund	256,304,186	228,825,813	27,478,373	12.0%
TOTAL	\$1,151,051,386	\$1,142,749,813	\$8,301,573	0.7%

Comparisons of the estimated taxes paid by the owner of a home with a market value of \$100,000 for 2018 as budgeted, and 2017 as adjusted for the 2016 EAV, are as follows:

	<u>2018 Budgeted</u>	<u>2017 Adjusted</u>	<u>Increase</u>	<u>Percent Change</u>
Estimated taxes for \$100,000 home	\$116.56	\$115.86	\$0.70	0.60%

Budget Message / Highlights

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 Generally 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.



MWRD staff uses hands on demonstrations to educate sixth graders on STEM careers at the Museum of Science and Industry

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.

Budget Message / Highlights

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.

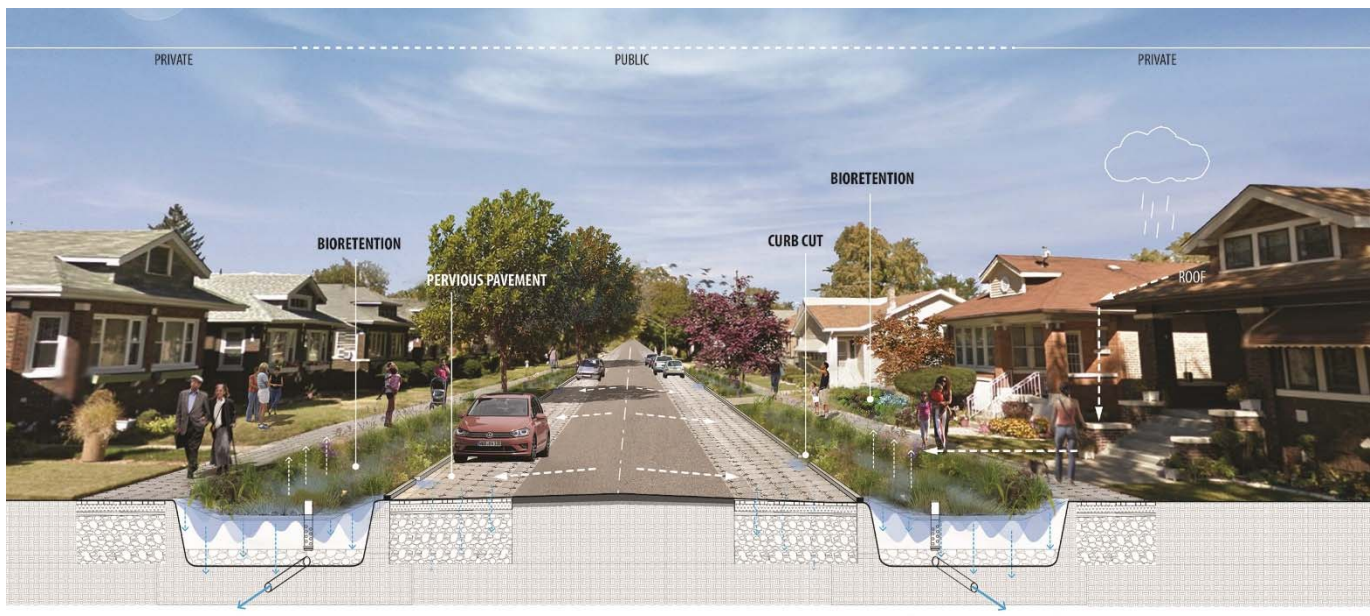
Corporate Fund

The Corporate Fund is the District's general operating fund and includes appropriation requests for all the day-to-day operational costs anticipated for 2018. The total appropriation for the Corporate Fund in 2018 is \$370.2 million, an increase of \$1.3 million, or 0.3 percent, from the 2017 Adjusted Budget. The 2018 tax levy for the Corporate Fund is \$240.5 million, an increase of \$16.5 million or 7.4 percent compared to the 2017 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. A strong fund balance allows the District to balance the competing imperatives of minimizing the annual levy and providing for unexpected shortfalls in revenues.

Continuing through 2018, economically sensitive non-property tax revenues, such as interest income, are expected to grow slightly 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 41.00 cents per \$100 of EAV. The estimated tax rate for the Corporate Fund in 2018 is 16.11 cents, an increase of 0.66 cents from 2017 Adjusted Tax Rate. User charges, budgeted at \$46.0 million for 2018, 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 include chemical manufacturers, food processors, and government services, are generally expected to maintain their recent level of discharges.

Stormwater Management Fund

The Stormwater Management Fund is utilized to plan, implement, and finance stormwater management activities throughout all of Cook County, including stream maintenance in 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 serves as a framework for the District's countywide Stormwater Management Program.



This is a conceptualized illustration of green infrastructure that will minimize urban flooding. In addition, green infrastructure provides water quality and social benefits that enhance the livability of communities.

Budget Message / Highlights

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 include streambank stabilization projects, which involve addressing critical active streambank erosion threatening public safety, structures, and/or infrastructure, or flood control projects, which address regional overbank flooding. The Board of Commissioners has approved over 30 regional projects moving forward to design and construction.

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 the District’s Phase II Stormwater Management Program, the intent of which is to identify and assist municipalities with the implementation of projects that address local flooding concerns through a variety of engineered solutions—both green infrastructure and traditional gray projects, and flood-prone property acquisitions.

The initial Stormwater Master Plans were completed in 2016 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 defined through the initial pilot studies.

The Board of Commissioners granted authority in 2011 for the establishment of a Green Infrastructure Program (GIP), which facilitates the planning, design, and construction of multiple green infrastructure projects throughout Cook County. In 2014, the District began a partnership with the Chicago Department of Water Management and the Chicago Public Schools in the Space to Grow program to provide stormwater retention at elementary schools while reconstructing substandard playgrounds. In 2017, the District also partnered in green infrastructure projects in the Village of Skokie and the City of Berwyn.

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 developed a Technical Guidance manual to serve as a companion reference to the WMO. The District conducts training for municipal representatives and design engineers on the WMO’s requirements.

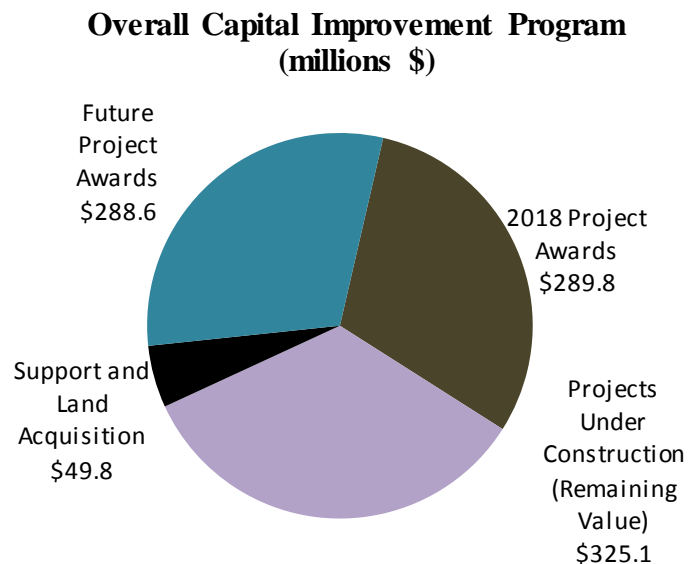
Property taxes are the primary funding source for the District’s Stormwater Management Fund. Illinois law limits the tax rate of this fund to five cents per \$100 of EAV. The estimated tax rate for the Stormwater Management Fund in 2018 is 3.2 cents, an increase of 0.38 cents from 2017 Adjusted Tax Rate.

Capital Improvement Program:

**Construction Fund and
Capital Improvements Bond Fund**

The District’s overall Capital Improvement Program (CIP) includes 2018 project awards, land acquisition, support, future projects, and the construction value remaining on projects currently under construction. The 2018 CIP has a total estimated cost of \$953.3 million. 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.

Projects under construction have been presented and authorized in previous budgets and are recognized in the annual budget as outstanding liabilities in the Capital Improvements Bond Fund (CIBF). In the Construction Fund, projects are re-appropriated. 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.



Budget Message / Highlights

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 or other funding 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 Fund, Construction Fund, 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 Illinois Property Tax Extension Limitation Law (Tax Cap) limits new debt that the District can issue by a debt service extension base (DSEB), which allows 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 do not exceed the limit. However, an exemption for projects initiated before October 1, 1991 was granted to the District to enable completion of the TARP.

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.

Construction Fund

The Construction Fund appropriation for 2018 totals \$26.1 million, a decrease of \$8.4 million, or 24.3 percent, from the 2017 Adjusted Budget.

Capital projects in the Construction Fund are primarily supported by property taxes. The 2018 tax levy planned for the Construction Fund is \$11.7 million, a decrease of \$4.6 million from the 2017 Adjusted Levy.

Capital Improvements Bond Fund

The 2018 appropriation for the Capital Improvements Bond Fund is \$313.0 million, a decrease of \$41.6 million, or 11.7 percent, from the 2017 Adjusted Budget. The appropriation is based on the scheduled award of \$275.2 million in construction costs on projects. The decrease in appropriation for the CIBF 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 \$37.8 million appropriation for this fund will provide for studies and professional services 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 2018, 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.

To address growing unfunded pension liabilities, 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, by creating two tiers within the plans. 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



Settling tanks at the Calumet Water Reclamation Plant.

Budget Message / Highlights

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 District has addressed pension liabilities through both funding policies approved by the Board of Commissioners and supporting legislative changes for the Metropolitan Water Reclamation District Retirement Fund. On August 3, 2012, Public Act 97-0894 was signed into law and increased the employee contributions by one percent per year for three years for employees who were members before January 1, 2011. The increased contribution will remain in place until the fund reaches a 90 percent funding ratio.

The 2018 appropriation for the Retirement Fund is \$89.6 million, an increase of \$10.1 million, or 12.7 percent, compared to the 2017 Adjusted Budget. The 2018 total tax support for the Retirement Fund is \$86.7 million, which is comprised of \$18.3 million from the District’s Personal Property Replacement Tax allocation and a \$71.5 million property tax levy. The property tax levy of \$71.5 million is a decrease of \$1.9 million, or 2.6 percent, from the 2017 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. The 2012 law increased the tax levy calculation from a multiplier of 2.19 of employee to a multiplier of 4.19. 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.

Reserve Claim Fund

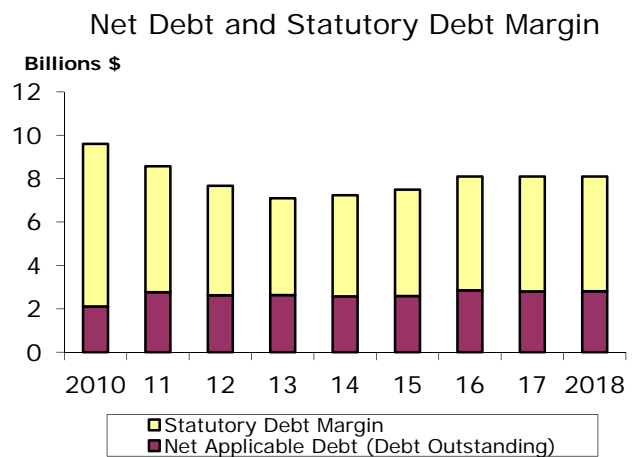
The Reserve Claim Fund acts as the District’s insurance fund. The District is partially self-insured and utilizes this fund for emergency repairs and claims against the District. District policy is to annually levy a half-cent annual tax rate to provide funds for current claims and to accumulate a fund reserve towards the statutorily authorized limit of \$70.4 million.

The 2017 appropriation of \$30.3 million is decrease of \$0.3 million, or 1.1 percent, from the 2017 Adjusted Budget. The practice is to fund toward the maximum fund balance allowable. 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 2018. The District is levying against the last know EAV at the maximum rate allowed by state statute in 2018. 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 2018 Budget, the last known EAV (\$140.8 billion) is for the 2016 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 1.76 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 \$150 million in SRF loans through the year 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 2016 EAV is \$140.8 billion, setting the District’s statutory debt limit at \$8.1 billion. Outstanding debt applicable to the debt limit as of December 31, 2017, totals \$2.8 billion. The debt margin is \$5.3 billion.

Budget Message / Highlights

The 2018 appropriation for the Bond Redemption & Interest Fund totals \$256.3 million, an increase of \$27.5 million, or 12.0 percent, compared to the 2017 Adjusted Budget. The appropriation includes a \$28.4 million prepayment on seven State Revolving Fund loans that will result in \$9.6 million in interest savings. A debt service graph is found on page 52 that displays debt service from 2010 through 2022 and one on page 586 that displays debt service from 2018 through retirement. The 2018 tax levy for this fund is \$243.8 million, an increase of \$4.9 million, or 2.1 percent, from the 2017 Adjusted Levy.

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 2006, the CPI has averaged 1.9 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 Retirement Fund. The District remains aggressive in controlling Corporate Fund expenditures. 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. To provide for refunds, the rate for loss in collections is 3.5 percent.

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 2018 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 2018 is projected to be \$7.8 million, an increase of \$2.8 million from the 2017 Adjusted Budget. The actual revenue for 2016 was \$5.9 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 2018. 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 estimated for 2018 is \$38.1 million, an increase of \$1.2 million from the 2017 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 seen a declining trend over the past three years and are expected to continue to decrease slightly annually until 2021. Due to several large one-time payments during 2017, however, year-end revenues are projected at \$52.6 million. Food processing, chemical, and government segments of the local economy comprise the majority of large payers. The 2018 revenues are conservatively estimated to be \$46.0 million.

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. The 2018 limit is \$166,717,074. 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 Bond Series of August 2009, Series B of July 2011, 2014 Series C, 2016 Series D & F Bonds, Refunding Bonds Series C of March 2007, 2014 Series D, and 2016 Series B, there is approximately \$15.9 million annual debt service available under the 1994 debt service limit related to the tax levy year 2017.

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 two 2017 legislative initiatives which passed the legislature and were signed into law by the Governor in 2017.

Public Act 100-0244 amends the District’s retirement benefits to extend survivor benefits in accord with the Illinois Religious Freedom and Marriage Fairness Act. The legislation narrowly applies to annuitants who retired prior to June 1, 2011 and received a spousal refund at the time of their separation from service.

Public Act 100-0341 will allow the District to participate in a nutrient trading program throughout Illinois to meet water quality standards, in the event that nutrient trading becomes available.

Budget Message / Highlights

Major Budget Amendments Impacting the 2018 Final Adopted and Amended Budget

The 2018 Executive Director's Recommended Budget was presented to the Board of Commissioners on October 17, 2017. The Committee on Budget and Employment held departmental budget presentations on November 2, 2017 and a Public Hearing on the budget was held on December 7, 2017. At the public hearing, the Civic Federation, a non-partisan government research organization, testified in support of the District's budget and policy priorities. The Friends of the Chicago River, Center for Neighborhood Technology, and the Better Government Association also provided public comment on the budget. The Board adopted the budget on December 14, 2017, and pursuant to State Statute (70 ILCS 2605), made final amendments on December 21, 2017.

The purpose of this section is to describe budgetary amendments between the Executive Director's Recommendations and the Final Adopted and Amended Budget. The total appropriation increased by \$39.2 million, or 3.5 percent, from the 2018 Executive Director's Recommendations of \$1.11 billion to \$1.15 billion.

The Retirement Fund, Reserve Claim Fund, and Bond Redemption & Interest Fund were adopted without modification from the 2018 Executive Director's Recommendations.

Revenues

The total tax levy increased by \$580,310, or 0.1 percent, from the 2018 Executive Director's Recommendations of \$620.7 million to \$621.3 million due to an increase to the Bond Redemption & Interest Fund Levy for anticipated State Revolving Loan Fund debt service payments. Higher than originally anticipated TIF surplus declaration by the City of Chicago increased the District's Corporate Fund non-tax revenue by \$7.5 million, allowing for a reallocation of the property tax allocations under the tax cap from the Corporate Fund to the Construction Fund.

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 2018. The total appropriation request for the Corporate Fund increased by \$3.6 million, or 1.0 percent, from the 2018 Executive Director's Recommendations of \$366.6 million to \$370.2 million. The increase is primarily due to the anticipated wage increases for represented employees, a general salary adjustment approved by the Board, and an increase for an Inspector General.

	<u>Appropriations</u>	
	<u>2018 Executive Director's Recommendations</u>	<u>2018 Final Adopted and Amended Budget</u>
Corporate Fund	\$ 366,579,800	\$ 370,209,200
Construction Fund	24,794,100	26,080,600
Retirement Fund	89,604,000	89,604,000
Reserve Claim Fund	30,289,500	30,289,500
Capital Improvements Bond Fund	278,427,700	312,982,900
Stormwater Management Fund	65,880,200	65,581,000
Bond Redemption & Interest Fund	256,304,186	256,304,186
Total Budget	\$ 1,111,879,486	\$ 1,151,051,386

Construction Fund

The Construction Fund, which finances smaller construction projects on a pay-as-you-go basis, increased by \$1.3 million, or 5.2 percent, from the 2018 Executive Director's Recommendations of \$24.8 million to \$26.1 million. Major projects added include influent gate actuators at the O'Brien WRP and projects for auditorium, bathroom, and HVAC improvements at the Stickney WRP Laboratory.

Capital Improvements Bond Fund

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 total appropriation request for the Capital Improvements Bond Fund increased by \$34.6 million, or 12.4 percent, from the 2018 Executive Director's Recommendations of \$278.4 million to \$313.0 million. The increase is due to the changes in the project schedules and cost estimates as well as the addition of several priority projects. Major projects added include digester rehabilitation and gas piping replacement at the Stickney WRP (\$15.8 million), organic waste receiving station at the Calumet WRP (\$8.5 million), and an odor control system at the Thornton Reservoir (\$1.2 million).

Stormwater Management Fund

The Stormwater Management Fund decreased by \$299,200 due to the movement of one project to the Capital Improvements Bond Fund (\$400,000), offset by the transfer in of a Principal Engineer from the North Service Area of the Maintenance & Operations Department (\$137,200).

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 on December 10, 2009. The Bond Redemption & Interest Funds Investment Income policy was amended on November 3, 2011. The Stormwater Management Fund policy was adopted on December 10, 2009 and amended on November 3, 2011 and December 17, 2015.

General Corporate Fund

- Corporate Fund undesignated fund balance as of January 1 of each budget year must be maintained at 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;
- Reserve Claim Fund balance will be 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 the remainder of the levy shall 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, which is not to exceed a five percent increase over the prior year, excluding 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, royalties, 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.

Annual Budget

The District's Annual Budget 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:

- Provide for a funding plan based on actuarially determined contributions;
- Provide funding discipline to ensure promised benefits can be paid;
- Seek reasonable and equitable allocation of the cost of benefits over time;
- Minimize volatility of the District's contributions to the extent reasonably possible and consistent with other policy goals;
- 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 2018, 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 33rd consecutive year, the GFOA of the United States and Canada has presented the Distinguished Budget Presentation for the District's 2017 Annual Budget. In 2016, the District received special recognition in the category of Performance Measures. The entire 2018 Budget is available at www.mwrd.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 deposits of banks and savings and loan associations which are insured by a federal corporation; (4) short-term discount

Financial Policies, Objectives, and Accomplishments

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:

2008	\$ 32,100,000		2013	\$ 11,525,000	
2009	11,000,000		2014	8,335,000	
2010	8,100,000		2015	6,426,000	
2011	9,800,000		2016	5,892,000	
2012	10,300,000		2017	6,951,000	(Estimated)
			Total	\$ 110,429,000	

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 AA+ 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 & Poor's Corporation (S&P) 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. In May 2016, S&P downgraded the District's bond rating from AAA to AA+. 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 and S&P'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

For the 2016 Bond issue, Fitch Ratings 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. Standard & Poor’s Corporation downgraded the District’s rating to AA+ from AAA, citing the increasing overall debt burden and potential impact of pension liabilities, and the overlapping tax base. The District did not request a rating from Moody’s for the 2016 Bonds.

Bond Rating History

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			1969-2001	AA
2002-2013	Aaa	1995-1999	AA	2001-2006	AA+
2013-2014	Aa1	1999-2001	AA+	2006-2016	AAA
2015-present	Aa2	2001-present	AAA	2016-present	AA+

In May 2016, Standard & Poor’s Corporation downgraded the District’s Bond from AAA to AA+ due to the potential impacts of pension liabilities and debt of overlapping governmental entities on the District’s tax base. 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 issue debt for a maximum of 30 years after contracting the debt. In addition, the District’s Act was amended to extend non-referendum bonding authority to December 31, 2024.

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.

Financial Policies, Objectives, and Accomplishments

- 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:
 - 100 percent maximum funding level;
 - 12 year funding period;
 - \$5 million funding in each of the 12 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 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, 2016, and for the MWRD Retiree Health Care Trust for the year ended December 31, 2016. This is the 42nd consecutive year and 10th consecutive year that the District has received these prestigious awards, respectively. The CAFRs are available on the Internet at www.mwrdd.org. The external audit of the District's 2016 financial statements, completed on May 12, 2017, includes an unmodified opinion. In 2017, the Internal Audit Section completed 10 audits and financial reviews of 15 lease applications.

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

Policy decisions and budgetary priorities are guided by the District's Strategic Business Plan, which is updated annually after a public meeting that kicks off the budget season. 2018 is the fourth year of the current five-year plan, with the vision statement *Recovering Resources, Transforming Water*. The plan sets out values, mission, a vision statement, and goals and strategies that guide decision making and is used throughout the year to measure results and communicate progress to the Board of Commissioners and staff. It serves as a guiding document until replaced by a new Strategic Business Plan.

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.

Policy Development and The Budget Process

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 & Budget Section of General Administration, staff to the Executive Director, prepares the Annual Budget and five-year financial plan, including coordinating and consolidating the capital and maintenance plans for the upcoming and future years. 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. The 2018-2022 Five-Year Financial Forecast has been updated to incorporate budgetary amendments approved by the Board of Commissioners in the 2018 Final Adopted and Amended Budget, December 21, 2017.

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 August.
2. The public budget process begins with Board of the Commissioner Study Sessions providing a budget overview in June.
3. A revenue meeting is conducted by the Executive Director, Administrative Services Officer, and Budget Officer, along with those departments responsible for revenue items. Available resources used to finance the Budget are analyzed at this meeting.
4. 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.
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 2018 BUDGET

Board of Commissioners Holds a Study Session on
Budget Overview immediately following the Regular Board Meeting Thursday, May 18, 2017

Board of Commissioners Holds a Study Session on
Budget Overview immediately following the Regular Board Meeting Thursday, June 1, 2017

Board of Commissioners Holds a Study Session on
Budget Overview immediately following the Regular Board Meeting Thursday, June 15, 2017

Executive Director’s Budget Recommendations
Submitted to Board of Commissioners Tuesday, October 17, 2017

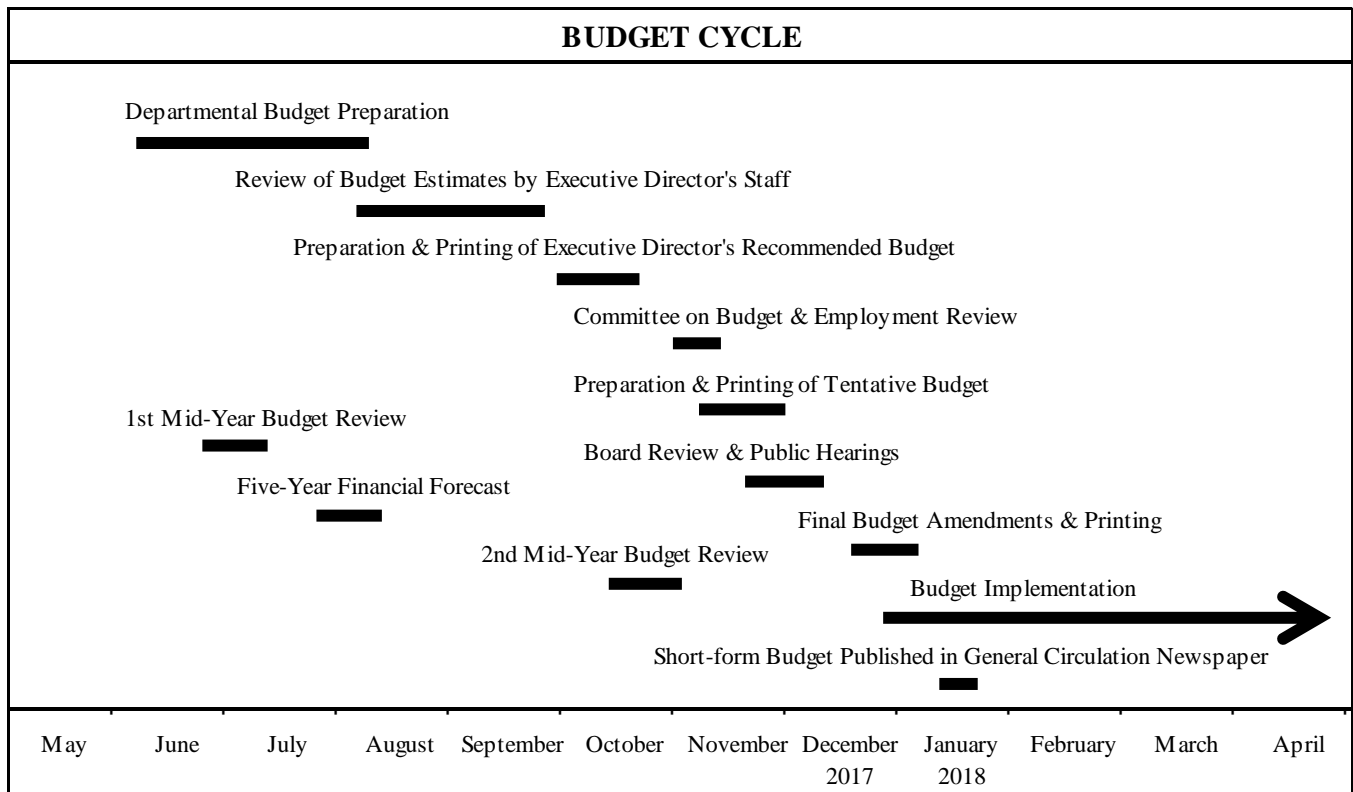
Committee on Budget & Employment Hearings at 1:00 P.M.Thursday, November 2, 2017
(Friday, November 3, 2017, if necessary)

Committee on Budget & Employment Submits Tentative Budget
to Board of Commissioners for Public Display Tuesday, November 21, 2017

Board of Commissioners Holds a Public Hearing
on the Budget at 2:00 P.M. Thursday, December 7, 2017

Board of Commissioners Adopts the Budget..... Thursday, December 14, 2017

Board of Commissioners Amends the Adopted Budget Thursday, December 21, 2017



The procedure for the annual budget process is detailed on the previous pages.

CHICAGO, November 21, 2017

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, 2018 and ending December 31, 2018, as prepared and submitted by the Executive Director in the document entitled "2018 Budget – Executive Director's Recommendations – October 17, 2017," 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, 2018, 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, 2018 and ending December 31, 2018";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2018 and ending December 31, 2018, 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, 2018, 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, 2018 and ending December 31, 2018, 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, 2018, 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, 2018 and ending December 31, 2018, 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, 2018 and ending December 31, 2018, 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, 2018, 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, 2018 and ending December 31, 2018, 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, 2018, 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, 2018 and ending December 31, 2018”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2018 and ending December 31, 2018 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, 2018, 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, 2018 and ending December 31, 2018, 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, 2018, 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, 2018 and ending December 31, 2018, 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, 2018 and ending December 31, 2018, 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, 2018, for the purpose of providing revenues for the Reserve Claim Fund”;

Approved as to Form and Legality:



Head Assistant Attorney



General Counsel

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2018 and ending December 31, 2018, 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, 2018, 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 2018 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, 2018 and ending December 31, 2018;

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 2018 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, 2018 and ending December 31, 2018, shall be published once before January 20, 2018, 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,



Chairman,
Committee on Budget and Employment

ORDINANCE NUMBER O17-002A

**ANNUAL APPROPRIATION ORDINANCE OF THE
METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2018
AND ENDING DECEMBER 31, 2018**

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, 2018 and ending December 31, 2018.”

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, 2018 and ending December 31, 2018.

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 2018 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? and 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.

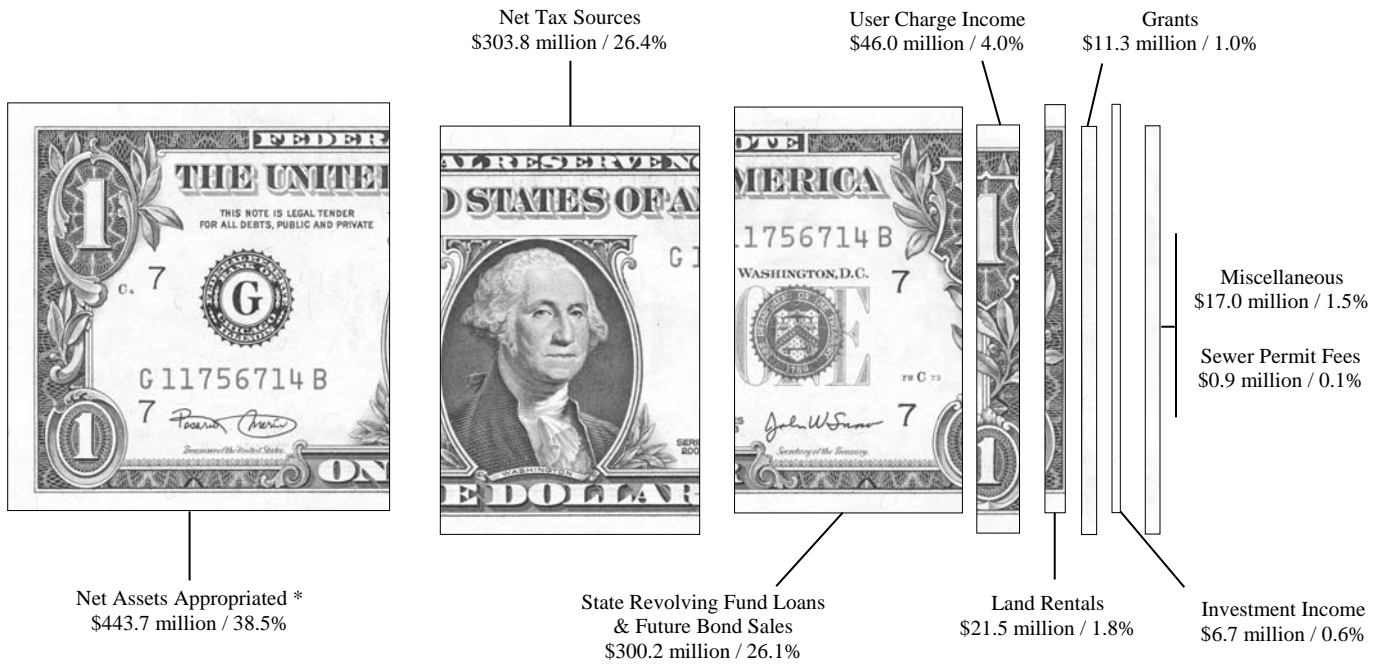
Continuing to look at the overall picture, this section presents a detailed view of the entire budget, organizing information in different ways so that the user can compare budget and current year appropriations by department, fund, object, and program. Allocation of personnel is also compared by year,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

Having looked at the budget plan for 2018 and comparing it to previous years, this section also provides a projection of the future: the comprehensive Five-Year Financial Forecast for 2018-2022.

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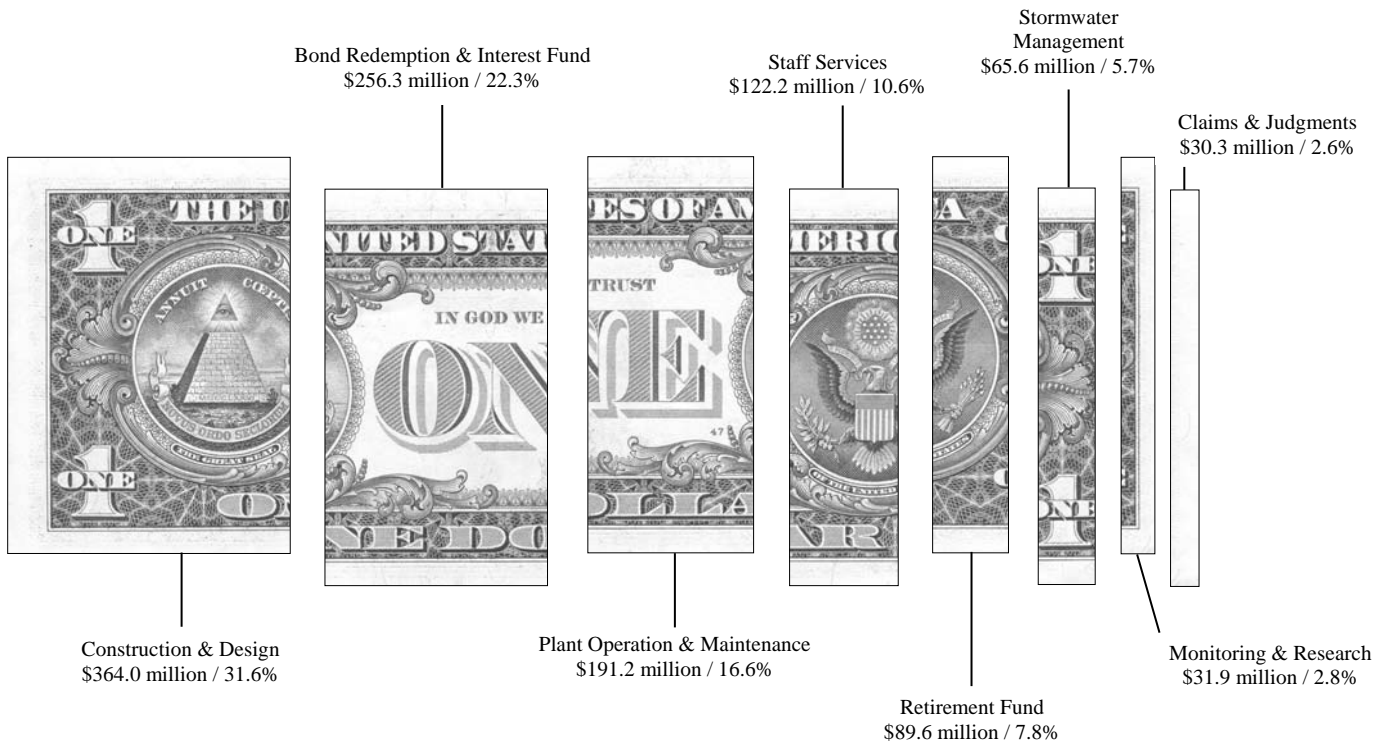
Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

WHERE THE MONEY COMES FROM: \$1,151.1 MILLION



* \$443.7 of the \$547.0 Net Assets Appropriable detailed in the analysis on the next page will be appropriated as revenue for 2018 (excludes Capital Improvements Bond Fund).

WHERE THE MONEY GOES: \$1,151.1 MILLION



SUMMARY OF NET ASSETS APPROPRIABLE

at January 1, 2018

(In Millions)

CURRENT ASSETS	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
Cash & Investments	\$ 127.3	\$ 337.2	\$ 13.9	\$ 16.0	\$ -	\$ 112.9	\$ 24.5	\$ 631.8
Restricted Cash	-	-	-	-	-	-	-	-
Deposit with Escrow Agent	-	-	-	-	-	-	-	-
Taxes Receivable	216.7	-	16.4	39.8	70.9	226.6	5.7	576.1
Replacement Tax	18.2	-	-	-	18.7	-	-	36.9
Grants	-	0.9	-	-	-	-	-	0.9
State Revolving Fund								
Loans Receivable	-	150.0	-	-	-	-	-	150.0
Due from Other Funds	-	-	-	-	-	-	-	-
Total	\$ 362.2	\$ 488.1	\$ 30.3	\$ 55.8	\$ 89.6	\$ 339.5	\$ 30.2	\$ 1,395.7
CURRENT LIABILITIES, DESIGNATIONS AND RESTRICTIONS								
Unpaid Bills and								
Contingent Liabilities	\$ 34.9	\$ 1,114.2	\$ 3.6	\$ 3.6	\$ -	\$ -	\$ 0.2	\$ 1,156.5
Due to Working Cash Funds	190.0	-	12.0	26.5	-	-	-	228.5
Liabilities for Restricted Assets	-	-	-	-	-	-	-	-
Principal and Interest	-	-	-	-	-	90.0	-	90.0
Total	\$ 224.9	\$ 1,114.2	\$ 15.6	\$ 30.1	\$ -	\$ 90.0	\$ 0.2	\$ 1,475.0
*Net Assets Appropriable	\$ 137.3	\$ (626.1)	\$ 14.7	\$ 25.7	\$ 89.6	\$ 249.5	\$ 30.0	\$ (79.3)
Budget Reserve	\$ (103.3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (103.3)
Net Assets Appropriated	\$ 34.0	\$ (626.1)	\$ 14.7	\$ 25.7	\$ 89.6	\$ 249.5	\$ 30.0	\$ (182.6)
Equity Transfer	\$ 4.2	\$ (4.2)	\$ -	\$ (5.8)	\$ -	\$ 5.8	\$ -	\$ -

* 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, 2018.

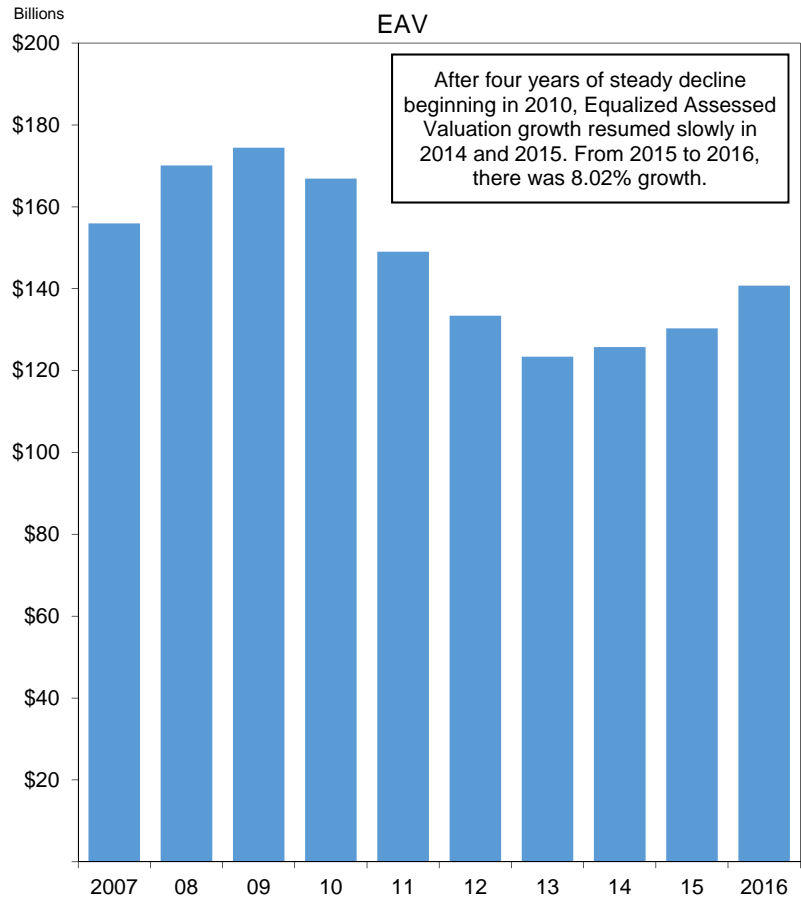
Gross Corporate Fund.....	16.11 ¢
Construction Fund.....	0.78
Stormwater Management Fund.....	3.20
Retirement Fund.....	4.79
Reserve Claim Fund.....	<u>0.40</u>
Subtotal.....	25.28 ¢
Bond Redemption & Interest Fund:	
Capital Improvement Bonds - Series:	
August 2009 Limited Tax Series.....	2.38 ¢
July 2011 Limited Tax Series B.....	1.94
July 2011 Unlimited Tax Series C.....	0.28
December 2014 Limited Tax Series C.....	0.45
December 2014 Unlimited Tax Series A.....	0.35
December 2014 Stormwater Alt Rev Unlimited Tax Series B.....	0.23
June 2016 Stormwater Alt Rev Unlimited Tax Series E.....	0.17
June 2016 Unlimited Tax Series C.....	0.10
June 2016 Limited Tax Series D.....	0.07
June 2016 Qualified Energy Conservation Series F.....	0.01
State Revolving Fund Bonds - Series:	
Various	5.72 ¢
Refunding Bonds - Series:	
March 2007 Unlimited Tax Series A.....	1.78 ¢
March 2007 Unlimited Tax Series B.....	0.33
March 2007 Limited Tax Series C.....	0.37
December 2014 Limited Tax Series D.....	1.01
June 2016 Unlimited Tax Series A.....	0.97
June 2016 Limited Tax Series B.....	<u>0.14</u>
Subtotal Bond Redemption & Interest Fund.....	16.30 ¢
TOTAL ESTIMATED TAX RATE - 2018.....	<u><u>41.58 ¢</u></u>

TAXABLE PROPERTY WITHIN THE DISTRICT (Equalized Assessed Valuation)

The equalized assessed property valuation (EAV) of the Metropolitan Water Reclamation District increased 8.02% from 2015 to 2016, showing the significant recovery after four years of decline from 2010 to 2013. 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.

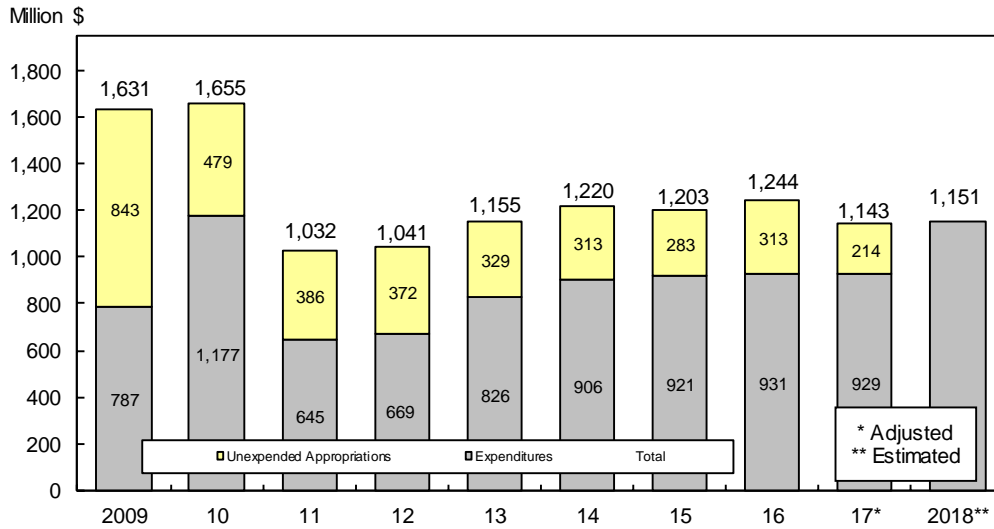
The equalized assessed valuation of real estate property is determined in Cook County based on market values of real estate, reduced by a classification factor determined by property use, and then multiplied by the State of Illinois equalization factor. The statutory objective is to value property at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



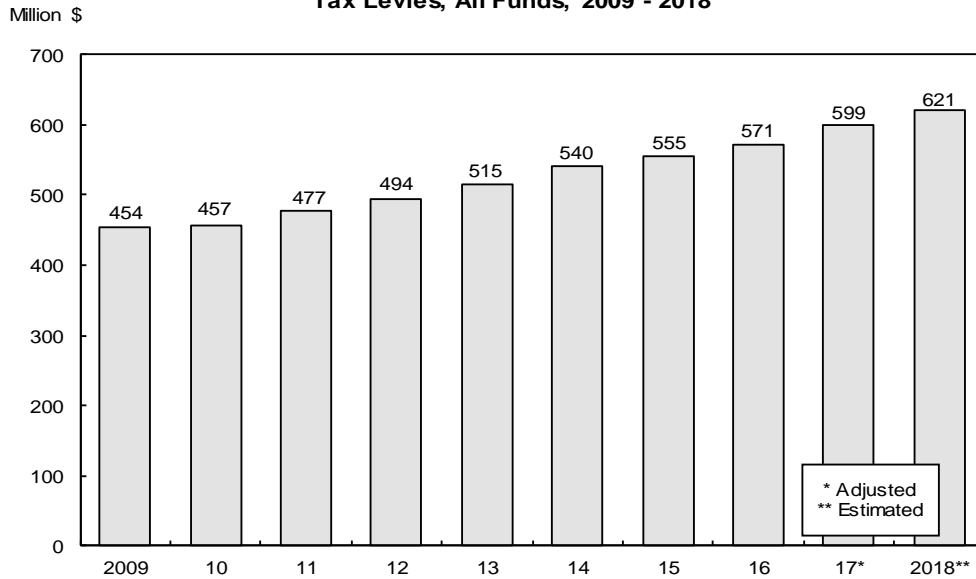
Year	Real Property	Railroad Property and Pollution Control Facilities	Total
2007	155.80 billion	172.25 million	155.97 billion
2008	169.91 billion	186.24 million	170.10 billion
2009	174.26 billion	212.23 million	174.47 billion
2010	166.66 billion	256.49 million	166.92 billion
2011	148.77 billion	275.01 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
2015	129.96 billion	344.38 million	130.30 billion
2016	140.40 billion	350.47 million	140.75 billion

Appropriations & Expenditures, 2009 - 2018

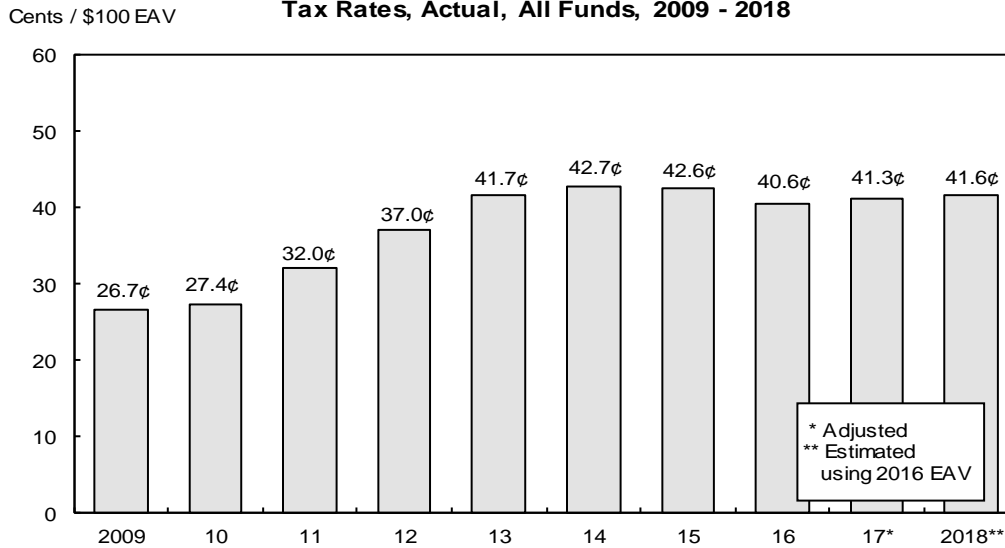


Note: Amounts are rounded.

Tax Levies, All Funds, 2009 - 2018



Tax Rates, Actual, All Funds, 2009 - 2018



COMPARATIVE STATEMENT OF APPROPRIATIONS AND TAX LEVIES 2018-2016 ALL FUNDS

APPROPRIATIONS	2018 **	2017 AS PASSED	2017 AS ADJUSTED *	2016 ACTUAL
FUND				
Corporate Fund	\$ 370,209,200	\$ 368,925,800	\$ 368,925,800	\$ 366,260,700
Construction Fund	26,080,600	34,450,400	34,450,400	36,614,400
Capital Improvements Bond Fund ***	312,982,900	354,625,600	354,625,600	483,764,800
Stormwater Management Fund	65,581,000	45,800,100	45,800,100	40,500,800
Retirement Fund	89,604,000	79,505,000	79,505,000	70,772,000
Reserve Claim Fund	30,289,500	30,617,100	30,617,100	30,175,900
Bond Redemption & Interest Fund	256,304,186	228,825,813	228,825,813	216,047,130
TOTAL	\$ 1,151,051,386	\$ 1,142,749,813	\$ 1,142,749,813	\$ 1,244,135,730
LEVIES				
Corporate Fund	\$ 240,465,800	\$ 223,946,065	\$ 223,946,065	\$ 226,742,879
Construction Fund	11,700,000	17,000,000	16,270,995	13,784,956
Stormwater Management Fund	47,826,000	40,856,008	40,856,008	34,250,000
Retirement Fund	71,534,197	73,438,135	73,438,135	65,161,200
Reserve Claim Fund	6,000,000	5,900,000	5,900,000	5,800,000
Subtotal	\$ 377,525,997	\$ 361,140,208	\$ 360,411,203	\$ 345,739,035
Bond Redemption & Interest Fund:				
Capital Improvement Bonds - Series:				
June 2016 QECB Series F	\$ 165,804	\$ 165,804	\$ 165,804	\$ 165,803
August 2009 Limited Tax Series	35,564,767	35,564,767	35,564,767	35,564,767
July 2011 Limited Tax Series B	28,911,239	41,406,315	41,406,315	20,230,925
July 2011 Unlimited Tax Series C	4,184,800	3,981,898	3,981,898	7,622,520
December 2014 Limited Tax Series C	6,763,472	3,240,156	3,240,156	15,540,933
December 2014 Unlimited Tax Series A	5,181,348	5,181,348	5,181,348	5,181,347
2014 Alt Rev Unlimited Tax Series B ****	3,390,570	3,389,171	3,389,171	3,387,824
2016 Alt Rev Unlimited Tax Series E ****	2,590,674	2,590,674	2,590,674	2,590,674
Alternate Revenue Abatement ****	-	-	-	(5,978,498)
June 2016 Unlimited Tax Series C	1,554,405	1,554,405	1,554,405	1,554,404
June 2016 Limited Tax Series D	1,036,270	1,036,270	1,036,270	1,036,269
State Revolving Fund Bonds - Series: Various	85,458,595	72,765,937	77,752,983	70,808,592
Refunding Bonds - Series:				
March 2007 Unlimited Tax Series A	26,623,057	26,509,845	26,509,845	25,279,534
March 2007 Unlimited Tax Series B	4,996,749	4,996,749	4,996,749	4,996,749
March 2007 Limited Tax Series C	5,541,607	5,541,607	5,541,607	5,541,607
December 2014 Limited Tax Series D	15,130,830	9,264,767	9,264,767	15,494,041
June 2016 Unlimited Tax Series A	14,555,959	14,555,959	14,555,959	14,555,959
June 2016 Limited Tax Series B	2,141,451	2,141,451	2,141,451	2,141,451
Subtotal Bond Redemption & Interest Fund	\$ 243,791,597	\$ 233,887,123	\$ 238,874,169	\$ 225,714,901
TOTAL	\$ 621,317,594	\$ 595,027,331	\$ 599,285,372	\$ 571,453,936
Abatement after the budget year ****	(6,152,228)	(5,979,845)	(6,150,829)	
Total (after planned abatement)	\$ 615,165,366	\$ 589,047,486	\$ 593,134,543	

NOTES: * As Adjusted reflects the 2016 Equalized Assessed Valuation (EAV) (\$140,752,201,171) estimated to increase 3.0 percent, plus any subsequent supplemental levies and/or appropriations.

** 2018 reflects an estimated 3.0 percent increase in the EAV from the 2017 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 Management Fund be transferred to the Bond Redemption & Interest Fund and used to abate taxes levied for this issue.

COMPARATIVE STATEMENT OF TAX RATES 2018-2016 ALL FUNDS

Per \$100 in Equalized Assessed Valuation (EAV)

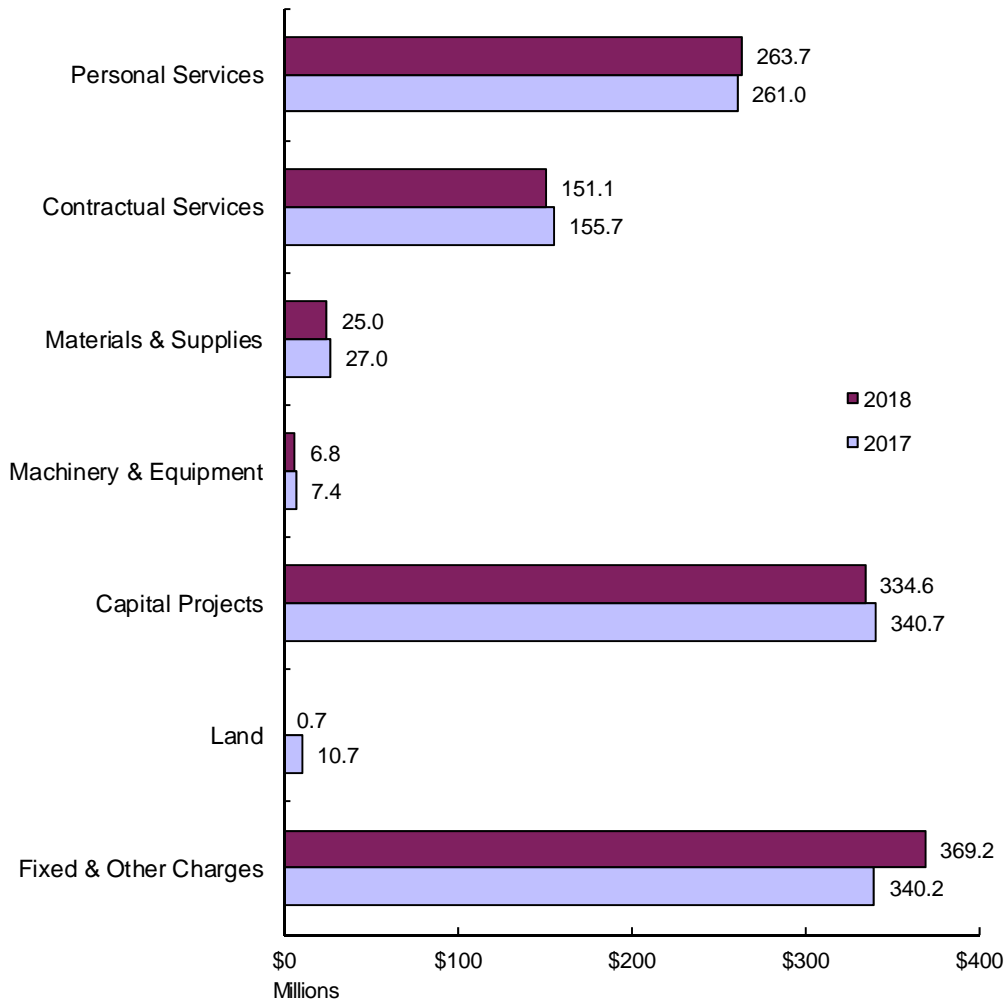
FUND		2018 **	2017 AS PASSED	2017 AS ADJUSTED *	2016 ACTUAL
	tax rate limit				
Corporate Fund	41 ¢	16.11 ¢	16.20 ¢	15.45 ¢	16.11 ¢
Construction Fund	10 ¢	0.78	1.23	1.12	0.98
Stormwater Management Fund	5 ¢	3.20	2.96	2.82	2.43
Retirement Fund		4.79	5.31	5.07	4.63
Reserve Claim Fund	½ ¢	0.40	0.43	0.41	0.41
Subtotal		25.28 ¢	26.13 ¢	24.87 ¢	24.56 ¢
Bond Redemption & Interest Fund:					
Capital Improvement Bonds - Series:					
June 2016 QECB Series F		0.01 ¢	0.01 ¢	0.01 ¢	0.01 ¢
August 2009 Limited Tax Series		2.38	2.57	2.45	2.53
July 2011 Limited Tax Series B		1.94	3.00	2.86	1.44
July 2011 Unlimited Tax Series C		0.28	0.29	0.27	0.54
December 2014 Limited Tax Series C		0.45	0.23	0.22	1.10
December 2014 Unlimited Tax Series A		0.35	0.37	0.36	0.37
2014 Alt Rev Unlimited Tax Series B ***		0.23	0.25	0.23	0.24
2016 Alt Rev Unlimited Tax Series E ***		0.17	0.19	0.18	0.18
Alternate Revenue Abatement ***		-	-	-	(0.42)
June 2016 Unlimited Tax Series C		0.10	0.11	0.11	0.11
June 2016 Limited Tax Series D		0.07	0.07	0.07	0.07
State Revolving Fund Bonds - Series:					
Various		5.72	5.26	5.36	5.03
Refunding Bonds - Series:					
March 2007 Unlimited Tax Series A		1.78	1.92	1.83	1.80
March 2007 Unlimited Tax Series B		0.33	0.36	0.34	0.36
March 2007 Limited Tax Series C		0.37	0.40	0.38	0.39
December 2014 Limited Tax Series D		1.01	0.67	0.64	1.10
June 2016 Unlimited Tax Series A		0.97	1.05	1.00	1.03
June 2016 Limited Tax Series B		0.14	0.15	0.15	0.15
Subtotal Bond Redemption & Interest Fund		16.30 ¢	16.90 ¢	16.46 ¢	16.03 ¢
TOTAL		41.58 ¢	43.03 ¢	41.33 ¢	40.59 ¢

NOTES: * As Adjusted reflects the 2016 EAV (\$140,752,201,171) estimated to increase 3.0 percent, plus any subsequent supplemental levies and/or appropriations.

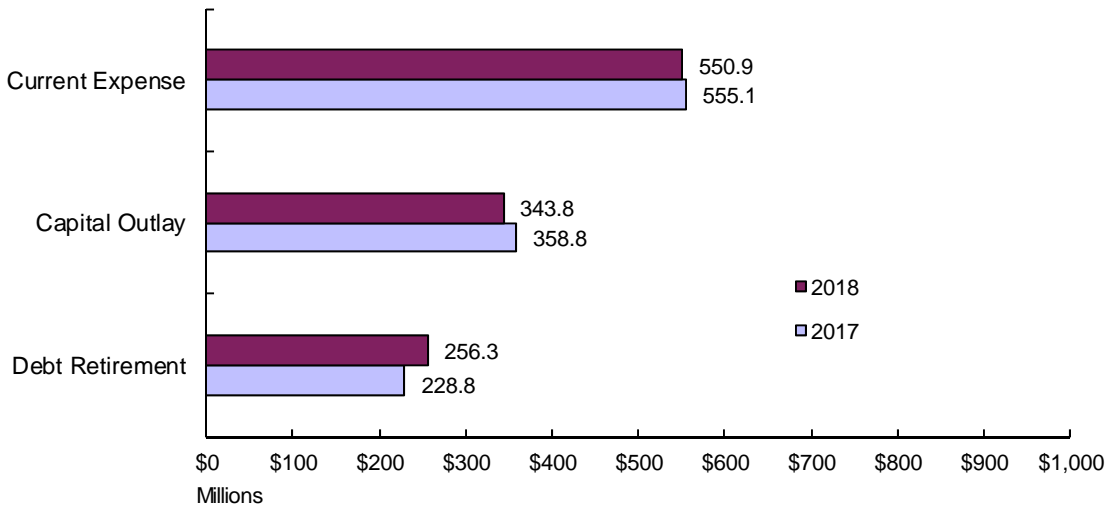
** 2018 reflects an estimated 3.0 percent increase in the EAV from the 2017 estimate.

*** As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Management Fund be transferred to the Bond Redemption & Interest 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 2018-2017 ALL FUNDS

ORGANIZATION or FUND	YEAR	TOTAL	PERSONAL SERVICES	CONTRACTUAL SERVICES	MATERIALS & SUPPLIES	MACHINERY & EQUIPMENT	CAPITAL PROJECTS	LAND	FIXED & OTHER CHARGES
Board of Commissioners	2018	\$ 5,145,200	\$ 4,249,300	\$ 890,400	\$ 5,500	\$ -	\$ -	\$ -	\$ -
	2017	\$ 4,496,300	\$ 4,188,700	\$ 297,600	\$ 10,000	\$ -	\$ -	\$ -	\$ -
General Administration	2018	16,725,400	11,895,600	4,622,100	207,700	-	-	-	-
	2017	17,387,400	12,052,900	5,046,700	287,800	-	-	-	-
Monitoring & Research	2018	31,888,700	30,150,900	964,900	482,800	290,100	-	-	-
	2017	31,270,400	28,876,800	1,413,800	556,800	423,000	-	-	-
Procurement & Materls. Management	2018	9,466,700	5,796,900	131,800	3,508,000	30,000	-	-	-
	2017	9,567,100	5,780,200	152,000	3,634,900	-	-	-	-
Human Resources	2018	59,226,400	54,412,200	4,531,500	257,700	25,000	-	-	-
	2017	60,905,400	55,589,000	5,077,500	238,900	-	-	-	-
Information Technology	2018	17,052,500	8,855,300	7,478,000	689,200	30,000	-	-	-
	2017	17,358,600	9,017,500	7,362,000	904,100	75,000	-	-	-
Law	2018	7,502,800	5,309,400	1,285,200	18,200	-	-	-	890,000
	2017	8,386,100	5,267,700	2,210,700	17,700	-	-	-	890,000
Finance	2018	3,743,900	3,335,100	393,400	15,400	-	-	-	-
	2017	3,684,400	3,270,200	394,600	19,600	-	-	-	-
Maint. & Operations:									
General Division	2018	26,155,200	12,686,000	12,716,700	752,500	-	-	-	-
	2017	26,761,600	13,085,400	12,767,700	908,500	-	-	-	-
North Service Area	2018	42,258,700	25,512,400	13,930,300	2,709,100	106,900	-	-	-
	2017	42,055,300	24,810,900	14,441,400	2,675,000	128,000	-	-	-
Calumet Service Area	2018	36,295,300	18,749,700	13,695,200	3,764,700	85,700	-	-	-
	2017	37,210,100	18,485,800	13,522,000	5,169,300	33,000	-	-	-
Stickney Service Area	2018	86,426,300	38,231,300	35,901,200	12,268,800	25,000	-	-	-
	2017	81,007,700	37,765,100	31,956,000	11,281,600	5,000	-	-	-
TOTAL Maintenance & Operations	2018	\$ 191,135,500	\$ 95,179,400	\$ 76,243,400	\$ 19,495,100	\$ 217,600	\$ -	\$ -	\$ -
	2017	\$ 187,034,700	\$ 94,147,200	\$ 72,687,100	\$ 20,034,400	\$ 166,000	\$ -	\$ -	\$ -
Engineering	2018	28,322,100	27,840,200	401,500	80,400	-	-	-	-
	2017	28,835,400	28,292,200	473,000	70,200	-	-	-	-
TOTAL Corporate Fund	2018	\$ 370,209,200	\$ 247,024,300	\$ 96,942,200	\$ 24,760,000	\$ 592,700	\$ -	\$ -	\$ 890,000
	2017	\$ 368,925,800	\$ 246,482,400	\$ 95,115,000	\$ 25,774,400	\$ 664,000	\$ -	\$ -	\$ 890,000
Construction Fund	2018	26,080,600	-	6,302,500	-	5,397,100	14,381,000	-	-
	2017	34,450,400	-	6,401,300	-	6,623,000	21,426,100	-	-
Capital Improvements Bond Fund	2018	312,982,900	-	9,472,000	-	795,000	300,665,900	300,000	1,750,000
	2017	354,625,600	-	29,055,400	-	-	313,054,300	10,300,000	2,215,900
Stormwater Management Fund	2018	65,581,000	6,683,500	38,466,500	124,900	-	19,506,100	400,000	400,000
	2017	45,800,100	6,531,200	25,081,300	1,274,500	85,000	6,248,800	410,000	6,169,300
Bond Redemption & Interest Fund	2018	256,304,186	-	-	-	-	-	-	256,304,186
	2017	228,825,813	-	-	-	-	-	-	228,825,813
Retirement Fund	2018	89,604,000	-	-	-	-	-	-	89,604,000
	2017	79,505,000	-	-	-	-	-	-	79,505,000
Reserve Claim Fund	2018	30,289,500	10,000,000	-	-	-	-	-	20,289,500
	2017	30,617,100	8,000,000	-	-	-	-	-	22,617,100
GRAND TOTAL	2018	\$ 1,151,051,386	\$ 263,707,800	\$ 151,183,200	\$ 24,884,900	\$ 6,784,800	\$ 334,553,000	\$ 700,000	\$ 369,237,686
	2017	\$ 1,142,749,813	\$ 261,013,600	\$ 155,653,000	\$ 27,048,900	\$ 7,372,000	\$ 340,729,200	\$ 10,710,000	\$ 340,223,113
PERCENTAGES	2018	100.0%	22.9%	13.1%	2.2%	0.6%	29.1%	0.1%	32.1%
	2017	100.0%	22.8%	13.6%	2.4%	0.6%	29.8%	0.9%	29.8%

Note: Percentages are rounded.

COMPARATIVE APPROPRIATIONS BY CHARACTER OF EXPENDITURE 2018-2017 ALL FUNDS

ORGANIZATION OR FUND	YEAR	TOTAL	CURRENT EXPENSE	CAPITAL OUTLAY	DEBT RETIREMENT
Board of Commissioners	2018	\$ 5,145,200	\$ 5,145,200	\$ -	\$ -
	2017	\$ 4,496,300	\$ 4,496,300	\$ -	\$ -
General Administration	2018	16,725,400	16,725,400	-	-
	2017	17,387,400	17,387,400	-	-
Monitoring & Research	2018	31,888,700	31,598,600	290,100	-
	2017	31,270,400	30,847,400	423,000	-
Procurement & Materials Management	2018	9,466,700	9,436,700	30,000	-
	2017	9,567,100	9,567,100	-	-
Human Resources	2018	59,226,400	59,201,400	25,000	-
	2017	60,905,400	60,905,400	-	-
Information Technology	2018	17,052,500	17,022,500	30,000	-
	2017	17,358,600	17,283,600	75,000	-
Law	2018	7,502,800	7,502,800	-	-
	2017	8,386,100	8,386,100	-	-
Finance	2018	3,743,900	3,743,900	-	-
	2017	3,684,400	3,684,400	-	-
Maintenance & Operations:				-	
General Division	2018	26,155,200	26,155,200	-	-
	2017	26,761,600	26,761,600	-	-
North Service Area	2018	42,258,700	42,151,800	106,900	-
	2017	42,055,300	41,927,300	128,000	-
Calumet Service Area	2018	36,295,300	36,209,600	85,700	-
	2017	37,210,100	37,177,100	33,000	-
Stickney Service Area	2018	86,426,300	86,401,300	25,000	-
	2017	81,007,700	81,002,700	5,000	-
TOTAL Maintenance & Operations	2018	\$ 191,135,500	\$ 190,917,900	\$ 217,600	\$ -
	2017	\$ 187,034,700	\$ 186,868,700	\$ 166,000	\$ -
Engineering	2018	28,322,100	28,322,100	-	-
	2017	28,835,400	28,835,400	-	-
TOTAL Corporate Fund	2018	\$ 370,209,200	\$ 369,616,500	\$ 592,700	\$ -
	2017	\$ 368,925,800	\$ 368,261,800	\$ 664,000	\$ -
Construction Fund	2018	26,080,600	6,302,500	19,778,100	-
	2017	34,450,400	6,401,300	28,049,100	-
Capital Improvements Bond Fund	2018	312,982,900	9,472,000	303,510,900	-
	2017	354,625,600	29,055,400	325,570,200	-
Stormwater Management Fund	2018	65,581,000	45,674,900	19,906,100	-
	2017	45,800,100	39,056,300	6,743,800	-
Bond Redemption & Interest Fund	2018	256,304,186	-	-	256,304,186
	2017	228,825,813	-	-	228,825,813
Retirement Fund	2018	89,604,000	89,604,000	-	-
	2017	79,505,000	79,505,000	-	-
Reserve Claim Fund	2018	30,289,500	30,289,500	-	-
	2017	30,617,100	30,617,100	-	-
GRAND TOTAL	2018	\$ 1,151,051,386	\$ 550,959,400	\$ 343,787,800	\$ 256,304,186
	2017	\$ 1,142,749,813	\$ 552,896,900	\$ 361,027,100	\$ 228,825,813
PERCENTAGES	2018	100%	48%	30%	22%
	2017	100%	48%	32%	20%

Note: Percentages are rounded.

**2018 - 2017* PROGRAM APPROPRIATION - ALL FUNDS
BY DEPARTMENT AND MAJOR PROGRAM**

(In Millions)

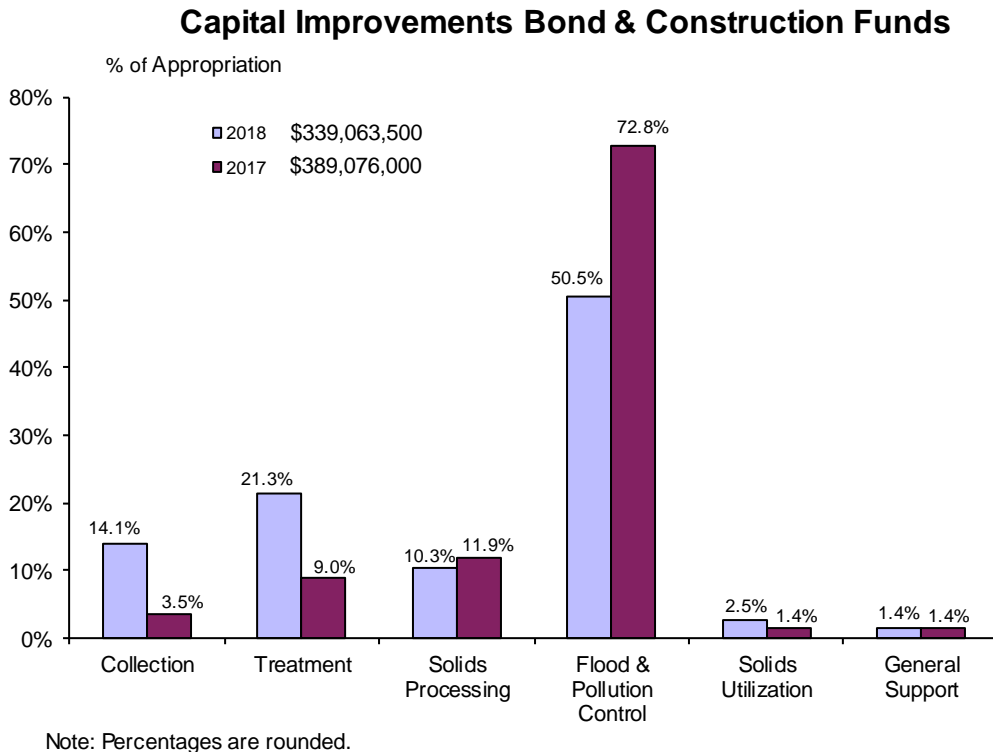
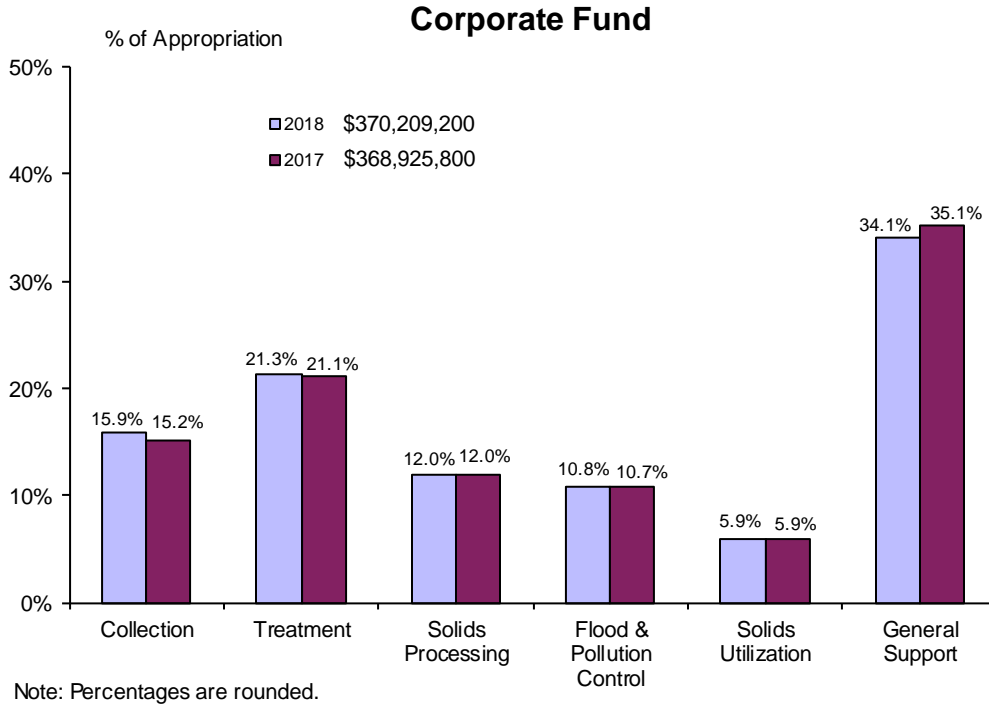
MAJOR PROGRAM

DEPARTMENT	COLLECTION		TREATMENT		SOLIDS PROCESSING		SOLIDS UTILIZATION		FLOOD & POLLUTION CONTROL		GENERAL SUPPORT		TOTAL	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Board of Commissioners	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.1	\$ 4.5	\$ 5.1	\$ 4.5
General Administration	-	-	-	-	-	-	-	-	-	-	16.7	17.4	16.7	17.4
Monitoring & Research	-	-	-	-	-	-	-	-	31.5	30.9	0.4	0.4	31.9	31.3
Procurement & Materials Management	-	-	-	-	-	-	-	-	-	-	9.5	9.6	9.5	9.6
Human Resources	-	-	-	-	-	-	-	-	-	-	59.2	60.9	59.2	60.9
Information Technology	-	-	-	-	-	-	-	-	-	-	17.1	17.4	17.1	17.4
Law	-	-	-	-	-	-	-	-	0.4	0.5	7.0	7.9	7.5	8.3
Finance	-	-	-	-	-	-	-	-	-	-	3.7	3.7	3.7	3.7
Maintenance & Operations	51.6	48.5	70.1	69.1	38.1	37.8	21.5	21.5	4.8	4.8	4.9	5.4	191.2	187.1
Engineering	7.4	7.5	8.7	8.8	6.1	6.4	0.4	0.4	3.3	3.4	2.4	2.4	28.3	28.8
Total Corporate Fund	\$58.9	\$56.0	\$78.9	\$77.9	\$44.3	\$44.2	\$21.9	\$21.8	\$40.0	\$39.5	\$126.2	\$129.4	\$370.2	\$368.9
Construction and Capital Improvements Bond Funds	\$47.7	\$13.6	\$72.1	\$35.0	\$34.8	\$46.4	\$8.6	\$5.5	\$171.1	\$283.1	\$4.8	\$5.4	\$339.0	\$389.0
Stormwater Management Fund	-	1.0	-	-	-	-	-	-	65.5	39.0	0.1	5.9	65.6	45.9
Miscellaneous (Debt Service, Retirement, and Reserve Funds)	-	-	-	-	-	-	-	-	-	-	376.2	338.9	376.2	338.9
GRAND TOTAL	\$106.6	\$70.6	\$151.0	\$112.9	\$79.1	\$90.6	\$30.5	\$27.3	\$276.6	\$361.6	\$507.2	\$479.5	\$1,151.0	\$1,142.7

Note: Totals are rounded.
* Adjusted Appropriation

APPROPRIATION DISTRIBUTION BY MAJOR 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 2018 and 2017, as shown on page 51.

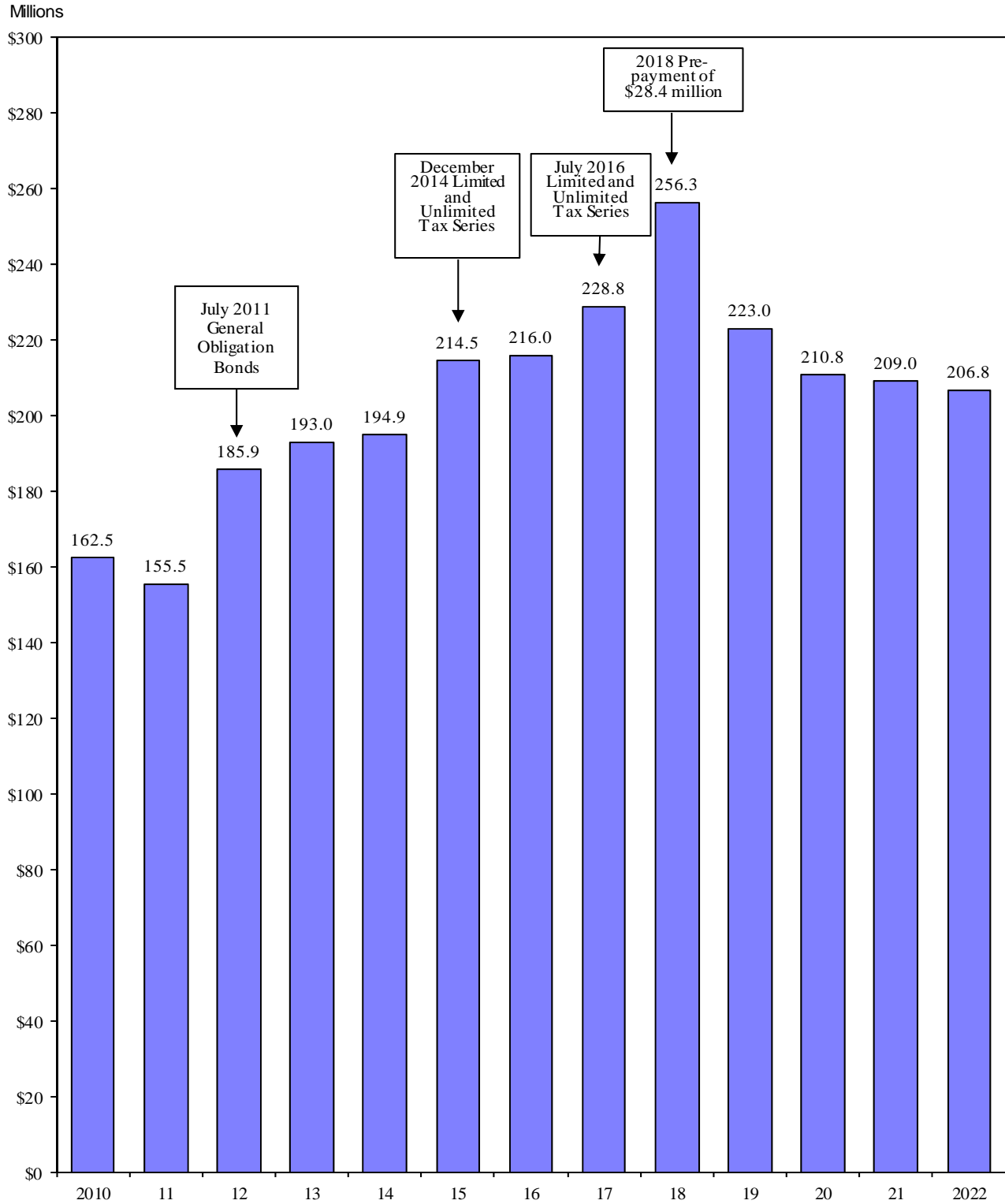


2018 - 2017 PROGRAM APPROPRIATION COMPARISON ALL FUNDS

PROGRAM OBJECTIVE		2018 BUDGET	2017 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
NUMBER	NAME					2018	2017
1000	Collection	\$ 106,673,907	\$ 70,649,419	\$ 36,024,488	51.0	309	312
2000	Treatment	150,946,255	112,893,520	38,052,735	33.7	454	459
3000	Solids Processing	79,054,980	90,593,009	(11,538,029)	(12.7)	250	263
4000	Flood & Pollution Control	276,602,265	361,731,431	(85,129,166)	(23.5)	423	416
5000	Solids Utilization	30,536,700	27,321,901	3,214,799	11.8	41	45
7000	General Support (Debt, Retirement, Law, etc.)	507,237,279	479,560,533	27,676,746	5.8	489	547
TOTAL		\$ 1,151,051,386	\$ 1,142,749,813	\$ 8,301,573	0.7	1,966	2,042

SUMMARY BY FUND		2018 BUDGET	2017 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
						2018	2017
Corporate Fund		\$ 370,209,200	\$ 368,925,800	\$ 1,283,400	0.3	1,909	1,983
Construction & Capital Improvements Bond Funds		339,063,500	389,076,000	(50,012,500)	(12.9)	-	-
Stormwater Management Fund		65,581,000	45,800,100	19,780,900	43.2	57	59
Retirement Fund		89,604,000	79,505,000	10,099,000	12.7	-	-
Bond Redemption & Interest Fund		256,304,186	228,825,813	27,478,373	12.0	-	-
Reserve Claim Fund		30,289,500	30,617,100	(327,600)	(1.1)	-	-
TOTAL		\$ 1,151,051,386	\$ 1,142,749,813	\$ 8,301,573	0.7	1,966	2,042

ANNUAL DEBT SERVICE - PRINCIPAL AND INTEREST 2010 - 2022



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 60 and 68.

OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN DECEMBER 31, 2017

BOND SERIES	DATE OF MATURITY	INTEREST RATES	AMOUNT PAYABLE
Capital Improvements Bonds - Series:			
August 2009 Limited Tax Series	2038	5.72	\$ 600,000,000
July 2011 Limited Tax Series B	2032	3.1 to 5.0	263,885,000
July 2011 Unlimited Tax Series C	2031	3.0 to 5.0	45,375,000
December 2014 Unlimited Tax Series A	2044	5.0	100,000,000
December 2014 Stormwater Alternate Revenue Series B	2044	2.0 to 5.0	48,145,000
December 2014 Limited Tax Series C	2028	2.0 to 5.0	62,535,000
June 2016 Unlimited Tax Series C	2045	5.0	30,000,000
June 2016 Limited Tax Series D	2030	5.0	20,000,000
June 2016 Stormwater Alternate Revenue Series E	2045	5.0	50,000,000
June 2016 Qualified Energy Conservation Series F	2036	4.0	4,000,000
SUBTOTAL - Capital Improvements Bonds:			\$ 1,223,940,000
Refunding Bonds - Series:			
March 2007 Unlimited Tax Series A	2022	4.0 to 5.0	\$ 111,340,000
March 2007 Unlimited Tax Series B	2035	4.0 to 5.0	91,845,000
March 2007 Limited Tax Series C	2033	4.0 to 5.0	101,860,000
December 2014 Limited Tax Series D	2022	2.0 to 5.0	59,110,000
June 2016 Unlimited Tax Series A	2031	5.0	280,930,000
June 2016 Limited Tax Series B	2031	5.0	41,330,000
SUBTOTAL - Refunding Bonds:			\$ 686,415,000
State Revolving Fund Bonds - Series:			
February 1997, 94V L171150	2018	2.50	\$ 2,117,422
January 2000, 97AA L170822	2019	2.506	6,328,097
December 2000, 97BB L171151	2020	2.535	1,881,321
July 2002, 97CC L172031	2021	2.535	10,068,822
August 2003, 97DD L171152	2023	2.905	5,683,514
July 2004, 01A L172126	2024	2.57	22,594,145
July 2004, 01B L172127	2024	2.50	26,216,060
July 2006, 01C L172128	2026	2.50	25,847,365
January 2009, 04A L172485	2028	2.50	13,893,845
January 2009, 04B L172488	2028	2.50	16,230,718
March 2007, 04C L172493	2027	2.50	1,451,922
March 2007, 04D L172494	2027	2.50	1,392,358
January 2009, 04E L172495	2028	2.50	4,751,146
March 2007, 04G L172611	2027	2.50	2,261,936
February 2009, 04H L172849	2029	2.50	35,165,782
June 2010, 07A L172625	2030	2.50	29,584,693
June 2010, 07D L172763	2030	2.50	6,747,943
July 2010, 07B L172850	2030	2.50	20,428,170
April 2011, 09H L173800	2031	0.00	496,697
April 2011, 04F L172496	2031	0.00	2,682,914
June 2011, 09B L173064	2031	0.00	5,169,013
June 2011, 09I L174675	2031	1.25	7,818,129
August 2011, 09E L173005	2031	1.25	29,106,369
September 2011, 09C L173063	2031	0.00	1,511,421
September 2011, 07C L172770	2031	0.00	45,000,000
September 2012, 09A L173074	2032	1.25	36,537,501
September 2012, 09F L174557	2032	1.25	49,651,904
July 2013, 09D L174558	2033	2.30	34,979,814
July 2013, 09G L173075	2032	1.25	24,182,912
August 2014, 12A L174710	2034	2.30	6,538,863
August 2014, 12B L174712	2034	2.30	5,600,030
July 2015, 12D L174988	2035	1.93	31,345,812
July 2015, 12E L174709	2035	1.93	5,207,899
July 2015, 12F L174989	2035	1.93	58,394,520
July 2015, 12H L174924	2035	1.93	27,838,343
July 2015, 12J L175172	2035	1.995	2,469,977
July 2015, 12K L174925	2035	1.995	12,318,415
July 2015, 12O L175166	2035	1.995	4,405,184
July 2016, 12C L174621	2036	1.995	12,499,087
July 2016, 12I L175222	2036	2.21	4,552,027
July 2016, 12L L175161	2036	2.21	29,318,155
July 2016, 12N L175164	2036	1.995	2,609,765
July 2016, 14A L173076	2036	2.21	78,072,667
July 2016, 14B L175171	2036	2.21	2,660,935
July 2016, 14J L175219	2036	2.21	2,831,200

OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN DECEMBER 31, 2017

State Revolving Fund Bonds - Series (continued):			
December 2016, 14C L174559	2036	2.295	19,669,501
July 2017, 12M L175168	2037	2.21	10,033,324
July 2017, 14H L175355	2036	1.86	1,164,634
SUBTOTAL - State Revolving Fund Bonds:			<u>\$ 787,312,271</u>
TOTAL OUTSTANDING BONDS:			<u><u>\$ 2,697,667,271</u></u>

CALCULATION OF ESTIMATED STATUTORY DEBT MARGIN

<u>Debt Applicable to Debt Limit:</u>			
Outstanding Bonds	\$	2,697,667,271	
Less: Alternate Revenue Bonds Outstanding		(98,145,000)	
Bond Anticipation Note - Principal		156,000,000	
Bond Anticipation Note - Interest		1,000,000	
Capital Lease - Biosolids Facility		38,574,408	
Liabilities of Tax - Financed Funds		11,045,000	\$ 2,806,141,679
<u>Less Applicable Assets:</u>			
Cash and Investments - Bond Redemption & Interest Fund	\$	(112,917,005)	
Interest on Bonds Payable in Next Twelve Months		114,868,371	\$ 1,951,366
NET DEBT APPLICABLE TO LIMIT:			<u>\$ 2,808,093,045</u>
Statutory Debt Limit 5.75% of 2016 Equalized Assessed Valuation (\$140,752,201,171)			\$ 8,093,251,567
Less Net Debt Applicable to Limit			<u>2,808,093,045</u>
ESTIMATED STATUTORY DEBT MARGIN:			<u><u>\$ 5,285,158,522</u></u>

**ACCOUNT SUMMARY COMPARISON
2018 - 2017 ALL FUNDS**

ORGANIZATION OR FUND	Account Appropriation		Increase (Decrease) 2018 - 2017	
	2018	2017	Dollars	Percent
Board of Commissioners	\$ 5,145,200	\$ 4,496,300	\$ 648,900	14.4
General Administration	16,725,400	17,387,400	(662,000)	(3.8)
Monitoring & Research	31,888,700	31,270,400	618,300	2.0
Procurement & Materials Management	9,466,700	9,567,100	(100,400)	(1.0)
Human Resources	59,226,400	60,905,400	(1,679,000)	(2.8)
Information Technology	17,052,500	17,358,600	(306,100)	(1.8)
Law	7,502,800	8,386,100	(883,300)	(10.5)
Finance	3,743,900	3,684,400	59,500	1.6
Maintenance & Operations:				
General Division	26,155,200	26,761,600	(606,400)	(2.3)
North Service Area	42,258,700	42,055,300	203,400	0.5
Calumet Service Area	36,295,300	37,210,100	(914,800)	(2.5)
Stickney Service Area	86,426,300	81,007,700	5,418,600	6.7
TOTAL Maintenance & Operations	<u>\$ 191,135,500</u>	<u>\$ 187,034,700</u>	<u>\$ 4,100,800</u>	<u>2.2</u>
Engineering	28,322,100	28,835,400	(513,300)	(1.8)
TOTAL Corporate Fund	<u>\$ 370,209,200</u>	<u>\$ 368,925,800</u>	<u>\$ 1,283,400</u>	<u>0.3</u>
Construction Fund	26,080,600	34,450,400	(8,369,800)	(24.3)
Capital Improvements Bond Fund	312,982,900	354,625,600	(41,642,700)	(11.7)
TOTAL Capital Budget	<u>\$ 339,063,500</u>	<u>\$ 389,076,000</u>	<u>\$ (50,012,500)</u>	<u>(12.9)</u>
Stormwater Management Fund	65,581,000	45,800,100	19,780,900	43.2
Bond Redemption & Interest Fund	256,304,186	228,825,813	27,478,373	12.0
Retirement Fund	89,604,000	79,505,000	10,099,000	12.7
Reserve Claim Fund	30,289,500	30,617,100	(327,600)	(1.1)
GRAND TOTAL	<u><u>\$1,151,051,386</u></u>	<u><u>\$1,142,749,813</u></u>	<u><u>\$ 8,301,573</u></u>	<u><u>0.7</u></u>

**PERSONNEL SUMMARY COMPARISON
2018 - 2016 ALL FUNDS**

ORGANIZATION OR FUND	Proposed FTEs 2018	Budgeted FTEs 2017	Actual FTEs 2016	Increase (Decrease) 2018 - 2017	
				FTEs	Percent
Board of Commissioners	38	38	38	-	-
General Administration	121	123	121	(2)	(1.6)
Monitoring & Research	312	309	305	3	1.0
Procurement & Materials Management	63	63	62	-	-
Human Resources	91	141	73	(50)	(35.5)
Information Technology	73	75	64	(2)	(2.7)
Law	37	38	36	(1)	(2.6)
Finance	28	28	28	-	-
Maintenance & Operations:					
General Division	107	115	86	(8)	(7.0)
North Service Area	245	247	256	(2)	(0.8)
Calumet Service Area	185	188	196	(3)	(1.6)
Stickney Service Area	367	372	385	(5)	(1.3)
TOTAL Maintenance & Operations	<u>904</u>	<u>922</u>	<u>923</u>	<u>(18)</u>	<u>(2.0)</u>
Engineering	242	246	242	(4)	(1.6)
TOTAL Corporate Fund	<u>1,909</u>	<u>1,983</u>	<u>1,892</u>	<u>(74)</u>	<u>(3.7)</u>
Construction Fund	-	-	-	-	-
Capital Improvements Bond Fund	-	-	-	-	-
TOTAL Capital Budget	-	-	-	-	-
Stormwater Management Fund	57	59	59	(2)	(3.4)
Bond Redemption & Interest Fund	-	-	-	-	-
Retirement Fund	-	-	-	-	-
Reserve Claim Fund	-	-	-	-	-
GRAND TOTAL	<u><u>1,966</u></u>	<u><u>2,042</u></u>	<u><u>1,951</u></u>	<u><u>(76)</u></u>	<u><u>(3.7)</u></u>

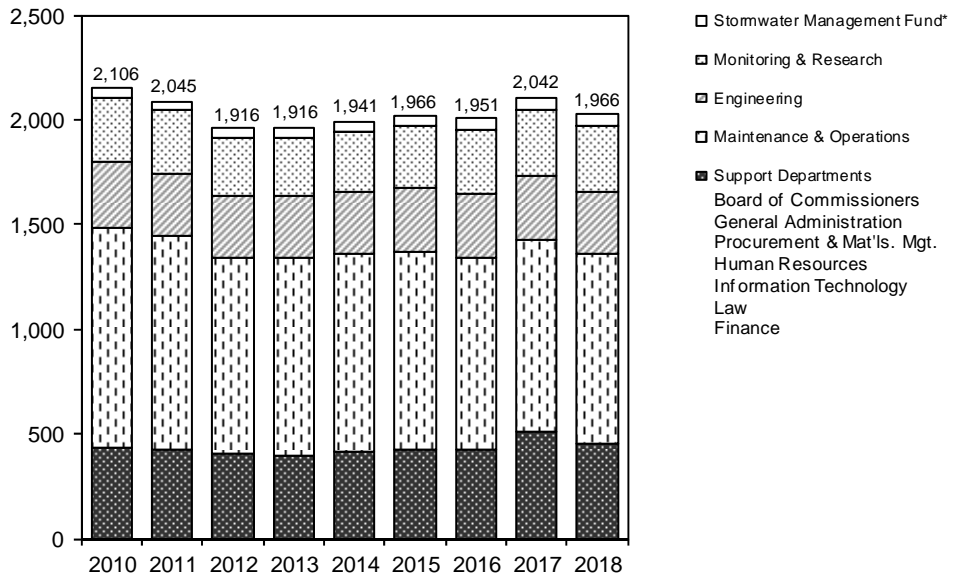
PERSONAL SERVICE APPROPRIATIONS

The Maintenance & Operations, Engineering, and Monitoring & Research Departments are referred to as the District's operating departments. These departments are directly responsible for the daily operations of sewage collection, treatment, environmental monitoring activities, and disposal. 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.

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 staffing increase in 2017 is due to the addition of 70 positions to the expanded apprenticeship program. The staffing reduction in 2018 is due to changes in the apprenticeship program, resulting in fewer positions.

The exhibit below provides the personal service appropriations for 2017 and 2018, and the actual expenditures for personal services in 2016. 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.

Position History (2010-2018)



* In 2018, 57 positions for the Maintenance & Operations and Engineering Departments are budgeted in the Stormwater Management Fund, while the operations remain within the departments.

Personal Service Summary - All Funds

	2016 Actual Exp.	2017 Adj. Approp.	2018 Budgeted	Increase (Decrease) 2018 - 2017	
				Dollars	Percent
Salaries of Regular Employees	\$ 179,393,577	\$ 192,261,200	\$ 193,809,300	\$ 1,548,100	0.8%
Compensation Plan Adjustments	7,037,089	8,345,600	7,834,400	(511,200)	-6.1%
Social Security & Medicare Contributions	2,604,667	2,766,700	2,846,200	79,500	2.9%
Employee Claims	4,713,270	8,060,200	10,060,000	1,999,800	24.8%
Other Employee Personal Services*	1,232,073	2,323,500	2,135,100	(188,400)	-8.1%
Health & Life Insurance Premiums**	43,695,382	47,261,400	47,022,800	(238,600)	-0.5%
Total	\$ 238,676,058	\$ 261,018,600	\$ 263,707,800	\$ 2,689,200	1.0%

* Includes Tuition, Training, and Non-budgeted Salaries

** Includes Other Postemployment Benefits Distribution

FIVE-YEAR FINANCIAL FORECAST

2018 - 2022

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 forecast has been updated to incorporate budgetary amendments approved by the Board of Commissioners in the 2018 Final Adopted and Amended Budget, December 21, 2017.

The FYFF presentation is in the form of a letter from the Budget Officer 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

December 21, 2017

SUBJECT: FIVE-YEAR FINANCIAL FORECAST, 2018 – 2022

Dear Sir:

I have reviewed the Five-Year Financial Forecast for the fiscal years 2018 – 2022 that has been updated to reflect budgetary amendments approved and adopted by the Board of Commissioners. Following is report and summary. These projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the 2018 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.

The aggregate levy for 2018 is estimated to increase by 3.2 percent over 2017, as adjusted, and is projected to increase an average of 3.2 percent per year for 2019 through 2022. As noted on the graph on page 64, the 2018 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 2017 aggregate levy to be collected in 2018, depending on the 2017 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, subsequent amendments authorized additional non-referendum bond authority 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. 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 \$162.7 million and estimated to be at \$166.7 million in 2018.

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). The District’s overall non-referendum authority was last extended by the legislature in 2010 through December 31, 2024. In 2004, the District received authority to issue \$150 million (previously \$100 million) of non-referendum bonds during any budget year. These legislated changes provide resources for financing the capital program for the foreseeable future.

Five-Year Financial Forecast, 2018-2022

December 21, 2017

EXPENDITURES: DEPARTMENTAL GUIDELINES AND METHODOLOGY

The Budget Office asked each department to project its needs for the years 2018 – 2022. 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 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 2016 amount as provided by the Cook County Clerk, an estimated 3.0 percent annually from 2018-2022;
- 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 2.5 percent for the years 2018 – 2022, and allowable adjustments to EAV for new property at just under 0.7 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>
2018			
2019			
2020	\$100 million	\$100 million	\$50 million
2021		\$100 million	\$50 million
2022		\$100 million	\$50 million

- Bond Redemption & Interest Fund levy estimates are based on a 5.0 percent interest rate on bond issues;
- The District is expected to receive approximately \$150 million annually in State Revolving Fund loans;
- Operating fund balances will be no less than 15.0 percent of appropriations.

APPROPRIATION FORECASTS

Total District appropriations are summarized in the exhibit on page 64, and detailed in Table I on page 65. 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 1.9 percent annually from 2018 through 2022. This relative stability of appropriations is attributed to revenue estimates, 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. The District has seen growth in chemical and energy costs from 2015-2018 based on operational needs and implementation of new processes, including chemical disinfection, but the outlook is stable for both chemicals and energy. The District's long-term benefits strategy continues to focus on rising health care costs. Employee and retiree benefits constitute approximately 11.2 percent of the Corporate Fund budget. While strategies to limit cost increases have resulted in average annual increases of 2.3 percent from 2012 to 2017, benefits are projected to increase an average 7.7 percent annually over the next five years. A Medicare Advantage Plan for Medicare eligible retirees implemented in 2017 is expected to yield approximately \$2.0 million in annual savings to the District, which has been reflected in the forecast. The District continues to fund the Other Postemployment Benefits Trust to ensure future retiree health care benefits by contributing \$5.0 million annually through 2026.

Energy costs are expected to increase by 5.0 percent from 2017 to 2018 due primarily to the increased energy demand of operating the McCook Reservoir and increased regulatory costs. These increases are offset by a favorable energy supply rate and implementation of energy efficiency projects guided by our Strategic Business Plan goal of Energy Neutrality by 2023. Projections remain stable from 2018 through 2022. In 2016, the District extended the electricity supply contract for 2018 at a rate that is 7.2 percent lower than the 2016-2017 rate. The District has entered into an agreement with Blue Delta Energy to

Five-Year Financial Forecast, 2018-2022

December 21, 2017

sell Renewable Energy Credits on the open market in Illinois, Maryland, and the District of Columbia. Estimated revenue is approximately \$300,000 annually. Finally, the District has performed an Energy Grade audit and entered into an agreement with the Public Building Commission and NORESKO to replace lighting, controls, and steam blanket insulation at the Calumet Water Reclamation Plant.

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 2018 fund balance is projected to be higher, reflecting substantial restructuring over the past few years, including a net reduction of 150 positions dropped between 2010 and 2018, an increase in in-house maintenance, and other operating efficiencies. Salaries are projected to increase 2.0 percent in 2019 and 1.0 percent from 2020 through 2022, while the number of positions is projected to remain stable or decrease slightly. 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.

Capital Improvements Bond and Construction Funds

The Capital Improvements Bond Fund (CIBF) accounts for all resources, principally State Revolving Fund loans, bond proceeds and Build America Bond rebates (categorized as grants), used for the construction of capital projects. Total bond sales to support the CIBF are projected at \$250 million in 2020, \$150 million in 2021 and 2022, which includes Stormwater Alternative Revenue Bonds of \$50 million each year from 2020 through 2022. No CIBF bond sales are projected in years 2018-2019. The 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 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.

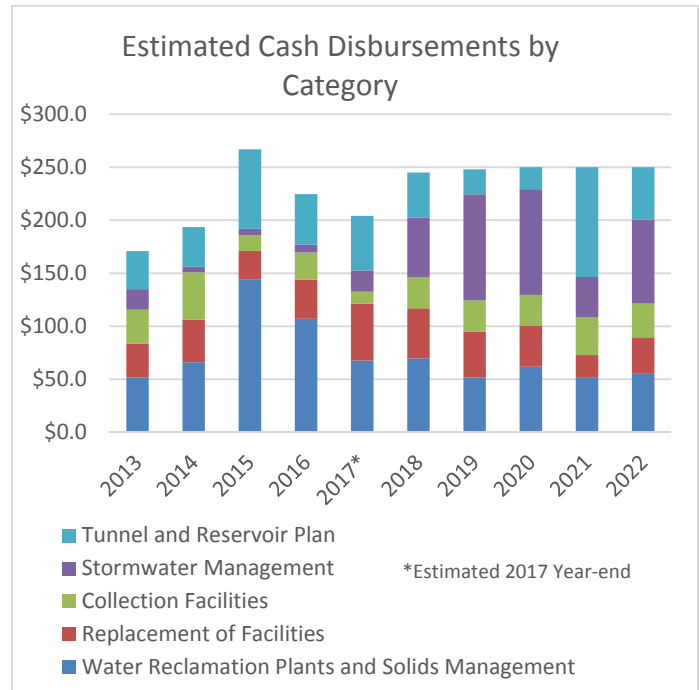
The Construction Fund is a pay as you go Capital fund used to finance modernization, rehabilitation, and small capital projects, funded primarily through annual property tax levies. Appropriations for this fund lapse at year-end and uncompleted projects must be reappropriated.

Initial estimates and schedules have been analyzed and compared to bond issuance authority and funding availability. The estimated cash balances in the CIBF will accommodate the proposed projects through 2022. In 2018, the Process Facility Capital Planning and Technology Evaluation Group 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 increasing 12.7 percent from 2017 to 2018 and then will remain stable from 2019 through 2022 due to the full implementation of legislative changes aimed at reducing unfunded pension liabilities. 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, and employee contributions for employees who were fund members before January 1, 2011 increased one percent per year from nine percent in 2012 to 12 percent in 2015.

In 2018, the District proposes to make an advance payment of \$28.4 million on State Revolving Fund loans. Adjusting for the advance payment, Debt Service Fund appropriations will increase an average of 3.3 percent annually over the next five years. Current debt service schedules, additional debt service requirements for new revolving fund loans, and anticipated bond sales will increase due to increased capital expenditures related to major plant expansion and system improvements, a phosphorus



Five-Year Financial Forecast, 2018-2022**December 21, 2017**

removal project, TARP reservoir projects, and Stormwater Management Program projects, including cost sharing projects with local municipalities that address localized flooding issues and the Addison Creek Reservoir.

The appropriation for the Reserve Claim Fund is expected to remain steady at \$30.3 million annually. 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 appropriation is based on average annual expenditures of \$5.0 million remaining steady. Expenditures related to Workers' Compensation claims have been decreasing over the past three years and are expected to remain 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 3.5 percent annually from 2018 – 2022. This fund provides for day-to-day operations and has diverse sources of revenue. Property tax revenues account for 65.0 percent of 2018 Corporate Fund projected 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 continue to slowly decline over the next five years from \$46 million to \$43 million. Local governments, and chemical and food processing users pay the majority of user charge fees.

Construction Fund

The tax levy for the Construction Fund is \$11.7 million in 2018. The Levy is projected to remain stable at \$11.7 million through 2020. The Construction Fund finances small construction projects and equipment replacement on a pay-as-you-go basis.

Stormwater Management Fund

The Stormwater Management Fund levy is projected to increase an average of 13.9 percent annually as the District continues to address local flooding issues. Regional stormwater management projects are being vetted for funding in 2018 and the following years.

Retirement Fund

The average increase projected for 2018 through 2022 is 0.8 percent for the Retirement Fund Property Tax levy. The Fund also receives a portion of the District's Personal Property Replacement Tax (PPRT) distribution from the State of Illinois equal to 20.9 percent of the total Retirement Fund revenues. In 2012, changes to the District's pension laws increased both the employee contributions and the District's contribution to the Retirement Fund. From 2015 to 2017, the Retirement Fund tax levy increased by over \$10 million each year as the legislative changes were phased in. From 2018 through 2022, the Property Tax Levy, PPRT distribution, and the appropriation are expected to be stable.

Bond Redemption and Interest Fund

The existing tax levies for the District's Debt Service Fund are based on six refunding bonds, 10 capital improvement bonds, and 61 State Revolving Fund (SRF) loans. Additional projected capital improvement and SRF loans sales will be used to finance TARP, flood prevention, 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. Stormwater Alternate Revenue Bonds are paid from the Stormwater Levy and the same amount is abated from the debt service tax levy. The projected debt for the District during 2018 through 2022 appears on page 68. The District's outstanding bonds and ability to issue additional bonds are presented on pages 585 – 588.

Reserve Claim and Working Cash Funds

The tax levy for the Reserve Claim Fund is projected to be \$6 million in 2018 and remain flat at \$5 million from 2019 through 2022. 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 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

Five-Year Financial Forecast, 2018-2022**December 21, 2017**

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 64, and the tables on page 65, summarize the projected appropriations, property tax rates, and tax levies for all funds for the years 2018 through 2022. Historical comparisons can be made by reviewing the actual appropriations, tax rates, and levies for the years 2009 – 2018 on page 43.

Table II, on page 66 provides detailed revenue and tax rate projections, as well as appropriations by department and major categories for the Corporate Fund for 2018 through 2022. Corporate Fund appropriations and expenditures for the years 2009 – 2018 can be found on page 105.

Projections for revenues, tax rates, and appropriations for the Construction Fund for the years 2018 through 2022, appear on page 67, and projected appropriable resources and appropriations for the Capital Improvements Bond Fund appear on page 68. The table on the bottom of page 66 and the exhibits on page 69 present appropriation projections by major programs. A summary of actual and projected expenditures for both funds, for the years 2013 – 2022, can be found in the Capital Improvement Program Section, on page 326.

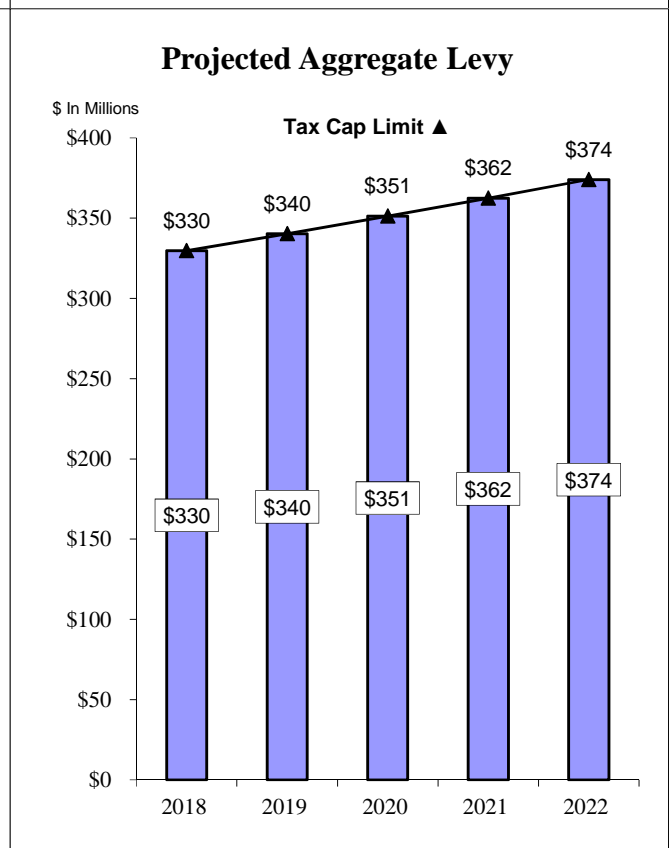
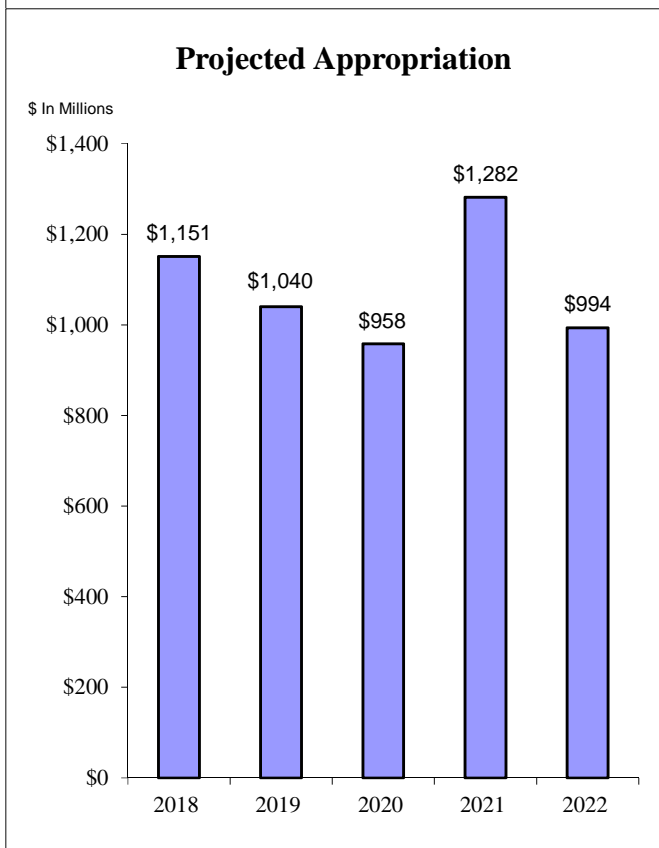
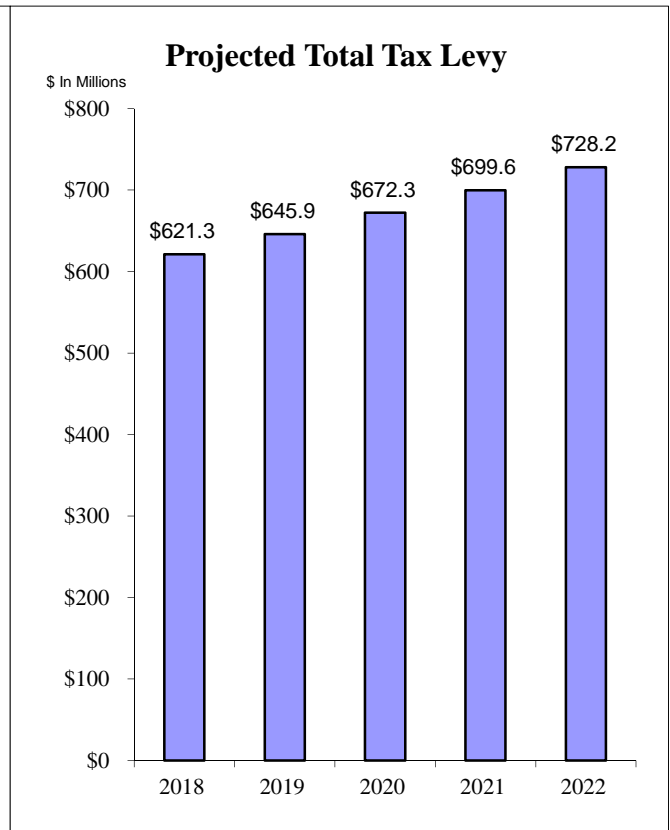
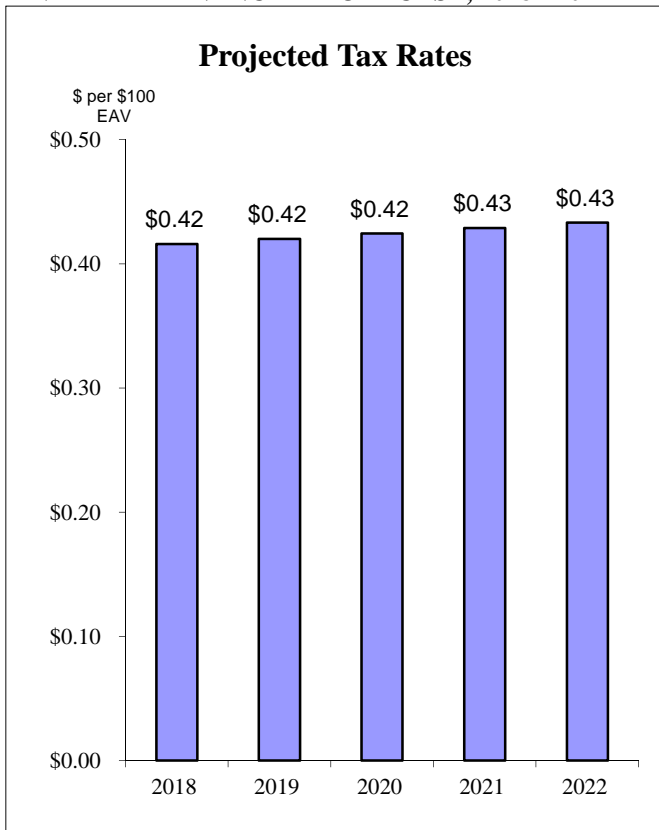
The balance sheet statement on page 70 is prepared on a GAAP-basis of accounting and is included to show the effect on the Corporate Fund Group, which is comprised of the Corporate, Corporate Working Cash, and Reserve Claim Funds. One of the most important factors in evaluating the financial position 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 2018 is \$303.4 million. This total fund equity projection includes future claims in the Reserve Claim Fund. The projection for the years 2018 through 2022 shows an average of \$324.4 million.

Very truly yours,



Shellie A. Riedle
Budget Officer

FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022



FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022**TABLE I**

ALL FUNDS					
Projected Tax Rates	2018	2019	2020	2021	2022
Corporate	\$0.1611	\$0.1637	\$0.1657	\$0.1657	\$0.1638
Construction	0.0078	0.0076	0.0074	0.0086	0.0119
Stormwater Management	0.0320	0.0359	0.0398	0.0437	0.0478
Debt Service	0.1630	0.1629	0.1629	0.1629	0.1629
Retirement	0.0479	0.0466	0.0455	0.0448	0.0439
Reserve Claim	0.0040	0.0033	0.0032	0.0031	0.0030
Total (\$ in cents)	\$0.4158	\$0.4200	\$0.4244	\$0.4287	\$0.4333
Percentage Change		1.01%	1.05%	1.03%	1.05%
Projected tax rate per \$100 Equalized Assessed Valuation (EAV). Assumes 2017 EAV of \$145.0 billion increasing 3.0% in 2018 and 3.0% each year thereafter.					
Projected Tax Levies	2018	2019	2020	2021	2022
Corporate	\$240,466	\$251,850	\$262,500	\$270,400	\$275,300
Construction	11,700	11,700	11,700	14,000	20,000
Stormwater Management	47,826	55,206	63,048	71,365	80,371
Debt Service-Existing	243,792	244,349	239,959	236,406	233,437
Debt Service-Proposed	-	6,159	18,064	29,358	40,300
Retirement	71,534	71,686	72,029	73,059	73,746
Reserve Claim	6,000	5,000	5,000	5,000	5,000
Total Levy (\$ in thousands)	\$621,318	\$645,950	\$672,300	\$699,588	\$728,154
Percentage Change		3.96%	4.08%	4.06%	4.08%
Aggregate Levy (\$ in thousands)	\$329,700	\$340,236	\$351,229	\$362,459	\$374,046
Percentage Change		3.20%	3.23%	3.20%	3.20%
Projected Annual Appropriations	2018	2019	2020	2021	2022
Corporate	\$370,209	\$378,755	\$385,729	\$392,175	\$398,491
Capital Improvements Bond	312,983	218,756	128,123	434,604	126,994
Construction	26,081	15,173	13,074	15,058	20,744
Stormwater Management	65,581	60,871	64,581	67,034	69,555
Debt Service-Existing	256,304	233,038	210,829	209,032	206,785
Debt Service-Proposed	-	15,740	37,832	45,517	51,609
Retirement	89,604	87,281	87,466	87,885	89,142
Reserve Claim	30,290	30,500	30,500	30,500	30,500
Total Appropriation (\$ in thousands)	\$1,151,051	\$1,040,113	\$958,133	\$1,281,804	\$993,820
Projected Positions	2018	2019	2020	2021	2022
Corporate	1,909	1,907	1,906	1,905	1,903
Stormwater Management	57	56	56	56	56
Total Positions	1,966	1,963	1,962	1,961	1,959

Note: Totals are rounded.

FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022

TABLE II

CORPORATE FUND						% average annual change
Five-Year Revenue and Tax Rate Projections	2018	2019	2020	2021	2022	2018 - 2022
Property Taxes	\$232,049	\$243,035	\$253,313	\$260,936	\$265,665	3.45%
Personal Property Replacement Tax	19,850	19,850	19,711	19,623	19,360	(0.62%)
User Charge	46,000	45,000	44,000	43,000	43,000	(1.67%)
Investment Income	1,300	1,900	2,100	2,200	2,300	16.50%
Land Rentals	21,500	22,000	22,500	23,000	23,500	2.25%
Sewer Permits	900	992	1,000	1,000	1,000	2.76%
Miscellaneous	10,295	3,810	3,943	4,081	4,224	(13.12%)
Equity Transfer	4,200	-	-	-	-	0.00%
Net Assets Appropriable	137,376	125,474	113,606	105,302	98,342	(8.01%)
Budget Reserve	(103,261)	(83,306)	(74,444)	(66,968)	(58,899)	(13.01%)
Total Appropriable Resources (\$ in thousands)	\$370,209	\$378,755	\$385,729	\$392,175	\$398,491	1.86%
Projected Equalized Assessed Valuation (EAV) (Based on 2016 EAV, assumes 3.0% increase for 2017 and then 3.0% annually)	\$149.324 billion	\$153.804 billion	\$158.418 billion	\$163.170 billion	\$168.065 billion	
Projected Tax Rate Cents per \$100 EAV	16.1¢	16.4¢	16.6¢	16.6¢	16.4¢	
Gross Levy - assumes 3.5% uncollectible.	\$240,466	\$251,850	\$262,500	\$270,400	\$275,300	
Projected Appropriations by Major Categories	2018	2019	2020	2021	2022	2018 - 2022
Employee Cost - Salaries	\$201,268	\$205,294	\$207,347	\$209,420	\$211,514	1.25%
Employee Cost - Health Care	41,456	44,225	48,414	51,926	55,707	7.67%
Other Postemployment Benefits Trust	5,000	5,000	5,000	5,000	5,000	0.00%
Professional Services	4,768	5,090	5,141	5,192	5,244	2.44%
Energy Cost	41,762	41,867	41,971	42,076	42,181	0.25%
Chemicals	12,938	13,259	13,260	13,285	13,260	0.62%
Materials & Supplies	11,095	11,234	11,374	11,516	11,660	1.25%
Solids Disposal	10,919	11,197	11,079	10,819	10,819	(0.21%)
Contracted Solids Disposal	3,700	3,737	3,774	3,812	3,850	1.00%
Computer Systems & Telecommunications	8,233	8,406	8,706	8,979	9,039	2.37%
Repairs to Structures & Equipment	11,248	11,385	11,342	11,299	11,232	(0.03%)
Contractual Services	16,359	16,532	16,636	17,088	17,148	1.19%
Machinery & Equipment	574	579	585	591	597	1.00%
Real Estate Taxes	890	950	1,100	1,170	1,240	8.72%
Total (\$ in thousands)	\$370,209	\$378,755	\$385,729	\$392,175	\$398,491	1.86%
Projected Appropriations by Department	2018	2019	2020	2021	2022	2018 - 2022
Board of Commissioners	\$5,145	\$5,197	\$5,249	\$5,301	\$5,354	1.00%
General Administration	16,725	16,893	17,062	17,232	17,405	1.00%
Monitoring & Research	31,889	32,208	32,530	32,855	33,184	1.00%
Procurement & Materials Management	9,467	9,561	9,657	9,754	9,851	1.00%
Human Resources	59,226	62,819	66,633	69,888	72,982	5.36%
Information Technology	17,053	17,223	17,395	17,569	17,745	1.00%
Law	7,503	7,578	7,654	7,730	7,807	1.00%
Finance	3,744	3,781	3,819	3,857	3,896	1.00%
Engineering	28,322	28,605	28,891	29,180	29,472	1.00%
Maintenance & Operations	191,136	194,890	196,839	198,807	200,795	1.24%
Total (\$ in thousands)	\$370,209	\$378,755	\$385,729	\$392,175	\$398,491	1.86%
Projected Appropriation Distribution by Program	2018	2019	2020	2021	2022	2018 - 2022
1000 Collection	\$58,997	\$60,592	\$61,318	\$61,485	\$62,124	1.30%
2000 Treatment	78,953	80,992	81,939	82,330	82,936	1.24%
3000 Solids Processing	44,287	45,179	45,721	46,219	46,699	1.34%
4000 Flood & Pollution Control	40,024	40,641	40,777	41,816	41,991	1.21%
5000 Solids Disposal	21,969	22,397	22,778	23,140	23,496	1.69%
7000 General Support	125,979	128,952	133,195	137,184	141,245	2.90%
Total (\$ in thousands)	\$370,209	\$378,755	\$385,729	\$392,175	\$398,491	1.86%

Note: Totals are rounded.

FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022

TABLE III

CONSTRUCTION FUND					
Five-Year Revenue and Tax Rate Projections	2018	2019	2020	2021	2022
Property Taxes	\$11,291	\$11,291	\$11,291	\$13,510	\$19,300
Personal Property Replacement Tax	-	-	-	-	-
Equity Transfer	-	-	-	-	-
Investment Income & Miscellaneous Revenue	50	240	240	240	240
Net Assets Appropriable	14,741	3,912	1,544	1,308	1,204
Total Revenue & Appropriable Resources (\$ in thousands)	\$26,081	\$15,443	\$13,074	\$15,058	\$20,744
Projected Equalized Assessed Valuation (EAV) (Based on 2016 EAV, assumes 3.0% increase for 2017 and then 3.0% annually thereafter)	\$149.324 billion	\$153.804 billion	\$158.418 billion	\$163.170 billion	\$168.065 billion
Projected Tax Rate Cents per \$100 of EAV	0.8¢	0.8¢	0.7¢	0.9¢	1.2¢
Gross Levy - assumes 3.5% uncollectible rate.	\$11,700	\$11,700	\$11,700	\$14,000	\$20,000
Projected Appropriations	2018	2019	2020	2021	2022
Capital Projects	\$19,036	\$9,637	\$7,183	\$8,267	\$13,253
Professional Services	6,303	5,266	5,391	6,291	6,991
Other Charges	742	540	500	500	500
Total (\$ in thousands)	\$26,081	\$15,443	\$13,074	\$15,058	\$20,744
Projected Appropriation Distribution by Program	2018	2019	2020	2021	2022
1000 Collection	\$4,056	\$3,846	\$3,725	\$2,760	\$3,903
2000 Treatment	7,914	3,071	1,896	2,646	4,436
3000 Solids Processing	2,220	1,304	1,103	2,400	3,805
4000 Flood & Pollution Control	4,728	3,275	3,200	3,852	4,950
5000 Solids Disposal	\$3,950	\$365	\$250	\$500	\$750
7000 General Support	3,213	3,312	2,900	2,900	2,900
Total (\$ in thousands)	\$26,081	\$15,173	\$13,074	\$15,058	\$20,744
STORMWATER MANAGEMENT FUND					
Five-Year Revenue and Tax Rate Projections	2018	2019	2020	2021	2022
Property Taxes	\$46,152	\$53,274	\$60,841	\$68,867	\$77,558
Investment Income & Miscellaneous Revenue	200	300	300	400	400
Net Assets Appropriable	25,000	13,279	12,087	9,607	6,628
Equity Transfer (Debt Service for Alternate Revenue Bonds)	(5,771)	(6,152)	(8,818)	(12,010)	(15,202)
Total Revenue & Appropriable Resources (\$ in thousands)	\$65,581	\$60,701	\$64,411	\$66,864	\$69,384
Projected EAV (Based on 2016 EAV, assumes 3.0% increase for 2017 and then 3.0% annually)	\$149.324 billion	\$153.804 billion	\$158.418 billion	\$163.170 billion	\$168.065 billion
Projected Tax Rate Cents per \$100 of EAV	3.2¢	3.6¢	4.0¢	4.4¢	4.8¢
Gross Levy - assumes 3.5% uncollectible rate.	\$47,826	\$55,206	\$63,048	\$71,365	\$80,371
Projected Appropriations	2018	2019	2020	2021	2022
Employee Cost - Salaries	\$6,117	\$6,239	\$6,301	\$6,364	\$6,428
Employee Cost - Health Care	567	601	652	695	741
Contractual Services	36,077	23,337	26,451	27,416	28,102
Capital Projects	19,506	27,469	28,091	29,474	31,199
Other Charges	3,315	3,225	3,085	3,085	3,085
Total (\$ in thousands)	\$65,581	\$60,871	\$64,581	\$67,034	\$69,555
Projection Appropriation Distribution by Program	2018	2019	2020	2021	2022
4000 Flood & Pollution Control	\$65,581	\$60,871	\$64,581	\$67,034	\$69,555
Total (\$ in thousands)	\$65,581	\$60,871	\$64,581	\$67,034	\$69,555

Note: Totals are rounded.

FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022

TABLE IV

CAPITAL IMPROVEMENTS BOND FUND*					
Appropriable Resources (Cash)	2018	2019	2020	2021	2022
Bond Sales - Limited	\$ -	\$ -	\$100,000	\$ -	\$ -
Bond Sales - Unlimited	-	-	100,000	100,000	100,000
Bond Sales - Unlimited Stormwater Management	-	-	50,000	50,000	50,000
State Revolving Loan Fund Receipts	150,000	150,000	150,000	150,000	150,000
Investment Income & Grant Revenue	16,994	13,935	14,335	15,200	15,700
Beginning Cash	337,222	259,108	174,943	339,278	404,478
Total Assets Appropriable (\$ in thousands)	\$504,216	\$423,043	\$589,278	\$654,478	\$720,178
Expenditures	\$245,108	\$248,100	\$250,000	\$250,000	\$250,000
Ending Cash (\$ in thousands)	\$259,108	\$174,943	\$339,278	\$404,478	\$470,178
Projected Appropriations by Major Categories	2018	2019	2020	2021	2022
Professional Consulting Services	\$5,550	\$9,450	\$3,950	\$4,034	\$4,034
Capital Projects	305,548	207,921	122,788	428,873	121,263
Other Charges	1,885	1,385	1,385	1,697	1,697
Total (\$ in thousands)	\$312,983	\$218,756	\$128,123	\$434,604	\$126,994
Projected Appropriation Distribution by Program	2018	2019	2020	2021	2022
1000 Collection	\$44,496	\$43,835	\$27,375	\$376,135	\$26,600
2000 Treatment	64,068	96,250	30,800	16,709	29,884
3000 Solids Processing	32,183	11,100	10,100	31,909	30,409
4000 Flood & Pollution Control	165,810	65,321	58,598	8,601	38,851
5000 Solids Disposal	4,675	1,000	1,000	1,000	1,000
7000 General Support	1,750	1,250	250	250	250
Total (\$ in thousands)	\$312,983	\$218,756	\$128,123	\$434,604	\$126,994

*The Capital Improvements Bond Fund is appropriated on an obligation basis. Expenditures are expected to be disbursed over the term of the projects funded.

DEBT SERVICE FUNDS					
Projected Debt					
EXISTING DEBT	2018	2019	2020	2021	2022
January 1 Debt	\$2,801,872	\$2,838,855	\$2,873,881	\$3,161,330	\$3,340,979
Annual Current Debt Retirement	(113,017)	(112,049)	(103,701)	(105,426)	(106,722)
Net Debt	\$2,688,855	\$2,726,806	\$2,770,180	\$3,055,904	\$3,234,258
PROPOSED FUTURE DEBT	2018	2019	2020	2021	2022
Annual Sale of Bonds:					
Capital Bonds - Limited	\$ -	\$ -	\$100,000	\$ -	\$ -
Capital Bonds - Unlimited	-	-	100,000	100,000	100,000
Alternate Bonds - Unlimited Stormwater	-	-	50,000	50,000	50,000
State Revolving Fund Bond Issues	150,000	150,000	150,000	150,000	150,000
Future Debt Retirement	-	(2,925)	(8,850)	(14,925)	(22,730)
Proposed New Debt (\$ in thousands)	\$150,000	\$147,075	\$391,150	\$285,075	\$277,270
PROJECTED DEBT OUTSTANDING	\$2,838,855	\$2,873,881	\$3,161,330	\$3,340,979	\$3,511,528
Gross Levy for Existing Debt	\$243,792	\$244,349	\$239,959	\$236,406	\$233,437
Gross Levy for Future Debt	-	6,159	18,064	29,358	40,300
Total Debt Levy	\$243,792	\$250,508	\$258,023	\$265,764	\$273,736
Tax Rate (cents)	16.3¢	16.3¢	16.3¢	16.3¢	16.3¢
Forecasted Stormwater Alternate Revenue Abatement**	(\$5,771)	(\$6,152)	(\$8,818)	(\$12,010)	(\$15,202)
Projected Levy After Abatement	\$238,021	\$244,355	\$249,205	\$253,753	\$258,535
Projected Equalized Assessed Valuation (EAV)***	\$149.324	\$153.804	\$158.418	\$163.170	\$168.065
	billion	billion	billion	billion	billion

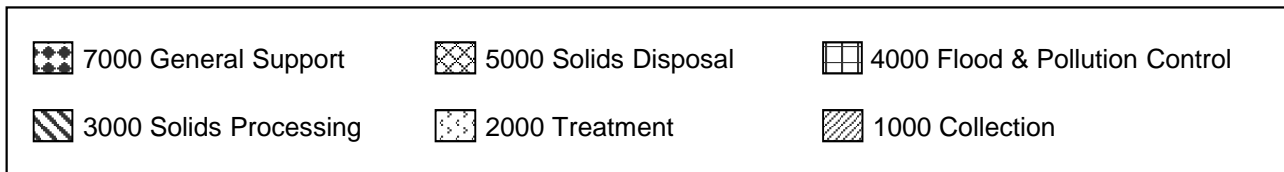
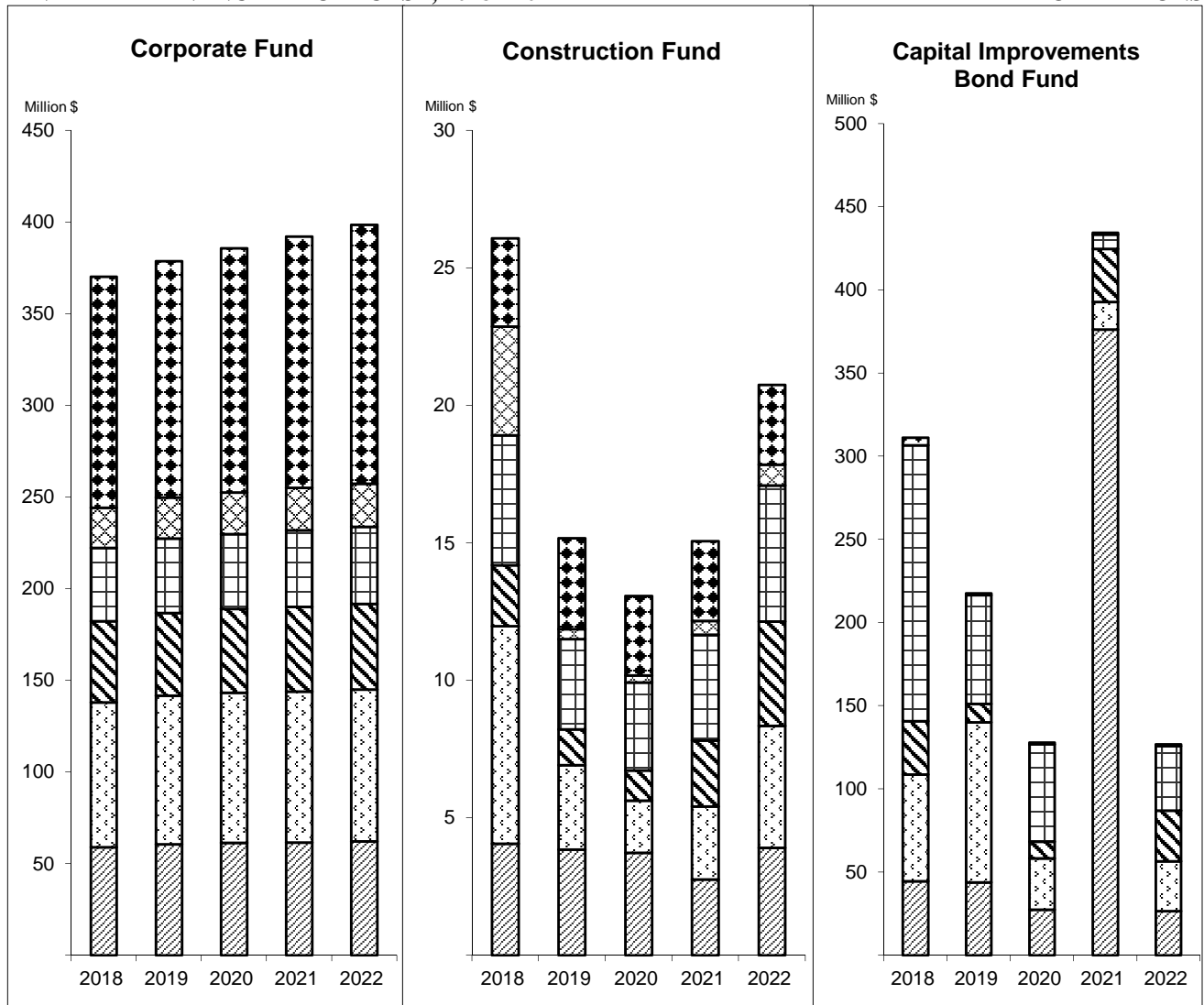
**As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Fund be transferred to the Bond Fund and used to abate taxes levied for the program.

Note: Totals are rounded.

***Assumes a 3.0% increase in 2017, and a 3.0% increase annually thereafter.

FIVE-YEAR FINANCIAL FORECAST, 2018 - 2022

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, 2018 - 2022

Combined GAAP Balance Sheets - General Corporate Fund

(in Thousands)

Assets	2018	2019	2020	2021	2022
Cash	\$ 20,171	\$ 20,575	\$ 20,986	\$ 21,406	\$ 21,834
Restricted Cash	2,203	2,247	2,292	2,337	2,384
Investments	220,992	225,412	229,920	234,519	239,209
Receivables:					
Property Taxes	267,239	271,247	275,316	279,446	283,638
Less Allowance for Uncollectible Taxes	36,682	37,232	37,790	38,357	38,933
Net Property Taxes Receivable	230,557	234,016	237,526	241,089	244,705
Personal Property Replacement Tax	-	-	-	-	-
User Charges	5,231	5,388	5,550	5,716	5,888
Miscellaneous	10,143	10,346	10,553	10,764	10,979
Inventories	38,262	37,887	37,547	37,532	37,938
Total Assets	\$ 527,559	\$ 535,870	\$ 544,374	\$ 553,363	\$ 562,937
Liabilities and Fund Equity					
Liabilities:					
Deferred Tax Revenue	\$ 180,206	\$ 182,909	\$ 185,653	\$ 188,437	\$ 191,264
Accounts Payable and Other Liabilities	34,313	35,000	35,700	36,414	37,142
Due to Other Funds	-	-	-	-	-
Total Liabilities	\$ 214,519	\$ 217,909	\$ 221,352	\$ 224,851	\$ 228,406
Fund Equity:					
Fund Balances					
Non-spendable - Inventory	\$ 35,573	\$ 35,609	\$ 35,644	\$ 35,680	\$ 35,716
Restricted - Working Cash	287,835	292,152	296,534	300,982	305,497
Real Estate Escrow	2,407	2,409	2,412	2,414	2,416
Reserve Claim	27,670	27,947	28,226	28,509	28,794
Designated for Future Claims	-	-	-	-	-
Unreserved:					
Undesignated	(40,445)	(40,155)	(39,795)	(39,073)	(37,891)
Total Fund Equity	\$ 313,040	\$ 317,961	\$ 323,021	\$ 328,512	\$ 334,532
Total Liabilities and Fund Equity	\$ 527,559	\$ 535,870	\$ 544,374	\$ 553,363	\$ 562,937

Note: Totals are rounded.

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 2016 through the Budget Year 2018. 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.

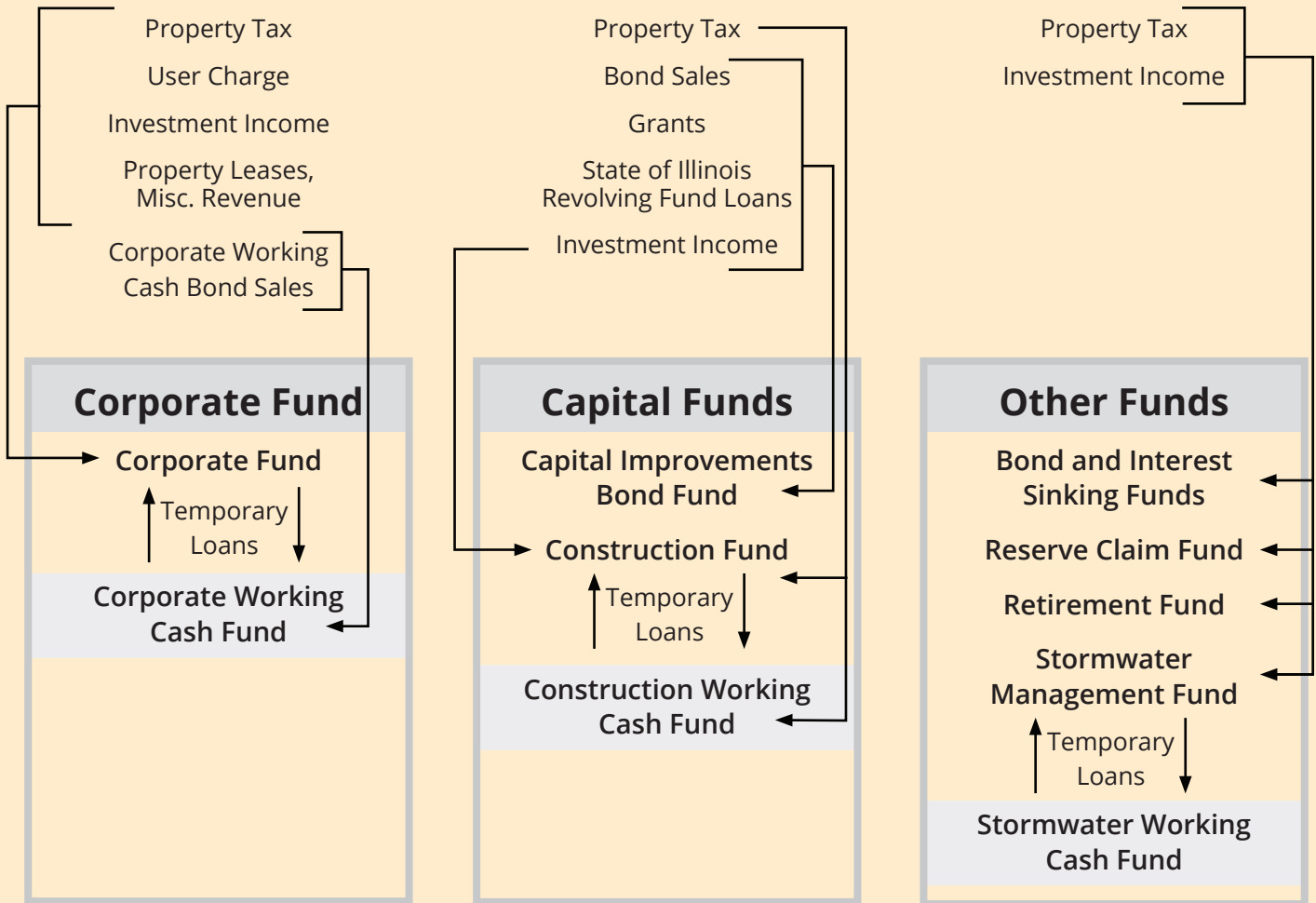
Major fund category narratives are presented for the Corporate Fund, Capital Funds, and Other Funds, which discuss revenue sources, trends in revenue and expenditures, fiscal/financial policies, and other elements of these funds. Estimated balance sheets, statements of appropriable revenue, and statements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

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Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

District's Flow of Funds Structure

Revenue Sources



Uses of Funds

General Operational Expenditures

Permanent Facilities
 Environmental Facilities
 Stormwater Management Projects
 Other Capital Expenditures

Principal and Interest on Bond Issues
 Payments for Claims and Damages
 Employee Pension Payments
 Stormwater Management Expenditures

Note: Working Cash can be transferred between other Working Cash Funds.

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 as a pay-as-you-go capital fund for the construction, replacement, or remodeling of long-term assets used in the principal functions of the District, funded primarily by a property tax levy. 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 Tunnel and Reservoir Plan (TARP) deep tunnels and drop shafts, which will be depreciated. The District uses specific 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 2018 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 68.8 percent of the 2018 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 2018 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 \$38.1 million for 2018, a increase of \$1.2 million from the 2017 Adjusted Budget or 3.3 percent. This revenue source typically trends with the state of the economy.

Exhibit 1 presents revenue from net tax sources for the years 2014 - 2018. Beginning in 1995, the Illinois Tax Cap laws limit increase in property tax levies in the aggregate to the lesser of 5.0 percent or the change in the national Consumer Price Index (CPI), plus new property. The Stormwater Management Fund and the payment of Bond principal and interest are exempt from the tax cap extension limitations. For 2018, an increase of 3.2 percent is forecast, consisting of an estimated 2.5 percent change in the CPI plus an estimated 0.7 percent for new development and newly annexed properties.

GRANTS AND LOANS

Federal and state grants, and state loans contribute to finance the District's capital programs. For 2018, \$150.0 million in State Revolving Fund (SRF) loan revenue and \$11.3 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 Stormwater and other projects. Exhibit 2 shows the grants and loans for the years 2014 - 2018. The District anticipates receiving an annual allocation of up to \$150.0 million in State Revolving Fund loans in each of the next four years.

Exhibit 1

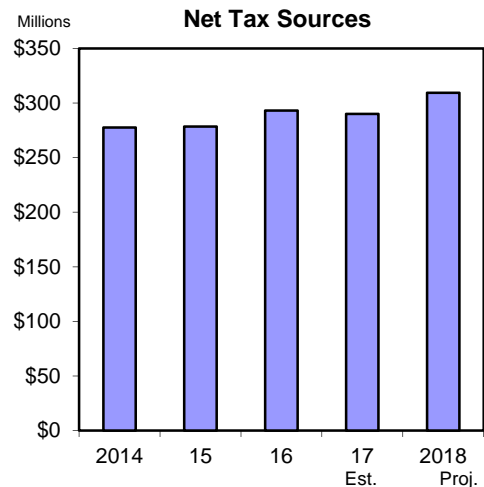
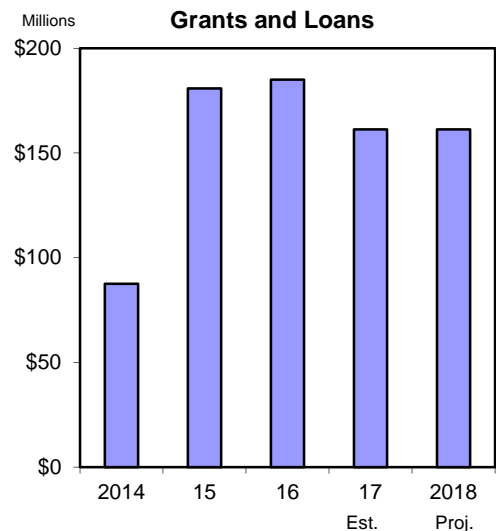


Exhibit 2



FINANCIAL NARRATIVE (continued)

BOND SALES

The District's Capital Program is financed primarily with State Revolving Fund loans and general obligation bond sale proceeds. Bonds are used to provide necessary revenue for capital project cash flows. The District last issued bonds in 2016 and does not plan on new bond sales until 2020.

In both 2014 and 2016, General Obligation Unlimited Tax Bonds were issued as "alternate revenue bonds" pursuant to the Debt Reform Act. The 2014 Series B and 2016 Series E 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. 2016 Series F bonds are Qualified Energy Conservation Bonds to fund energy efficiency projects in the WRPs.

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 90-485 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 92-143 was passed to authorize the issuance of 30 year bonds. Public Act 92-726 extended the non-referendum bonding authority from December 31, 2006 to December 31, 2016, and Public Act 96-1308, 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 pages 53 and 54 shows the District's strong position. The Five-Year Financial Forecast on pages 60 and 68 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 2018 are \$46.0 million.

Land rentals, investment income, sewer permit fees, connection impact fees, and other revenues will provide an estimated \$46.0 million in 2018. 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 2018. Interest rates on short-term securities are expected to increase slightly through 2018. Our investments are predominately short-term in nature. Sewer permit revenue estimates are based on anticipated projects and 2017 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 amounts in 2015 - 2018 are attributable to use of the obligation basis of budgetary accounting for the Capital Improvements Bond Fund and indicated that future bond sales or State Revolving Fund loans are necessary to finance projects.

Exhibit 3

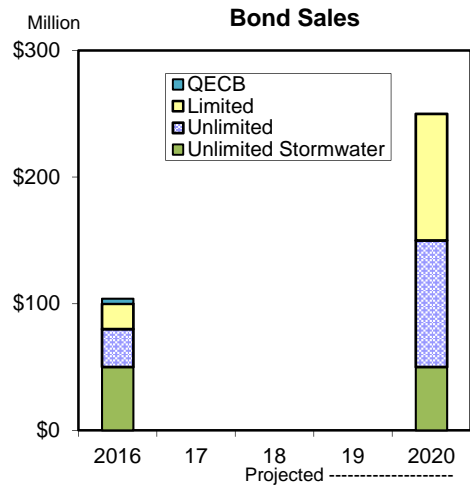


Exhibit 4

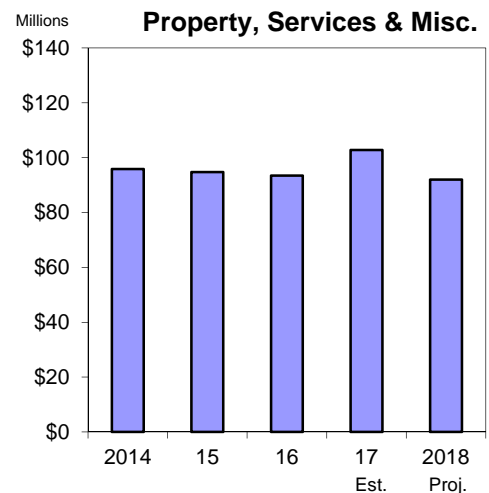
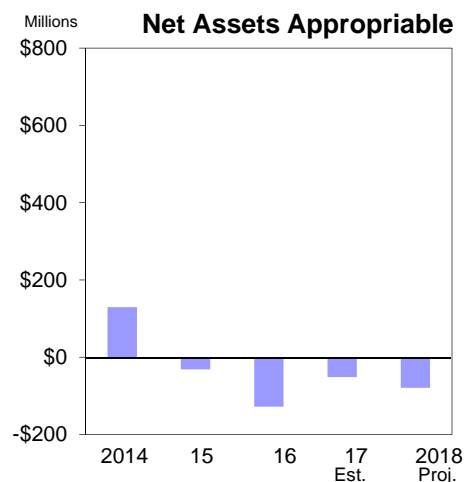


Exhibit 5



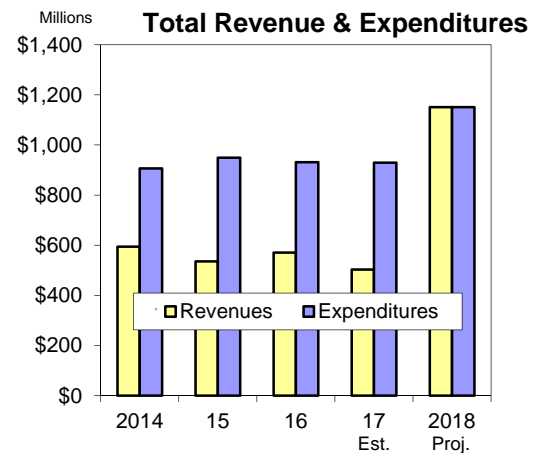
FINANCIAL NARRATIVE (continued)

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 appropriable, therefore, limiting property taxes.

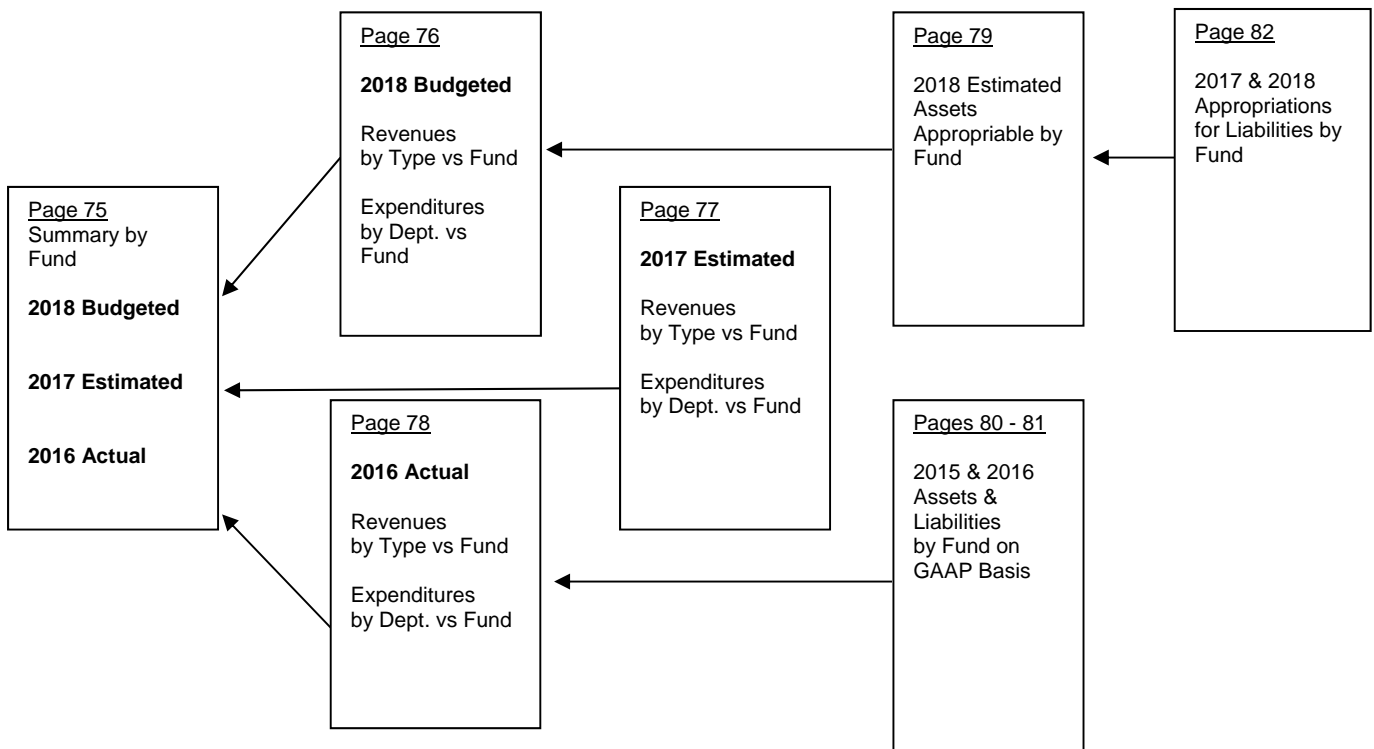
For 2018, a portion of the Corporate Fund projected net assets will remain unappropriated to ensure a fiscally responsible fund balance. District management and the financial markets view a Corporate Fund balance within the \$45 to \$55 million range as necessary to maintain financial stability in the 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 2016 - 2018. These statements provide a financial summarization by fund of the 2018 Budget as proposed, the estimated status at 2017 fiscal year-end, and the actual results of operations for fiscal year 2016. The relationships among the pages are diagrammed below.



The table of taxes receivable on page 83 provides detailed data on property tax levies and tax receipts from 2013 to 2017. While 2013 through 2015 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 2013 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)
2018 BUDGETED, 2017 ESTIMATED, AND 2016 ACTUAL

(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT (d)	BOND REDEMPTION & INTEREST (d)	RESERVE CLAIM (d)	
2018 BUDGETED								
Net Assets Appropriable	\$ 137,376.2	\$ (626,092.7)	\$ 14,740.6	\$ 25,751.6	\$ 89,604.0	\$ 249,533.6	\$ 29,989.5	\$ (79,097.2)
Net Assets Appropriated	\$ 34,115.2	\$ (626,092.7)	\$ 14,740.6	\$ 25,751.6	\$ 89,604.0	\$ 249,533.6	\$ 29,989.5	\$ (182,358.2)
Revenue	336,094.0	939,075.6	11,340.0	39,829.4	-	6,770.6	300.0	1,333,409.6
Appropriation	\$ 370,209.2	\$ 312,982.9	\$ 26,080.6	\$ 65,581.0	\$ 89,604.0	\$ 256,304.2	\$ 30,289.5	\$ 1,151,051.4
2017 ESTIMATED								
Beginning Net Assets Appropriable as adjusted (c)	\$ 142,061.5	\$ (549,041.4)	\$ 6,384.0	\$ 13,843.2	\$ 79,505.0	\$ 224,536.5	\$ 31,455.6	\$ (51,255.6)
Revenue (a)	327,775.2	153,769.5	24,070.0	38,971.2	-	4,289.3	243.0	549,118.2
Adjustment for 2017 receipts	5,391.3	-	456.0	(500.1)	-	-	-	5,347.2
Expenditures	(337,851.8)	(230,820.8)	(16,169.4)	(26,562.7)	(79,505.0)	(228,825.8)	(9,626.3)	(929,361.8)
Ending Net Assets Appropriable	\$ 137,376.2	\$ (626,092.7)	\$ 14,740.6	\$ 25,751.6	\$ -	\$ -	\$ 22,072.3	\$ (426,152.0)
2016 ACTUAL								
Beginning Net Assets Appropriable as adjusted (c)	\$ 145,889.3	\$ (609,914.9)	\$ 13,467.8	\$ 10,163.7	\$ 70,772.0	\$ 211,354.6	\$ 30,210.0	\$ (128,057.5)
Revenue	331,601.0	314,839.6	14,060.3	33,339.1	-	4,292.7	405.2	698,537.9
Expenditures	(335,428.8)	(253,966.1)	(21,144.1)	(29,659.6)	(70,772.0)	(215,647.3)	(4,786.4)	(931,404.3)
Ending Net Assets Appropriable	\$ 142,061.5	\$ (549,041.4)	\$ 6,384.0	\$ 13,843.2	\$ -	\$ -	\$ 25,828.8	\$ (360,923.9)
Adjusted NAA 1/1/2017	\$ 147,452.8		\$ 6,840.0	\$ 13,343.1				
Adjustment (a)	\$ 5,391.3		\$ 456.0	\$ (500.1)				

(a) Adjustment to NAA required due to current 2017 estimate on collection of property tax levies and PPRT. See the Balance Sheets and Appropriable Revenue statements 1/1/2017 for the Corporate (pages 87-88), Construction (pages 94-95), and Stormwater Management (pages 98-99) Funds. The adjustment is reflected in the 2017 revenues.

(b) This statement is a summary presentation of pages 76-78, 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
2018 BUDGETED**

(In Thousands)

	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
REVENUE								
Net Assets Appropriable	\$ 137,376.2	\$ (626,092.7)	\$ 14,740.6	\$ 25,751.6	\$ 89,604.0	\$ 249,533.6	\$ 29,989.5	\$ (79,097.2)
Budget Reserve	(103,261.0)	-	-	-	-	-	-	(103,261.0)
Net Property Taxes	232,049.5	-	11,290.5	46,152.1	-	-	-	289,492.1
Personal Property Replacement Tax	19,849.5	-	-	-	-	-	-	19,849.5
Working Cash Borrowings Adjustment	(4,599.0)	-	(190.5)	(752.1)	-	-	-	(5,541.6)
Bond Sales (Present & Future)	-	776,281.1	-	-	-	-	-	776,281.1
Grants (Federal & State)	-	11,294.5	-	-	-	-	-	11,294.5
Investment Income	1,300.0	3,700.0	200.0	200.0	-	1,000.0	300.0	6,700.0
State Revolving Fund Loans	-	150,000.0	-	-	-	-	-	150,000.0
Property & Services	22,400.0	-	-	-	-	-	-	22,400.0
User Charge	46,000.0	-	-	-	-	-	-	46,000.0
TIF Differential Fee & Impact Fee	9,725.0	-	40.0	-	-	-	-	9,765.0
Equity Transfer	4,200.0	(4,200.0)	-	(5,770.6)	-	5,770.6	-	-
Resource Recovery	1,600.0	-	-	-	-	-	-	1,600.0
Miscellaneous	3,569.0	2,000	-	-	-	-	-	5,569.0
TOTAL REVENUE	\$ 370,209.2	\$ 312,982.9	\$ 26,080.6	\$ 65,581.0	\$ 89,604.0	\$ 256,304.2	\$ 30,289.5	\$ 1,151,051.4
EXPENDITURES								
Board of Commissioners	\$ 5,145.2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,145.2
General Administration	16,725.4	-	-	-	-	-	-	16,725.4
Monitoring & Research	31,888.7	-	-	-	-	-	-	31,888.7
Procurement & Materials Mgmt.	9,466.7	-	-	-	-	-	-	9,466.7
Human Resources	59,226.4	-	-	-	-	-	-	59,226.4
Information Technology	17,052.5	-	-	-	-	-	-	17,052.5
Law	7,502.8	-	-	-	-	-	-	7,502.8
Finance	3,743.9	-	-	-	-	-	-	3,743.9
Engineering	28,322.1	312,982.9	26,080.6	-	-	-	-	367,385.6
Maintenance & Operations	191,135.5	-	-	-	-	-	-	191,135.5
Stormwater Management Fund	-	-	-	65,581.0	-	-	-	65,581.0
Retirement Fund	-	-	-	-	89,604.0	-	-	89,604.0
Bond Redemption & Interest Fund	-	-	-	-	-	256,304.2	-	256,304.2
Reserve Claim Fund	-	-	-	-	-	-	30,289.5	30,289.5
TOTAL EXPENDITURES	\$ 370,209.2	\$ 312,982.9	\$ 26,080.6	\$ 65,581.0	\$ 89,604.0	\$ 256,304.2	\$ 30,289.5	\$ 1,151,051.4

* 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
2017 ESTIMATED**

(In Thousands)

	FUND							
	<i>CORPORATE</i>	<i>CAPITAL IMPROVEMENTS BOND*</i>	<i>CONSTRUCTION</i>	<i>STORMWATER MANAGEMENT</i>	<i>RETIREMENT</i>	<i>BOND REDEMPTION & INTEREST</i>	<i>RESERVE CLAIM</i>	<i>TOTAL</i>
REVENUE								
Net Assets Appropriable	\$ 142,061.5	\$ (549,041.4)	\$ 6,384.0	\$ 13,843.2	\$ 79,505.0	\$ 224,536.5	\$ 31,455.6	\$ (51,255.6)
Adjustment for Receipts	5,391.3	-	456.0	(500.1)	-	-	-	5,347.2
Net Property Taxes	216,108.0	-	16,405.0	39,426.0	-	-	-	271,939.0
Personal Property Replacement Tax	18,164.0	-	-	-	-	-	-	18,164.0
Working Cash Borrowings Adjustment	(4,272.0)	-	(205.0)	(626.0)	-	-	-	(5,103.0)
Bond Sales (Present & Future)	-	-	-	-	-	-	-	-
Grants (Federal & State)	-	11,294.5	-	-	-	-	-	11,294.5
Investment Income	1,093.0	3,475.0	125.0	122.0	-	1,020.0	243.0	6,078.0
State Revolving Fund Loans	-	150,000.0	-	-	-	-	-	150,000.0
Property & Services	22,050.2	-	-	-	-	-	-	22,050.2
User Charge	52,600.0	-	-	-	-	-	-	52,600.0
TIF Differential Fee & Impact Fee	11,725.0	-	745.0	-	-	-	-	12,470.0
Equity Transfer	6,000	(13,000)	7,000	-	-	3,269.3	-	3,269.3
Miscellaneous	4,307.0	2,000.0	-	49.2	-	-	-	6,356.2
TOTAL REVENUE	\$ 475,228.0	\$ (395,271.9)	\$ 30,910.0	\$ 52,314.3	\$ 79,505.0	\$ 228,825.8	\$ 31,698.6	\$ 503,209.8
EXPENDITURES								
Board of Commissioners	\$ 4,241.2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	4,241.2
General Administration	15,566.2	-	-	-	-	-	-	15,566.2
Monitoring & Research	28,923.0	-	-	-	-	-	-	28,923.0
Procurement & Materials Mgmt.	8,851.0	-	-	-	-	-	-	8,851.0
Human Resources	55,310.2	-	-	-	-	-	-	55,310.2
Information Technology	14,400.0	-	-	-	-	-	-	14,400.0
Law	6,098.2	-	-	-	-	-	-	6,098.2
Finance	3,528.3	-	-	-	-	-	-	3,528.3
Engineering	26,058.5	230,820.8	16,169.4	-	-	-	-	273,048.7
Maintenance & Operations	174,875.2	-	-	-	-	-	-	174,875.2
Stormwater Management Fund	-	-	-	23,293.4	-	-	-	23,293.4
Retirement Fund	-	-	-	-	79,505.0	-	-	79,505.0
Bond Redemption & Interest Fund	-	-	-	-	-	228,825.8	-	228,825.8
Reserve Claim Fund	-	-	-	-	-	-	9,626.3	9,626.3
Equity Transfer	-	-	-	3,269.3	-	-	-	3,269.3
TOTAL EXPENDITURES	\$ 337,851.8	\$ 230,820.8	\$ 16,169.4	\$ 26,562.7	\$ 79,505.0	\$ 228,825.8	\$ 9,626.3	\$ 929,361.8

* 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
2016 ACTUAL**

(In Thousands)

	FUND							
	<i>CORPORATE</i>	<i>CAPITAL IMPROVEMENTS BOND*</i>	<i>CONSTRUCTION</i>	<i>STORMWATER MANAGEMENT</i>	<i>RETIREMENT</i>	<i>BOND REDEMPTION & INTEREST</i>	<i>RESERVE CLAIM</i>	<i>TOTAL</i>
REVENUE								
Net Assets Appropriable	\$ 145,889.3	\$ (609,914.9)	\$ 13,467.8	\$ 10,163.7	\$ 70,772.0	\$ 211,354.6	\$ 30,210.0	\$ (128,057.5)
Adjustment for Receipts	11,314.8	-	(4,451.8)	721.4	-	-	-	7,584.4
Net Property Taxes	218,195.5	-	16,019.0	33,051.3	-	-	-	267,265.8
Personal Property Replacement Tax	24,676.0	-	1,100	-	-	-	-	25,776.0
Working Cash Borrowings Adjustment	(4,671.4)	-	(319.0)	(551.3)	-	-	-	(5,541.7)
Bond Sales	-	125,003.5	-	-	-	-	-	125,003.5
Grants (Federal & State)	-	11,233.7	-	-	-	-	-	11,233.7
Investment Income	1,020.7	2,395.1	178.1	117.3	-	1,020.0	403.9	5,135.1
State Revolving Fund Loans	-	173,739.0	-	-	-	-	-	173,739.0
Property & Services	22,699.3	-	-	-	-	-	-	22,699.3
User Charge	44,487.4	-	-	-	-	-	-	44,487.4
TIF Differential & Impact Fee	8,657.0	-	1,491.0	-	-	-	-	10,148.0
Equity Transfer	-	-	-	-	-	3,272.7	-	3,272.7
Miscellaneous	5,221.7	2,468.3	43.0	0.4	-	-	1.3	7,734.7
TOTAL REVENUE	\$ 477,490.3	\$ (295,075.3)	\$ 27,528.1	\$ 43,502.8	\$ 70,772.0	\$ 215,647.3	\$ 30,615.2	\$ 570,480.4
EXPENDITURES								
Board of Commissioners	\$ 4,157.6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,157.6
General Administration	15,469.4	-	-	-	-	-	-	15,469.4
Monitoring & Research	27,864.4	-	-	-	-	-	-	27,864.4
Procurement & Materials Mgmt.	8,327.6	-	-	-	-	-	-	8,327.6
Human Resources	54,540.2	-	-	-	-	-	-	54,540.2
Information Technology	14,292.5	-	-	-	-	-	-	14,292.5
Law	6,704.5	-	-	-	-	-	-	6,704.5
Finance	3,596.5	-	-	-	-	-	-	3,596.5
Engineering	26,039.0	253,966.1	21,144.1	-	-	-	-	301,149.2
Maintenance & Operations	174,437.1	-	-	-	-	-	-	174,437.1
Stormwater Management Fund	-	-	-	26,386.9	-	-	-	26,386.9
Retirement Fund	-	-	-	-	70,772.0	-	-	70,772.0
Bond Redemption & Interest Fund	-	-	-	-	-	215,647.3	-	215,647.3
Reserve Claim Fund	-	-	-	-	-	-	4,786.4	4,786.4
Equity Transfer	-	-	-	3,272.7	-	-	-	3,273
TOTAL EXPENDITURES	\$ 335,428.8	\$ 253,966.1	\$ 21,144.1	\$ 29,659.6	\$ 70,772.0	\$ 215,647.3	\$ 4,786.4	\$ 931,404.6

* 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 2018

DESCRIPTION	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
2018 Revenue	\$ 331,894,000	\$ 943,275,600	\$ 11,340,000	\$ 45,600,000	\$ -	\$ 1,000,000	\$ 300,000	\$ 1,333,409,600
Resources Available at 01/01/18	<u>362,248,759</u>	<u>488,163,405</u>	<u>30,380,600</u>	<u>55,816,808</u>	<u>89,604,000</u>	<u>339,534,610</u>	<u>30,230,716</u>	<u>1,395,978,898</u>
Total Resources	\$ 694,142,759	\$ 1,431,439,005	\$ 41,720,600	\$ 101,416,808	\$ 89,604,000	\$ 340,534,610	\$ 30,530,716	\$ 2,729,388,498
Liabilities:								
Liabilities and Designations at 01/01/18	224,872,559	1,114,256,105	15,640,000	30,065,208	-	90,001,024 *	241,216	1,475,076,112
Equity Transfer	4,200,000	(4,200,000)	-	(5,770,600)	-	5,770,600	-	-
Budget Reserve	<u>103,261,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>103,261,000</u>
ASSETS APPROPRIABLE	<u>\$ 370,209,200</u>	<u>\$ 312,982,900</u>	<u>\$ 26,080,600</u>	<u>\$ 65,581,000</u>	<u>\$ 89,604,000</u>	<u>\$ 256,304,186</u>	<u>\$ 30,289,500</u>	<u>\$ 1,151,051,386</u>

* Future Years' Principal and Interest

GAAP Basis Statement From 2016 CAFR - Exhibit A-1
Governmental Funds Balance Sheets / Statements of Net Assets

December 31, 2016 (with comparative amounts for prior year)

(in thousands of dollars)

	General Corporate Fund		Debt Service Fund		Capital Improvements Bond Fund	
	2016	2015	2016	2015	2016	2015
	Assets					
Cash	\$ 19,388	\$ 57,769	\$ 3,478	\$ 15,826	\$ 7,514	\$ 92,764
Certificates of deposit	65,675	4,498	20,009	2,014	82,187	16,617
Investments (note 4)	146,736	174,547	92,185	90,831	233,557	202,441
Prepaid insurance	2,117	2,137	-	-	-	-
Taxes receivable, net (note 5)	223,793	224,745	219,040	216,631	-	-
Other receivables, net (note 5)	14,294	8,720	-	-	97,261	41,521
Due from other funds (note 12)	101	77	-	-	-	-
Restricted deposits	285	1,405	-	-	-	-
Inventories	35,502	37,623	-	-	-	-
Capital assets not being depreciated (note 6)	-	-	-	-	-	-
Capital assets being depreciated, net (note 6)	-	-	-	-	-	-
Total Assets	\$ 507,891	\$ 511,521	\$ 334,712	\$ 325,302	\$ 420,519	\$ 353,343
Deferred outflows of resources:						
Loss on prior debt refunding	-	-	-	-	-	-
Deferred outflows for employer contributions	-	-	-	-	-	-
Deferred outflows for other pension amounts	-	-	-	-	-	-
Total deferred outflows of resources	-	-	-	-	-	-
Total assets and deferred outflows of resources	\$ 507,891	\$ 511,521	\$ 334,712	\$ 325,302	\$ 420,519	\$ 353,343
Liabilities, Fund Balances / Net Assets						
Liabilities:						
Accounts payable and other liabilities (note 5)	\$ 28,126	\$ 28,815	\$ -	\$ -	\$ 45,543	\$ 48,760
Due to Pension Trust Fund (note 12)	-	-	-	-	-	-
Due to other funds (note 12)	-	-	-	-	-	-
Accrued interest payable	-	-	-	-	-	-
Unearned Revenue (note 5)	4,855	4,222	-	-	-	-
Long-term liabilities: (note 11)						
Due within one year	-	-	-	-	-	-
Due in more than one year	-	-	-	-	-	-
Total Liabilities	\$ 32,981	\$ 33,037	\$ -	\$ -	\$ 45,543	\$ 48,760
Deferred inflows of resources:						
Unavailable tax revenue (note 5)	174,919	191,372	171,204	184,496	-	-
Other unavailable/unearned revenue (note 5)	-	-	-	-	941	933
Total deferred inflows of resources	\$ 174,919	\$ 191,372	\$ 171,204	\$ 184,496	\$ 941	\$ 933
Fund Balances/Net Assets:						
Nonspendable for prepaid insurance	2,117	2,137	-	-	-	-
Nonspendable for inventories	35,502	37,623	-	-	-	-
Restricted for deposits	285	1,405	-	-	-	-
Restricted for working cash	279,390	278,852	-	-	-	-
Restricted for reserve claims	27,125	25,522	-	-	-	-
Restricted for debt service	-	-	163,508	140,806	-	-
Restricted for capital projects	-	-	-	-	228,694	175,730
Restricted for construction	-	-	-	-	-	-
Assigned	-	-	-	-	145,341	127,920
Unassigned (Deficit)	(44,428)	(58,427)	-	-	-	-
Total Fund Balances	\$ 299,991	\$ 287,112	\$ 163,508	\$ 140,806	\$ 374,035	\$ 303,650
Total Liabilities, Deferred Inflows and Fund Balances	\$ 507,891	\$ 511,521	\$ 334,712	\$ 325,302	\$ 420,519	\$ 353,343
Net Position:						
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)						
Total Net Position						

Notes reference the 2016 CAFR of the District - Available on the Internet at www.mwrd.org

Metropolitan Water Reclamation District of Greater Chicago

Retirement Fund		Other Governmental / Nonmajor Funds		Total Governmental Activities		Adjustments (Note 2a)		Statements of Net Assets	
2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
\$ -	\$ -	\$ 5,081	\$ 7,342	\$ 35,461	\$ 173,701	\$ -	\$ -	\$ 35,461	\$ 173,701
-	-	5,003	502	172,874	23,631	-	-	172,874	23,631
-	-	31,360	50,305	503,838	518,124	-	-	503,838	518,124
-	-	1	-	2,118	2,137	-	-	2,118	2,137
69,200	61,566	45,865	39,131	557,898	542,073	-	-	557,898	542,073
-	-	-	745	111,555	50,986	-	-	111,555	50,986
-	-	-	-	101	77	(101)	(77)	-	-
-	-	-	-	285	1,405	-	-	285	1,405
-	-	-	-	35,502	37,623	-	-	35,502	37,623
-	-	-	-	-	-	5,730,902	5,571,371	5,730,902	5,571,371
-	-	-	-	-	-	1,696,032	1,710,649	1,696,032	1,710,649
<u>\$ 69,200</u>	<u>\$ 61,566</u>	<u>\$ 87,310</u>	<u>\$ 98,025</u>	<u>\$ 1,419,632</u>	<u>\$ 1,349,757</u>	<u>\$ 7,426,833</u>	<u>\$ 7,281,943</u>	<u>\$ 8,846,465</u>	<u>\$ 8,631,700</u>
-	-	-	-	-	-	5,426	12,511	5,426	12,511
-	-	-	-	-	-	80,259	71,041	80,259	71,041
-	-	-	-	-	-	107,700	20,415	107,700	20,415
-	-	-	-	-	-	193,385	103,967	193,385	103,967
<u>\$ 69,200</u>	<u>\$ 61,566</u>	<u>\$ 87,310</u>	<u>\$ 98,025</u>	<u>\$ 1,419,632</u>	<u>\$ 1,349,757</u>	<u>\$ 7,620,218</u>	<u>\$ 7,385,910</u>	<u>\$ 9,039,850</u>	<u>\$ 8,735,667</u>
\$ -	\$ -	\$ 5,430	\$ 11,785	\$ 79,099	\$ 89,360	\$ -	\$ -	\$ 79,099	\$ 89,360
20,051	13,867	-	-	20,051	13,867	60,208	57,174	80,259	71,041
-	-	101	77	101	77	(101)	(77)	-	-
-	-	-	-	-	-	16,145	14,924	16,145	14,924
-	-	-	-	4,855	4,222	-	-	4,855	4,222
-	-	-	-	-	-	140,400	123,555	140,400	123,555
-	-	-	-	-	-	4,179,147	3,903,359	4,179,147	3,903,359
<u>\$ 20,051</u>	<u>\$ 13,867</u>	<u>\$ 5,531</u>	<u>\$ 11,862</u>	<u>\$ 104,106</u>	<u>\$ 107,526</u>	<u>\$ 4,395,799</u>	<u>\$ 4,098,935</u>	<u>\$ 4,499,905</u>	<u>\$ 4,206,461</u>
49,149	47,699	35,849	33,331	431,121	456,898	(431,121)	(456,898)	-	-
-	-	-	-	941	933	(941)	(933)	-	-
<u>\$ 49,149</u>	<u>\$ 47,699</u>	<u>\$ 35,849</u>	<u>\$ 33,331</u>	<u>\$ 432,062</u>	<u>\$ 457,831</u>	<u>\$ (432,062)</u>	<u>\$ (457,831)</u>	<u>\$ -</u>	<u>\$ -</u>
-	-	1	-	2,118	2,137	(2,118)	(2,137)	-	-
-	-	-	-	35,502	37,623	(35,502)	(37,623)	-	-
-	-	-	-	285	1,405	(285)	(1,405)	-	-
-	-	59,454	59,163	338,844	338,015	(338,844)	(338,015)	-	-
-	-	-	-	27,125	25,522	(27,125)	(25,522)	-	-
-	-	-	-	163,508	140,806	(163,508)	(140,806)	-	-
-	-	-	-	228,694	175,730	(228,694)	(175,730)	-	-
-	-	-	2,759	-	-	-	(2,759)	-	-
-	-	-	-	145,341	127,920	(145,341)	(127,920)	-	-
-	-	(13,525)	(9,090)	(57,953)	(67,517)	57,953	67,517	-	-
<u>\$ -</u>	<u>\$ -</u>	<u>\$ 45,930</u>	<u>\$ 52,832</u>	<u>\$ 883,464</u>	<u>\$ 784,400</u>	<u>\$ (883,464)</u>	<u>\$ (784,400)</u>	<u>\$ -</u>	<u>\$ -</u>
<u>\$ 69,200</u>	<u>\$ 61,566</u>	<u>\$ 87,310</u>	<u>\$ 98,025</u>	<u>\$ 1,419,632</u>	<u>\$ 1,349,757</u>	<u>\$ 4,591,899</u>	<u>\$ 4,630,463</u>	<u>\$ 4,591,899</u>	<u>\$ 4,630,463</u>
						279,390	278,852	279,390	278,852
						2,128	6,499	2,128	6,499
						318,575	310,383	318,575	310,383
						75,762	-	75,762	-
						22,070	21,947	22,070	21,947
						37,384	37,216	37,384	37,216
						(787,263)	(756,154)	(787,263)	(756,154)
						<u>\$ 4,539,945</u>	<u>\$ 4,529,206</u>	<u>\$ 4,539,945</u>	<u>\$ 4,529,206</u>

APPROPRIATION FOR LIABILITIES - BY FUND JANUARY 1, 2018 AND 2017

CORPORATE FUND	2018	2017
Unpaid Bills:		
Accrued Salaries & Wages	\$ 3,850,000	\$ 2,827,328
Personal Services - Other	1,022,559	-
Payroll Withholding & Miscellaneous	2,000,000	2,500,000
Contractual Services	28,000,000	18,045,000
Due to Corporate Working Cash Fund	190,000,000	180,000,000
Designated for Future Claims Liabilities	-	-
Total Liabilities of Corporate Fund	\$ 224,872,559	\$ 203,372,328
CONSTRUCTION FUND		
Unpaid Bills:		
Contracts Payable	\$ 2,340,000	\$ 3,162,000
Contractual Services	1,300,000	-
Machinery & Equipment		297,100
Due to Construction Working Cash Fund	12,000,000	12,000,000
Total Liabilities of Construction Fund	\$ 15,640,000	\$ 15,459,100
CAPITAL IMPROVEMENTS BOND FUND		
Unpaid Bills:		
Contractual Services	\$ 73,937,199	\$ 73,761,112
Contracts Payable	1,040,318,906	833,423,020
Total Liabilities of Capital Improvements Bond Fund	\$ 1,114,256,105	\$ 907,184,132
RESERVE CLAIM FUND		
Accounts Payable & Other Liabilities	\$ 241,216	\$ 400,000
BOND REDEMPTION & INTEREST FUND		
Future Payment of Principal & Interest	\$ 256,304,186	\$ 110,582,352
STORMWATER MANAGEMENT FUND		
Accrued Salaries & Wages	\$ 104,000	\$ 632,368
Vouchers Payable	2,000,000	
Contracts Payable	1,461,208	\$ 6,406,300
Due to Stormwater Working Cash Fund	26,500,000	26,500,000
Total Liabilities of Stormwater Management Fund	\$ 30,065,208	\$ 33,538,668
TOTAL LIABILITIES JANUARY 1, 2018 AND 2017	\$ 1,641,379,274	\$ 1,270,536,580

**STATEMENT OF TAXES RECEIVABLE FOR 2017 AND PRIOR YEARS AT JANUARY 1, 2018
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2018**

YEAR FUND	TAX EXTENSION	COLLECTED THRU 12/31/17	%	UNCOLLECTED AT 12/31/17	RESERVE \$	%	ESTIMATED NET TAXES RECEIVABLE	CASH ESTIMATED IN 2018
2017 Corporate	\$ 223,946,065	\$ -	0%	\$ 223,946,065	\$ 7,838,112	3.5%	\$ 216,107,953	\$ 218,347,413
Bond Redemption & Interest	233,887,123	-	0%	233,887,123	8,186,049	3.5%	225,701,074	228,039,945
Retirement	73,438,135	-	0%	73,438,135	2,570,335	3.5%	70,867,800	70,867,800
Construction	17,000,000	-	0%	17,000,000	595,000	3.5%	16,405,000	16,575,000
Stormwater Management	40,856,008	-	0%	40,856,008	1,429,960	3.5%	39,426,048	39,834,608
Reserve Claim	5,900,000	-	0%	5,900,000	206,500	3.5%	5,693,500	5,752,500
Total	\$ 595,027,331	\$ -	0%	\$ 595,027,331	\$ 20,825,956	3.5%	\$ 574,201,375	\$ 579,417,266
2016 Corporate	\$ 226,742,879	\$ 221,074,307	97.5%	\$ 5,668,572	\$ 7,936,001	3.5%	\$ -	\$ 2,494,172
Bond Redemption & Interest	225,714,902	220,072,029	97.5%	5,642,873	7,900,022	3.5%	-	2,482,864
Retirement	65,161,200	63,532,170	97.5%	1,629,030	2,280,642	3.5%	-	-
Construction	13,784,956	13,440,332	97.5%	344,624	482,473	3.5%	-	151,635
Stormwater Management	34,250,000	33,393,750	97.5%	856,250	1,198,750	3.5%	-	376,750
Reserve Claim	5,800,000	5,655,000	97.5%	145,000	203,000	3.5%	-	63,800
Total	\$ 571,453,937	\$ 557,167,588	97.5%	\$ 14,286,349	\$ 20,000,888	3.5%	\$ -	\$ 5,569,221
2015 Corporate	\$ 227,659,785	\$ 224,472,548	98.6%	\$ 3,187,237	\$ 7,968,092	3.5%	\$ -	\$ (1,593,618)
Bond Redemption & Interest	224,487,727	221,344,899	98.6%	3,142,828	7,857,070	3.5%	-	(1,571,414)
Retirement	58,004,000	55,973,860	96.5%	2,030,140	2,030,140	3.5%	-	-
Construction	15,196,952	14,984,195	98.6%	212,757	531,893	3.5%	-	(106,379)
Stormwater Management	24,050,000	23,713,300	98.6%	336,700	841,750	3.5%	-	(168,350)
Reserve Claim	5,700,000	5,620,200	98.6%	79,800	199,500	3.5%	-	(39,900)
Total	\$ 555,098,464	\$ 546,109,002	98.4%	\$ 8,989,462	\$ 19,428,445	3.5%	\$ -	\$ (3,479,661)
2014 Corporate	\$ 230,415,559	\$ 227,420,157	98.7%	\$ 2,995,402	\$ 8,064,545	3.5%	\$ -	\$ (1,612,909)
Bond Redemption & Interest	218,319,348	215,481,196	98.7%	2,838,152	7,641,177	3.5%	-	(1,528,235)
Retirement	50,530,700	48,762,126	96.5%	1,768,574	1,768,575	3.5%	-	-
Construction	17,400,000	17,173,800	98.7%	226,200	609,000	3.5%	-	(121,800)
Stormwater Management	21,000,000	20,727,000	98.7%	273,000	735,000	3.5%	-	(147,000)
Reserve Claim	3,000,000	2,961,000	98.7%	39,000	105,000	3.5%	-	(21,000)
Total	\$ 540,665,607	\$ 532,525,279	98.5%	\$ 8,140,328	\$ 18,923,297	3.5%	\$ -	\$ (3,430,944)
2013 Corporate	\$ 224,399,734	\$ 219,687,340	97.9%	\$ 4,712,394	\$ 7,853,991	3.5%	\$ -	\$ (673,199)
Bond Redemption & Interest	201,388,786	197,159,621	97.9%	4,229,165	7,048,608	3.5%	-	(604,166)
Retirement	51,620,700	50,330,183	97.5%	1,290,517	1,806,725	3.5%	-	-
Construction	11,079,300	10,846,635	97.9%	232,665	387,776	3.5%	-	(33,238)
Stormwater Management	20,000,000	19,580,000	97.9%	420,000	700,000	3.5%	-	(60,000)
Reserve Claim	6,170,977	6,041,386	97.9%	129,591	215,984	3.5%	-	(18,513)
Total	\$ 514,659,497	\$ 503,645,165	97.9%	\$ 11,014,332	\$ 18,013,084	3.5%	\$ -	\$ (1,389,116)
Prior Years' Levies Corporate								\$ (224,400)
Bond Redemption & Interest								(201,389)
Retirement								-
Construction								(11,079)
Stormwater Management								(20,000)
Reserve Claim								(6,171)
Total								\$ (463,039)
RECAPITULATION BY FUND								
Corporate	\$ 1,133,164,022	\$ 892,654,352		\$ 240,509,670	\$ 39,660,741		\$ 216,107,953	\$ 216,737,459
Bond Redemption & Interest	1,103,797,886	854,057,745		249,740,141	38,632,926		225,701,074	226,617,605
Retirement	298,754,735	218,598,339		80,156,396	10,456,417		70,867,800	70,867,800
Construction	74,461,208	56,444,962		18,016,246	2,606,142		16,405,000	16,454,139
Stormwater Management	140,156,008	97,414,050		42,741,958	4,905,460		39,426,048	39,816,008
Reserve Claim	26,570,977	20,277,586		6,293,391	929,984		5,693,500	5,730,716
Total	\$ 2,776,904,836	\$ 2,139,447,034		\$ 637,457,802	\$ 97,191,670		\$ 574,201,375	\$ 576,223,727

**STATEMENT OF PERSONAL PROPERTY REPLACEMENT TAXES RECEIVABLE
FOR 2018 AND PRIOR YEARS AT JANUARY 1, 2018
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2018**

YEAR	FUND	BUDGETED RECEIVABLE	ACTUAL/ESTIMATED COLLECTED THROUGH 2017	CASH ESTIMATED IN 2018
2018	Corporate	\$ 19,849,500	\$ -	\$ -
	Retirement	18,250,500	-	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 38,100,000	\$ -	\$ -
2017	Corporate	\$ 18,164,000	\$ -	\$ 18,164,000
	Retirement	18,736,200	-	18,736,200
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 36,900,200	\$ -	\$ 36,900,200
2016	Corporate	\$ 17,675,500	\$ 24,377,303	\$ -
	Retirement	16,624,500	16,624,500	-
	Construction	1,100,000	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 35,400,000	\$ 41,001,803	\$ -
2015	Corporate	\$ 23,101,600	\$ 23,435,980	\$ -
	Retirement	14,798,400	14,798,400	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 37,900,000	\$ 38,234,380	\$ -
2014	Corporate	\$ 18,608,149	\$ 30,257,802	\$ -
	Retirement	12,891,851	12,891,900	-
	Construction	10,500,000	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 42,000,000	\$ 43,149,702	\$ -
2013	Corporate	\$ 28,830,000	\$ 27,308,644	\$ -
	Retirement	13,170,000	13,170,000	-
	Construction	-	-	-
	Reserve Claim	-	-	-
	Corporate Working Cash	-	-	-
	Construction Working Cash	-	-	-
	Stormwater Working Cash	-	-	-
	Total	\$ 42,000,000	\$ 40,478,644	\$ -

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 2018 Budget is \$370.2 million, an increase of \$1.3 million, or 0.3 percent, from the 2017 Adjusted Budget.

Property taxes are the major source of revenue for the Corporate Fund. In 2018, the net property tax levy will provide 62.7 percent of the fund's revenue. The property tax levy for 2018 is \$240.5 million, an increase of 16.5 million, or 7.4 percent, from the 2017 Adjusted Levy. Since 2014, the Corporate Fund property tax levy has decreased annually as the District prioritized growth in the aggregate levy allowed under the Tax Cap laws to fund statutory increases in pension liability and pay-as-you-go construction projects funding through the Construction Fund. In 2018, while the Corporate Fund levy is increasing, decreases in the Construction Fund and Retirement Fund property tax levies keep the increase in aggregate to an estimated 3.2 percent.

The Corporate Fund also receives significant funding from user charge revenue, estimated at \$46.0 million in 2018, a \$6.6 million decrease from the 2017 Adjusted Budget. 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. The 2017 year-end estimated revenue contains approximately \$7.0 million in additional payments that are not expected to continue in 2018 or beyond.

User charge rates and revenues parallel changes in operations and maintenance costs. User charge rates are based on United States Environmental Protection Agency's 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. The Corporate Fund allocation is budgeted at \$19.8 million for 2018, an increase of \$1.7 million compared to the 2017 Adjusted Budget, but flat to the 2017 projected year-end of \$18.2 for the Corporate Fund. The PPRT is allocated first to the Retirement Fund to pay 20.9 percent of the Retirement Fund total levy.

In 2018, land rental revenue is budgeted at \$21.5 million, an increase of \$0.5 million from the 2017 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.

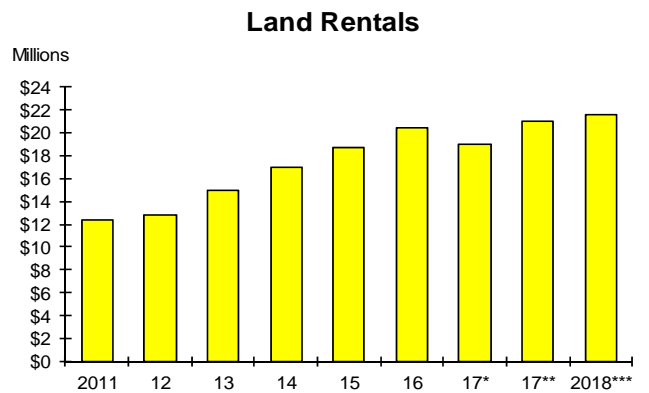
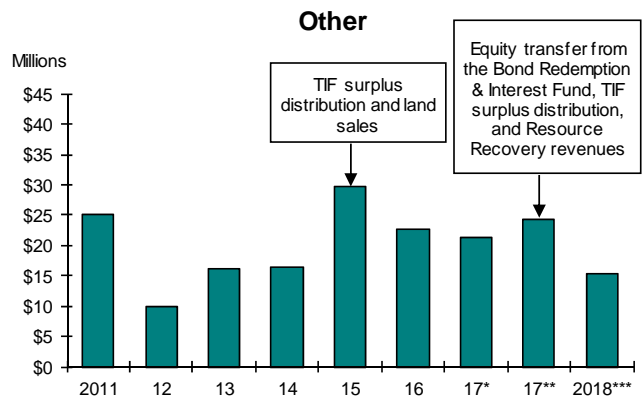
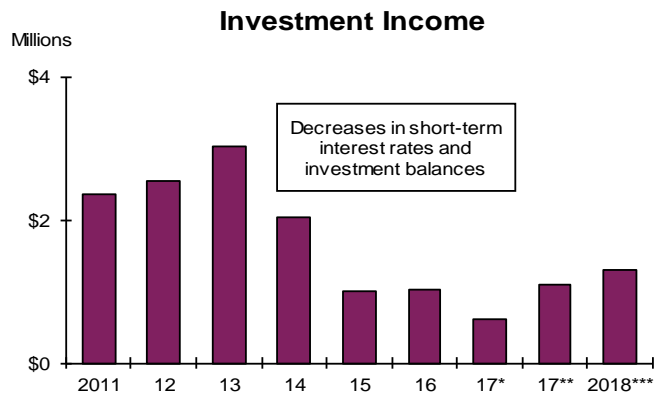
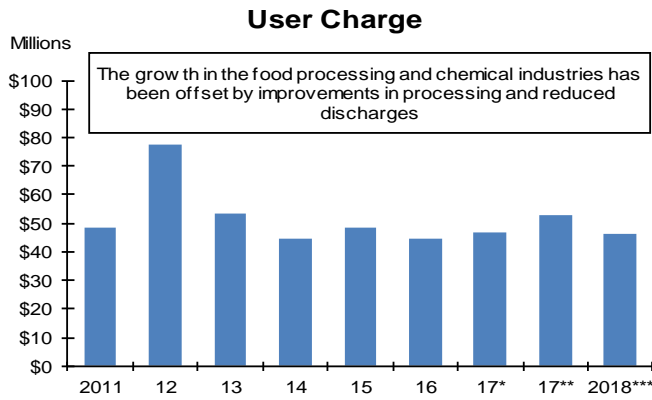
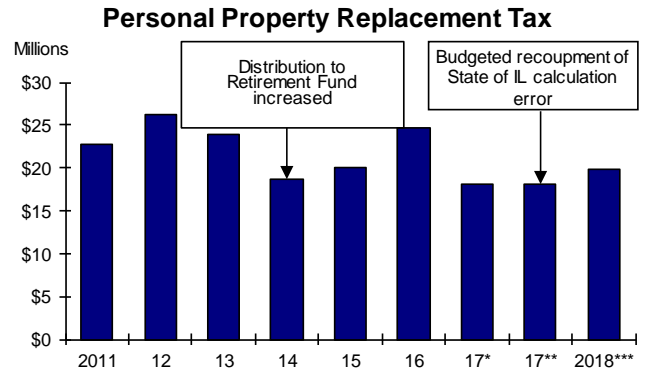
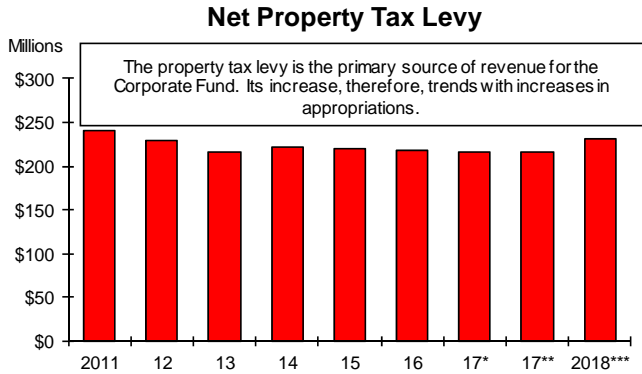
For 2018, the District anticipates a \$9.5 million Tax Increment Financing (TIF) surplus distribution primarily from the expiration of TIF districts within the City of Chicago. A \$4.2 million equity transfer from the Capital Improvements Bond Fund's accumulated interest income, which can be used for any corporate purpose, will be used to supplement the Corporate Fund. Resource Recovery revenues of \$1.6 million are the result of the District's Strategic Business Plan goal to pursue the recovery of natural resources. Investment income is budgeted for 2018 at \$1.3 million, an increase of \$0.7 million from the 2017 Original Budget. This estimate assumes slight growth in short-term interest rates, after several years of relatively stable short-term interest rates.

The revenue estimate for sewer permit fees for 2018 is \$0.9 million. Actual 2017 revenues are projected to be \$1.0 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 2018 due to the slow recovery in the local real estate market.

A fund balance within the \$44.0 to \$55.0 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 2018, a portion amounting to \$103.3 million of the projected net assets will remain unappropriated to provide for a fiscally responsible fund balance.

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, but neither a tax levy nor bond sale is planned for 2018. The estimated amount the District will allocate as available for loan in 2018 is \$247.3 million, or 95 percent, of the maximum.

REVENUE - CORPORATE FUND (BUDGETARY BASIS)



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: 2011 - 2016 actual
 * 2017 as budgeted
 ** 2017 adjusted estimate
 *** 2018 estimate

**CORPORATE FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

	ASSETS		2017	
	2018			
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
CURRENT ASSETS				
Cash & Investments	\$ 127,347,300	\$ 127,347,300	\$ 102,800,000	\$ 102,800,000
Taxes Receivable	216,107,953	216,737,459	218,195,475	218,828,128
Replacement Tax	18,164,000	18,164,000	17,675,500	17,675,500
Total Current Assets	\$ 361,619,253	\$ 362,248,759	\$ 338,670,975	\$ 339,303,628
LIABILITIES & FUND EQUITY				
CURRENT LIABILITIES				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 3,850,000	\$ 3,850,000	\$ 2,827,328	\$ 2,827,328
Personal Services - Other	1,022,559	1,022,559	-	-
Payroll Withholding & Miscellaneous	2,000,000	2,000,000	2,500,000	2,500,000
Contractual Services	28,000,000	28,000,000	18,045,000	18,045,000
Due to Corporate Working Cash Fund	190,000,000	190,000,000	180,000,000	180,000,000
Total Current Liabilities	\$ 224,872,559	\$ 224,872,559	\$ 203,372,328	\$ 203,372,328
Total Liabilities & Designations		\$ 224,872,559		\$ 203,372,328
ASSETS APPROPRIABLE FOR 2018 & 2017				
Net Assets Appropriable		\$ 137,376,200		\$ 135,931,300
Budget Reserve		\$ (103,261,000)		\$ (89,098,500)
Net Assets Appropriated		\$ 34,115,200		\$ 46,832,800
Estimated Revenue		\$ 336,094,000		\$ 322,093,000
Total Assets Appropriable		\$ 370,209,200		\$ 368,925,800
FUND EQUITY				
Undesignated	\$ 136,746,694		\$ 135,298,647	
Total Fund Equity	\$ 136,746,694		\$ 135,298,647	
Total Liabilities & Fund Equity	\$ 361,619,253		\$ 338,670,975	

CORPORATE FUND
APPROPRIABLE REVENUE
2018 - 2015

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Property Taxes					
Gross Tax Levy	\$ 240,465,800	\$ 223,946,065	\$ 223,946,065	\$ 226,109,300	\$ 227,196,000
Less Allowance for Uncollectible Taxes	(8,416,303)	(7,838,112)	(7,838,112)	(7,913,826)	(7,951,860)
Net Property Taxes	\$ 232,049,497	\$ 216,107,953	\$ 216,107,953	\$ 218,195,474	\$ 219,244,140
Revenue from Personal Property					
Replacement Tax	\$ 19,849,500	\$ 18,164,000	\$ 18,164,000	\$ 24,676,000	\$ 20,101,600
Net Tax Sources	\$ 251,898,997	\$ 234,271,953	\$ 234,271,953	\$ 242,871,474	\$ 239,345,740
Adjustment to match working cash borrowings	(4,598,997)	(4,271,953)	(4,271,953)	(4,671,474)	(4,445,740)
Working Cash Financing at 95% of Gross Tax Sources	\$ 247,300,000	\$ 230,000,000	\$ 230,000,000	\$ 238,200,000	\$ 234,900,000
Investment Income	\$ 1,300,000	\$ 1,093,000	\$ 600,000	\$ 1,020,669	\$ 1,003,361
Land Rentals	21,500,000	21,000,000	19,000,000	20,458,550	18,731,872
Sewer Permit Fees	900,000	1,000,000	900,000	1,007,195	1,078,886
Sewer Service Agreement Revenue	1,500,000	1,500,000	1,500,000	1,497,979	1,507,667
User Charge	46,000,000	52,600,000	47,000,000	44,487,370	48,176,512
Resource Recovery	1,600,000	280,000	4,000,000	-	-
Lockport Electricity Generation	1,000,000	1,200,000	1,000,000	1,176,146	1,236,698
Miscellaneous (details below)	10,794,000	13,102,200	12,093,000	12,438,302	12,624,456
Subtotal	\$ 84,594,000	\$ 91,775,200	\$ 86,093,000	\$ 82,086,211	\$ 84,359,452
Adjustment to Net Assets Available for Projected Receipts	-	5,391,307	-	11,314,834	17,607,678
Equity Transfer	4,200,000	6,000,000	6,000,000	-	-
GRAND TOTAL	\$ 336,094,000	\$ 333,166,507	\$ 322,093,000	\$ 331,601,045	\$ 336,867,130
Components of Miscellaneous					
TIF Surplus Distribution	\$ 9,500,000	\$ 11,500,000	\$ 10,800,000	\$ 8,431,979	\$ 5,943,460
TIF Differential Fee	225,000	225,000	225,000	225,000	225,000
Land Sales	-	50,200	-	1,233,562	3,164,016
Claims & Damage Settlements	-	200,500	-	186,573	55,090
Scrap Sales	50,000	85,000	50,000	67,015	137,817
Sales of Automobiles	16,000	35,000	15,000	23,707	72,855
Interest on Taxes - Cook County Treasurer	3,000	3,000	3,000	3,774	3,637
Other	1,000,000	1,003,500	1,000,000	2,266,692	3,022,581
Total	\$ 10,794,000	\$ 13,102,200	\$ 12,093,000	\$ 12,438,302	\$ 12,624,456

**CORPORATE FUND
FINANCING
2018 - 2013**

	ESTIMATED			ACTUAL			
	2018 (1)	2017 REVISED	2017 ORIGINAL	2016	2015	2014	2013
BORROWINGS							
Working Cash Loans Current Year	\$ 247,300,000	\$ 190,000,000	\$ 230,000,000	\$ 190,000,000	\$ 190,000,000	\$ 236,200,000	\$ 190,000,000
Working Cash Loans Prior Year	-	-	-	-	-	-	-
Total Borrowings	\$ 247,300,000	\$ 190,000,000	\$ 230,000,000	\$ 190,000,000	\$ 190,000,000	\$ 236,200,000	\$ 190,000,000
REPAYMENTS							
Working Cash Loans Repaid Current	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 257,600,000
Working Cash Loans Repaid Prior	-	-	-	-	-	-	-
Total Repayments	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 257,600,000

(1) FINANCING LIMITATION

	2018
	(In Millions)
Property Tax Levy	\$ 240.5
Personal Property Replacement Tax	19.8
Total	\$ 260.3
* Borrowing Limitation	95.0 %
Total Available for Financing	\$ 247.3

* Statutory limitation is 100%

**CORPORATE WORKING CASH FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017
AND ESTIMATED AMOUNTS AVAILABLE FOR 2018 AND 2017**

<u>CURRENT ASSETS</u>	<u>ASSETS</u>		<u>2017</u>	
	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>
Cash & Investments	\$ 89,986,148	\$ 89,986,148	\$ 88,790,821	\$ 88,790,821
Due from Corporate Fund	190,000,000	190,000,000	190,000,000	190,000,000
Total Current Assets	\$ 279,986,148	\$ 279,986,148	\$ 278,790,821	\$ 278,790,821

<u>FUND EQUITY</u>	
Estimated Revenue & Other Financing Sources	\$ 800,000
ASSETS AVAILABLE FOR 2018 AND 2017	\$ 280,786,148

<u>FUND EQUITY</u>	\$ 279,986,148	\$ 278,790,821
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**CORPORATE WORKING CASH FUND
REVENUES
2018 - 2015**

<u>REVENUE DESCRIPTION</u>	<u>ESTIMATED</u>			<u>ACTUAL</u>	
	<u>2018 BUDGET</u>	<u>2017 ADJUSTED</u>	<u>2017 BUDGET</u>	<u>2016</u>	<u>2015</u>
Revenue from Money & Property					
Investment Income	\$ 800,000	\$ 745,000	\$ 300,000	\$ 537,822	\$ 832,380
Revenue from Miscellaneous Sources	-	-	-	-	-
TOTAL	\$ 800,000	\$ 745,000	\$ 300,000	\$ 537,822	\$ 832,380

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 District's mission of protecting the Lake Michigan drinking water supply from pollution and stormwater management 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.

Capital Improvement Bond Fund

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 2018 appropriation is \$313.0 million, a decrease of \$41.6 million from the 2017 Adjusted Budget, or 11.7 percent. The appropriation varies by the scheduled awards of major projects.

The CIBF balance sheet (page 92) estimates the net assets appropriable for 2018 at (\$626.1) million and (\$549.0) million for 2017. The CIBF balance sheet estimated negative net assets appropriable for 2018 and 2017 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 issued approximately \$6.0 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 59 - 70 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 allow for an annual increase equal to the Consumer Price Index or five percent, whichever is less, and is currently estimated at \$162.7 million for the 2017 levy year and \$166.7 million for the 2018 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 1.76 percent. Several projects are currently financed through SRF loans. The District expects to receive an allocation of \$150.0 million annually from SRF loans for the next several years. For 2018, approximately \$11.3 million of Build America Bonds (BABs) subsidy is available to be used for capital projects in the Capital Improvements Bond Fund. For 2018, \$4.2 million in accumulated interest income will be transferred to the Corporate Fund

Construction Fund

The 2018 tax levy for the Construction Fund is \$11.7 million, a decrease of \$4.6 million, or 28.1 percent, from the 2017 Adjusted Budget. The fund will also be supported by existing assets appropriable to fund capital projects. Other revenues in the Construction Fund are projected to decrease by \$7.6 million primarily due to a \$7 million budgeted transfer of Build America Bonds subsidies to fund Construction Fund projects in 2017. Additionally, the end of a payment agreement with the City of Chicago for sewer connection impact fees will reduce revenue by \$745,000 annually.

The 2018 appropriation is \$26.1 million, a decrease of \$8.4 million, or 24.3 percent, from the 2017 Adjusted Budget. This decreased appropriation level reflects the anticipated expenditures for existing projects and the appropriations required to fund projects with 2018 award dates.

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.

**CAPITAL IMPROVEMENTS BOND FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

	<u>ASSETS</u>		<u>2017</u>	
	<u>2018</u>		<u>AMOUNT</u>	<u>AVAILABLE FOR</u>
	<u>AMOUNT</u>	<u>AVAILABLE FOR</u>	<u>AMOUNT</u>	<u>APPROPRIATION</u>
		<u>APPROPRIATION</u>		<u>APPROPRIATION</u>
CURRENT ASSETS				
Cash & Investments	\$ 337,222,198	\$ 337,222,198	\$ 138,400,400	\$ 138,400,400
Grants Receivable	941,207	941,207	932,932	932,932
State Revolving Fund Loans Receivable	150,000,000	150,000,000	150,000,000	150,000,000
Total Current Assets	\$ 488,163,405	\$ 488,163,405	\$ 289,333,332	\$ 289,333,332
 LIABILITIES & FUND EQUITY				
CURRENT LIABILITIES				
Unpaid Bills:				
Contractual Services	\$ 73,937,199	\$ 73,937,199	\$ 73,761,112	\$ 73,761,112
Contracts Payable	1,040,318,906	1,040,318,906	833,423,020	833,423,020
Total Current Liabilities	\$ 1,114,256,105	\$ 1,114,256,105	\$ 907,184,132	\$ 907,184,132
Designated for Future Claims Liabilities	-	-	-	-
Total Liabilities	\$ 1,114,256,105	\$ 1,114,256,105	\$ 907,184,132	\$ 907,184,132
 ASSETS APPROPRIABLE				
Net Assets Appropriable		\$ (626,092,700)		\$ (617,850,800)
Net Assets Appropriated		(626,092,700)		(617,850,800)
Estimated Revenue		939,075,600		972,476,400
Total Assets Appropriable		\$ 312,982,900		\$ 354,625,600
FUND EQUITY	\$ (626,092,700)		\$ (617,850,800)	
Total Liabilities & Fund Equity	\$ 488,163,405		\$ 289,333,332	

CAPITAL IMPROVEMENTS BOND FUND
APPROPRIABLE REVENUE
2018 - 2015

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Money & Property					
Bond Sales (Present & Future)	\$ 776,281,100	\$ -	\$ 791,341,276	\$ 125,003,513	\$ -
Investment Income	3,700,000	3,475,000	3,000,000	2,395,116	2,278,586
Subtotal	\$ 779,981,100	\$ 3,475,000	\$ 794,341,276	\$ 127,398,629	\$ 2,278,586
Revenue from Miscellaneous Sources					
Federal & State Grants	\$ 11,294,500	\$ 11,294,482	\$ 11,135,124	\$ 11,233,702	\$ 11,165,154
State Revolving Fund Loans	150,000,000	150,000,000	180,000,000	173,739,000	180,840,600
Miscellaneous	2,000,000	2,000,000	-	2,468,262	2,481,873
Subtotal	\$ 163,294,500	\$ 163,294,482	\$ 191,135,124	\$ 187,440,964	\$ 194,487,627
Total Revenue	\$ 943,275,600	\$ 166,769,482	\$ 985,476,400	\$ 314,839,593	\$ 196,766,213
Other Financing Sources (Uses)					
Equity Transfer	\$ (4,200,000)	\$ (13,000,000)	\$ (13,000,000)	\$ -	\$ -
GRAND TOTAL	\$ 939,075,600	\$ 153,769,482	\$ 972,476,400	\$ 314,839,593	\$ 196,766,213

**CONSTRUCTION FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

ASSETS					
		2018		2017	
CURRENT ASSETS		AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
Cash & Investments	\$	13,926,461	\$ 13,926,461	\$ 8,693,360	\$ 8,693,360
Taxes Receivable		16,405,000	16,454,139	16,019,000	16,071,140
Replacement Tax		-	-	1,100,000	1,100,000
Total Current Assets	\$	30,331,461	\$ 30,380,600	25,812,360	\$ 25,864,500
LIABILITIES & FUND EQUITY					
CURRENT LIABILITIES					
Unpaid Bills:					
Contracts Payable	\$	2,340,000	\$ 2,340,000	\$ 3,162,000	\$ 3,162,000
Contractual Services		1,300,000	1,300,000	-	-
Machinery & Equipment		-	-	297,100	297,100
Due to:					
Construction Working Cash Fund		12,000,000	12,000,000	12,000,000	12,000,000
Total Current Liabilities	\$	15,640,000	\$ 15,640,000	15,459,100	\$ 15,459,100
Total Current Liabilities and Designations			\$ 15,640,000		\$ 15,459,100
ASSETS APPROPRIABLE FOR 2018 AND 2017					
Net Assets Appropriable			\$ 14,740,600		\$ 10,405,400
Net Assets Appropriated			\$ 14,740,600		\$ 10,405,400
Estimated Revenue			11,340,000		24,045,000
Total Assets Appropriable			\$ 26,080,600		\$ 34,450,400
FUND EQUITY					
Designated for Future Claims Liabilities	\$	-		\$ -	
Undesignated		14,691,461		10,353,260	
Total Fund Equity	\$	14,691,461		10,353,260	
Total Liabilities & Fund Equity	\$	30,331,461		25,812,360	

CONSTRUCTION FUND FINANCING 2018 - 2013

	ESTIMATED			ACTUAL			
	2018 (1)	2017 REVISED	2017 ORIGINAL	2016	2015	2014	2013
BORROWINGS							
Working Cash Loans	\$ 11,100,000	\$ 12,000,000	\$ 16,200,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 7,000,000
Total Borrowings	\$ 11,100,000	\$ 12,000,000	\$ 16,200,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 7,000,000
REPAYMENTS							
Working Cash Loans Repaid							
- Current	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 7,000,000	\$ 13,200,000
- Prior Year	-	-	-	-	-	-	-
Total Repayments	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 7,000,000	\$ 13,200,000

(1) FINANCING LIMITATION

2018 (In Millions)	
Property Tax Levy	\$ 11.7
Personal Property Replacement Tax	-
Total	\$ 11.7
Borrowing Limitation *	95% * Statutory limitation is 100%
Total Available for Financing	\$ 11.1

CONSTRUCTION FUND APPROPRIABLE REVENUE 2018 - 2015

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Property Taxes					
Gross Tax Levy	\$ 11,700,000	\$ 17,000,000	\$ 17,000,000	\$ 16,600,000	\$ 16,500,000
Less: Allowance for Uncollectible Taxes	(409,500)	(595,000)	(595,000)	(581,000)	(577,500)
Net Property Taxes	\$ 11,290,500	\$ 16,405,000	\$ 16,405,000	\$ 16,019,000	\$ 15,922,500
Revenue from Personal Property Replacement Tax	-	-	-	1,100,000	-
Net Tax Sources	\$ 11,290,500	\$ 16,405,000	\$ 16,405,000	\$ 17,119,000	\$ 15,922,500
Adjustment to Match Working Cash Borrowings	(190,500)	(205,000)	(205,000)	(319,000)	(622,500)
Working Cash Financing (Maximum 95% of Gross Tax Sources)	11,100,000	16,200,000	16,200,000	16,800,000	15,300,000
Connection Impact Fees	40,000	745,000	745,000	1,491,000	745,500
Investment Income	200,000	125,000	100,000	178,062	388,074
Miscellaneous	-	-	-	43,039	821
User Charge	-	-	-	-	300,000
Equity Transfer from the Capital Improvement Bond Fund	-	7,000,000	7,000,000	-	-
Subtotal	\$ 240,000	\$ 7,870,000	\$ 7,845,000	\$ 1,712,101	\$ 1,434,395
Adjustment to Net Assets Available for Projected Receipts	-	455,991	-	(4,451,822)	(727,115)
Total	\$ 11,340,000	\$ 24,525,991	\$ 24,045,000	\$ 14,060,279	\$ 16,007,280

**CONSTRUCTION WORKING CASH FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017
AND ESTIMATED AMOUNTS AVAILABLE FOR 2018 AND 2017**

	<u>ASSETS</u>			
	<u>AMOUNT</u>	<u>2018</u> <u>AVAILABLE FOR</u> <u>APPROPRIATION</u>	<u>AMOUNT</u>	<u>2017</u> <u>AVAILABLE FOR</u> <u>APPROPRIATION</u>
CURRENT ASSETS				
Cash & Investments	\$ 10,212,039	\$ 10,212,039	\$ 10,126,091	\$ 10,126,091
Due from Construction Fund	12,000,000	12,000,000	10,000,000	10,000,000
Total Current Assets	<u>\$ 22,212,039</u>	<u>\$ 22,212,039</u>	<u>\$ 20,126,091</u>	<u>\$ 20,126,091</u>

<u>FUND EQUITY</u>			
Estimated Revenue & Other Financing Sources		\$ 200,000	\$ 100,000
ASSETS AVAILABLE FOR 2018 AND 2017		<u>\$ 22,412,039</u>	<u>\$ 20,226,091</u>
FUND EQUITY		<u>\$ 22,212,039</u>	<u>\$ 20,126,091</u>

**CONSTRUCTION WORKING CASH FUND
REVENUES
2018 - 2015**

<u>REVENUE DESCRIPTION</u>	<u>ESTIMATED</u>			<u>ACTUAL</u>	
	<u>2018</u> <u>BUDGET</u>	<u>2017</u> <u>ADJUSTED</u>	<u>2017</u> <u>BUDGET</u>	<u>2016</u>	<u>2015</u>
Revenue from Money & Property					
Investment Income	\$ 200,000	\$ 116,000	\$ 100,000	\$ 122,332	\$ 128,937
Revenue from Miscellaneous Sources	-	-	-	-	-
TOTAL	<u>\$ 200,000</u>	<u>\$ 116,000</u>	<u>\$ 100,000</u>	<u>\$ 122,332</u>	<u>\$ 128,937</u>

OTHER FUNDS FINANCIAL NARRATIVE

The Stormwater Management Fund was established in 2005 to fund stormwater management activities throughout all of Cook County. The 2018 property tax levy for the Stormwater Management Fund is \$47.8 million, an increase of \$7.0 million, or 17.1 percent from the 2017 Adjusted Budget. An equity transfer to the Bond Redemption & Interest Fund is planned in the amount of \$5.8 million to pay the principal and interest on two Stormwater Alternative Revenue Bonds. No tax levy is recommended for the Stormwater Working Cash Fund, which provides temporary loans to the Stormwater Management Fund in anticipation of tax collections. Details of this fund's purpose and \$65.6 million appropriation for 2018 are presented on pages 519-582.

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 2018 property tax levy for the B&I Fund is \$243.8 million, an increase of \$4.9 million, or 2.1 percent, from the 2017 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or state revolving fund loans. The 2018 appropriation for this fund is \$256.3 million, which includes a \$28.4 million pre-payment on seven state revolving fund loans that will result in \$9.6 million in interest savings.

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 2018 is \$1.0 million, which is an increase of \$0.6 million from the 2017 Original Budget. As mentioned above, an equity transfer from the Stormwater Management Fund of \$5.8 million will be used for the principal and interest on two bonds, and an abatement in a corresponding amount is anticipated. 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 585-588.

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 2018, \$6.0 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 2018 appropriation for this fund is \$30.3 million, a decrease of \$0.3 million, or 1.1 percent, from the 2017 Adjusted Budget. The maximum fund balance that can be accumulated is 0.05 percent of the last known EAV. For the 2018 Budget, using the last known EAV of 2016, the maximum accumulation is estimated at \$70.4 million. The allowance for accounts payable and estimated liabilities is estimated at \$0.2 million.

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 583.

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 property tax levy for 2018 is \$71.5 million compared to the 2017 Adjusted Levy of \$73.4 million and is based on a statutory multiplier of 4.19 times employee contributions made in 2016 and 2015, respectively. Additionally, \$18.3 million from Personal Property Replacement Tax is allocated to the Retirement Fund. The appropriable resources and appropriation consist of the collection of the previous year's property tax levy plus personal property replacement tax receipts. The 2018 appropriation is \$89.6 million, an increase of \$10.1 million or 12.7 percent from the 2017 Adjusted Budget. An expanded presentation on the Retirement Fund is made on pages 589 and 590.

**STORMWATER MANAGEMENT FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

	ASSETS			
	2018		2017	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
CURRENT ASSETS				
Cash & Investments	\$ 16,000,800	\$ 16,000,800	\$ 7,247,468	\$ 7,247,468
Taxes Receivable	39,426,048	39,816,008	33,051,250	33,291,300
Total Current Assets	\$ 55,426,848	\$ 55,816,808	\$ 40,298,718	\$ 40,538,768
LIABILITIES & FUND EQUITY				
CURRENT LIABILITIES				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 104,000	\$ 104,000	\$ 632,368	\$ 632,368
Contracts Payable	1,461,208	1,461,208	6,406,300	6,406,300
Vouchers Payable	2,000,000	2,000,000	-	-
Due to:				
Stormwater Working Cash Fund	26,500,000	26,500,000	26,500,000	26,500,000
Total Current Liabilities	\$ 30,065,208	\$ 30,065,208	\$ 33,538,668	\$ 33,538,668
Designated for Future Claims Liabilities		\$ -		\$ -
Total Current Liabilities and Designations		\$ 30,065,208		\$ 33,538,668
ASSETS APPROPRIABLE FOR 2018 AND 2017				
Net Assets Appropriable		\$ 25,751,600		\$ 7,000,100
Net Assets Appropriated		\$ 25,751,600		\$ 1,230,850
Equity Transfer to Bond and Interest Fund				5,769,250
Estimated Revenue		39,829,400		38,800,000
Total Assets Appropriable		\$ 65,581,000		\$ 45,800,100
FUND EQUITY	\$ 25,361,640		\$ 6,760,050	
Total Liabilities & Fund Equity	\$ 55,426,848		\$ 40,298,718	

**STORMWATER MANAGEMENT FUND FINANCING
2018 - 2013**

	ESTIMATED			ACTUAL			
	2018 (1)	2017 Revised	2017 Original	2016	2015	2014	2013
BORROWINGS							
Working Cash Loans	\$ 45,400,000	\$ 26,500,000	\$ 38,800,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000	\$ 19,000,000
Total Borrowings	\$ 45,400,000	\$ 26,500,000	\$ 38,800,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000	\$ 19,000,000
REPAYMENTS							
Working Cash Loans Repaid							
- Current	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000	\$ 19,000,000	\$ 19,000,000
- Prior Year	-	-	-	-	-	-	-
Total Repayments	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000	\$ 19,000,000	\$ 19,000,000

(1) FINANCING LIMITATION

2018 (In Millions)	
Property Tax Levy	\$ 47.8
Personal Property Replacement Tax	-
Total	\$ 47.8
Borrowing Limitation *	95% * Statutory limitation is 100%
Total Available for Financing	\$ 45.4

**STORMWATER MANAGEMENT FUND
APPROPRIABLE REVENUE
2018 - 2015**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Property Taxes					
Gross Tax Levy	\$ 47,826,000	\$ 40,856,008	\$ 40,856,008	\$ 34,250,000	\$ 24,050,000
Less: Allowance for Uncollectible Taxes	(1,673,910)	(1,429,960)	(1,429,960)	(1,198,750)	(841,750)
Net Property Taxes	\$ 46,152,090	\$ 39,426,048	\$ 39,426,048	\$ 33,051,250	\$ 23,208,250
Adjustment to Match Working Cash Borrowings	(752,090)	(626,048)	(626,048)	(551,250)	(408,250)
Working Cash Financing at 95% of Gross Tax Sources	\$ 45,400,000	\$ 38,800,000	\$ 38,800,000	\$ 32,500,000	\$ 22,800,000
Revenue from Money & Property					
Investment Income	\$ 200,000	\$ 122,000	\$ -	\$ 117,260	\$ 227,035
Miscellaneous	-	49,224	-	399	331
Grants	-	-	-	-	-
Subtotal	\$ 200,000	\$ 171,224	\$ -	\$ 117,659	\$ 227,366
Adjustment to Net Assets Available for Projected Receipts	\$ -	\$ (500,050)	\$ -	\$ 721,413	\$ (548,397)
Equity Transfer to Bond Redemption & Interest Fund	\$ (5,770,600)				
Total	\$ 39,829,400	\$ 38,471,174	\$ 38,800,000	\$ 33,339,072	\$ 22,478,969

**STORMWATER WORKING CASH FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

	<u>ASSETS</u>			
	<u>2018</u>		<u>2017</u>	
	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>	<u>AMOUNT</u>	<u>AVAILABLE FOR APPROPRIATION</u>
CURRENT ASSETS				
Cash & Investments	\$ 10,769,633	\$ 10,769,633	\$ 10,960,350	\$ 10,960,350
Due from Stormwater Management Fund	26,500,000	26,500,000	26,500,000	26,500,000
Total Current Assets	\$ 37,269,633	\$ 37,269,633	\$ 37,460,350	\$ 37,460,350
 FUND EQUITY				
Estimated Revenue & Other Financing Sources		\$ 100,000		\$ 300,000
ASSETS AVAILABLE FOR 2018 AND 2017		\$ 37,369,633		\$ 37,760,350
FUND EQUITY		\$ 37,269,633		\$ 37,460,350

**STORMWATER WORKING CASH FUND
APPROPRIABLE REVENUE
2018 - 2015**

REVENUE DESCRIPTION	<u>ESTIMATED</u>			<u>ACTUAL</u>	
	<u>2018 BUDGET</u>	<u>2017 ADJUSTED</u>	<u>2017 BUDGET</u>	<u>2016</u>	<u>2015</u>
Investment Income	\$ 100,000	\$ 94,000	\$ 300,000	\$ 168,037	\$ 218,331
GRAND TOTAL	\$ 100,000	\$ 94,000	\$ 300,000	\$ 168,037	\$ 218,331

BOND REDEMPTION & INTEREST FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017

ASSETS

	2018		2017	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
CURRENT ASSETS				
Cash & Investments	\$ 112,917,005	\$ 112,917,005	\$ 110,265,700	\$ 110,265,700
Restricted Cash	-	-	-	-
Deposits with Escrow Agent	-	-	-	-
Taxes Receivable	225,701,074	226,617,605	221,865,622	222,973,165
Total Current Assets	\$ 338,618,079	\$ 339,534,610	\$ 332,131,322	\$ 333,238,865

LIABILITIES & FUND EQUITY

CURRENT LIABILITIES

Bonds Payable	\$ 141,435,815	\$ 111,221,894
Interest Payable	114,868,371	117,603,919
Program Expense Payable	-	-
Equity Transfer	-	-
Total Current Liabilities	\$ 256,304,186	\$ 228,825,813

ASSETS APPROPRIABLE FOR 2018 AND 2017

Net Assets Appropriable	\$ 339,534,610	\$ 333,238,865
Equity Transfer from Stormwater Management Fund	5,770,600	5,769,300
Estimated Revenue	1,000,000	400,000
Total Assets Available	\$ 346,305,210	\$ 339,408,165
Liabilities Payable from Restricted Assets	-	-
Less: Assets Available for Future Years (Principal & Interest Payments)	(90,001,024)	(110,582,352)
Total Assets Appropriable	\$ 256,304,186	\$ 228,825,813

FUND EQUITY

Undesignated	\$ 82,313,893	\$ 103,305,509
TOTAL FUND EQUITY	\$ 82,313,893	\$ 103,305,509
Total Liabilities & Fund Equity	\$ 338,618,079	\$ 332,131,322

BOND REDEMPTION & INTEREST FUND
APPROPRIABLE REVENUE
2018 - 2015

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Taxes					
Real Estate					
Current	\$ 228,039,945	\$ 224,164,748	\$ 224,164,748	\$ 223,010,587	\$ 211,268,060
Prior	(1,422,340)	(1,191,583)	(1,191,583)	(952,025)	517,194
Total	\$ 226,617,605	\$ 222,973,165	\$ 222,973,165	\$ 222,058,562	\$ 211,785,254
Revenue from Money & Property					
Investment Income	\$ 1,000,000	\$ 1,020,000	\$ 400,000	\$ 1,020,000	\$ 1,039,470
Revenue from Miscellaneous Sources					
Cash Available	112,917,005	110,265,700	110,265,700	10,853,283	108,525,217
Other	-	-	-	-	3,446
Other Financing Sources (Uses)					
Bond Premium	-	-	-	-	12,346,220
Sale of Capital Improvement Bonds (CIB)	-	-	-	-	70,805,000
Bond Redemption	-	-	-	-	(82,905,757)
Refunding Transaction Costs	-	-	-	-	(241,112)
Equity Transfer From Stormwater Management Fund	5,770,600	3,269,250	5,769,300	3,272,650	2,123,920
Less: Amount to Be Expended After Budget Year	(90,001,024)	(108,702,302)	(110,582,352)	(21,557,195)	(108,955,857)
GRAND TOTAL	\$ 256,304,186	\$ 228,825,813	\$ 228,825,813	\$ 215,647,300	\$ 214,525,801

**RESERVE CLAIM FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

CURRENT ASSETS	ASSETS			
	2018		2017	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
Cash & Investments	\$ 24,500,000	\$ 24,500,000	\$ 25,190,277	\$ 25,190,277
Taxes Receivable	5,693,500	5,730,716	5,597,000	5,626,823
Total Current Assets	\$ 30,193,500	\$ 30,230,716	\$ 30,787,277	\$ 30,817,100

LIABILITIES & FUND EQUITY				
ACCOUNTS PAYABLE & OTHER LIABILITIES	\$ 241,216	\$ 241,216	\$ 400,000	\$ 400,000
ASSETS APPROPRIABLE FOR 2018 AND 2017				
Net Assets Appropriable		\$ 29,989,500		\$ 30,417,100
Equity Transfer from Capital Improvements Bond Fund		-		-
Estimated Revenue		300,000		200,000
Total Assets Appropriable		\$ 30,289,500		\$ 30,617,100
FUND EQUITY	\$ 29,952,284		\$ 30,387,277	
Total Liabilities & Fund Equity	\$ 30,193,500		\$ 30,787,277	

**RESERVE CLAIM FUND
APPROPRIABLE REVENUE
2018 - 2015**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2018 BUDGET	2017 ADJUSTED	2017 BUDGET	2016	2015
Revenue from Taxes					
Real Estate - Current	\$ 5,752,500	\$ 5,655,000	\$ 5,655,000	\$ 5,555,316	\$ 2,903,106
Real Estate - Prior	(21,784)	(28,177)	(28,177)	11,690	15,848
Replacement Tax	-	-	-	-	-
SUBTOTAL	\$ 5,730,716	\$ 5,626,823	\$ 5,626,823	\$ 5,567,006	\$ 2,918,954
Investment Income & Miscellaneous	300,000	243,000	200,000	405,179	417,397
GRAND TOTAL	\$ 6,030,716	\$ 5,869,823	\$ 5,826,823	\$ 5,972,185	\$ 3,336,351

**RETIREMENT FUND
ESTIMATED BALANCE SHEET
JANUARY 1, 2018 AND 2017**

	ASSETS			
	2018		2017	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
CURRENT ASSETS				
Taxes Receivable	\$ 70,867,800	\$ 70,867,800	\$ 62,880,500	\$ 62,880,500
Replacement Tax	18,736,200	18,736,200	16,624,500	16,624,500
Total Current Assets	\$ 89,604,000	\$ 89,604,000	\$ 79,505,000	\$ 79,505,000

LIABILITIES & FUND EQUITY

ASSETS APPROPRIABLE FOR 2018 AND 2017

Net Assets Appropriable	\$ 89,604,000	\$ 79,505,000
Total Assets Appropriable Due to Retirement Fund	\$ 89,604,000	\$ 79,505,000

FUND EQUITY

Total Fund Equity	\$ 89,604,000	\$ 79,505,000
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**RETIREMENT FUND
APPROPRIABLE REVENUE
2018 - 2015**

	ESTIMATED			ACTUAL	
	2018	2017	2017	2016	2015
	BUDGET	ADJUSTED	BUDGET		
REVENUE DESCRIPTION					
Revenue from Taxes					
Real Estate - Current	\$ 70,867,800	\$ 62,880,500	\$ 62,880,500	\$ 55,973,600	\$ 49,032,024
Replacement Tax	18,736,200	16,624,500	16,624,500	14,798,400	12,891,900
GRAND TOTAL	\$ 89,604,000	\$ 79,505,000	\$ 79,505,000	\$ 70,772,000	\$ 61,923,924

SECTION IV

CORPORATE FUND

The Corporate Fund provides for day-to-day staff services as well as the operations and maintenance of water reclamation 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 2009 through 2018. The structure of sub-units and sections, the number of actual 2016 full-time equivalent (FTE) positions, as well as FTE positions budgeted for 2017 and 2018 are shown in the organization chart. In this section, and throughout the Budget, actual expenditures are used for 2016 with estimated costs for 2017 and budgeted costs for 2018. Additional information for each department includes:

- A *Narrative* explanation of the responsibilities of the department, changes in appropriation from the 2017 Budget, accomplishments during 2017, and significant features for the 2018 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 2017. Actual costs are shown for 2016.
- *Performance Data* measures specific department activities by cost and, where possible, measurable units, and compares budgeted costs for 2018 and 2017 with actual costs for 2016.
- The *Line Item Analysis* provides detailed line item appropriations over a three-year period. Appropriations for 2018 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 2017. Actual 2016 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 2018 salary appropriation is adjusted for vacancies in the Line Item Analysis.

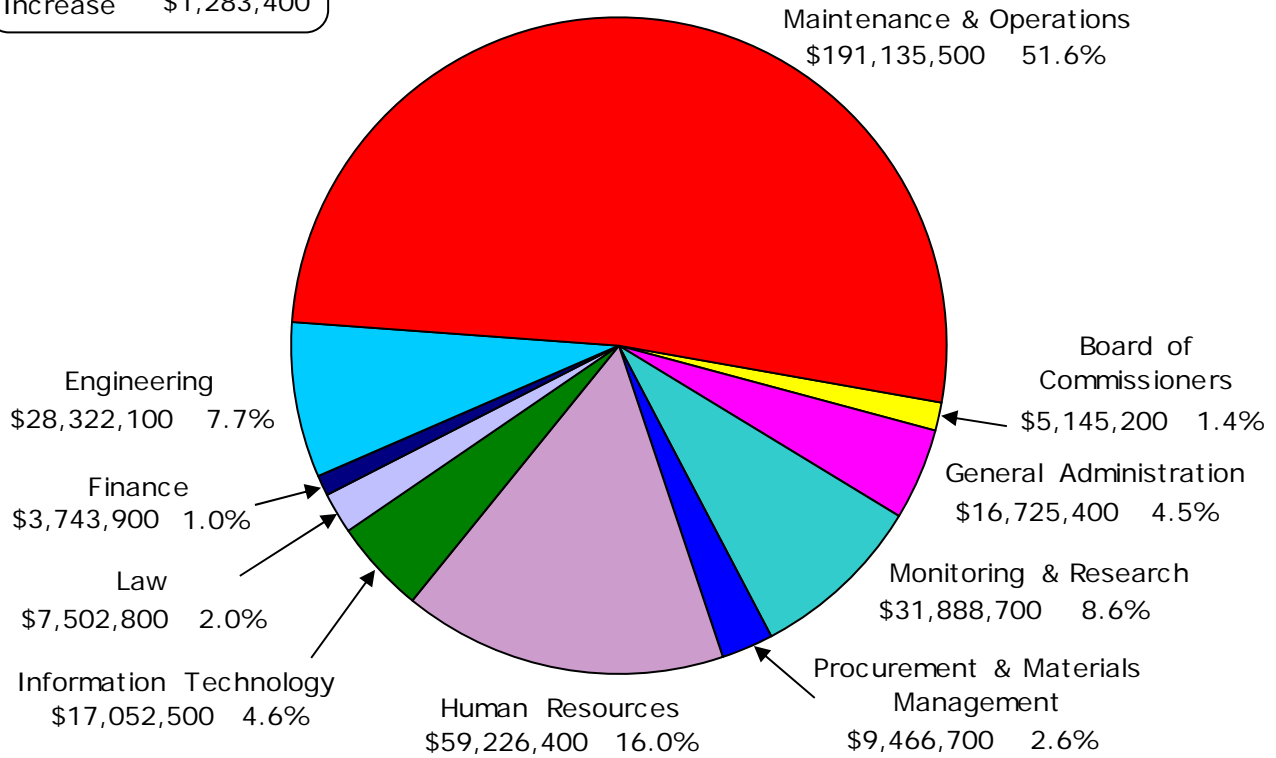
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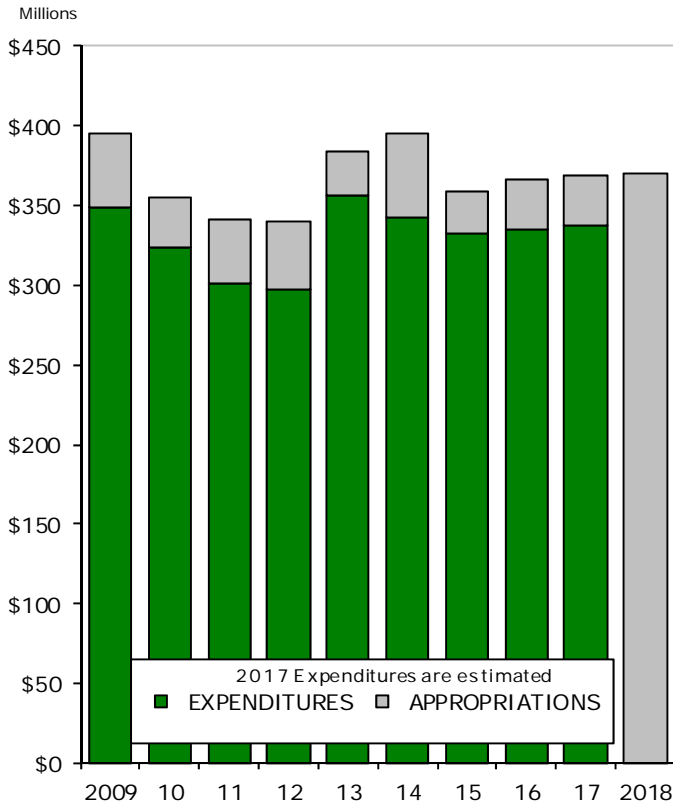
CORPORATE FUND

FUNCTIONS

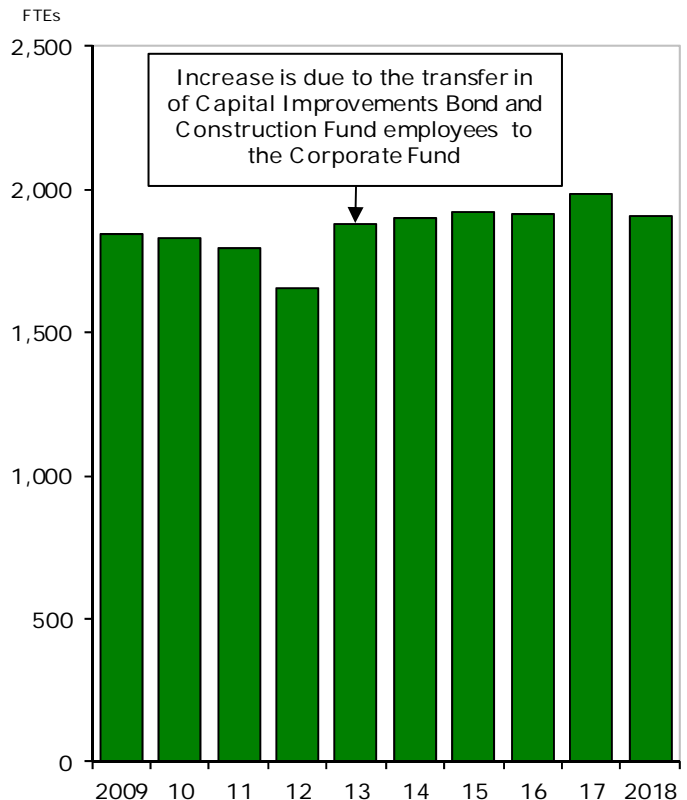
2018	\$370,209,200
2017	\$368,925,800
Increase	\$1,283,400



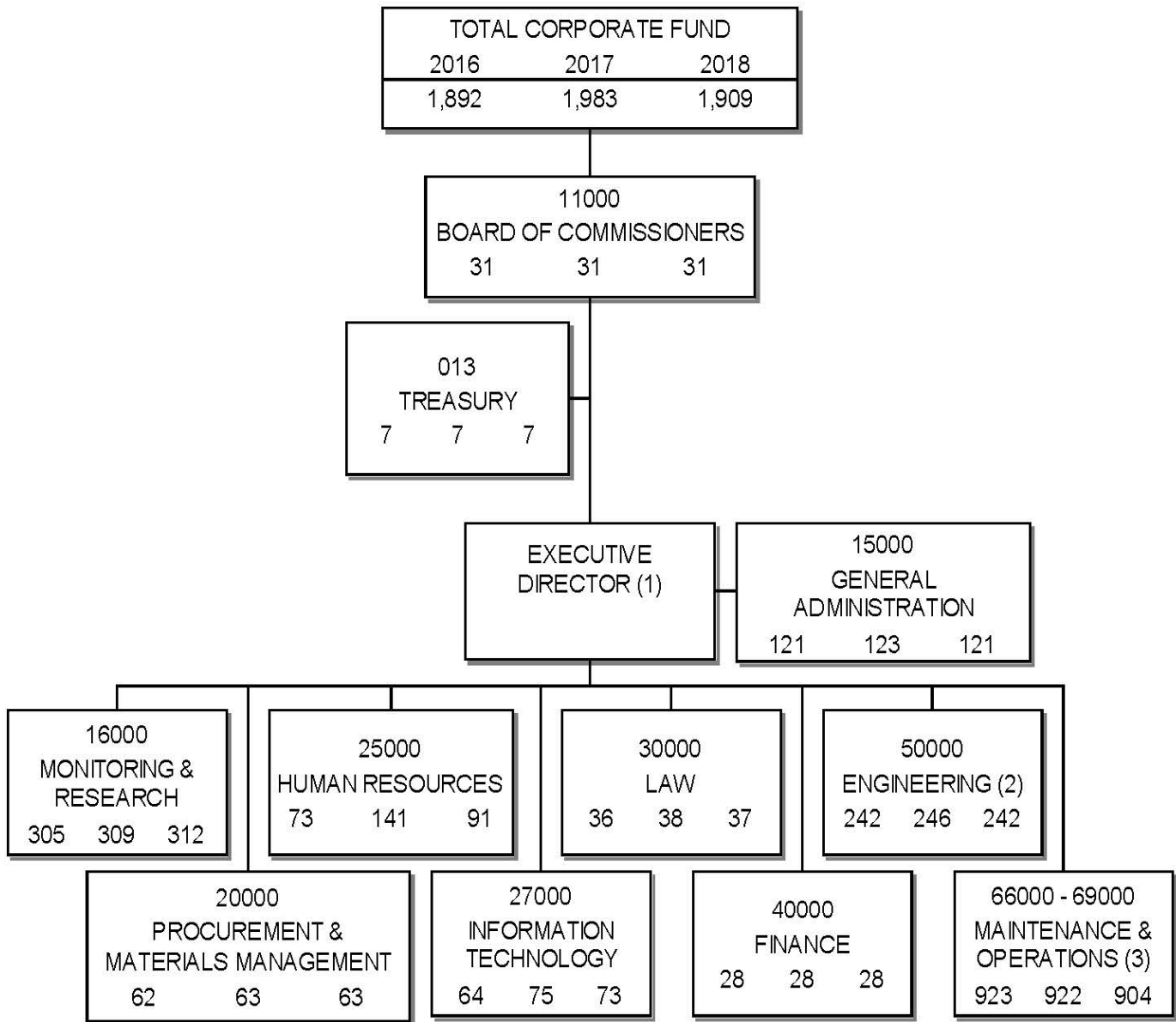
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



CORPORATE FUND



- (1) Personnel count for the Executive Director's Office is reflected in General Administration.
- (2) 30 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.

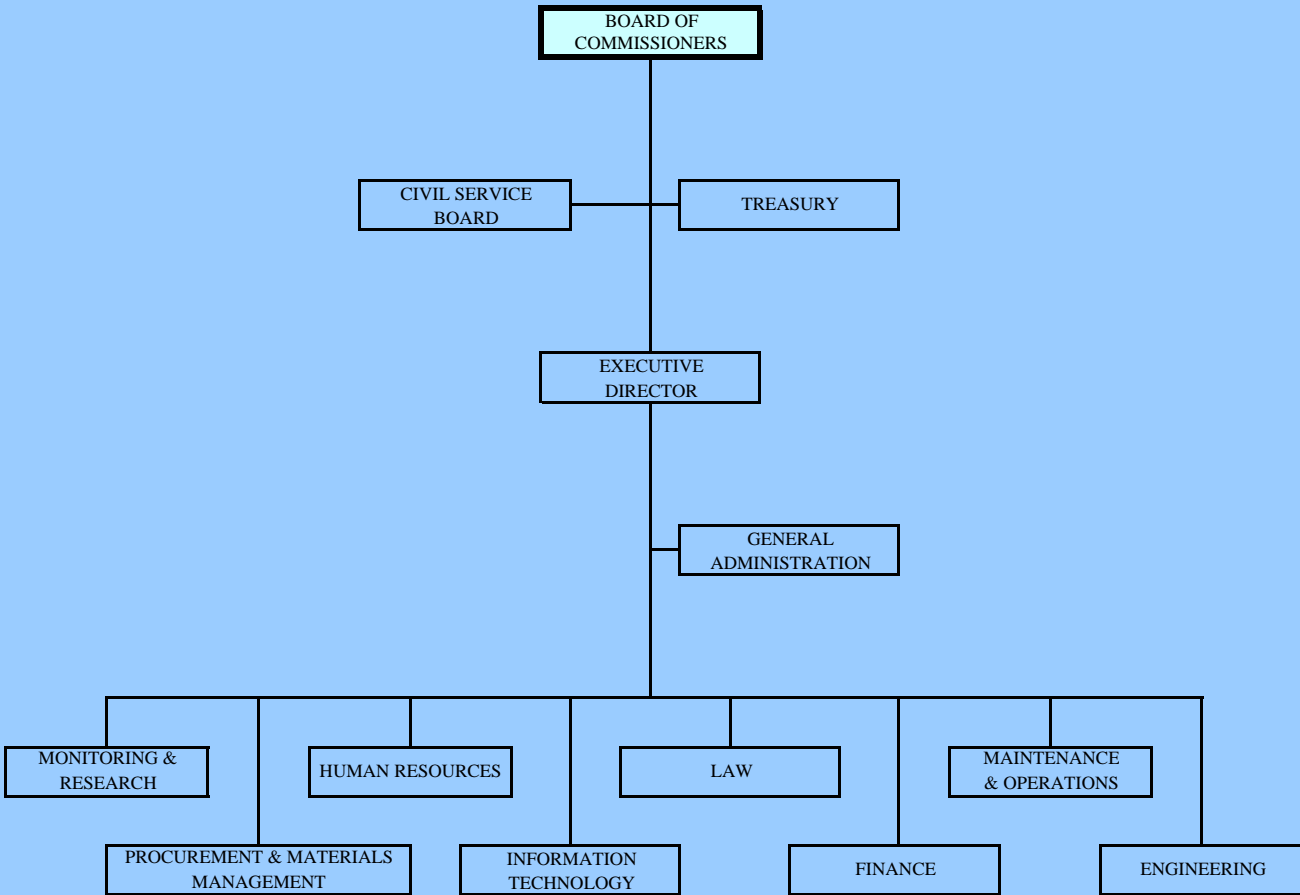
101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$174,014,295	\$187,174,100	\$186,626,400	\$175,086,400	\$186,173,000	\$186,154,400	\$187,998,400
601060	Compensation Plan Adjustments	6,882,781	7,744,700	8,152,600	7,449,300	6,540,100	6,558,700	7,642,200
601070	Social Security and Medicare Contributions	2,527,467	2,619,100	2,685,600	2,594,000	2,762,800	2,762,800	2,762,800
601080	Salaries of Nonbudgeted Employees	22,839	39,300	94,600	66,800	29,900	29,900	31,900
601090	Employee Claims	39,155	60,200	60,200	26,600	60,000	60,000	60,000
601100	Tuition and Training Payments	730,032	1,461,100	1,252,100	1,038,300	1,139,300	1,139,300	1,139,300
601250	Health and Life Insurance Premiums	43,224,069	46,705,100	46,681,100	43,774,400	46,455,800	46,455,800	46,455,800
601300	Personal Services, N.O.C.	470,953	678,800	934,800	720,400	933,900	933,900	933,900
100	TOTAL PERSONAL SERVICES	227,911,590	246,482,400	246,487,400	230,756,200	244,094,800	244,094,800	247,024,300
612010	Travel	67,322	100,200	97,300	71,500	117,500	117,500	117,500
612030	Meals and Lodging	165,099	190,500	185,200	158,300	221,200	221,200	221,200
612040	Postage, Freight, and Delivery Charges	104,478	104,300	108,600	104,700	93,000	93,000	93,000
612050	Compensation for Personally-Owned Automobiles	212,283	207,300	213,300	153,300	203,600	203,600	203,600
612080	Motor Vehicle Operating Services	57,614	86,900	86,900	60,300	64,800	64,800	64,800
612090	Reprographic Services	56,304	153,500	153,500	126,300	140,900	140,900	140,900
612150	Electrical Energy	35,714,510	36,812,000	36,798,300	35,252,400	38,941,900	38,941,900	38,941,900
612160	Natural Gas	2,421,316	2,802,500	2,715,500	2,517,200	2,820,300	2,820,300	2,820,300
612170	Water and Water Services	1,904,037	1,749,800	1,750,600	1,671,200	1,803,900	1,803,900	1,803,900
612210	Communication Services	1,772,218	2,030,100	2,030,100	1,319,500	2,063,300	2,063,300	2,063,300
612240	Testing and Inspection Services	72,989	170,200	170,200	113,100	276,300	276,300	276,300
612250	Court Reporting Services	63,254	144,000	139,900	72,000	112,000	112,000	112,000
612260	Medical Services	121,997	123,700	123,700	89,600	97,300	97,300	97,300
612280	Subscriptions and Membership Dues	768,527	813,800	813,800	726,100	698,800	698,800	816,700
612290	Insurance Premiums	3,080,312	3,500,600	3,500,600	3,196,700	3,080,300	3,080,300	3,080,300
612330	Rental Charges	509,851	551,400	551,400	482,300	523,400	533,000	533,000
612340	Discount Loss	-	1,500	3,500	2,600	1,500	1,500	1,500
612360	Advertising	117,641	143,000	137,700	96,400	124,000	124,000	124,000
612370	Administration Building Operation	1,027,802	1,118,900	1,128,800	1,000,000	1,015,800	1,015,800	1,015,800

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612390	Administration Building McMillan Pavilion Operation	662,841	738,800	842,500	730,000	645,700	645,700	645,700
612410	Governmental Service Charges	3,240,500	3,317,200	3,317,200	3,312,100	3,494,800	3,494,800	3,540,800
612420	Maintenance of Grounds and Pavements	809,167	968,300	968,300	881,100	1,013,500	1,013,500	1,013,500
612430	Payments for Professional Services	4,022,132	5,910,900	5,850,700	3,317,000	4,768,000	4,769,000	5,221,000
612440	Preliminary Engineering Reports and Studies	50,623	27,000	26,200	14,400	-	-	-
612490	Contractual Services, N.O.C.	1,066,592	1,685,800	1,682,300	1,233,800	1,605,600	1,605,600	1,705,600
612520	Waste Material Disposal Charges	9,259,656	10,955,000	10,955,000	10,099,200	10,894,000	10,894,000	10,894,000
612530	Farming Services	29,600	233,200	210,100	24,700	24,700	24,700	24,700
612590	Sludge Disposal	3,748,196	3,204,300	3,650,300	3,200,000	3,700,000	3,700,000	3,700,000
612600	Repairs to Collection Facilities	3,028,249	3,332,900	3,253,100	2,806,600	3,189,300	3,189,300	3,249,300
612620	Repairs to Waterway Facilities	41,332	93,200	93,200	87,100	89,900	89,900	89,900
612650	Repairs to Process Facilities	5,255,155	4,975,800	4,823,500	4,531,900	5,549,900	5,528,900	5,528,900
612670	Repairs to Railroads	444,795	302,600	284,700	194,000	368,700	368,700	368,700
612680	Repairs to Buildings	931,711	1,119,000	1,011,600	631,300	1,092,100	1,092,100	1,092,100
612760	Repairs to Material Handling and Farming Equipment	246,867	304,000	304,000	273,500	313,600	313,600	313,600
612780	Safety Repairs and Services	205,985	540,000	500,000	416,800	449,100	459,500	459,500
612790	Repairs to Marine Equipment	84,628	110,800	110,800	77,400	94,600	94,600	94,600
612800	Repairs to Office Furniture and Equipment	79,384	117,600	117,600	84,900	124,300	124,300	124,300
612810	Computer Equipment Maintenance	486,509	376,100	376,100	237,400	364,200	364,200	364,200
612820	Computer Software Maintenance	3,493,117	4,083,000	4,083,000	3,755,400	4,224,400	4,224,400	4,224,400
612840	Communications Equipment Maintenance (Includes Software)	768,518	814,200	813,000	746,600	758,700	758,700	758,700
612860	Repairs to Vehicle Equipment	521,013	645,700	672,500	495,500	611,100	611,100	611,100
612970	Repairs to Testing and Laboratory Equipment	356,699	425,600	425,600	352,700	356,500	356,500	356,500
612990	Repairs, N.O.C.	18,092	29,800	29,800	22,400	33,800	33,800	33,800
200	TOTAL CONTRACTUAL SERVICES	87,088,914	95,115,000	95,110,000	84,739,300	96,166,300	96,166,300	96,942,200
623030	Metals	124,721	185,000	164,000	143,700	139,300	139,300	139,300
623070	Electrical Parts and Supplies	1,810,919	2,167,000	2,485,300	2,264,100	2,327,800	2,327,800	2,327,800

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623090	Plumbing Accessories and Supplies	1,000,706	1,064,400	1,013,400	941,600	1,135,700	1,135,700	1,135,700
623110	Hardware	105,478	122,000	122,000	115,800	102,200	102,200	102,200
623130	Buildings, Grounds, Paving Materials, and Supplies	298,098	542,500	540,500	439,800	629,300	629,300	629,300
623170	Fiber, Paper, and Insulation Materials	51,874	59,100	61,100	52,700	52,100	52,100	52,100
623190	Paints, Solvents, and Related Materials	58,206	62,000	62,000	58,300	57,900	57,900	57,900
623250	Vehicle Parts and Supplies	160,089	210,100	210,100	169,600	161,700	161,700	161,700
623270	Mechanical Repair Parts	1,665,570	2,448,000	2,773,000	2,513,300	2,691,600	2,691,600	2,691,600
623300	Manhole Materials	212	11,000	11,000	10,700	6,900	6,900	6,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	296,044	374,300	393,300	345,500	367,000	367,000	367,000
623530	Farming Supplies	31,073	39,000	39,000	38,500	41,700	41,700	41,700
623560	Processing Chemicals	9,760,627	13,724,400	13,181,400	9,870,500	12,938,200	12,938,200	12,878,200
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	948,191	1,020,600	1,051,600	979,400	988,200	988,200	988,200
623660	Cleaning Supplies	268,107	307,000	307,000	304,600	266,300	266,300	266,300
623680	Tools and Supplies	266,211	590,000	545,000	503,100	303,300	303,300	293,300
623700	Wearing Apparel	219,709	229,000	229,000	216,400	191,600	191,600	191,600
623720	Books, Maps, and Charts	23,777	25,100	26,600	17,400	20,900	20,900	20,900
623780	Safety and Medical Supplies	244,834	323,300	314,000	226,500	363,600	363,600	363,600
623800	Computer Software	206,613	339,400	339,200	108,500	143,100	143,100	143,100
623810	Computer Supplies	536,604	519,400	518,400	497,600	519,600	519,600	519,600
623820	Fuel	379,408	585,100	535,100	472,600	614,000	614,000	614,000
623840	Gases	55,799	70,000	91,000	85,300	71,200	71,200	71,200
623850	Communications Supplies	143,221	140,700	140,700	108,600	134,200	134,200	134,200
623860	Lubricants	218,467	265,000	268,200	248,900	247,500	247,500	247,500
623990	Materials and Supplies, N.O.C.	200,857	351,000	352,500	279,500	315,100	315,100	315,100
300	TOTAL MATERIALS AND SUPPLIES	19,075,415	25,774,400	25,774,400	21,012,500	24,830,000	24,830,000	24,760,000
634600	Equipment for Collection Facilities	44,177	50,000	45,200	45,200	44,200	44,200	44,200
634650	Equipment for Process Facilities	136,681	100,000	115,000	94,900	214,400	214,400	178,400

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634810	Computer Equipment	19,259	45,000	45,000	37,900	-	-	-
634820	Computer Software	-	30,000	30,000	30,000	25,000	25,000	55,000
634840	Communications Equipment (Includes Software)	44,774	-	-	-	-	-	-
634860	Vehicle Equipment	5,597	10,000	-	-	-	-	-
634970	Testing and Laboratory Equipment	312,397	429,000	428,800	365,800	315,100	315,100	315,100
400	TOTAL MACHINERY AND EQUIPMENT	562,885	664,000	664,000	573,800	598,700	598,700	592,700
667130	Taxes on Real Estate	789,941	890,000	890,000	770,000	890,000	890,000	890,000
700	TOTAL FIXED AND OTHER CHARGES	789,941	890,000	890,000	770,000	890,000	890,000	890,000
TOTAL CORPORATE FUND		\$335,428,746	\$368,925,800	\$368,925,800	\$337,851,800	\$366,579,800	\$366,579,800	\$370,209,200

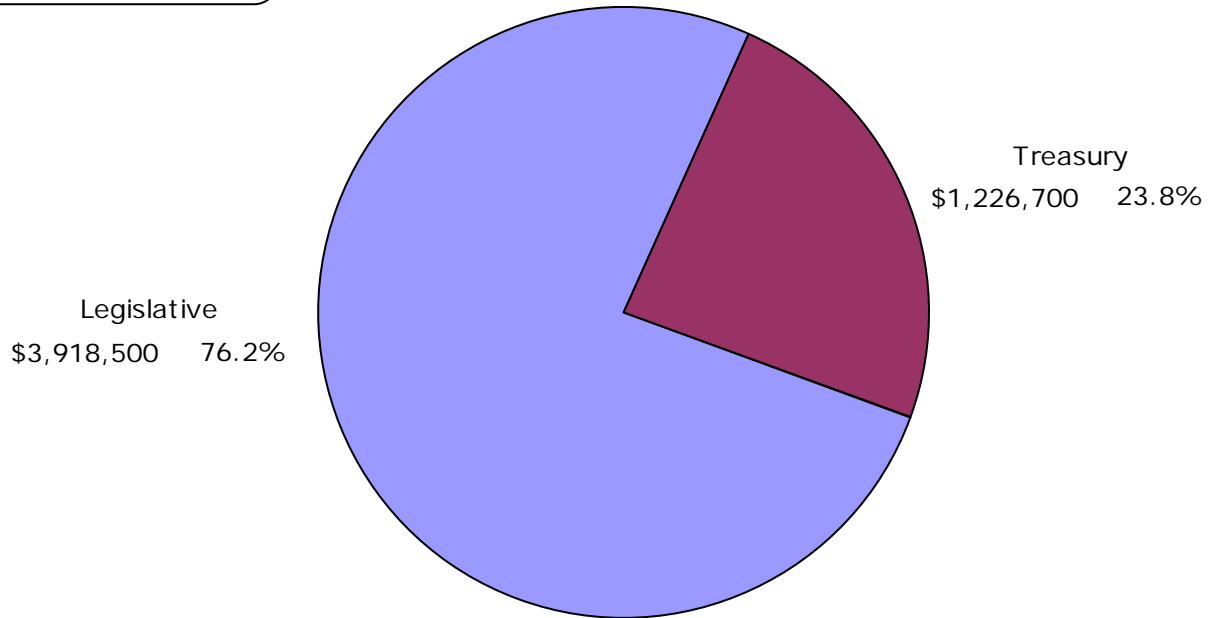
NOTES: 1. Amounts may not add up due to rounding.
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.



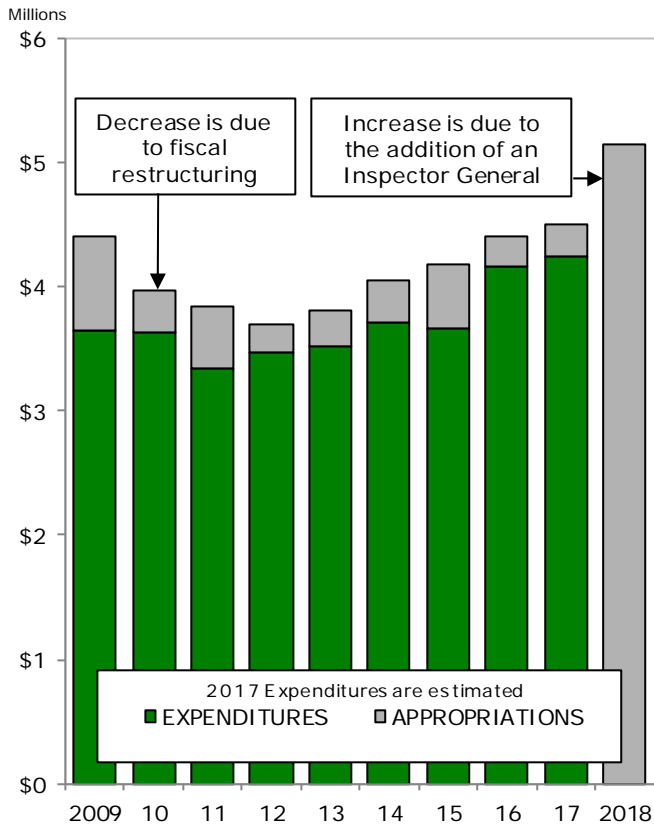
BOARD OF COMMISSIONERS

FUNCTIONS

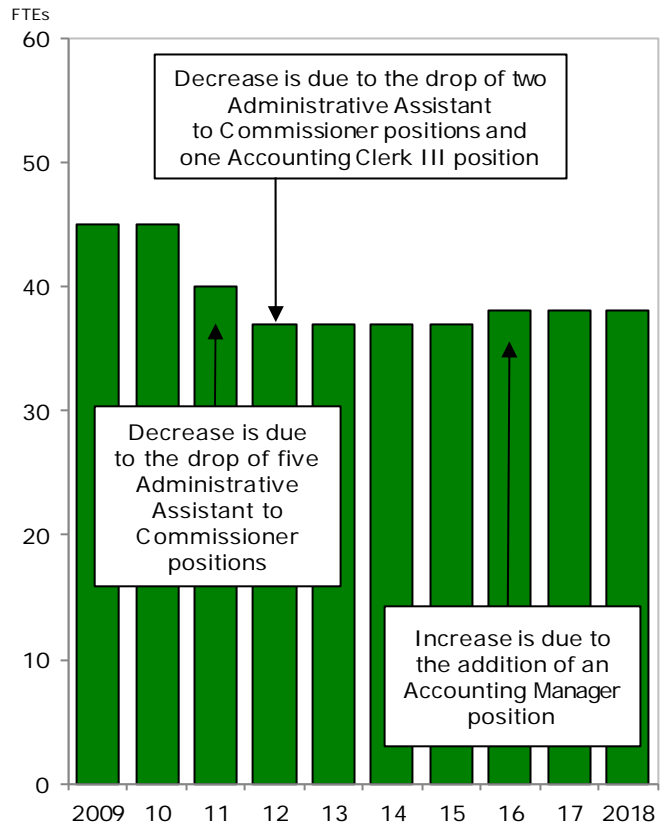
2018	\$5,145,200
2017	\$4,496,300
Increase	\$648,900



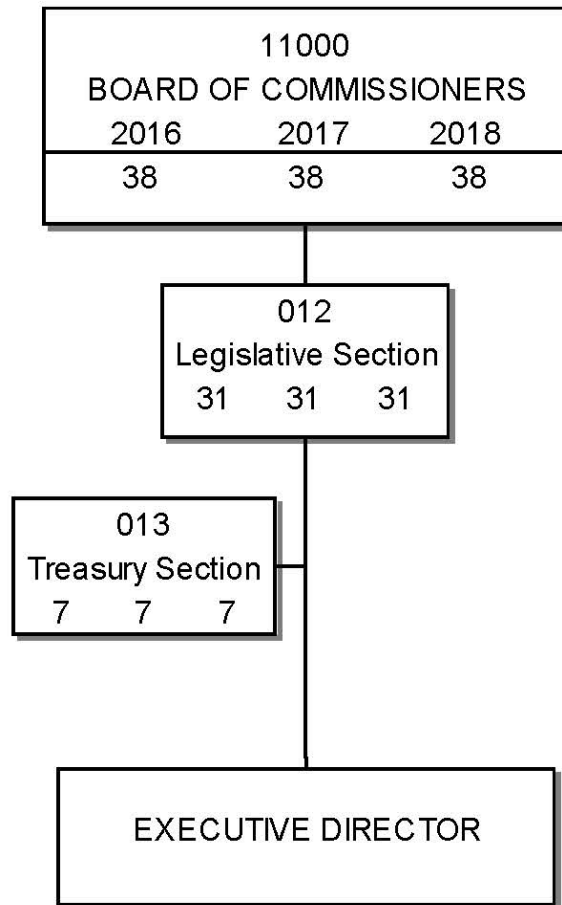
APPROPRIATIONS & EXPENDITURES



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 2017 Accomplishments

- Investment interest income earned for the year was approximately \$7.0 million. The severe economic downturn in the financial markets that 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 fifth 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 Program that will be used for wastewater and stormwater capital improvement projects. The Illinois Clean Water Initiative provides loans to fund construction projects and aid to communities to comply with the United States Environmental Protection Agency's guidelines and standards, addresses critical infrastructure needs, and stimulates local economic development;
- The District continued toward the funding policy goals for the Retirement Fund and the Other Postemployment Benefits (OPEB) Trust Fund. As of December 31, 2016, the Retirement Fund's funded ratio was 56.2 percent and the OPEB Trust Fund's funded ratio was 52.1 percent (based upon the most recent actuarial valuation in 2015);
- Successfully entered into an agreement with a professional service provider for financial advisory services related to the District Financing Program for a three-year period. A second agreement was obtained with a professional service provider for investment advisory services for the District's OPEB Trust plan for a five-year period;
- The District was presented with the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting for the 2016 Retiree Health Care Trust Comprehensive Annual Financial Report. This marks the 10th consecutive year that the Retiree Health Care Trust has been presented with the award.

Budget Highlights

The 2018 appropriation for the Board of Commissioners is \$5,145,200, an increase of \$648,900, or 14.4 percent, above the 2017 appropriation. The staffing level remains unchanged at 38 positions.

The significant feature of the Treasury Section 2018 Budget is:

- Investment Interest Income Estimate: \$7.8 million or less – 2018 will be another difficult year for investing due to very low interest rates forecasted for the fixed income market.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

The Treasury Section will continue to leverage professional service providers selected through the Request for Proposal process to provide cost-effective services for District taxpayers. The District will issue its first Request for Proposal for commercial banking and investment custody services in 2018.

The Treasury Section will continue to develop tools to monitor and ensure financial stability and to analyze and leverage market conditions to implement best strategies for investment and debt management.

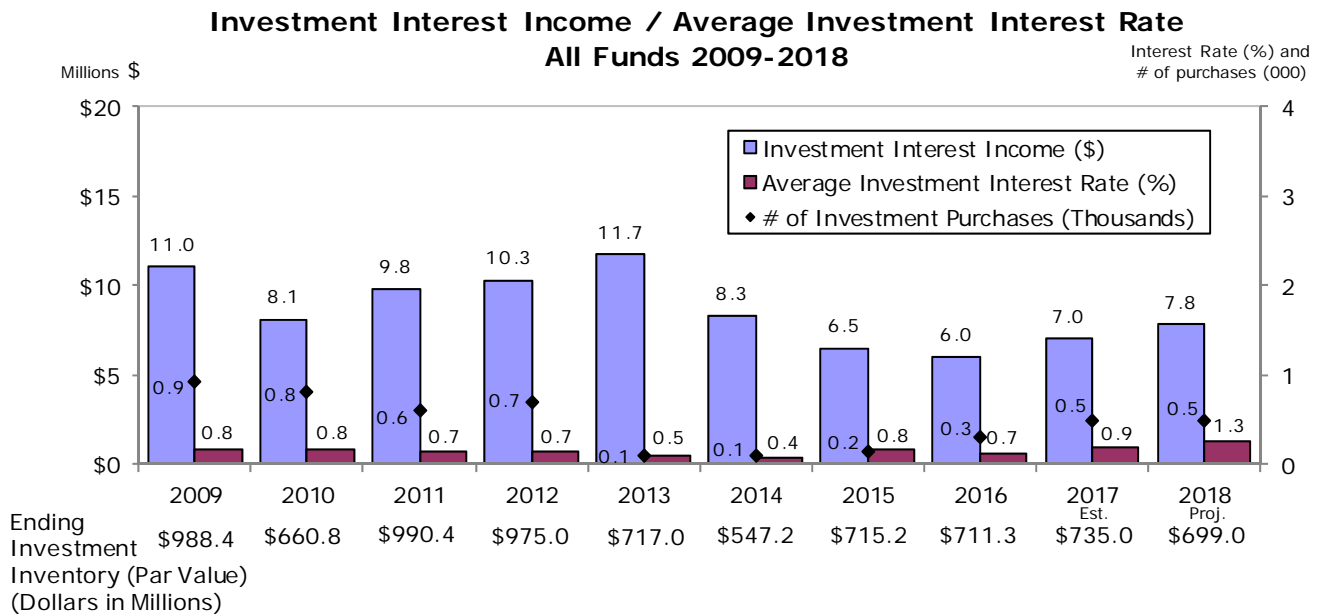
The Treasury Section will explore new and different ideas on investment and debt management to maximize returns and cost efficiency for District taxpayers while adhering to District policies.

• **Excellence**

The Treasury Section will continue to provide excellent customer service to District taxpayers 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 safeguarding the principal by investing excess cash to maximize investment returns within the statutory and investment policy guidelines.



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, while issuing debt financings in compliance with federal securities laws and state statutory authorization.

• **Develop Employees**

Treasury Section employees will continue to attend seminars and conferences in 2018 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.	\$ 3,918,500	76.2%
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.	\$ 1,226,700	23.8%
Enhance the District's image in national financial markets through the prudent use of debt financing for capital needs and debt service savings.			
Total		<u>\$ 5,145,200</u>	<u>100.0%</u>

MEASURABLE GOALS:		2016 Actual	2017 Estimated	2018 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.	33%	33%	33%
4.	Maintain minority broker/dealer investment participation at 30 percent or more of applicable investment purchases.	30%	30%	30%

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
7110	Legislative	\$ 3,018,622	2018	31	\$ 3,833,000	\$ 581,800	17.9
			2017	31	\$ 3,251,200		
7210	Treasury Activities	\$ 643,305	2018	4	\$ 726,300	\$ 24,900	3.6
			2017	4	\$ 701,400		
7316	Other Postemployment Benefits Trust Management and Report Preparation	\$ 135,343	2018	1	\$ 147,900	\$ 6,900	4.9
			2017	1	\$ 141,000		
7601	Capital Financing Program and Other Related Costs	\$ 289,744	2018	2	\$ 352,500	\$ 34,800	11.0
			2017	2	\$ 317,700		
7604	Social Security and Medicare Contributions	\$ 70,575	2018	-	\$ 85,500	\$ 500	0.6
			2017	-	\$ 85,000		
Totals		\$ 4,157,589	2018	38	\$ 5,145,200	\$ 648,900	14.4%
			2017	38	\$ 4,496,300		

a) Increase is due to the addition of an Inspector General (\$600,000).

11000 BOARD OF COMMISSIONERS

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7110	Legislative	Cost	\$ 3,018,622	\$ 3,251,200	\$ 3,833,000	a)
7210	Treasury Activities	Cost	\$ 643,305	\$ 701,400	\$ 726,300	
7316	Other Postemployment Benefits Trust Management and Report Preparation	Cost	\$ 135,343	\$ 141,000	\$ 147,900	
7601	Capital Financing Program and Other Related Costs	Cost	\$ 289,744	\$ 317,700	\$ 352,500	
7604	Social Security and Medicare Contributions	Cost	\$ 70,575	\$ 85,000	\$ 85,500	
		Totals	\$ 4,157,589	\$ 4,496,300	\$ 5,145,200	

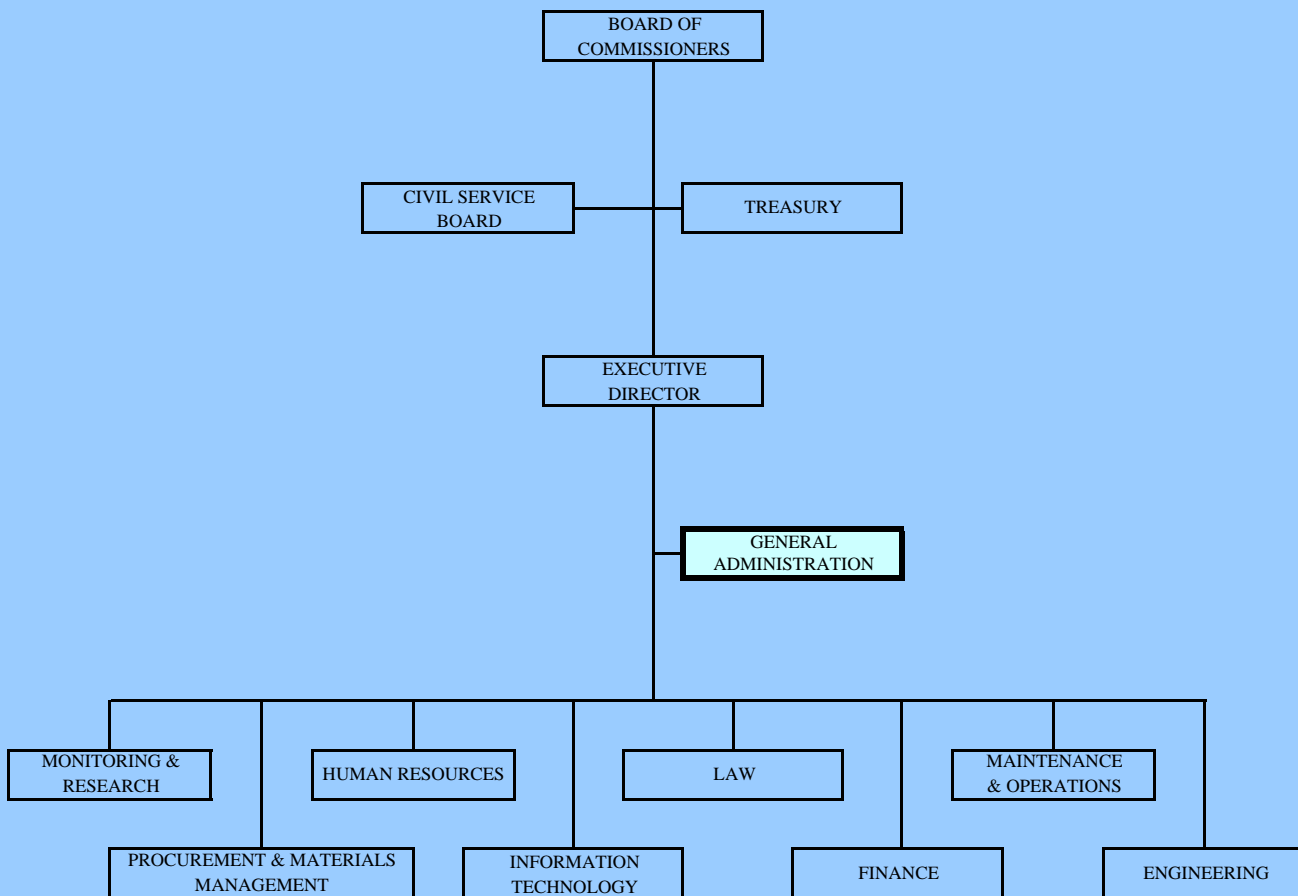
a) Increase is due to the addition of an Inspector General (\$600,000).

101 11000	Fund: Corporate Department: Board of Commissioners	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 3,518,620	\$ 3,621,200	\$ 3,621,200	\$ 3,540,000	\$ 3,640,300	\$ 3,640,300	\$ 3,682,100
601060	Compensation Plan Adjustments	45,801	34,500	34,500	12,100	37,700	37,700	38,600
601070	Social Security and Medicare Contributions	70,575	85,000	85,000	75,600	85,500	85,500	85,500
601100	Tuition and Training Payments	12,184	20,000	20,000	20,000	15,100	15,100	15,100
601300	Personal Services, N.O.C.	260,908	428,000	428,000	315,500	428,000	428,000	428,000
100	TOTAL PERSONAL SERVICES	3,908,088	4,188,700	4,188,700	3,963,200	4,206,600	4,206,600	4,249,300
612010	Travel	8,030	10,000	10,000	10,000	20,100	20,100	20,100
612030	Meals and Lodging	16,076	20,000	10,000	10,000	30,300	30,300	30,300
612280	Subscriptions and Membership Dues	32,015	36,100	36,100	36,100	38,600	38,600	38,600
612430	Payments for Professional Services	188,335	230,500	240,500	211,400	348,900	348,900	800,900
612490	Contractual Services, N.O.C.	435	1,000	1,000	500	500	500	500
200	TOTAL CONTRACTUAL SERVICES	244,891	297,600	297,600	268,000	438,400	438,400	890,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	4,610	10,000	10,000	10,000	5,500	5,500	5,500
300	TOTAL MATERIALS AND SUPPLIES	4,610	10,000	10,000	10,000	5,500	5,500	5,500
TOTAL BOARD OF COMMISSIONERS		\$ 4,157,589	\$ 4,496,300	\$ 4,496,300	\$ 4,241,200	\$ 4,650,500	\$ 4,650,500	\$ 5,145,200

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: Board of Commissioners		POSITION ANALYSIS				
		2016		2017		2018
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
012	Legislative Section					
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	2,708,502.77	31	2,726,809.53
013	Treasury Section					
EX05	Treasurer	1	1		1	
HP20	Assistant Treasurer	1	1		1	
HP18	Accounting Manager	1	1		1	
HP16	Financial Analyst	3	3		3	
EX06	Secretary to Officer	1	1		1	
TOTAL	Treasury Section	7	7	930,774.97	7	973,677.00
TOTAL	Board of Commissioners	38	38	3,639,277.74	38	3,700,486.53

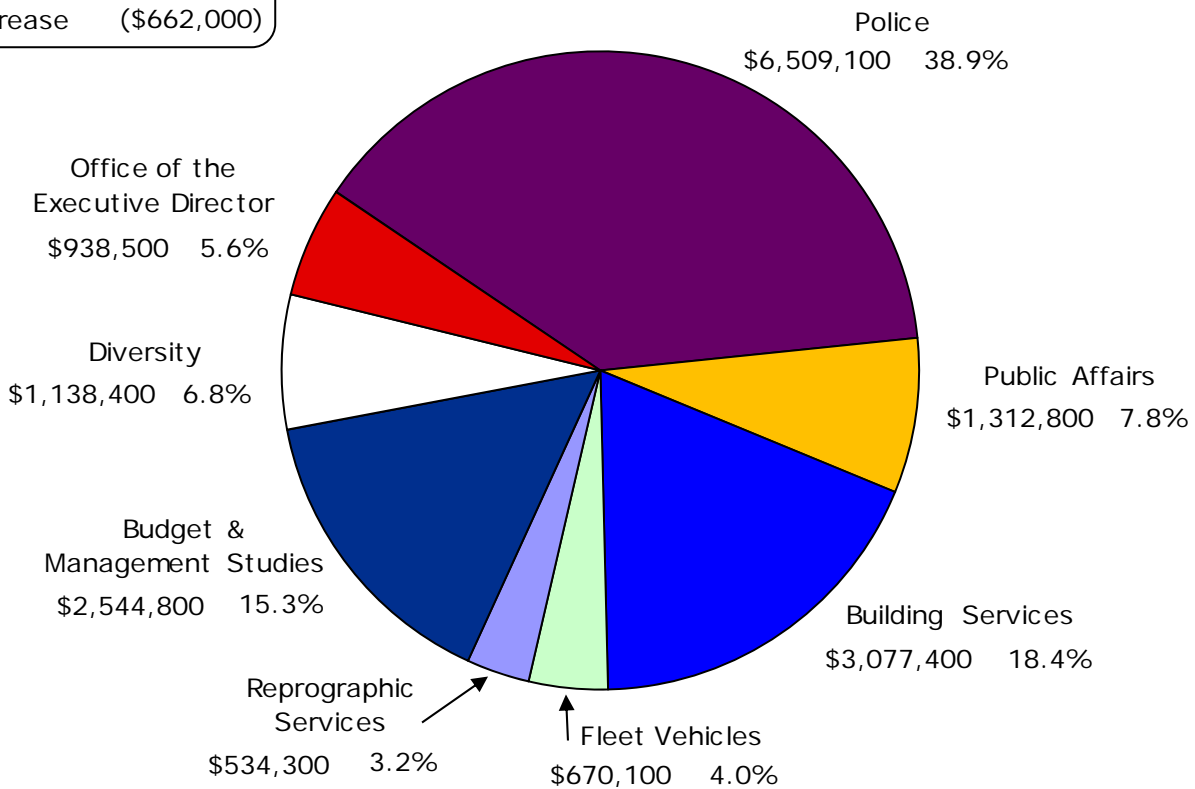
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



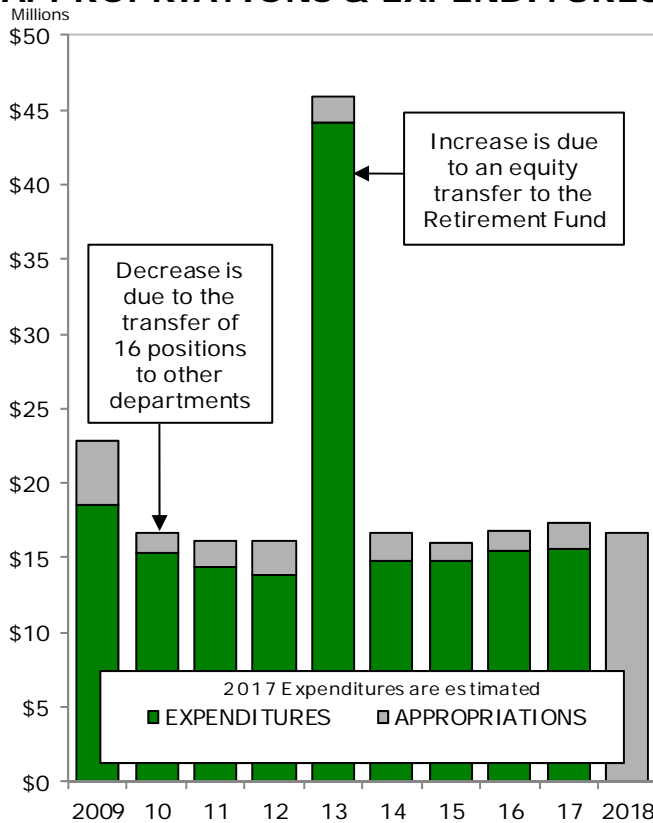
GENERAL ADMINISTRATION

2018	\$16,725,400
2017	\$17,387,400
Decrease	(\$662,000)

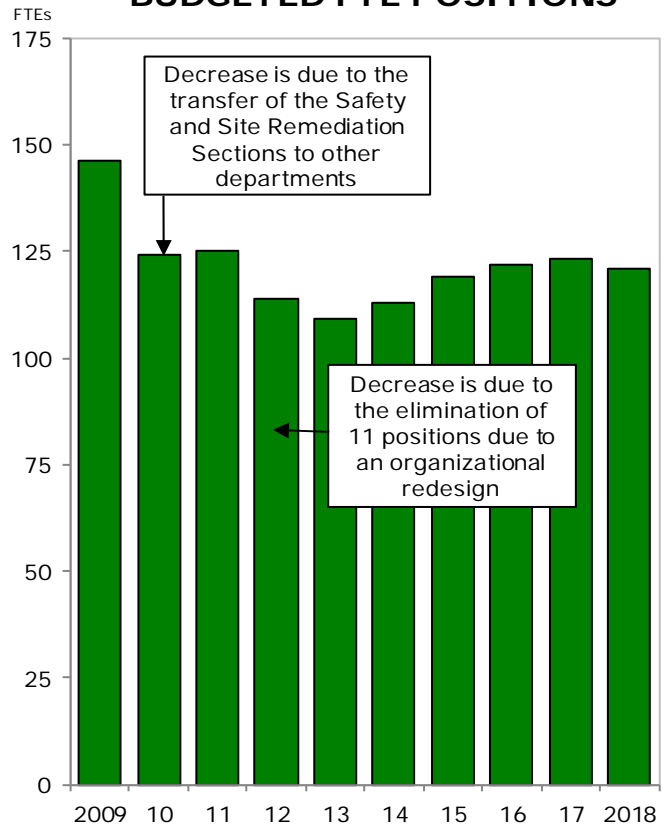
FUNCTIONS



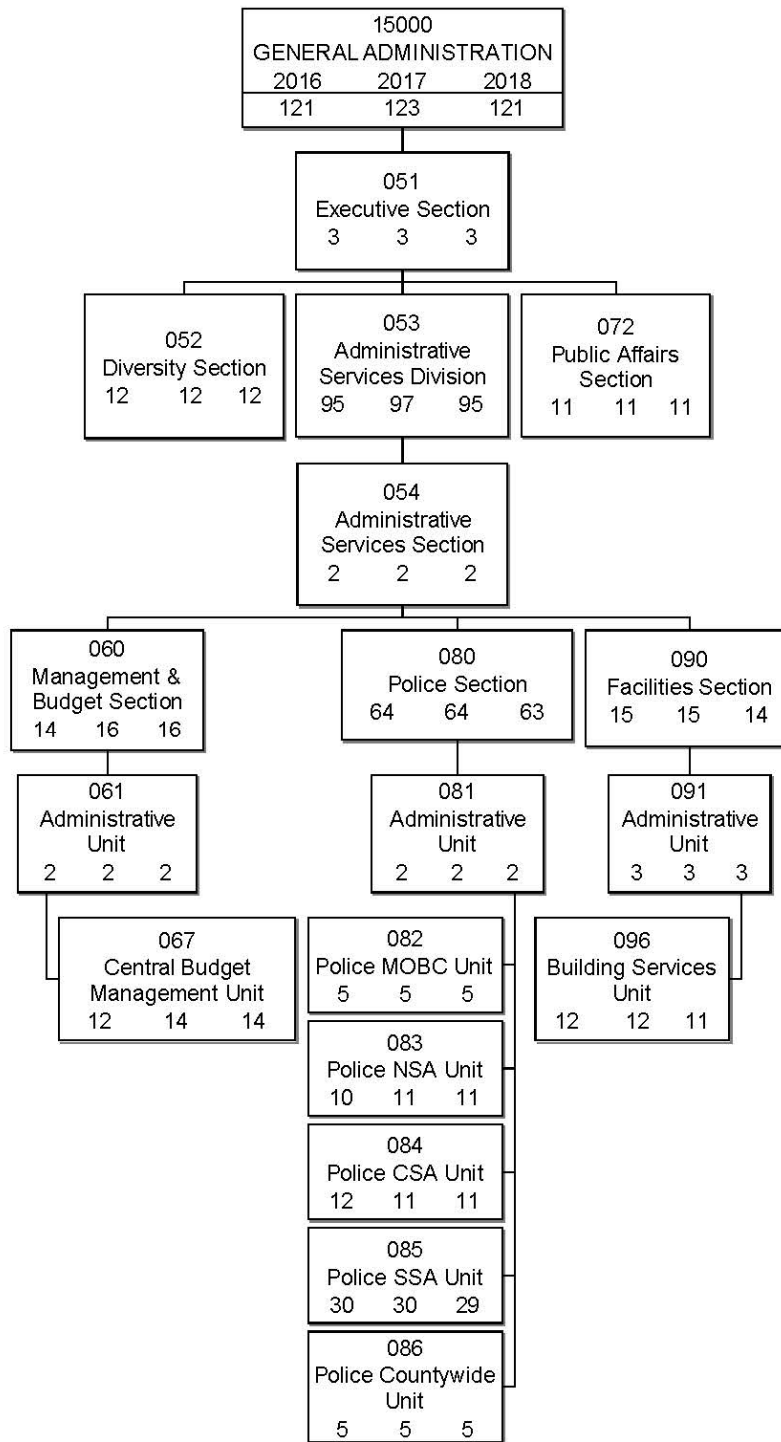
APPROPRIATIONS & EXPENDITURES



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-owned (MBE), women-owned (WBE), and small (SBE) business enterprises are given equal opportunities 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 2017 Accomplishments

- The 2017 Budget received the 33rd consecutive Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA);
- Continued to train in-house staff on several topics intended to increase the efficiency of the budgeting process;
- Provided professional training for analysts District-wide by the Lake Forest Graduate School of Management, highlighting effective communications, collaboration, and building strategic business cases;
- Continued to increase the number of Protected Class Enterprise vendors included on the District's vendor list;
- Hosted two MBE/WBE/SBE vendor outreach events, servicing over 400 subcontractors;
- Participated twice in the United States Drug Enforcement Administration's National Prescription Drug Take Back Day Initiative at three water reclamation plants and the MOBC;
- Continued to manage a District Prescription Drug Take Back Program at four District locations;
- Managed the second year of the "Restore the Canopy, Plant a Tree" program to replenish Cook County's urban tree canopy, distributing more than 40,000 tree saplings;
- Acquired drone Federal Aviation Administration certification and began generating footage of District properties and projects;
- Hosted the grand opening ceremony and tours of the McCook Reservoir;
- Hosted the District's African American History Celebration, highlighting the "City Council Wars" of the late Mayor Harold Washington's era. This event brought together most of the former aldermen of the Washington 21 (signifying the 21 original Chicago City Council supporters of the late mayor). Those who have passed on were honored posthumously;
- Hosted over 200 tours/open houses with over 8,000 visitors, attended over 170 outreach events impacting more than 55,000 people, and visited over 90 schools and other organizations to educate more than 6,000 people.

Budget Highlights

The 2018 appropriation for General Administration is \$16,725,400, a decrease of \$662,000, or 3.8 percent, from 2017. The staffing level has decreased from 123 to 121 positions, which includes the drop of an Administrative Clerk #1 and a Police Officer #1. In addition, an Administrative Clerk in the Public Affairs Section was reclassified to an Administrative Specialist.

Significant features of the 2018 Budget are:

- Major projects include a roof life extension project, rehabilitation of two elevators at the Main Office Building (MOB), carpet replacement and painting project on the second floor of the MOB, replacement of bathroom stalls throughout the MOBC, and replacement of the air conditioning units at the Waterways Control Center in the MOB;
- Continue the reduction of fleet inventory and pursue 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.

2018 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 using the established strategies for continuous improvement in 2018.

• Add Value

The Management & Budget Section will continue to develop time saving methods for developing the budget. In 2018, a new financial reporting tool will be implemented that will increase efficiencies in the data consolidation and publication of the budget book.

• Excellence

The Management & Budget Section will provide capital budget analyses to assist in the prioritization of projects to ensure best use of current spending.

The Management & Budget Section will analyze recent expenditure data to develop base budget targets for all departments. Budget requests above the base will be reviewed and analyzed to ensure such requests are aligned to strategic initiatives.

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 Measures Recognition from the GFOA.

The Police Section will protect 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 Police Section has optimized its use of overtime labor by creating a relief force to cover shifts at all locations. Overtime usage has been reduced and will be further reduced in 2018.

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 Police Section operates the District's Prescription Drug Take Back Program at four locations and will continue to participate in the United States Drug Enforcement Administration's National Prescription Drug Take Back Initiative. Together, the programs prevent and reduce the accidental contamination of streams, rivers, and lakes by disposing of pharmaceuticals in an environmentally-friendly manner.

The Facilities Section will continue to improve its single-stream recycling program at the MOBC, reducing waste by removing recyclable materials and containers from the waste stream. Moreover, in 2018, the food waste produced by the MOB cafeteria for the compost recycling program will continue.

• 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 Management & Budget Section will work with all departments to develop and execute the District's program of subscriptions and memberships. The names of employees in leadership roles in a variety of organizations will be published in the budget.

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.

• Technology

The Management & Budget Section will implement a new budget publishing system that is expected to be rolled out in 2018 for the preparation of the 2019 Budget. This system will communicate with the District's enterprise system (SAP) and streamline the budget book preparation process.

2018 Diversity Section Initiatives in Support of the Strategic Business Plan Include the Following:

The Diversity Section is focused on the goals established in the Strategic Business Plan and is committed to using the established strategies for continuous improvement in 2018.

• Add Value

The Diversity Section will continue to fulfill its community leadership role regarding contract and employment diversity in the District’s service communities by establishing and monitoring goals for construction-related projects, as well as participating in 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. The Diversity Section will continue to be a part of the discussions for pending legislation, agreements, and programs that could adversely affect goal attainment. The Diversity Section will strive to increase the District’s MBE, WBE, and SBE vendor list by 10 percent in 2018.

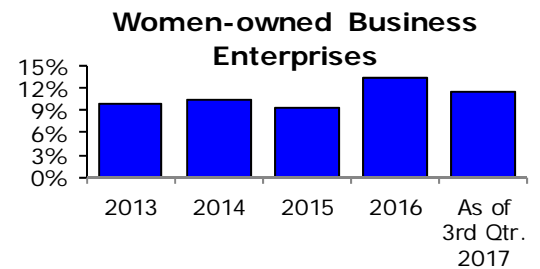
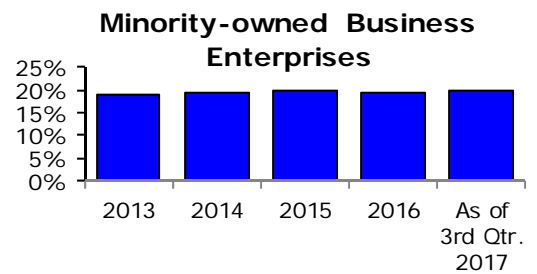
Construction & Consulting Contracts	2013	2014 **	2015	2016	As of 3rd Qtr. 2017
Minority-owned Business Enterprises	\$42,692,505	\$75,053,441	\$23,292,180	\$39,402,363	\$6,477,258
Women-owned Business Enterprises	\$22,032,830	\$39,870,628	\$10,855,589	\$27,298,129	\$3,771,387
Small Business Enterprises *	\$2,549,686	\$857,220	\$375,118	\$307,759	\$1,134,393
Total Contracts Awarded	\$222,211,307	\$386,198,534	\$116,523,512	\$202,973,188	\$32,864,495

*For years 2016-2017, SBE contract award amounts only include non-MBEs and non-WBEs.

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

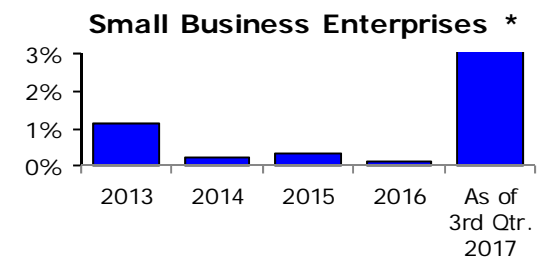
• Excellence

The Diversity Section began implementation of the Disparity Study recommendation to develop a small business program that provides tangible participation opportunities on a race- and gender-neutral basis. By meeting or exceeding the participation targets, the small business program will ensure that bona fide MBEs, WBEs, and SBEs are given an equal and increasing opportunity to participate in the performance of District construction and consulting contracts. The Diversity Section will work with the Engineering Department in a contract unbundling process to increase race- and gender-neutral small business participation to reach a two percent goal.



• Develop Employees

The Diversity Section will continue the development of performance management metrics to better measure the performance of staff. In 2017, the Diversity staff was trained in contract compliance through the American Contractor Compliance Association, which highlights new and pending rules and legislation regarding Affirmative Action. In 2018, Diversity staff will be trained in team building and interviewing techniques.



• Leading Partnerships

The Diversity Section will host two vendor outreach events providing prospective vendors access to District officers and commissioners. The Diversity Section will continue to partner with the District’s 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. Staff will continue to co-host workshops and other meetings with sister agencies to train their members on how to do business with the District and provide information on new District contract opportunities. Additionally, the Diversity Section will continue working internally with user departments to provide MBE, WBE, and SBE opportunities on District contracts.

*2016 – 2017 SBE contract award percentage only includes non-MBEs and non-WBEs

2018 Public Affairs Section Initiatives in Support of the Strategic Business Plan Include the Following:

The Public Affairs Section has embraced the goals established in the Strategic Business Plan and is committed to using the established strategies to maintain the District's public image as we forge a new path in 2018.

- **Add Value**

The Public Affairs Section will work with using departments to develop materials that promote new green infrastructure projects to the public. The Public Affairs Section will also continue to oversee the distribution of thousands of tree saplings, in addition to several programs promoting the District's stormwater management mission.

- **Excellence**

The Public Affairs Section exhibits a sense of urgency in all activities. The Public Affairs Section is determined to enthusiastically achieve excellence in all work products and through interactions with colleagues, stakeholders, reporters, and the public. Quality communications will continue to feature professionally written and designed materials that reflect the organization's important role and history of excellence. The Public Affairs Section will strive to produce deliverables of professional quality in all forms of media. The Public Affairs Section will work to inform the public about the value the District adds to our community and stakeholders. The Public Affairs Section will continue to produce fact sheets, talking points, photos, videos, press releases, and other materials that will help staff educate the public about the value of the District's work and areas of responsibility. Microsoft PowerPoint presentations, exhibits, and displays provided by the Public Affairs Section will continue to enhance speaking engagements while press releases researched and prepared by the Public Affairs Section will be distributed to stakeholders and media members. The Public Affairs Section utilizes social media, participates in and supports community events with presenters and handouts, hosts tours and open houses, and provides photos and imagery to targeted audiences that help to educate the public on the value and importance of the District's work. The Public Affairs Section will also add value to the scholars and reporters interested in past and present imagery by making photo files and imagery freely available and promote the District's real estate portfolio by publicizing properties and their varied uses.

- **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 phosphorus recovery facility at the Stickney Water Reclamation Plant offers an opportunity to educate the public about the impact that phosphorus has on the waterways and the positive impact the new recovery facility will have on improving our water environment locally as well as nationally. The Public Affairs Section will support the opening of new phosphorus recovery facilities at the Calumet and Egan Water Reclamation Plants. The Public Affairs Section will also continue to support biosolids and compost marketing efforts.

- **Develop Employees**

The Public Affairs Section 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. The Public Affairs Section will also continue to keep abreast of changes and new developments within the District and the industry and the current trends in water treatment reported throughout the world. 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 in the commitment to the water environment and an interest in District work and areas of responsibility. The Public Affairs Section will continue to develop strategic relationships with the public through participation in local events by developing 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. With our two new Federal Aviation Administration licensed drone pilots, the Public Affairs Section will videotape and photograph District facilities and processes. The Public Affairs Section 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. The Public Affairs Section will update the District's website with fresh, current information, utilize social media as an interactive communications tool, continue to update and send email blasts and mailings to targeted officials, stakeholders, and the media, produce a bi-monthly employee newsletter, maintain electronic message signs at all seven water reclamation plants, 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.	\$ 6,509,100	38.9%
2. Carry out policies established by the elected Board of Commissioners for the protection of the water environment of the District.	\$ 938,500	5.6%
3. Reach participation goals established by the Board of Commissioners for Minority-owned Business Enterprises, Women-owned Business Enterprises, and Small Business Enterprises for construction and professional services contracts.	\$ 1,138,400	6.8%
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.	\$ 2,200,200	13.2%
5. Operate and maintain the Main Office Building Complex to provide a functional and cost-effective office environment for staff, contractors, and visitors.	\$ 3,077,400	18.4%
6. Provide public understanding of District functions and activities through media, publications, and tours.	\$ 1,312,800	7.8%
7. Provide fleet management services by administering the operation, maintenance, repair, and procurement of the District's fleet.	\$ 670,100	4.0%
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.	\$ 534,300	3.2%
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.	\$ 344,600	2.1%
Total	\$ 16,725,400	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Actual	2018 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
2018 - Proposed	3,100	17%	3,000	42%	2,200	28%
2017 - Estimated	2,646	22%	2,112	35%	1,719	23%
2016 - Actual	2,170	17%	1,565	21%	1,397	17%

15000 GENERAL ADMINISTRATION

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
7100	Office of the Executive Director	\$ 407,032	2018 3	\$ 497,200	\$ (1,900)	(0.4)	
			2017 3	\$ 499,100			
7110	Legislative	\$ 528,281	2018 -	\$ 441,300	\$ (122,800)	(21.8)	a)
			2017 -	\$ 564,100			
7220	Reprographic Services	\$ 417,245	2018 2	\$ 534,300	\$ (9,500)	(1.7)	
			2017 2	\$ 543,800			
7240	Public Affairs	\$ 1,127,480	2018 11	\$ 1,312,800	\$ 108,500	9.0	
			2017 11	\$ 1,204,300			
7251	Corporate Budget Preparation, Monitoring, and Administration	\$ 1,900,803	2018 9	\$ 1,831,400	\$ (503,900)	(21.6)	b)
			2017 14	\$ 2,335,300			
7252	Management and Organization Studies	\$ 235,593	2018 3	\$ 344,600	\$ 29,200	9.3	
			2017 3	\$ 315,400			
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ -	2018 3	\$ 281,100	\$ 281,100	100.0	c)
			2017 -	\$ -			
7254	Enterprise System	\$ 96,895	2018 1	\$ 87,700	\$ (10,200)	(10.4)	
			2017 1	\$ 97,900			
7340	Security of Plants and Properties	\$ 5,970,077	2018 64	\$ 6,354,700	\$ (53,100)	(0.8)	
			2017 64	\$ 6,407,800			
7460	Main Office Building Complex Services	\$ 3,005,579	2018 11	\$ 3,077,400	\$ (257,800)	(7.7)	d)
			2017 11	\$ 3,335,200			
7470	Contract Diversity	\$ 1,066,275	2018 12	\$ 1,138,400	\$ (48,400)	(4.1)	
			2017 12	\$ 1,186,800			
7490	Automotive Fleet Operations	\$ 564,870	2018 2	\$ 670,100	\$ (77,800)	(10.4)	
			2017 2	\$ 747,900			
7604	Social Security and Medicare Contributions	\$ 149,233	2018 -	\$ 154,400	\$ 4,600	3.1	
			2017 -	\$ 149,800			
Totals		\$ 15,469,363	2018 121	\$ 16,725,400	\$ (662,000)	(3.8%)	
			2017 123	\$ 17,387,400			

- a) Decrease is due to the cancellation of the State of Illinois legislative liaison consulting services (\$102,000).
- b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$386,100), the completion of triennial District-wide analyst training in 2017 (\$60,000), and an anticipated decrease in retirements (\$48,900).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$273,600).
- d) Decrease is due to the anticipated reduction in overtime utilized by contracted building engineers (\$137,300), an anticipated reduced need for building repair projects at the Main Office Building (\$30,000), an anticipated reduction in electricity expenditures due to the decommissioning of the Information Technology Department's data center at the Main Office Building (\$25,000), an anticipated reduction in expenditures for shared common area maintenance at the Main Office Building Annex (\$25,000), an anticipated reduction in plumbing supplies due to the 2017 allocation of funds for water cooler replacements at the Main Office Building Complex (\$22,500), and an anticipated reduction in the purchase of cafeteria supplies due to 17-RFP-23, Provide Food Services, in which the cafeteria vendor will purchase needed supplies (\$18,000).

15000 GENERAL ADMINISTRATION

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7100	Office of the Executive Director	Cost	\$ 407,032	\$ 499,100	\$ 497,200	
7110	Legislative	Cost	\$ 528,281	\$ 564,100	\$ 441,300	a)
7220	Reprographic Services					
7221	Duplication Services	# of Impressions	2,780,750	3,500,000	3,000,000	
		Cost	\$ 400,948	\$ 529,000	\$ 521,300	
		Cost/Impression	\$ 0.14	\$ 0.15	\$ 0.17	
7224	Design Services	Cost	\$ 16,297	\$ 14,800	\$ 13,000	
7240	Public Affairs					
7247	Internal Public Affairs					
	Interdepartmental Support	Cost	\$ 300,900	\$ 306,800	\$ 363,200	b)
7248	External Public Affairs					
	Respond to Public Inquiries and Furnish Public Information Pamphlets	# of Responses	45,000	46,000	47,000	
		Cost	\$ 275,952	\$ 299,628	\$ 317,022	
		Cost/Response	\$ 6.13	\$ 6.51	\$ 6.75	
	Coordinate District Communications with Public, Civic, and Social Groups	# of Contacts	22,000	23,000	24,000	
		Cost	\$ 150,780	\$ 163,718	\$ 173,222	
		Cost/Contact	\$ 6.85	\$ 7.12	\$ 7.22	
	Monitor Public Hearings, Board Meetings, Internet, and Media and Issue Press Releases	Cost	\$ 194,689	\$ 211,393	\$ 223,664	
	Special Public Events	Cost	\$ 205,159	\$ 222,761	\$ 235,692	
7250	Budget Preparation and Management Studies					
7251	Corporate Budget Preparation, Monitoring, and Administration	Cost	\$ 1,900,803	\$ 2,335,300	\$ 1,831,400	c)
7252	Management and Organization Studies	Cost	\$ 235,593	\$ 315,400	\$ 344,600	
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ -	\$ -	\$ 281,100	d)
7254	Enterprise Systems	Cost	\$ 96,895	\$ 97,900	\$ 87,700	

- a) Decrease is due to the cancellation of the State of Illinois legislative liaison consulting services (\$102,000).
- b) Increase is due to the addition of grant writing services (\$50,000).
- c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$386,100), the completion of triennial District-wide analyst training in 2017 (\$60,000), and an anticipated decrease in retirements (\$48,900).
- d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$273,600).

15000 GENERAL ADMINISTRATION

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7340	Security of Plants and Properties					
	Patrol of District Facilities	# of Miles	115,803	113,694	115,803	
		Cost	\$ 1,155,729	\$ 1,240,466	\$ 1,230,186	
		Cost/Mile	\$ 9.98	\$ 10.91	\$ 10.62	
	Patrol of District Real Estate	# of Miles	224,794	220,698	230,000	
		Cost	\$ 3,268,201	\$ 3,507,824	\$ 3,478,756	
		Cost/Mile	\$ 14.54	\$ 15.89	\$ 15.13	
	Access Control to Facilities	# of Hours	44,796	48,611	46,000	
		Cost	\$ 1,546,147	\$ 1,659,510	\$ 1,645,758	
		Cost/Hour	\$ 34.52	\$ 34.14	\$ 35.78	
7460	Main Office Building Complex Services					
7461	Main Office Building Complex Operations	Area (Sq. Ft.)	198,901	198,901	198,901	e)
		Cost	\$ 2,629,899	\$ 2,942,900	\$ 2,702,100	
		Cost/Sq. Ft.	\$ 13.22	\$ 14.80	\$ 13.59	
7463	Collect and Distribute Mail	# of Pieces	834,213	1,013,009	756,730	
		Cost	\$ 289,004	\$ 295,500	\$ 289,800	
		Cost/Piece	\$ 0.35	\$ 0.29	\$ 0.38	
7464	Telephone Switchboard Operations at Main Office Building Complex	Cost	\$ 86,676	\$ 96,800	\$ 85,500	
7470	Contract Diversity					
7471	Contract Compliance	Cost	\$ 473,789	\$ 536,800	\$ 505,800	
7472	Community Activity	Cost	\$ 339,923	\$ 387,300	\$ 378,700	
7473	Contract Diversity Support	Cost	\$ 252,563	\$ 262,700	\$ 253,900	
7490	Automotive Fleet Operations					
7491	Automotive Fleet Procurement	Cost	\$ 8,054	\$ 8,400	\$ -	f)
7496	Automotive Fleet Disposal	Cost	\$ 4,103	\$ 7,000	\$ -	g)
7499	Automotive Fleet Operations	Cost	\$ 552,713	\$ 732,500	\$ 670,100	
7604	Social Security and Medicare Contributions	Cost	\$ 149,233	\$ 149,800	\$ 154,400	
	Totals		\$ 15,469,363	\$ 17,387,400	\$ 16,725,400	

e) Decrease is due to the anticipated reduction in overtime utilized by contracted building engineers (\$137,300), an anticipated reduced need for building repair projects at the Main Office Building (\$30,000), an anticipated reduction in electricity expenditures due to the decommissioning of the Information Technology Department's data center at the Main Office Building (\$25,000), an anticipated reduction in expenditures for shared common area maintenance at the Main Office Building Annex (\$25,000), an anticipated reduction in plumbing supplies due to the 2017 allocation of funds for water cooler replacements at the Main Office Building Complex (\$22,500), and an anticipated reduction in the purchase of cafeteria supplies due to 17-RFP-23, Provide Food Services, in which the cafeteria vendor will purchase needed supplies (\$18,000), offset by an increase due to the reallocation of salaries to more accurately reflect current activities (\$98,300).

f) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$8,300).

g) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$7,000).

101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 9,849,649	\$ 10,854,800	\$ 10,840,500	\$ 10,110,100	\$ 10,748,000	\$ 10,748,000	\$ 10,863,500
601060	Compensation Plan Adjustments	819,495	950,700	950,700	759,400	791,500	791,500	840,000
601070	Social Security and Medicare Contributions	149,233	149,800	162,800	153,900	154,400	154,400	154,400
601080	Salaries of Nonbudgeted Employees	19,339	-	1,300	1,300	-	-	-
601100	Tuition and Training Payments	41,814	97,600	97,600	84,000	37,700	37,700	37,700
100	TOTAL PERSONAL SERVICES	10,879,530	12,052,900	12,052,900	11,108,700	11,731,600	11,731,600	11,895,600
612010	Travel	6,997	10,000	10,000	8,700	7,200	7,200	7,200
612030	Meals and Lodging	10,597	17,000	17,000	14,800	11,000	11,000	11,000
612040	Postage, Freight, and Delivery Charges	94,758	95,500	97,600	97,600	84,800	84,800	84,800
612050	Compensation for Personally-Owned Automobiles	3,165	4,100	4,100	2,000	3,000	3,000	3,000
612080	Motor Vehicle Operating Services	55,519	83,500	83,500	58,000	62,700	62,700	62,700
612090	Reprographic Services	46,805	120,600	120,600	117,000	118,000	118,000	118,000
612150	Electrical Energy	357,394	365,000	351,300	308,200	340,000	340,000	340,000
612160	Natural Gas	26,776	35,000	35,000	19,400	24,000	24,000	24,000
612170	Water and Water Services	5,399	5,500	5,500	5,500	5,200	5,200	5,200
612210	Communication Services	3,000	3,000	3,000	3,000	3,000	3,000	3,000
612280	Subscriptions and Membership Dues	736,512	777,700	777,700	690,000	660,200	660,200	778,100
612330	Rental Charges	8,846	17,900	17,900	13,900	8,700	8,700	8,700
612360	Advertising	6,660	13,000	13,000	11,400	13,000	13,000	13,000
612370	Administration Building Operation	1,027,802	1,118,900	1,128,800	1,000,000	1,015,800	1,015,800	1,015,800
612390	Administration Building McMillan Pavilion Operation	662,841	738,800	842,500	730,000	645,700	645,700	645,700
612430	Payments for Professional Services	514,705	570,400	468,400	359,500	474,000	474,000	474,000
612490	Contractual Services, N.O.C.	198,040	340,000	340,000	290,000	328,300	328,300	428,300
612680	Repairs to Buildings	56,700	65,000	65,000	24,000	26,500	26,500	26,500
612800	Repairs to Office Furniture and Equipment	73,258	110,000	110,000	78,400	118,200	118,200	118,200
612840	Communications Equipment Maintenance (Includes Software)	17,784	17,800	17,800	17,800	17,800	17,800	17,800
612860	Repairs to Vehicle Equipment	427,200	538,000	538,000	380,000	437,100	437,100	437,100
200	TOTAL CONTRACTUAL SERVICES	4,340,758	5,046,700	5,046,700	4,229,200	4,404,200	4,404,200	4,622,100

101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623070	Electrical Parts and Supplies	6,982	17,000	17,000	10,500	7,600	7,600	7,600
623090	Plumbing Accessories and Supplies	4,667	30,000	20,000	12,000	7,500	7,500	7,500
623110	Hardware	15,489	17,000	17,000	16,000	14,400	14,400	14,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	120,550	132,300	142,300	111,500	115,100	115,100	115,100
623660	Cleaning Supplies	1,063	2,000	2,000	1,200	1,300	1,300	1,300
623700	Wearing Apparel	35,416	30,000	30,000	27,400	28,400	28,400	28,400
623720	Books, Maps, and Charts	714	500	500	500	500	500	500
623800	Computer Software	8,614	-	-	-	-	-	-
623810	Computer Supplies	2,845	-	-	-	-	-	-
623990	Materials and Supplies, N.O.C.	52,736	59,000	59,000	49,200	32,900	32,900	32,900
300	TOTAL MATERIALS AND SUPPLIES	249,076	287,800	287,800	228,300	207,700	207,700	207,700
TOTAL GENERAL ADMINISTRATION		\$ 15,469,363	\$ 17,387,400	\$ 17,387,400	\$ 15,566,200	\$ 16,343,500	\$ 16,343,500	\$ 16,725,400

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.

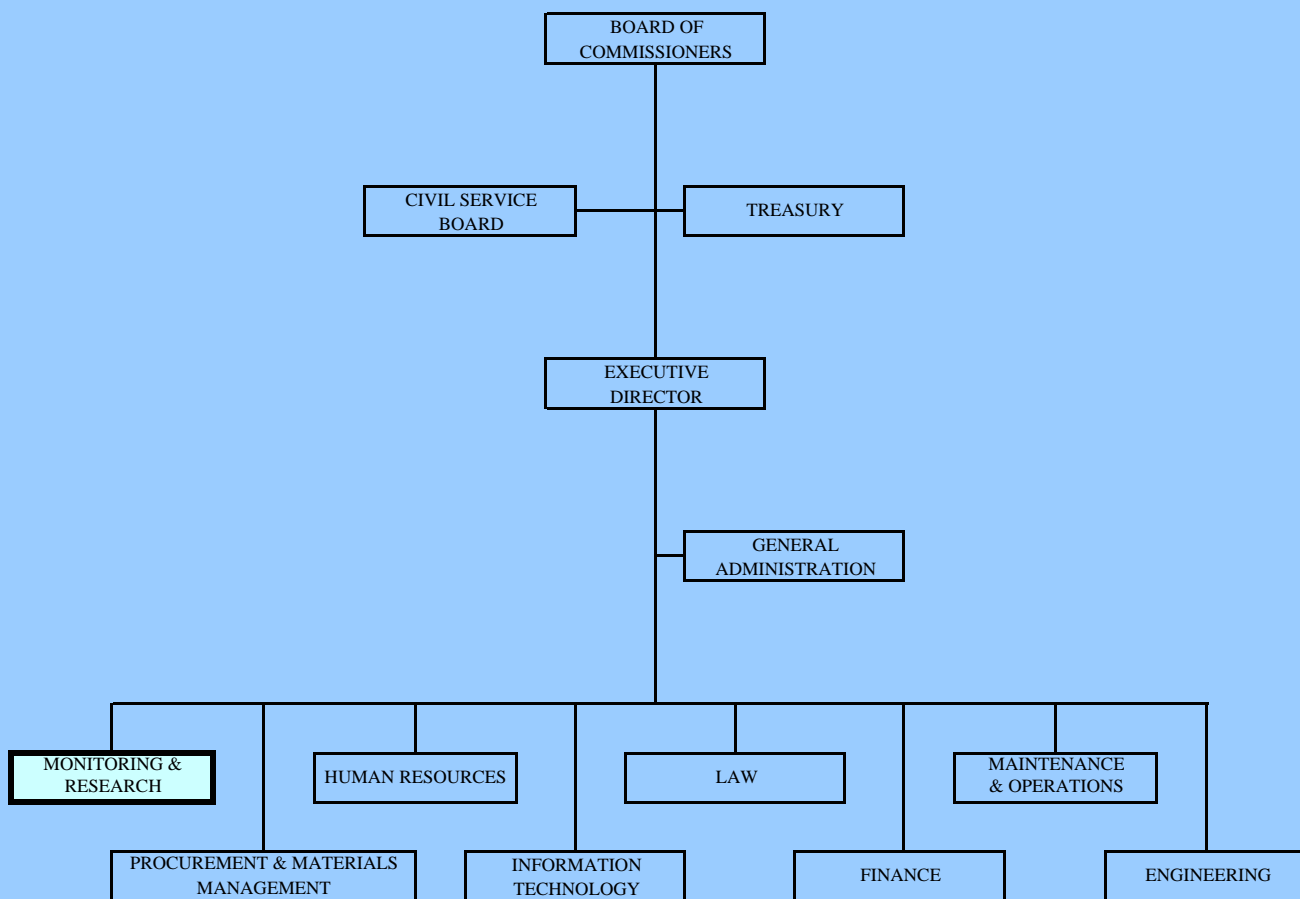
Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
051	Executive Section					
EX07	Executive Director	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	478,176.48	3	492,312.24
052	Diversity Section					
HP18	Diversity Administrator	1	1		1	
HP16	Senior Diversity Officer	2	2		2	
HP15	Compliance Officer #2 (Diversity Officer) (New Grade HP14)	4	3		1	
HP14	Diversity Officer	2	3		5	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	1	1		1	
TOTAL	Diversity Section	12	12	1,087,755.37	12	1,045,948.21
053	Administrative Services Division					
054	Administrative Services Section					
EX19	Administrative Services Officer	-	1		1	
HP22	Administrative Services Manager	1	-		-	
EX06	Secretary to Officer	-	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
TOTAL	Administrative Services Section	2	2	297,268.70	2	339,787.75
060	Management & Budget Section					
061	Administrative Unit					
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	208,555.60	2	221,091.67
067	Central Budget Management Unit					
HP18	Supervising Budget & Management Analyst	1	1		1	

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	-	1		-	
HP16	Senior Budget & Management Analyst	4	3		4	
HP14	Budget & Management Analyst	6	8		8	
HP11	Administrative Specialist	1	1		1	
TOTAL	Central Budget Management Unit	12	14	1,342,892.50	14	1,334,318.62
TOTAL	Management & Budget Section	14	16	1,551,448.10	16	1,555,410.29
080	Police Section					
081	Administrative Unit					
HP18	Chief of Police	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Administrative Unit	2	2	236,825.81	2	241,562.19
082	Police Main Office Building Complex Unit					
NR2483	Police Officer	5	5		5	
TOTAL	Police Main Office Building Complex Unit	5	5	405,496.00	5	405,496.00
083	Police North Service Area Unit					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	9	10		10	
TOTAL	Police North Service Area Unit	10	11	908,858.29	11	910,815.67
084	Police Calumet Service Area Unit					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	10		10	
NR2483	Police Officer #1	1	-		-	
TOTAL	Police Calumet Service Area Unit	12	11	913,624.48	11	920,536.04
085	Police Stickney Service Area Unit					
HP16	Police Lieutenant	2	2		2	
HP14	Police Sergeant	5	5		5	
NR2483	Police Officer	23	22		22	

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR2483	Police Officer #1	-	1		-	
TOTAL	Police Stickney Service Area Unit	30	30	2,597,580.57	29	2,550,566.38
	086 Police Countywide Unit					
NR2483	Police Officer	5	5		5	
TOTAL	Police Countywide Unit	5	5	405,496.00	5	405,496.00
TOTAL	Police Section	64	64	5,467,881.15	63	5,434,472.28
	090 Facilities Section					
	091 Administrative Unit					
HP17	Facilities Administrator	1	-		-	
HP16	Senior Budget & Management Analyst	-	1		1	
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Unit	3	3	233,573.77	3	240,214.44
	096 Building Services Unit					
HP14	Budget & Management Analyst	1	1		1	
HP14	Chief Printing Press Operator	1	1		1	
HP12	Printing Press Operator	1	1		1	
HP11	Motor Vehicle Dispatcher Supervisor	1	-		-	
HP11	Administrative Specialist	2	2		2	
HP09	Motor Vehicle Dispatcher	2	-		-	
HP09	Administrative Clerk	4	3		3	
HP09	Administrative Clerk #1	-	1		-	
NR8661	Motor Vehicle Dispatcher Supervisor	-	1		1	
NR8660	Motor Vehicle Dispatcher	-	2		2	
TOTAL	Building Services Unit	12	12	754,499.51	11	735,782.60
TOTAL	Facilities Section	15	15	988,073.28	14	975,997.04
TOTAL	Administrative Services Division	95	97	8,304,671.23	95	8,305,667.36
	072 Public Affairs Section					
EX18	Public & Intergovernmental Affairs Officer	1	1		1	

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2016		2017		2018
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
EX06	Secretary to Officer	1	1		1	
HP17	Senior Public Affairs Specialist #2 (New Grade HP16)	1	1		1	
HP15	Community Education Specialist #2 (Public Affairs Specialist) (New Grade HP14)	1	1		-	
HP15	Public Affairs Specialist #2 (New Grade HP14)	3	3		3	
HP14	Public Affairs Specialist	-	-		1	
HP13	Graphic Artist	2	2		2	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	-	-		1	
HP09	Administrative Clerk	1	1		-	
TOTAL	Public Affairs Section	11	11	1,036,098.28	11	1,047,474.24
TOTAL	General Administration	121	123	10,906,701.36	121	10,891,402.05

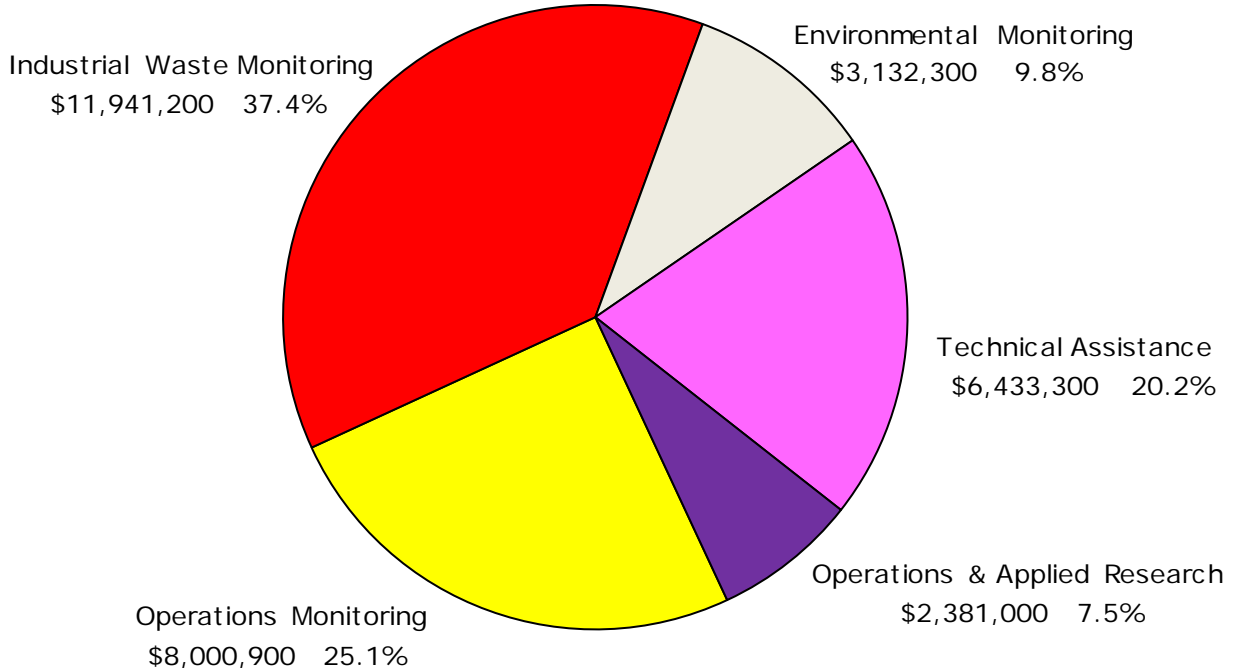
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



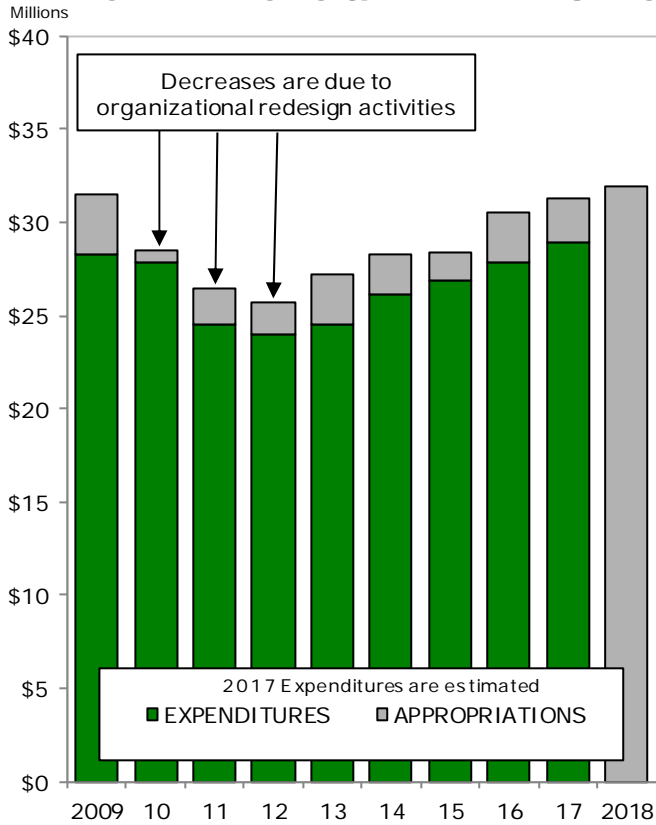
MONITORING & RESEARCH

2018	\$31,888,700
2017	\$31,270,400
Increase	\$618,300

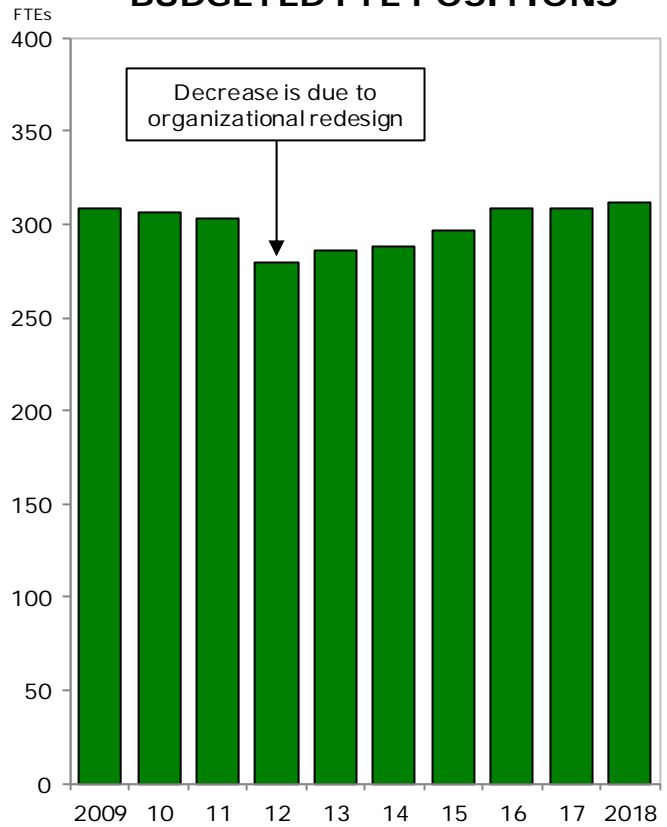
FUNCTIONS



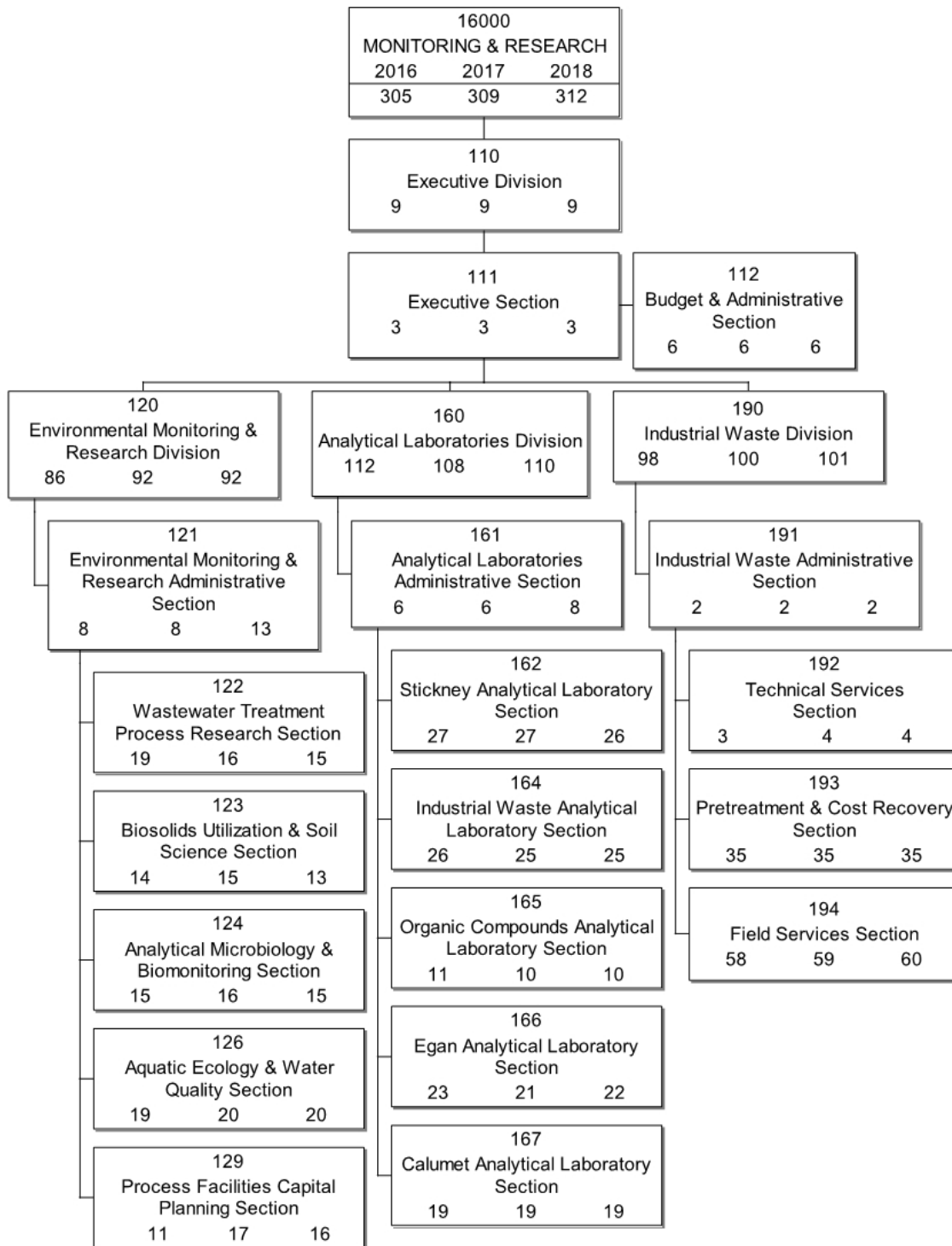
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MONITORING & RESEARCH



MONITORING & RESEARCH

The Monitoring & 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, regulatory compliance, and odor emissions;
- Administering the Pretreatment and User Charge Programs in compliance with federal regulations;
- Monitoring improvements in water quality of area rivers, canals, and groundwater to document regulatory compliance;
- Providing process facility capital planning and technical assistance to address operational challenges and regulatory issues;
- Conducting applied research to reduce the cost of District operations and to improve water quality.

Summary of 2017 Accomplishments

- Continued the redesign of the Chemist, Microbiologist, and Biologist series, to promote cross-training, interchangeability, and operational efficiency, and completed the redesign of the Laboratory Technician series that began in 2016;
- Completed the 2017 iteration of Long-Term Capital Planning for the District's process facilities;
- Partnered with the City of Chicago and dozens of suburban entities for local beneficial reuse of 30,000 dry tons of biosolids and composted biosolids;
- Screened and tested 34 high strength organic materials (HSOM) to determine their suitability for acceptance under the Resource Recovery Program and began receiving materials at the Stickney Water Reclamation Plant (WRP) to enhance biological phosphorus removal. Samples of HSOM were taken from delivery trucks and the storage tanks to confirm the quality of the materials;
- Installed field monitoring equipment for watershed-scale assessment of effectiveness of best management practices for agricultural nutrient loss reduction at the Fulton County site as part of the collaboration with the agricultural sector to develop best management practices to reduce nutrient discharge from the state;
- Completed conceptual designs for odor control for the waste activated sludge stripping to remove internal phosphorus process, the Post-digestion Centrifuge Building at the Stickney WRP, and for the Kirie WRP Influent Pumping Station.

Budget Highlights

The 2018 appropriation for M&R is \$31,888,700, an increase of \$618,300, or 2.0 percent, from the 2017 request. The staffing level has increased from 309 to 312 positions, which includes the addition of one Assistant Director of M&R, one Pollution Control Technician II, five Senior Environmental Chemists, one Senior Laboratory Technician, and two Principal Environmental Scientists, offset by the transfer of one Associate Mechanical Engineer to the General Division of the Maintenance & Operations (M&O) Department and the drop of one Deputy Director of M&R, three Assistant Environmental Chemists #1, one Laboratory Technician I #1, and one Assistant Environmental Microbiologist #1. Nine Laboratory Technician IIs were reclassified to Environmental Research Technicians, and one Administrative Specialist was reclassified to a Senior Administrative Specialist. In addition, a Supervising Environmental Research Scientist, a Supervising Environmental Soil Scientist, a Supervising Environmental Microbiologist, and a Supervising Aquatic Biologist were reclassified to Principal Environmental Scientists.

Significant features of the 2018 budget include:

- Continue to lead the Phosphorus Task Force to study and implement biological phosphorus removal at five WRPs;
- Continue implementation of a District-wide Odor Reduction Strategy for the O'Brien and Egan WRPs;
- Continue to develop a District-wide Biosolids Strategy to increase production of Exceptional Quality biosolids and ensure continued sustainability of the District's biosolids management program;
- Conduct the sixth year of a seven-year microbial source tracking study to determine the sources and distribution of microbes in portions of the Chicago Area Waterway System (CAWS) designated for primary contact recreation;
- Continue to lead the Mainstream Shortcut Biological Nitrogen Removal Task Force to study energy-saving processes;
- Continue to conduct groundwater monitoring for four Tunnel and Reservoir Plan (TARP) systems, three reservoirs, six biosolids management sites, and Fischer Farm in Hanover Park, in accordance with permits issued by the Illinois Environmental Protection Agency (IEPA);
- Continue the redesign of the Environmental and Instrumentation Chemist series, to promote cross-training and reconfigure a technical support group to respond to increasing requests for analytical support for innovation projects;
- Continue to lead and develop the Resource Recovery Programs for supporting the District's energy recovery, phosphorus removal, and biosolids composting initiatives.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

M&R continuously works to make improvements to its business practices and to maintain a clear focus on its mission, while striving to decrease the number of budgeted positions in an increasingly complex environment and 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 wastewater discharges from Large Commercial/Industrial Users 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 operations, maintenance, and replacement costs incurred by the District, beyond those recovered through payment of ad valorem property taxes, based on the annual volume and the biochemical oxygen demand and suspended solids loadings of wastewater discharged. Projected 2018 User Charge revenue, based on 2017 rates and a three-year (2014-2016) average of user clearing data, is \$46 million. The User Charge rates take into account the costs budgeted in the Corporate Fund for operations and maintenance, as well as in the Construction Fund for the required rehabilitation of District facilities.

Five-Year Trend in User Charge Revenue

Year	User Charge Receipts
2014	\$44,964,848
2015	\$48,476,512
2016	\$44,487,370
2017 Estimated	\$52,600,000
2018 Projected	\$46,000,000

In 2018, M&R will administer approximately 1,000 accounts, which are required to submit annual reports as part of M&R’s User Charge and Pretreatment Programs. For these accounts, M&R will conduct approximately 1,000 inspections and sampling events, and anticipates processing about 2,600 reports and filings to reconcile User Charge liabilities. Another 2,800 accounts will be administered via an automatic review and billing process in a continuing effort to simplify the administrative process and reduce administrative costs, as allowed under the District’s User Charge Ordinance. M&R will continue to encourage users who are eligible for reduced reporting and self-monitoring to migrate to this automated process. M&R remains vigilant in identifying and classifying new users and, in 2018, has a goal of identifying and classifying 50 new users to be administered under the User Charge Program to recover the costs associated with treating those users’ wastewater. In addition, M&R continues to monitor industrial users that require higher scrutiny to safeguard the water reclamation plants and local waterways.

M&R will continue a collaborative research project with Argonne National Laboratory to use microbial source tracking tools, methodologies, and assessments for the reaches of the CAWS that have been designated for Primary Contact Recreation use by the Illinois Pollution Control Board. This multi-year project is budgeted for \$300,000 in the Construction Fund in 2018.

During 2018, M&R will complete the Thornton Composite Reservoir Post-Construction Monitoring Plan in the Calumet River System. Analysis of surface water quality during wet and dry conditions will demonstrate the benefits of additional TARP storage capacity and reduced combined sewer overflows.

The Biosolids Strategy focuses on reviewing the current operations and practices for sustainable biosolids management that is within the best interest of the District and its constituents and continues to be developed. M&R will continue to provide technical support to the M&O Department in 2018 with the full-scale production of a value-added product by co-composting biosolids with wood chips and other vegetative materials to produce Exceptional Quality biosolids compost for utilization in the Chicago metropolitan area. The production of compost will potentially reduce the cost of managing biosolids, increase public acceptance, and will have a greater economic value compared to air-dried, Exceptional Quality biosolids currently distributed in the Chicago metropolitan area. M&R will conduct public outreach and marketing for local utilization of the composted biosolids product to reduce hauling cost. M&R will also evaluate options to reduce biosolids production and operating costs, while increasing digester gas production.

• **Excellence**

M&R is committed to automating and streamlining its business practices. Staff from M&R and the Information Technology Department have worked together to further improve the Laboratory Information Management System 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, other departments, and permitting authorities. M&R will continue to evaluate technological improvements in analytical instrumentation that are helpful in conserving resources and are less expensive to operate.

M&R is also committed to stopping pollution at its source by operating an effective Industrial Waste Pretreatment Program in full compliance with all federal and state statutes. During 2018, 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 700 Continued Compliance Reports and 20 Spill Prevention, Containment, and Countermeasure Plans. During 2018, M&R will conduct approximately 1,000 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 2018, M&R is not anticipating any substantial variation in the number of enforcement activities. As a result of the District’s Industrial Waste Pretreatment Program, all of the biosolids produced by the District in 2018 are expected to meet the highest quality criteria for trace metals in the United States Environmental Protection Agency (USEPA) Biosolids Rule (40 CFR Part 503) and the WRP effluents are expected to meet all National Pollutant 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 162 investigations in response to requests from federal, state, and local agencies, municipalities, private citizens, self-reported industrial activities, and requests from the M&O Department in 2018.

In 2018, M&R will collect and analyze approximately 1,300 samples from 111 TARP groundwater monitoring wells and three reservoirs and will compile 10 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 three reservoirs, the Gloria Alitto Majewski Reservoir, the Thornton Composite Reservoir, and the McCook Reservoir (Phase I), which was completed in the fall of 2017, to meet the operating permit requirements of these facilities. These samples also include groundwater monitoring at six biosolids management facilities, including Fischer Farm in Hanover Park, in accordance with permits issued by the IEPA. In 2018, a total of 36 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 596,254 projected tests in 2018. This includes chemical, biological, 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*) and fecal bacteria indicator analysis will be conducted as required by NPDES permits and federal regulations. M&R provides support to the M&O Department by making non-proprietary reagents that are needed to operate online ammonia and chlorine analysis systems.

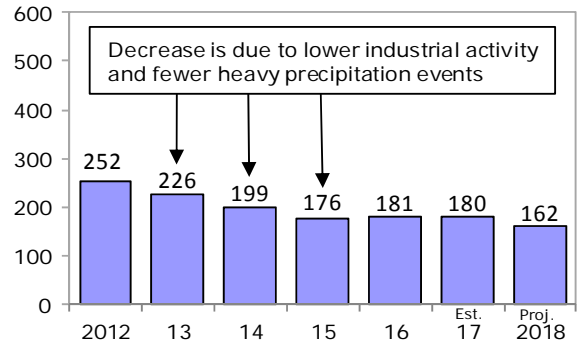
The District conducts an Odor Monitoring Program to minimize or eliminate nuisance odors in the communities surrounding its facilities. In 2018, M&R will continue to lead the development of a District-wide Odor Reduction Strategy for the District’s facilities, collection systems, and biosolids drying areas to target odor problem areas and reduce odors that may affect the communities that the District serves. Current efforts are focused on addressing known odorous processes and facilities and developing designs to address prioritized issues to responsibly improve operations.

M&R will continue to implement some of the approved findings from the interdepartmental, long-term, process facility capital planning process. The review includes District business initiatives, anticipated regulatory requirements, and community service level expectations. In addition, the District’s capital plan was updated over a 20-year timeframe. In 2018, M&R will continue to address issues associated with competing interests, as well as reducing the gaps in knowledge necessary to move forward with

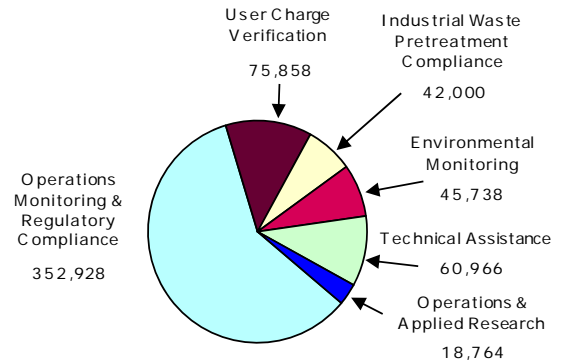
Five-Year Trend in Enforcement Activities

Year	Cease and Desist Orders
2014	75
2015	71
2016	56
2017 Estimated	80
2018 Projected	70

Number of Emergency Responses



2018 Projected Laboratory Analyses by Program



the approved planning strategy. Knowledge gaps to be addressed include updating the water reclamation plant process and hydraulic models, as well as incorporating findings from the ongoing development of the District's Biosolids Strategy and Odor Reduction Strategy.

- **Resource Recovery**

In 2018, M&R will continue to implement water reclamation plant-specific monitoring plans to evaluate the aeration requirement and nitrification capacity of each water reclamation plant's aeration 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 implementing and optimizing Enhanced Biological Phosphorus Removal at the Stickney, Calumet, O'Brien, Kirie, and Hanover Park WRPs. The District began accepting HSOM from various industries at the Calumet and Stickney WRPs as a source of carbon to improve biological phosphorus removal. M&R will lead the effort to monitor the HSOM to screen out material that is harmful to water reclamation plant operations or unsuitable for use in phosphorus removal. M&R is continuing the investigation of 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. M&R will also continue work with the Engineering and M&O Departments to evaluate phycoremediation (algae-based) strategies to reduce nutrients in the O'Brien WRP's effluent and to reduce the District's energy footprint.

As part of its efforts to promote the use of biosolids as a sustainability solution within Cook County and by all the communities serviced by the District, M&R has been increasing its biosolids marketing activities by hosting an annual sustainability workshop.

The District has developed a sound, local biosolids distribution program. Under this program, Exceptional Quality air-dried biosolids and composted biosolids are used as a soil amendment in the Chicago metropolitan area. Compared to using other soil amendments, this program provides a cost-effective approach to local park and school districts for maintaining high-quality vegetation on fields and landscaping. 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 soil amendment through a sustainability workshop and other public events.

- **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 multiple facilities and is archived in streaming online video format through the District's 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 2,141 attendees in 2017, it is anticipated that attendance for 2018 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 that are presented by the Water Environment Federation, Water Environment & Reuse Foundation, National Association of Clean Water Agencies, USEPA, National Environmental Laboratory Accreditation Conference Institute, American Chemical Society, and others. In 2018, 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. In addition, 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 staff attend Occupational Safety and Health Administration seminars.

- **Leading Partnerships**

M&R will work with the Public Affairs Section to develop fact sheets regarding important issues on water quality in area waterways, public health risks of recreation on the waterways, risk of exposure to pathogens in wastewater-to-wastewater water reclamation plant operations, and utilizing biosolids for land application. M&R will provide support to outreach activities such as school science fair projects, District laboratory tours, local public meetings, and parades.

M&R has been providing assistance to oversight agencies studying and controlling the migration of invasive aquatic species for decades. In 2018, M&R will continue to assist the United States Fish and Wildlife Service and the Army Corps of Engineers with surveillance for the presence of Asian carp (*Hypophthalmichthys spp.*) in the CAWS and for the Great Lakes and Mississippi River Interbasin Study, respectively.

M&R provides support to the IEPA by participating in various working groups for implementing the Illinois Nutrient Loss 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 2018 to partner with a consortium of agricultural industry organizations to investigate watershed approaches for 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 with the agricultural sector and other publicly owned treatment works to implement practices for reducing nutrient loss from farmland fertilized with biosolids.

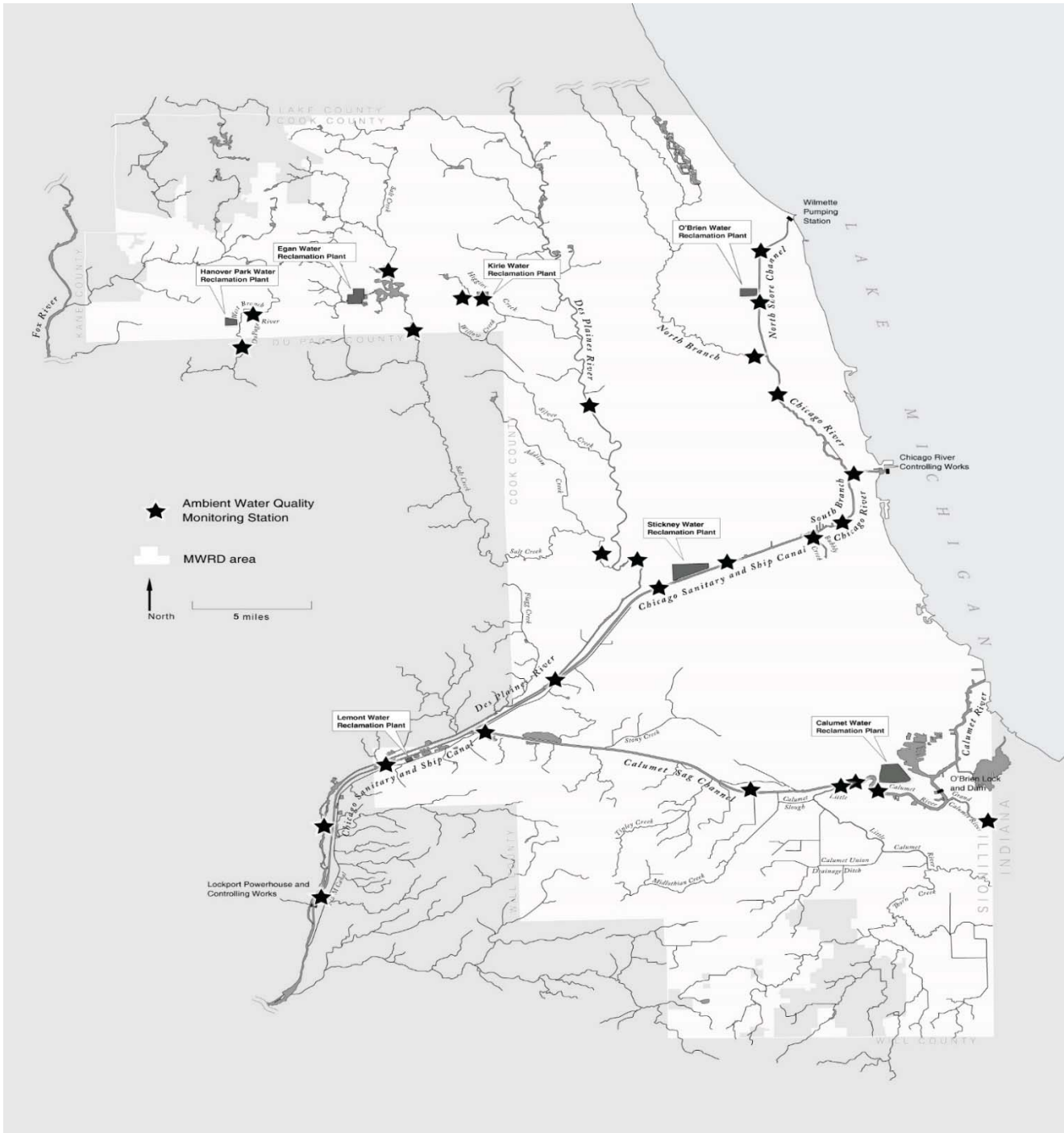
- **Technology**

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 Waste Pretreatment Program data in a single database. In 2018, 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 2018, M&R and the Information Technology Department will continue to use consultants and in-house expertise to make enhancements to the Laboratory Information Management System V12 upgrade that will support the continued attainment of laboratory accreditation. M&R will evaluate the feasibility of applying the new technology of ion chromatography to the analysis of anions. This will enable the laboratories to streamline operations by concentrating four anion analyses to one location, saving money on instrumentation and consumables.

Monitoring & Research

Waterways Monitoring Program 4672 – Waterways Monitoring Stations



Operations of the District meet stringent standards contained in NPDES permits issued for each WRP. Processing and utilization of solids are regulated by IEPA permits and federal regulations. M&R monitors ambient water quality at 28 sampling locations, and operates 22 continuous dissolved oxygen monitoring stations in the shallow and deep-draft waterways within the District’s service area. The environmental information is used to demonstrate compliance with water quality standards and the beneficial effects of the District’s operational improvements on water quality in the waterways. Fish sampling in the District service area is also conducted at select locations to characterize the biological integrity of the waterways.

16000 MONITORING & RESEARCH

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:		Cost	Percent
1. WATER RECLAMATION PLANT OPERATIONS MONITORING: Monitor the District's collection, treatment, and disposal operations to ensure compliance with National Pollutant Discharge Elimination System, Illinois Environmental Protection Agency, and other regulations.	Liquid Process Analyses	\$ 5,188,800	16.3%
	Solids Process Analyses	\$ 2,638,900	8.3%
	Air Quality Monitoring	\$ 173,200	0.5%
		\$ 8,000,900	25.1%
2. INDUSTRIAL WASTE PROGRAMS: 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	\$ 154,500	0.5%
	Tax-Exempt Users	\$ 1,423,000	4.4%
	Large Commercial/Industrial Users	\$ 3,669,100	11.5%
	Environmental Remediation	\$ 97,400	0.3%
	Chemical Toilet Waste	\$ 87,900	0.3%
	SIUs* - Pretreatment Program	\$ 3,653,600	11.4%
	SIUs* - Extraordinary Monitoring/Enforcement	\$ 1,810,600	5.7%
	Other Industrial Users	\$ 630,300	2.0%
	All Other - General	\$ 414,800	1.3%
		\$ 11,941,200	37.4%
3. ENVIRONMENTAL MONITORING: Monitor the water quality of Lake Michigan and the waterways in order to detect and reduce the incidence of pollution.	Lake Michigan Monitoring	\$ 63,700	0.2%
	Waterways Monitoring	\$ 2,298,100	7.2%
	Inspection Events	\$ 258,200	0.8%
	Groundwater Monitoring	\$ 512,300	1.6%
		\$ 3,132,300	9.8%
4. TECHNICAL ASSISTANCE: Conduct a program of independent review of water reclamation plant operations, 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	\$ 2,187,600	6.9%
	General Assistance	\$ 701,800	2.2%
	Regulatory Review and Response	\$ 871,400	2.7%
	Engineering Process Design Support	\$ 1,422,400	4.5%
	Regulatory Compliance Reporting	\$ 265,000	0.8%
	Facility Capital Planning	\$ 985,100	3.1%
		\$ 6,433,300	20.2%
5. OPERATIONS AND APPLIED RESEARCH: Conduct operations and applied research for process improvement and cost reduction in District operations.		\$ 2,381,000	7.5%
	Total	\$ 31,888,700	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 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. 2018 is the 6th year of this study.	50%	70%	90%
4. Provide sample data for Illinois Environmental Protection Agency 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 Pretreatment and Cost Recovery 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:		2016 Actual	2017 Estimated	2018 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.	181	180	162

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change	
Number	Name		FTEs	Dollars	Dollars	Percent
4650	Operations Monitoring	\$ 6,894,182	2018 81	\$ 8,000,900	\$ 12,200	0.2
			2017 80	\$ 7,988,700		
4660	Industrial Waste Monitoring	\$ 10,693,383	2018 117	\$ 11,526,400	\$ 400,000	3.6
			2017 115	\$ 11,126,400		
4670	Environmental Monitoring	\$ 2,786,800	2018 30	\$ 3,132,300	\$ (255,600)	(7.5)
			2017 31	\$ 3,387,900		
4680	Technical Assistance	\$ 5,074,287	2018 61	\$ 6,433,300	\$ 266,000	4.3
			2017 60	\$ 6,167,300		
4690	Operations and Applied Research	\$ 2,065,706	2018 23	\$ 2,381,000	\$ 158,200	7.1
			2017 23	\$ 2,222,800		
7604	Social Security and Medicare Contributions	\$ 350,009	2018 -	\$ 414,800	\$ 37,500	9.9
			2017 -	\$ 377,300		
Totals		\$ 27,864,367	2018 312	\$ 31,888,700	\$ 618,300	2.0%
			2017 309	\$ 31,270,400		

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$248,400) and the addition of two FTE positions (\$235,600), offset by the reduced request for automatic samplers replacement (\$55,000).
- b) Decrease is due to the reduced cost of the Tunnel and Reservoir Plan well sampling contract (\$155,300), the elimination of the laboratory technician outsourcing contract (\$27,500), the reduction in boat maintenance needs (\$23,700), and the reallocation of salaries to more accurately reflect current activities (\$3,000).
- c) Increase is due to the addition of three FTE positions (\$362,500) and the reallocation of salaries to more accurately reflect current activities (\$270,400), offset by the reduction of one FTE position (\$165,100), the transfer of one Associate Mechanical Engineer position to the M&O Department (\$104,600), and reduced requests for equipment for the odor monitoring program (\$46,000) and for the microbial source tracking peer review (\$22,500).
- d) Increase is due to the addition of one FTE position (\$215,400), offset by the reduction of one FTE position (\$109,000).

16000 MONITORING & RESEARCH

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
4650	Operations Monitoring: Monitoring of water reclamation plant operations to inform operations and comply with permits and regulations					
4652	Liquid Monitoring: Monitoring of the District's liquid process trains (primarily effluent) to inform operations and comply with permits and regulations	Liquid Process Analyses	249,316	254,716	250,666	
		Program Cost	\$ 4,435,319	\$ 5,192,200	\$ 5,188,800	
		Program Cost/Analysis	\$ 17.79	\$ 20.38	\$ 20.70	
4653	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	113,415	122,716	102,262	a)
		Program Cost	\$ 2,293,381	\$ 2,612,000	\$ 2,638,900	
		Program Cost/Analysis	\$ 20.22	\$ 21.28	\$ 25.81	
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	4,212	400	3,500	b)
		Sampling Events	600	30	600	b)
		Program Cost	\$ 165,482	\$ 184,500	\$ 173,200	
		Program Cost/Analysis	\$ 39.29	\$ 461.25	\$ 49.49	
4660	Industrial Waste Monitoring: Activities associated with sampling, analysis, enforcement, and administration of users so classified below to monitor compliance with the User Charge and Pretreatment Programs					
4661	User Charge Ordinance - Residential and Small Non-Residential Commercial/Industrial Users	Number of Users	6,165	6,300	6,200	
		Program Cost	\$ 152,545	\$ 154,400	\$ 154,500	
		Program Cost/User	\$ 24.74	\$ 24.51	\$ 24.92	
4662	User Charge Ordinance - Tax-Exempt Users	Number of Users	3,001	3,120	2,970	
		Program Cost	\$ 1,264,198	\$ 1,384,900	\$ 1,423,000	
		Program Cost/User	\$ 421.26	\$ 443.88	\$ 479.12	
		Revenue	\$ 12,456,464	\$ 17,860,000	\$ 12,880,000	c)
		Revenue/User	\$ 4,150.77	\$ 5,724.36	\$ 4,336.70	
4663	User Charge Ordinance - Large Commercial/Industrial Users	Number of Users	644	680	630	
		Program Cost	\$ 3,420,515	\$ 3,551,400	\$ 3,669,100	
		Program Cost/User	\$ 5,311.36	\$ 5,222.65	\$ 5,823.97	
		Revenue	\$ 32,030,906	\$ 29,140,000	\$ 33,120,000	d)
		Revenue/User	\$ 49,737.43	\$ 42,852.94	\$ 52,571.43	
		Industrial Waste Monitoring Analyses	72,098	58,370	75,858	e)
		Program Cost/Analysis	\$ 47.44	\$ 60.84	\$ 48.37	
4664	Environmental Remediation Wastewater Ordinance	Permits Issued	11	15	15	
		Program Cost	\$ 97,738	\$ 129,700	\$ 97,400	f)
		Program Cost/Permit	\$ 8,885.27	\$ 8,646.67	\$ 6,493.33	
4665	Chemical Toilet Wastes Disposal Ordinance	Permits Issued	3	3	3	
		Program Cost	\$ 45,249	\$ 60,400	\$ 87,900	g)
		Program Cost/Permit	\$ 15,083.00	\$ 20,133.33	\$ 29,300.00	

- a) Decrease in the number of analyses is due to a revised protocol for counting this measurable activity.
- b) Increase is due to new monitoring projects.
- c) Decrease in revenue is due to lower discharge of contaminants by tax-exempt users.
- d) Increase in revenue is due to higher discharge of contaminants by large commercial and industrial users.
- e) Increase is due to a more frequent sampling schedule.
- f) Decrease is due to the elimination of one Deputy Director of M&R position (\$34,300).
- g) Increase is due to the addition of one Pollution Control Technician II position (\$25,300).

16000 MONITORING & RESEARCH

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
4666	Sewage and Waste Control Ordinance - SIU Minimum Regulatory Requirement Activities: Annual sampling and inspection of SIU facilities, as required by federal regulation	Number of SIUs	347	355	340	
		Waste Monitoring Analyses	35,459	45,598	42,000	
		Program Cost	\$ 3,357,117	\$ 3,456,700	\$ 3,653,600	h)
		Program Cost/Analysis	\$ 94.68	\$ 75.81	\$ 86.99	
		Program Cost/SIU	\$ 9,674.69	\$ 9,737.18	\$ 10,745.88	
4667	Sewage and Waste Control Ordinance - SIU Extraordinary Monitoring and Enforcement Activities: SIUs that have been the subject of violation-related enforcement actions to verify compliance through inspection and/or sampling	Number of SIUs	134	120	120	
		Program Cost	\$ 1,751,548	\$ 1,776,900	\$ 1,810,600	
		Program Cost/SIU	\$ 13,071.25	\$ 14,807.50	\$ 15,088.33	
4668	Sewage and Waste Control Ordinance - Other Industrial Users (IU): Inspection and/or sampling for surveillance	Number of IUs	239	326	300	
		Program Cost	\$ 604,473	\$ 612,000	\$ 630,300	
		Program Cost/IU	\$ 2,529.18	\$ 1,877.30	\$ 2,101.00	
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 and analysis to determine the impact of Combined Sewer Overflow backflow, due to storm events, on the water quality of Lake Michigan	Sampling Events	1	-	-	
		Environmental Analyses	61	115	100	
		Number of Backflows	-	-	-	
		Program Cost	\$ 78,052	\$ 85,200	\$ 63,700	i)
		Program Cost/Analysis	\$ 1,279.54	\$ 740.87	\$ 637.00	
4672	Waterways Monitoring: Sampling and analysis of Chicago Area Waterways to assess the impact of treated effluent discharge and comply with regulations	Sampling Events	948	463	900	j)
		Environmental Analyses	32,722	29,388	33,354	
		Program Cost	\$ 2,114,580	\$ 2,372,100	\$ 2,298,100	
		Program Cost/Analysis	\$ 64.62	\$ 80.72	\$ 68.90	
4673	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	181	140	156	
		Program Cost	\$ 219,346	\$ 246,900	\$ 258,200	
		Program Cost/Inspection	\$ 1,211.86	\$ 1,763.57	\$ 1,655.13	
4674	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	13,370	15,466	12,284	k)
		Sampling Events	852	1,300	1,300	
		Number of Sites	150	196	160	l)
		Program Cost	\$ 374,822	\$ 683,700	\$ 512,300	m)
		Program Cost/Analysis	\$ 28.03	\$ 44.21	\$ 41.70	

h) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$73,000), the addition of one FTE position (\$54,400), and the request for flowmeters replacement (\$35,500).

i) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$18,300).

j) Increase in sampling events is due to a revised protocol for counting this measurable activity.

k) Decrease in the number of analyses is due to a revised protocol for counting this measurable activity.

l) Decrease is due to a revised and more accurate count of groundwater monitoring sites.

m) Decrease is due to the reduced cost of the Tunnel and Reservoir Plan well sampling contract (\$155,300).

16000 MONITORING & RESEARCH

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
4680	Technical Assistance					
4681	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	134	148	170	n)
		Number of Analyses	42,642	26,115	45,602	o)
		Sampling Events	1,049	790	792	
		Program Cost	\$ 1,605,889	\$ 2,079,900	\$ 2,187,600	
		Program Cost/Analysis	\$ 37.66	\$ 79.64	\$ 47.97	
		Program Cost/Sampling Event	\$ 1,530.88	\$ 2,632.78	\$ 2,762.12	
4682	General Assistance to All Other Departments: Technical assistance based on requests, primarily to the Law Department	Responses Completed	212	74	234	n)
		Number of Analyses	1,211	2,950	1,737	p)
		Sampling Events	4	2	40	n)
		Program Cost	\$ 594,618	\$ 668,400	\$ 701,800	
		Program Cost/Analysis	\$ 491.01	\$ 226.58	\$ 404.03	
	Program Cost/Sampling Event	\$ 148,654.50	\$ 334,200.00	\$ 17,545.00		
4683	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	372	330	244	q)
		Program Cost	\$ 799,996	\$ 837,400	\$ 871,400	
4684	Engineering Process Design Support: Technical assistance to the Engineering Department to improve District facilities and optimize process design	Number of Analyses	18,850	22,576	13,615	r)
		Responses Completed	156	191	114	p)
		Sampling Events	232	270	118	p)
		Program Cost	\$ 1,193,970	\$ 1,307,600	\$ 1,422,400	
		Program Cost/Analysis	\$ 63.34	\$ 57.92	\$ 104.47	
4685	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	56	65	56	
		Number of Analyses	13	12	12	
		Program Cost	\$ 263,157	\$ 292,900	\$ 265,000	
		Program Cost/Analysis	\$ 20,242.85	\$ 24,408.33	\$ 22,083.33	
		Program Cost	\$ 616,657	\$ 981,100	\$ 985,100	
4690	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	Sampling Events	877	1,831	1,210	p)
		Research Projects	61	450	70	s)
		Laboratory Analyses	18,088	18,538	18,764	
		Program Cost	\$ 2,065,706	\$ 2,222,800	\$ 2,381,000	t)
		Program Cost/Analysis	\$ 114.20	\$ 119.91	\$ 126.89	
7604	Social Security and Medicare Contributions	Program Cost	\$ 350,009	\$ 377,300	\$ 414,800	
Totals			\$ 27,864,367	\$ 31,270,400	\$ 31,888,700	

- n) Increase is due to estimates based on actual data collected for the first half of 2017.
- o) Increase in the number of analyses is due to operational efficiencies and the reclassification of some analyses from Engineering Process Design Support to assistance to the Maintenance & Operations Department.
- p) Decrease is due to estimates based on actual data collected for the first half of 2017.
- q) Decrease is due to less responses expected to be required for litigation support and National Pollutant Discharge Elimination System permits.
- r) Decrease in the number of analyses is due to decreased sampling and the reclassification of some analyses from Engineering Process Design Support to assistance to the Maintenance & Operations Department.
- s) Decrease in the number of analyses is due to a revised protocol for counting this measurable activity.
- t) Increase is due to the addition of one FTE position (\$215,400), offset by the reduction of one FTE position (\$109,000).

101 16000	Fund: Corporate Department: Monitoring & Research	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 25,359,611	\$ 27,752,300	\$ 27,552,400	\$ 26,016,400	\$ 28,819,500	\$ 28,819,500	\$ 29,031,800
601060	Compensation Plan Adjustments	635,144	687,700	815,600	800,900	606,900	606,900	644,200
601070	Social Security and Medicare Contributions	350,009	377,300	377,300	367,600	414,800	414,800	414,800
601080	Salaries of Nonbudgeted Employees	1,956	4,500	58,500	58,500	-	-	2,000
601100	Tuition and Training Payments	43,503	55,000	73,000	66,900	58,100	58,100	58,100
100	TOTAL PERSONAL SERVICES	26,390,223	28,876,800	28,876,800	27,310,300	29,899,300	29,899,300	30,150,900
612010	Travel	11,180	15,000	15,000	11,000	22,000	22,000	22,000
612030	Meals and Lodging	33,941	29,200	31,700	29,200	34,700	34,700	34,700
612040	Postage, Freight, and Delivery Charges	4,998	4,900	5,900	4,400	4,400	4,400	4,400
612050	Compensation for Personally-Owned Automobiles	27,389	25,000	26,000	26,000	27,300	27,300	27,300
612080	Motor Vehicle Operating Services	760	600	600	500	800	800	800
612090	Reprographic Services	148	600	600	500	100	100	100
612170	Water and Water Services	385	500	500	400	400	400	400
612330	Rental Charges	1,829	3,600	3,600	1,800	2,300	2,300	2,300
612410	Governmental Service Charges	17,000	17,000	17,000	17,000	67,000	67,000	67,000
612430	Payments for Professional Services	80,724	330,100	329,100	100,000	102,900	102,900	102,900
612490	Contractual Services, N.O.C.	176,806	515,400	511,900	225,000	319,900	319,900	319,900
612790	Repairs to Marine Equipment	24,258	50,800	50,800	21,700	29,600	29,600	29,600
612970	Repairs to Testing and Laboratory Equipment	354,957	421,100	421,100	350,000	353,500	353,500	353,500
200	TOTAL CONTRACTUAL SERVICES	734,376	1,413,800	1,413,800	787,500	964,900	964,900	964,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	30,069	25,600	25,100	24,800	30,100	30,100	30,100
623530	Farming Supplies	27,393	34,000	34,000	33,900	38,000	38,000	38,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	308,038	405,600	405,600	336,700	354,900	354,900	354,900
623700	Wearing Apparel	12,796	16,100	16,100	11,000	10,200	10,200	10,200
623720	Books, Maps, and Charts	1,734	900	2,400	2,400	600	600	600
623810	Computer Supplies	4,783	2,200	1,200	1,200	2,400	2,400	2,400
623820	Fuel	9,427	14,800	14,800	12,000	9,400	9,400	9,400

101 16000		Fund: Corporate Department: Monitoring & Research		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	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.	33,132	57,600	57,600	43,200	37,200	37,200	37,200
300	TOTAL MATERIALS AND SUPPLIES	427,371	556,800	556,800	465,200	482,800	482,800	482,800
634970	Testing and Laboratory Equipment	312,397	423,000	423,000	360,000	290,100	290,100	290,100
400	TOTAL MACHINERY AND EQUIPMENT	312,397	423,000	423,000	360,000	290,100	290,100	290,100
TOTAL MONITORING & RESEARCH		\$ 27,864,367	\$ 31,270,400	\$ 31,270,400	\$ 28,923,000	\$ 31,637,100	\$ 31,637,100	\$ 31,888,700

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: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
110	Executive Division					
111	Executive Section					
EX11	Director of Monitoring & Research	1	1		1	
EX06	Secretary to Officer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Executive Section	3	3	412,464.50	3	427,449.88
112	Budget & Administrative Section					
HP23	Deputy Director of Monitoring & Research	-	1		-	
HP22	Deputy Director of Monitoring & Research	1	-		-	
HP22	Assistant 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		-	
HP16	Senior Budget & Management Analyst	-	-		1	
HP14	Budget & Management Analyst	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	Budget & Administrative Section	6	6	769,109.75	6	744,084.92
TOTAL	Executive Division	9	9	1,181,574.25	9	1,171,534.80
120	Environmental Monitoring & Research Division					
121	Environmental Monitoring & Research Administrative Section					
HP22	Assistant Director of Monitoring & Research	-	1		1	
HP21	Assistant Director of Monitoring & Research	1	-		-	
HP20	Environmental Monitoring & Research Manager	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP18	Biostatistician	1	1		1	
HP18	Principal Environmental Scientist	-	-		2	
HP17	Senior Environmental Research Scientist	1	-		-	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Civil Engineer	-	1		1	
HP13	Senior Administrative Specialist	1	1		2	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	1	2		4	
TOTAL	Environmental Monitoring & Research Administrative Section	8	8	1,039,567.74	13	1,503,580.86
122	Wastewater Treatment Process Research Section					
HP18	Principal Environmental Scientist	-	-		1	
HP18	Supervising Environmental Research Scientist	1	1		-	
HP17	Senior Environmental Research Scientist	3	3		3	
HP15	Associate Environmental Research Scientist	4	-		-	
HP15	Environmental Research Scientist	-	3		3	
HP13	Senior Environmental Research Technician	-	1		1	
HP11	Administrative Specialist	1	1		-	
HP11	Environmental Research Technician	1	2		6	
HP11	Laboratory Technician II	1	3		-	
HP11	Laboratory Technician II #1	1	-		-	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	1	1		-	
HP10	Laboratory Technician I	3	1		1	
HP10	Laboratory Technician I #1	2	-		-	
HP10	Laboratory Technician I #4	1	-		-	
TOTAL	Wastewater Treatment Process Research Section	19	16	1,376,256.12	15	1,375,438.88
123	Biosolids Utilization & Soil Science Section					
HP18	Principal Environmental Scientist	-	-		1	
HP18	Supervising Environmental Soil Scientist	1	1		-	
HP17	Senior Environmental Soil Scientist	2	2		2	
HP15	Associate Environmental Soil Scientist	3	-		-	
HP15	Environmental Soil Scientist	-	3		3	
HP15	Environmental Chemist	-	1		1	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Environmental Chemist	1	-		-	
HP14	Assistant Environmental Chemist #1	-	1		-	
HP11	Administrative Specialist	1	1		-	
HP11	Environmental Research Technician	2	3		5	
HP11	Laboratory Technician II	-	1		-	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	2	1		-	
HP10	Laboratory Technician I	1	-		-	
HP09	Laboratory Assistant	1	1		1	
TOTAL	Biosolids Utilization & Soil Science Section	14	15	1,260,564.59	13	1,152,902.63
124	Analytical Microbiology & Biomonitoring Section					
HP18	Principal Environmental Scientist	-	-		1	
HP18	Supervising Environmental Microbiologist	1	1		-	
HP17	Senior Environmental Microbiologist	1	1		1	
HP16	Associate Environmental Microbiologist	1	-		-	
HP16	Associate Environmental Microbiologist #2 (Environmental Microbiologist) (New Grade HP15)	-	1		1	
HP15	Environmental Microbiologist	-	1		1	
HP14	Assistant Environmental Microbiologist	1	-		-	
HP14	Assistant Environmental Microbiologist #1	-	1		-	
HP13	Senior Laboratory Technician	1	1		1	
HP11	Administrative Specialist	1	1		-	
HP11	Laboratory Technician II	1	5		7	
HP11	Laboratory Technician II #4	2	2		1	
HP10	Laboratory Technician I	4	-		-	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Analytical Microbiology & Biomonitoring Section	15	16	1,190,865.26	15	1,187,727.68
126	Aquatic Ecology & Water Quality Section					
HP18	Principal Environmental Scientist	-	-		1	
HP18	Supervising Aquatic Biologist	1	1		-	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Aquatic Biologist	1	1		1	
HP16	Associate Aquatic Biologist	2	-		-	
HP16	Associate Aquatic Biologist #2 (Aquatic Biologist) (New Grade HP15)	-	2		2	
HP15	Aquatic Biologist	-	1		1	
HP14	Assistant Aquatic Biologist	1	-		-	
HP14	Assistant Aquatic Biologist #1	-	1		1	
HP13	Senior Environmental Research Technician	-	1		1	
HP11	Environmental Research Technician	1	1		5	
HP11	Laboratory Technician II	-	2		-	
HP11	Laboratory Technician II #1	1	-		-	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	2	2		-	
HP10	Laboratory Technician I	2	-		-	
NR6441	Patrol Boat Operator	2	2		2	
NR3642	Pollution Control Technician II	2	2		2	
NR3641	Pollution Control Technician I	4	4		4	
TOTAL	Aquatic Ecology & Water Quality Section	19	20	1,627,950.23	20	1,638,512.80
129	Process Facilities Capital Planning Section					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	2	2		2	
HP17	Senior Electrical Engineer	1	1		1	
HP17	Senior Environmental Research Scientist	1	2		2	
HP17	Senior Mechanical Engineer	1	2		2	
HP15	Associate Civil Engineer	2	2		2	
HP15	Associate Electrical Engineer	1	2		2	
HP15	Associate Environmental Research Scientist	1	-		-	
HP15	Environmental Research Scientist	-	2		2	
HP15	Associate Mechanical Engineer	1	3		2	
TOTAL	Process Facilities Capital Planning Section	11	17	1,926,934.95	16	1,853,698.65
TOTAL	Environmental Monitoring & Research Division	86	92	8,422,138.89	92	8,711,861.50

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
160	Analytical Laboratories Division					
161	Analytical Laboratories Administrative Section					
HP22	Assistant Director of Monitoring & Research	-	1		1	
HP21	Assistant Director of Monitoring & Research	1	-		-	
HP18	Supervising Environmental Chemist	-	1		1	
HP17	Quality Assurance Coordinator	1	-		-	
HP17	Senior Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist #1	-	-		1	
HP15	Associate Environmental Chemist	1	-		-	
HP15	Environmental Chemist	-	1		2	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		-	
HP11	Administrative Specialist	-	-		1	
TOTAL	Analytical Laboratories Administrative Section	6	6	744,156.40	8	980,126.96
162	Stickney Analytical Laboratory Section					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		2	
HP15	Associate Environmental Chemist	2	-		-	
HP15	Environmental Chemist	-	6		5	
HP14	Assistant Environmental Chemist	4	-		-	
HP14	Assistant Environmental Chemist #1	-	1		-	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Administrative Specialist	1	1		1	
HP11	Laboratory Technician II	4	9		9	
HP10	Laboratory Technician I	8	2		2	
HP09	Laboratory Assistant	3	3		3	
TOTAL	Stickney Analytical Laboratory Section	27	27	2,007,477.77	26	2,034,613.08
164	Industrial Waste Analytical Laboratory Section					
HP18	Supervising Environmental Chemist	1	1		1	

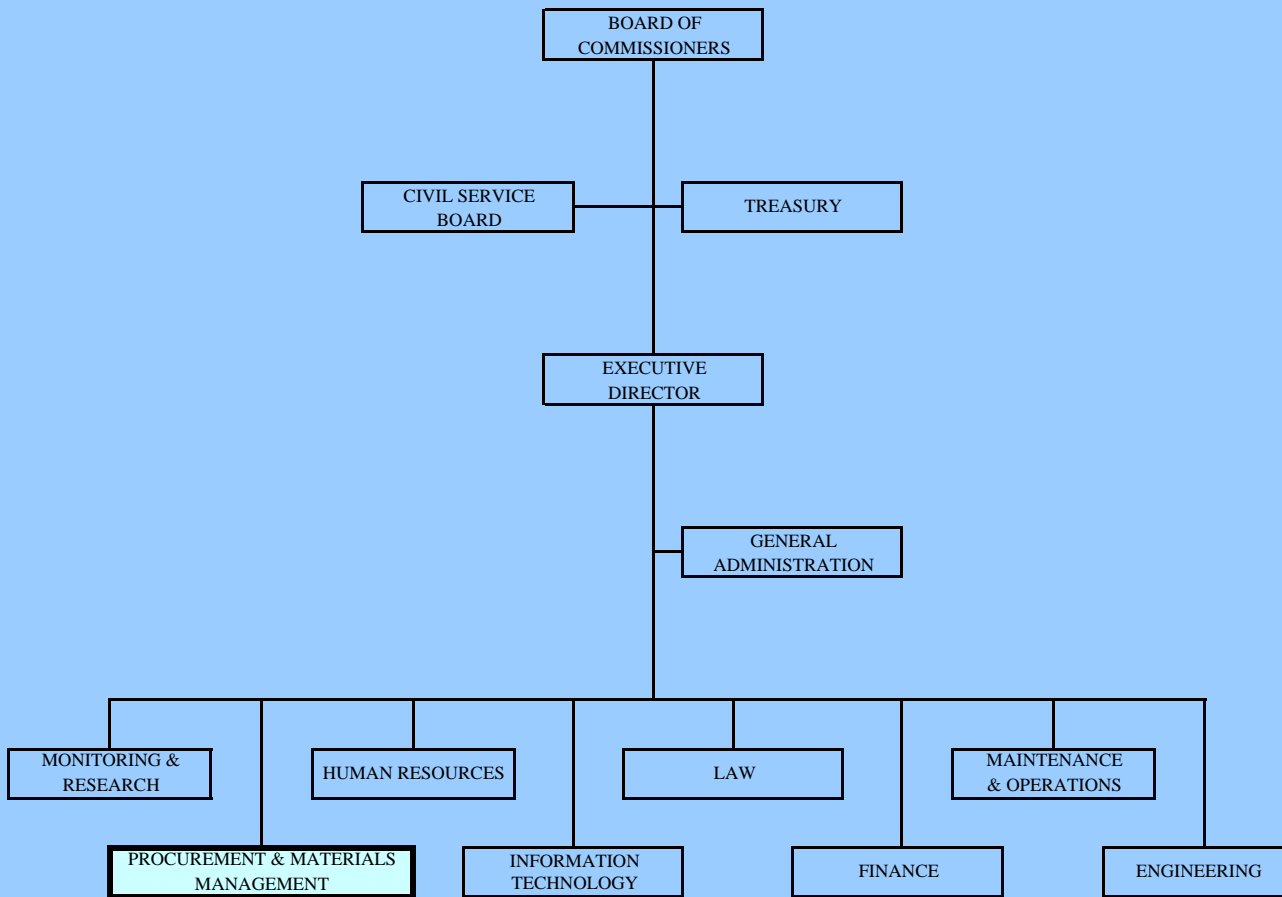
Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Environmental Chemist	1	1		2	
HP15	Associate Environmental Chemist	2	-		-	
HP15	Environmental Chemist	-	5		5	
HP14	Assistant Environmental Chemist	3	-		-	
HP14	Assistant Environmental Chemist #1	-	1		1	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Administrative Specialist	1	-		-	
HP11	Laboratory Technician II	8	13		12	
HP10	Laboratory Technician I	4	-		-	
HP10	Laboratory Technician I #1	2	-		-	
HP09	Laboratory Assistant	1	1		1	
TOTAL	Industrial Waste Analytical Laboratory Section	26	25	1,919,364.92	25	2,116,039.97
165	Organic Compounds Analytical Laboratory Section					
HP18	Instrumentation Chemist IV	1	-		-	
HP18	Supervising Instrumentation Chemist	-	1		1	
HP17	Instrumentation Chemist III	2	-		-	
HP17	Senior Instrumentation Chemist	-	2		2	
HP16	Instrumentation Chemist II	2	-		-	
HP16	Instrumentation Chemist II #2 (Instrumentation Chemist) (New Grade HP15)	-	2		2	
HP15	Instrumentation Chemist I	2	-		-	
HP15	Instrumentation Chemist	-	2		2	
HP13	Senior Laboratory Technician	1	1		1	
HP11	Administrative Specialist	1	-		-	
HP11	Laboratory Technician II	2	2		2	
TOTAL	Organic Compounds Analytical Laboratory Section	11	10	1,102,382.21	10	1,118,452.68
166	Egan Analytical Laboratory Section					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		2	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Environmental Chemist	1	-		-	
HP15	Environmental Chemist	-	4		4	
HP14	Assistant Environmental Chemist	3	-		-	
HP14	Assistant Environmental Chemist #1	-	2		1	
HP13	Senior Laboratory Technician	2	2		2	
HP13	Senior Laboratory Technician #1	-	-		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Laboratory Technician II	4	6		6	
HP11	Laboratory Technician II #4	1	1		1	
HP10	Laboratory Technician I	3	1		1	
HP10	Laboratory Technician I #1	4	-		-	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Egan Analytical Laboratory Section	23	21	1,682,562.54	22	1,868,973.95
	167 Calumet Analytical Laboratory Section					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		2	
HP15	Associate Environmental Chemist	1	-		-	
HP15	Environmental Chemist	-	4		4	
HP14	Assistant Environmental Chemist	3	-		-	
HP13	Senior Laboratory Technician	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	-	1		1	
HP11	Administrative Specialist	1	-		-	
HP11	Laboratory Technician II	3	7		7	
HP10	Laboratory Technician I	4	-		-	
HP10	Laboratory Technician I #1	1	1		-	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Calumet Analytical Laboratory Section	19	19	1,434,357.98	19	1,625,614.51
TOTAL	Analytical Laboratories Division	112	108	8,890,301.82	110	9,743,821.15

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
190	Industrial Waste Division					
191	Industrial Waste Administrative Section					
HP22	Assistant Director of Monitoring & Research	-	1		1	
HP21	Assistant Director of Monitoring & Research	1	-		-	
HP11	Administrative Specialist	1	1		1	
TOTAL	Industrial Waste Administrative Section	2	2	295,237.51	2	301,142.29
192	Technical Services Section					
HP18	Supervising Environmental Specialist	-	1		1	
HP17	Senior Environmental Specialist	1	1		1	
HP15	Environmental Specialist	2	2		2	
TOTAL	Technical Services Section	3	4	456,118.08	4	475,962.39
193	Pretreatment & Cost Recovery Section					
HP18	Supervising Environmental Specialist	2	2		2	
HP17	Senior Civil Engineer	1	1		1	
HP17	Senior Environmental Specialist	3	3		3	
HP15	Associate Civil Engineer	8	7		7	
HP15	Associate Mechanical Engineer #2 (Associate Civil Engineer)	-	1		1	
HP15	Environmental Specialist	16	16		16	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	2	2		2	
TOTAL	Pretreatment & Cost Recovery Section	35	35	3,601,619.97	35	3,597,481.48
194	Field Services Section					
HP18	Supervising Environmental Specialist	1	1		1	
HP17	Senior Environmental Specialist	5	5		5	
HP15	Environmental Specialist	29	29		29	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	-	1		1	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2016		2017		2018
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR3642	Pollution Control Technician II	1	1		2	
NR3641	Pollution Control Technician I	21	21		21	
TOTAL	Field Services Section	58	59	5,336,089.47	60	5,519,055.38
TOTAL	Industrial Waste Division	98	100	9,689,065.03	101	9,893,641.54
TOTAL	Monitoring & Research	305	309	28,183,079.99	312	29,520,858.99

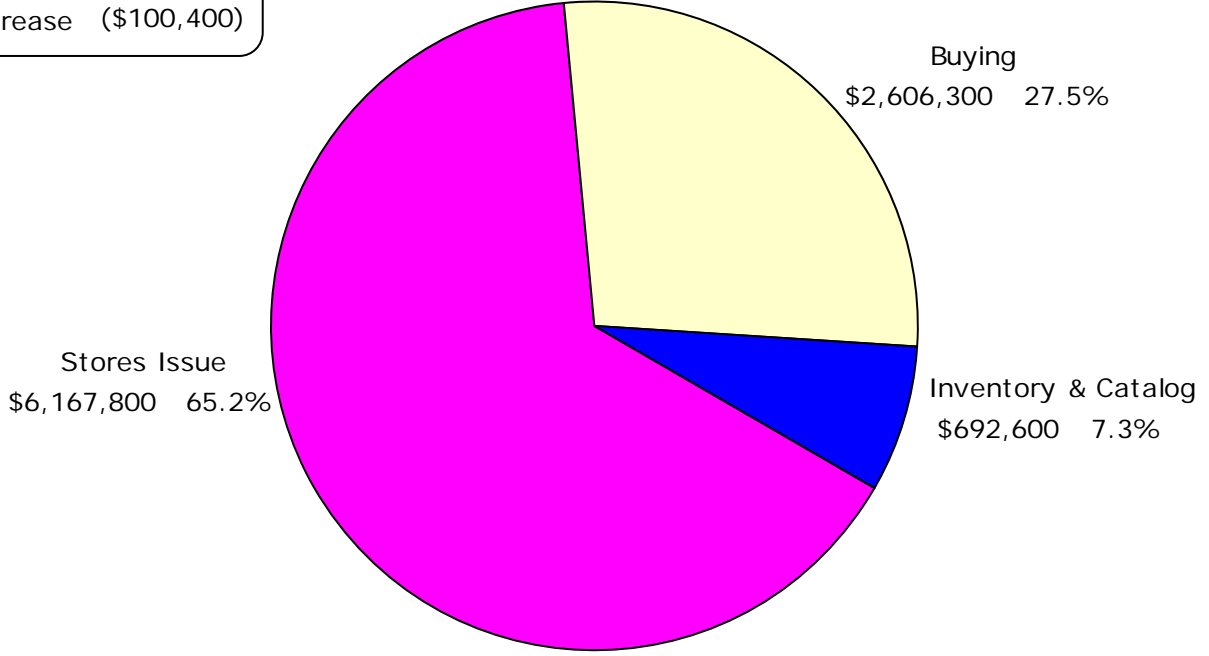
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



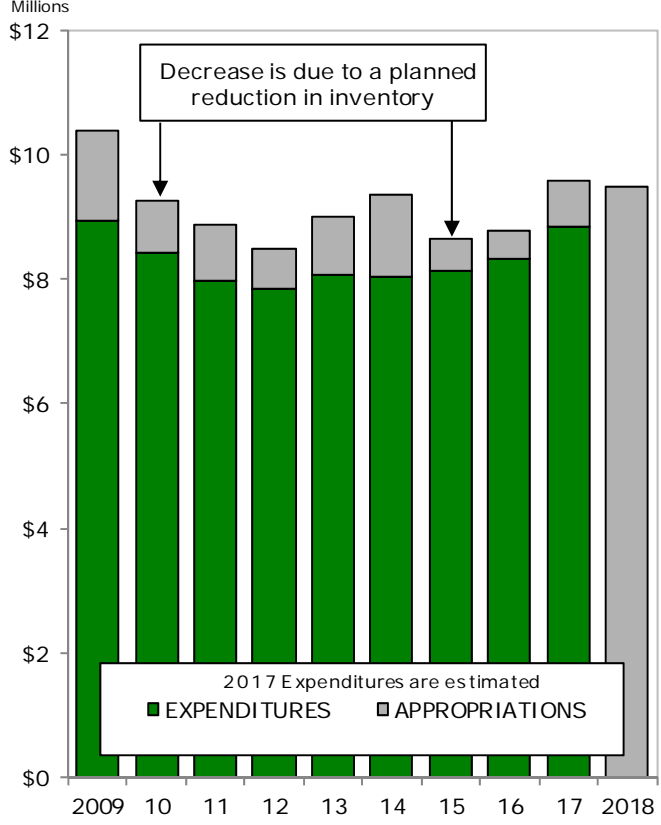
PROCUREMENT & MATERIALS MANAGEMENT

2018	\$9,466,700
2017	\$9,567,100
Decrease	(\$100,400)

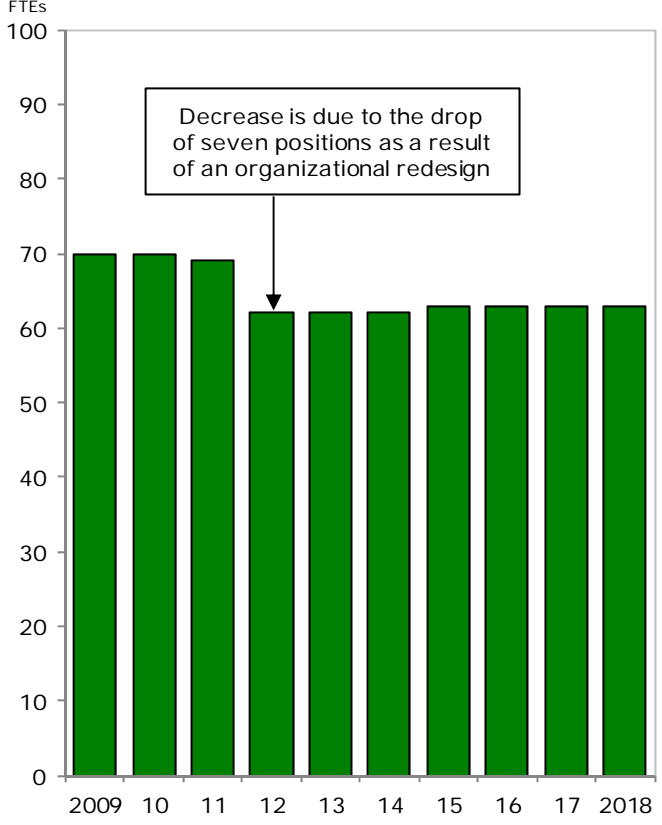
FUNCTIONS



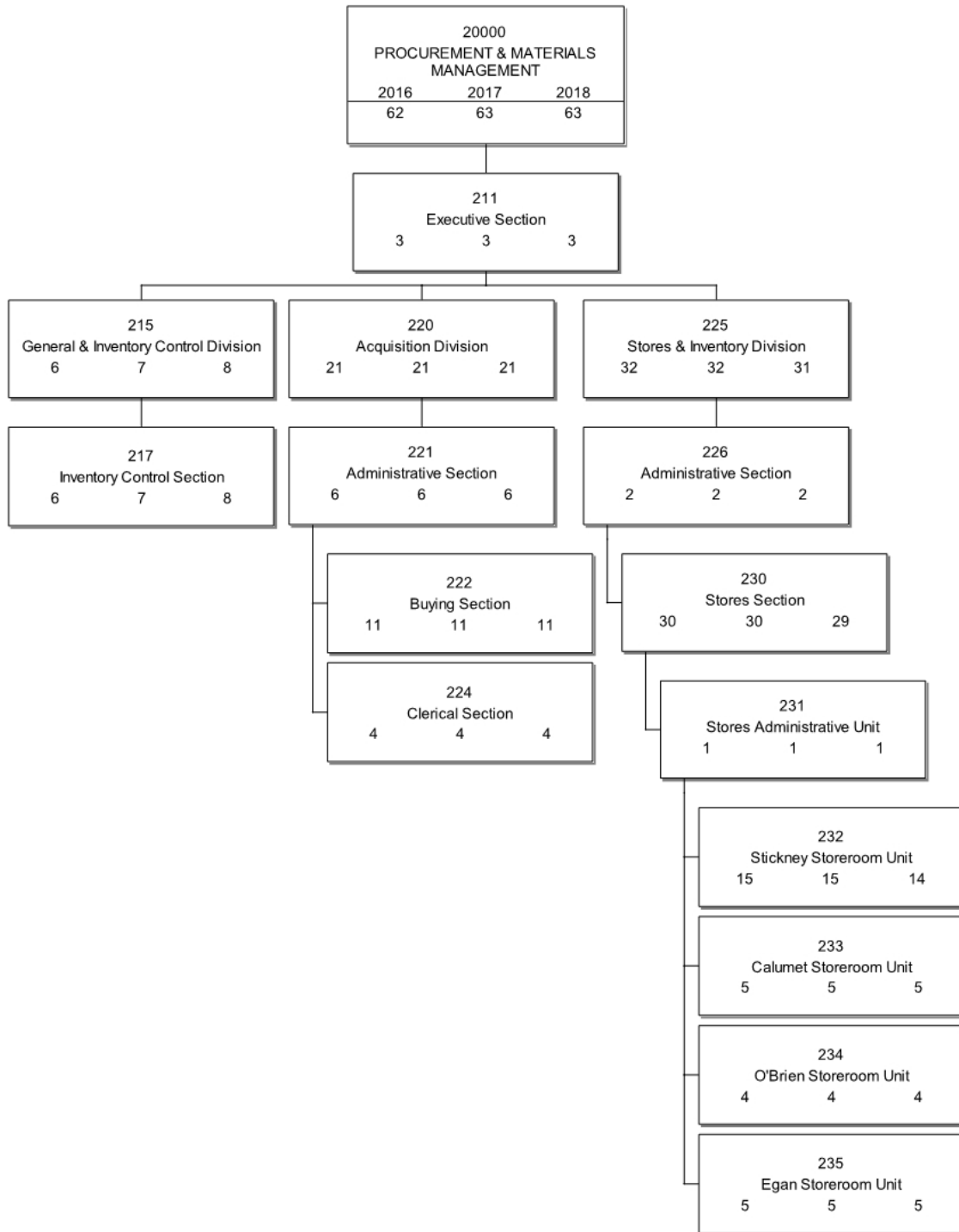
APPROPRIATIONS & EXPENDITURES



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 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 2017 Accomplishments

- Collaborated with the Maintenance & Operations Department (M&O) to award, in October, a contract to assist the District in becoming a Pennsylvania-New Jersey-Maryland Interconnection (PJM) service provider to market electricity generation capacity at the Lockport Powerhouse and to maximize return on investment to the District;
- Collaborated with M&O to ensure that 100 percent of materials and supplies required for preventive maintenance work orders are available in the storerooms. This is an ongoing process;
- Completed the replacement lighting project using high-efficiency, light-emitting diode fixtures in the Stickney Water Reclamation Plant (WRP) storeroom;
- Secured the electricity supply price for 2019 of \$0.02924 per kilowatt-hour (kWh) for a total unit price of \$0.03150 per kWh, including a bandwidth of 100 percent;
- Continued to purchase recyclable plastic pallets made with recycled content. This was the second year of a three-year plan to replace the wooden pallets used for the racking systems at the storerooms. It is anticipated to be completed in 2018;
- Implemented a new Multi-Project Labor Agreement in collaboration with the Law Department;
- Developed a cost estimate range to be utilized for capital improvement projects;
- Developed and implemented a schedule for recurring contracts to ensure the replacement contract is in place before the end of the current contract. This effort eliminates the use of a change order during the interval period.

Budget Highlights

The 2018 appropriation for P&MM is \$9,466,700, a decrease of \$100,400, or 1.0 percent, from 2017. The staffing level remains unchanged at 63 positions.

Significant features of the 2018 Budget are:

- Continue collaboration with M&O to ensure that 100 percent of materials and supplies required for preventive maintenance work orders are available in the storerooms;
- P&MM will have an active role in the selection of engineering consultants and attorneys. This will include the development of a request for qualifications and the development of search criteria for the vendor database;
- Continue to purchase recyclable plastic pallets to replace wooden pallets in the storerooms. This is the third and final year of the planned replacement;
- The District will begin to buy and sell electrical energy and Renewable Energy Credits on the wholesale market, as per the newly awarded contract to become a PJM service provider;
- Continue to reduce engineering spare parts inventory;
- Redesign the oil room at the Stickney WRP storeroom with pallet flow racking to accommodate 55-gallon drums to ensure stock rotation and space utilization;
- Make improvements to the Fertilizer Building at the Stickney WRP to control storage of materials from outlying areas.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

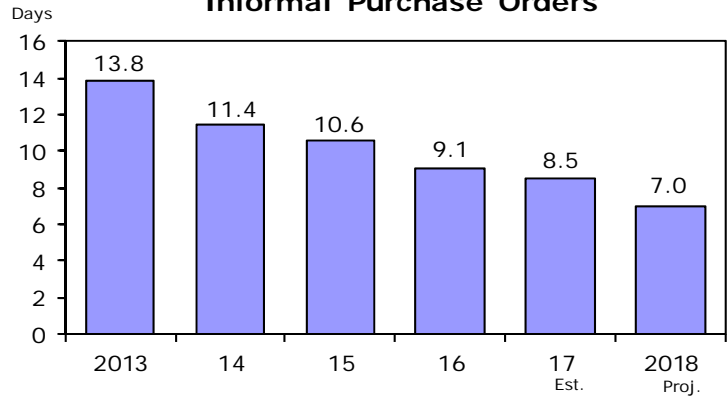
P&MM will have an active role in the selection of engineering consultants and attorneys. This will include the development of a request for qualifications and the development of search criteria for the vendor database.

P&MM will continue to collaborate with M&O to ensure that 100 percent of materials and supplies required for preventive maintenance work orders are available in the storerooms.

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 in 2016. In 2017, P&MM reviewed the data after seven months and found a decrease in turnaround time from 10.6 days in 2015 to 8.5 days. P&MM will determine what additional modifications need to be implemented in order to reach the goal of a five-day turnaround time from requisition to purchase order by 2019.

The above will improve service levels to meet the needs and expectations of the internal customer to improve planning schedules and adherence to project timeframes.

Turnaround Time: Processing Requisitions to Purchase Orders for Informal Purchase Orders



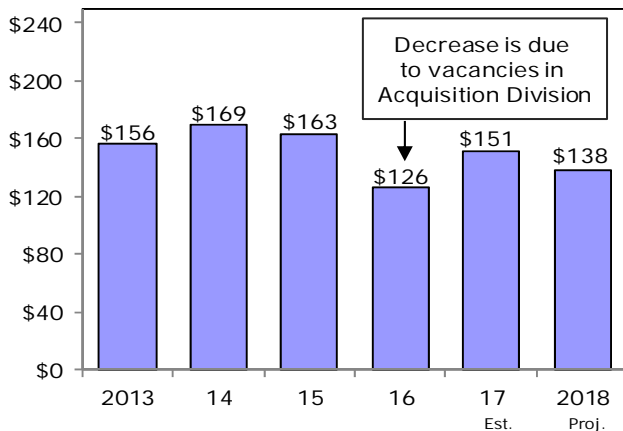
• **Excellence**

In 2017, the District secured the electricity supply price for 2019 of \$0.02924 per kWh for a total unit price of \$0.03150 per kWh, including a bandwidth of 100 percent. As a result of this one year extension, the District will realize a cost savings of approximately \$2.9 million in 2019. In 2018, P&MM will also monitor the prices for electricity for the year 2020 in efforts to obtain a price for electricity that is equal to or less than the 2019 price.

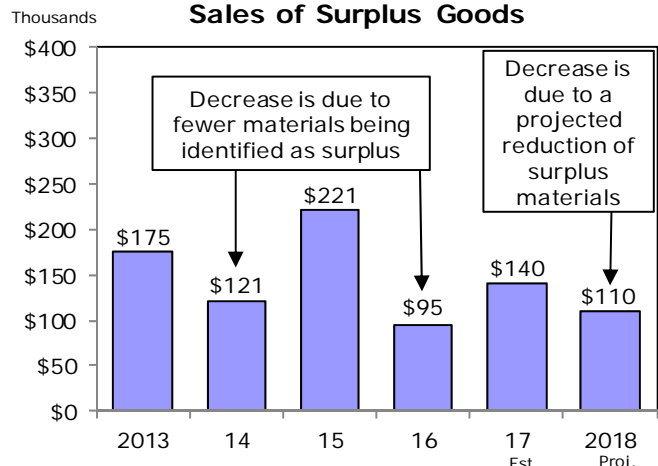
It is estimated that the value of materials inventory will decrease by approximately \$1 million in 2018. P&MM is continuing to monitor levels of engineering parts for obsolescence and optimum reorder points.

Both of these points above reflect our commitment to ensure the best use of current spending.

Cost to Prepare a Purchase Order



Sales of Surplus Goods



• **Resource Recovery**

P&MM will continue to replace wooden pallets used for the racking systems at the District’s storerooms with recyclable plastic pallets made with recycled content. The wooden pallets have a useful life of five years, while the plastic pallets have a useful life of twenty years. This planned replacement is in its third and final year.

In collaboration with M&O, P&MM has awarded a contract to assist the District in becoming a PJM service provider to market electricity generation capacity at the Lockport Powerhouse, which will allow the District to buy and sell electrical energy and Renewable Energy Credits on the wholesale market. This will begin in 2018.

- **Develop Employees**

The development of employees is important to P&MM. Due to promotions and retirements, P&MM hired or promoted several key personnel in 2017. These individuals began extensive training in 2017 to develop and implement leadership initiatives that support succession planning.

- **Technology**

P&MM will be working with the Information Technology Department to combine databases in the Engineering and Law Departments with the vendor database in P&MM. P&MM will also establish criteria in order to search for vendors that meet the requirements of a task or project. This will ensure consistent data input from all users to produce useful information.

As always, P&MM is committed to supporting the Strategic Business 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 \$200.1 million. The estimated number of contracts and purchase orders is 129 and 5,000, respectively. Maximize participation in District purchases by administering the Minority-owned, Women-owned, and Small Business Enterprise programs. Support for the department's budget preparation.	\$ 2,606,300	27.5%
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 \$33,400,000 and consisting of 65,200 items.	\$ 6,167,800	65.2%
3. Support the material and supply requirements of the District by planning, monitoring, cataloging, and controlling \$33,400,000 of inventory consisting of 65,200 items.	\$ 692,600	7.3%
Total	\$ 9,466,700	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 Proposed
1. Process all requisitions and issue the related purchase orders within 25 days.			
Percent of Purchase Orders Processed within 25 days	72%	92%	92%
Percent of Purchase Orders Processed within 10 days	45%	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)	65,050	65,100	65,200
Total Stock-outs (Storeroom stock items only)	738	650	580
Total Issue Slips	15,227	15,500	16,000
Total Number of Items Issued	1,372,404	1,212,834	1,255,000
Total Items Issued and Stock Transports	55,390	56,386	57,390
Percent of Stock-outs (Maintain a level below three percent)	1.3%	1.2%	1.0%
3. Achieve inventory accuracy of 98 percent of operating supplies.			
Total Cycle Counts (Periodic physical inventory)	62,739	65,225	53,000
Total Errors	733	595	450
Percent Accuracy	98.8%	99.1%	99.2%
4. Maximize participation in District purchases under \$10,000 by pursuing Minority-owned , Women-owned, and Small Business Enterprise solicitation initiatives.			
Minority-owned Business Enterprises Solicited	3.1%	6.0%	6.0%
Women-owned Business Enterprises Solicited	4.6%	6.0%	6.0%
Small Business Enterprises Solicited	0.1%	1.0%	1.0%
Total Percent Solicited	7.8%	13.0%	13.0%

20000 PROCUREMENT & MATERIALS MANAGEMENT

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ 37,530	2018 1	\$ 121,000	\$ 81,200	204.0	a)
			2017 -	\$ 39,800			
7260	Buying Procedures	\$ 2,085,681	2018 23	\$ 2,485,300	\$ (117,300)	(4.5)	
			2017 23	\$ 2,602,600			
7270	Inventory and Cataloging	\$ 758,755	2018 8	\$ 692,600	\$ (205,400)	(22.9)	b)
			2017 9	\$ 898,000			
7280	Stores Operation and Issue	\$ 5,374,442	2018 31	\$ 6,087,100	\$ 139,800	2.4	
			2017 31	\$ 5,947,300			
7604	Social Security and Medicare Contributions	\$ 71,148	2018 -	\$ 80,700	\$ 1,300	1.6	
			2017 -	\$ 79,400			
Totals		\$ 8,327,556	2018 63	\$ 9,466,700	\$ (100,400)	(1.0%)	
			2017 63	\$ 9,567,100			

a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$81,200).

b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$198,100).

20000 PROCUREMENT & MATERIALS MANAGEMENT

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ 37,530	\$ 39,800	\$ 121,000	a)
7260	Buying Procedures Purchase of all Labor, Materials, Services, and Equipment for the District					
7261	Prepare, Issue, and Maintain Purchase Orders to Appropriate Suppliers	Purchase Orders Cost Cost/Purchase Order	4,861 \$ 454,842 \$ 93.57	5,000 \$ 536,700 \$ 107.34	5,000 \$ 482,300 \$ 96.46	
7262	Process Requisition Requirements into Inquiries for Competitive Purchases	Requisitions Cost Cost/Requisition	7,712 \$ 187,994 \$ 24.38	7,500 \$ 251,800 \$ 33.57	7,500 \$ 252,300 \$ 33.64	
7263	Purchase all Labor, Materials, Services, and Equipment through Formal Contracts	Contracts Advertised Cost Cost/Contract	152 \$ 867,715 \$ 5,708.65	150 \$ 929,300 \$ 6,195.33	150 \$ 989,300 \$ 6,595.33	
7264	Prepare, Receive, and Evaluate Quotations from Various Suppliers	Inquiries Cost Cost/Inquiry	31,848 \$ 261,489 \$ 8.21	34,000 \$ 341,300 \$ 10.04	34,000 \$ 260,800 \$ 7.67	b)
7265	Advertise, Evaluate Bids, and Award the Sale of Obsolete Inventory, Scrap, Surplus Materials, and Document Fees	Revenue Cost Cost/\$1,000 Revenue	\$ 94,523 \$ 13,984 \$ 147.94	\$ 90,000 \$ 14,100 \$ 156.67	\$ 71,000 \$ 105,000 \$ 1,478.87	c)
7269	Buying Procedures - All Other (General)	Cost	\$ 299,657	\$ 529,400	\$ 395,600	d)
7270	Inventory and Cataloging Plan and Control Inventory to Support Material and Supply Requirements of the District					
7271	Identify, Classify, Code, and Maintain Catalog Descriptions for Equipment, Materials, and Supplies in District Storerooms	Inventory Cost Cost/Million	\$ 35,592,261 \$ 166,756 \$ 4,685.18	\$ 34,400,000 \$ 195,800 \$ 5,691.86	\$ 33,400,000 \$ 176,900 \$ 5,296.41	e)
7272	Cycle Counting and Transaction File Maintenance to Ensure Optimum Levels of Inventory and Accountability of District Stock	Inventory Cost Cost/Million	\$ 35,592,261 \$ 299,347 \$ 8,410.45	\$ 34,400,000 \$ 401,300 \$ 11,665.70	\$ 33,400,000 \$ 352,000 \$ 10,538.92	e)
7273	Requirement Planning, Controlling, Monitoring, and Analyzing Commodity Index Coded Items in an Optimum and Economic Manner	Cost	\$ 155,773	\$ 161,400	\$ 137,800	
7279	Inventory and Cataloging - All Other (General)	Cost	\$ 136,879	\$ 139,500	\$ 25,900	f)

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$81,200).
- b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$82,500).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$89,900).
- d) Decrease is due to the 2017 one-time purchases of wire decking for pallet racking at the Stickney WRP (\$30,000), an industrial sweeper at the Stickney WRP (\$24,900), an electric vacuum lifter for sheet stock at the Stickney WRP (\$11,800), a straddle truck at the Egan WRP (\$11,200), scales for the Egan WRP, O'Brien WRP, and Calumet WRP (\$9,200), cantilever racking for the lumber room at the Stickney WRP (\$8,600), and a crane interface at the Stickney WRP (\$4,500).
- e) Decrease is due to the planned reduction in engineering spare parts inventory (\$1,000,000).
- f) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$110,500).

20000 PROCUREMENT & MATERIALS MANAGEMENT

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7280	Stores Operation and Issue					
	Operate and Maintain an Effective and Economical Storeroom Function					
7282	Initiate and Prepare Requisitions, Material Requirement Planning Runs, Systems Contracts, and Miscellaneous Purchases in Accordance with Established Policies and Rules	Requisitions Cost Cost/Requisition	6,570 \$ 282,712 \$ 43.03	6,700 \$ 290,900 \$ 43.42	6,700 \$ 467,800 \$ 69.82	g)
7283	Receive, Inspect, and Move Purchased Materials, Both Stock and Non-Stock Items, to Ensure Compliance with Quantity, Quality, and Specifications of Purchase Orders	Receipts Cost Cost/Receipt	14,613 \$ 762,135 \$ 52.15	14,500 \$ 795,400 \$ 54.86	14,500 \$ 660,400 \$ 45.54	h)
7284	Provide 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 Cost Cost/Million	\$ 35,592,261 \$ 683,168 \$ 19,194.28	\$ 34,400,000 \$ 624,000 \$ 18,139.53	\$ 33,400,000 \$ 595,700 \$ 17,835.33	i)
7285	Provide Controlled Disbursement of Stored Materials and Supplies to Requesting Departments	Issue Slips Cost Cost/Issue Slip	15,227 \$ 633,200 \$ 41.58	14,800 \$ 644,700 \$ 43.56	16,000 \$ 624,600 \$ 39.04	
7286	Stores Operation and Issue - All Other (General)	Cost	\$ 80,958	\$ 86,500	\$ 293,800	j)
7289	Inventory Purchases	Cost	\$ 2,932,269	\$ 3,505,800	\$ 3,444,800	
7604	Social Security and Medicare Contributions	Cost	\$ 71,148	\$ 79,400	\$ 80,700	
		Total	\$ 8,327,556	\$ 9,567,100	\$ 9,466,700	

- g) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$186,700).
- h) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$124,300).
- i) Decrease is due to the planned reduction in engineering spare parts inventory (\$1,000,000).
- j) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$123,200), the purchase of oil room pallet flow racking at the Stickney WRP (\$30,000), a new garage door for the Fertilizer Building at the Stickney WRP (\$30,000), and a pallet walker at the O'Brien WRP (\$12,000).

101 20000		Fund: Corporate Department: Procurement & Materials Management		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,065,472	\$ 5,555,300	\$ 5,555,300	\$ 5,111,000	\$ 5,532,700	\$ 5,532,700	\$ 5,590,700
601060	Compensation Plan Adjustments	45,780	141,000	141,000	109,000	98,700	98,700	123,900
601070	Social Security and Medicare Contributions	71,148	79,400	79,400	72,000	80,700	80,700	80,700
601100	Tuition and Training Payments	1,120	4,500	4,500	800	1,600	1,600	1,600
100	TOTAL PERSONAL SERVICES	5,183,520	5,780,200	5,780,200	5,292,800	5,713,700	5,713,700	5,796,900
612010	Travel	30	3,000	3,000	-	1,500	1,500	1,500
612030	Meals and Lodging	322	3,000	3,000	300	2,000	2,000	2,000
612050	Compensation for Personally-Owned Automobiles	1,874	2,300	2,300	1,500	1,900	1,900	1,900
612080	Motor Vehicle Operating Services	46	-	-	-	-	-	-
612360	Advertising	110,981	130,000	124,700	85,000	111,000	111,000	111,000
612680	Repairs to Buildings	1,484	3,800	5,400	5,400	6,500	6,500	6,500
612800	Repairs to Office Furniture and Equipment	1,204	2,200	2,200	1,500	1,200	1,200	1,200
612820	Computer Software Maintenance	1,580	-	-	-	-	-	-
612860	Repairs to Vehicle Equipment	4,794	7,700	11,400	10,900	7,700	7,700	7,700
200	TOTAL CONTRACTUAL SERVICES	122,314	152,000	152,000	104,600	131,800	131,800	131,800
623030	Metals	95,596	150,000	129,000	115,600	103,700	103,700	103,700
623070	Electrical Parts and Supplies	313,294	350,000	338,500	315,000	313,300	313,300	313,300
623090	Plumbing Accessories and Supplies	342,634	382,400	351,400	322,000	342,600	342,600	342,600
623110	Hardware	79,758	85,000	85,000	85,000	79,800	79,800	79,800
623130	Buildings, Grounds, Paving Materials, and Supplies	179,021	350,000	348,000	302,000	456,500	456,500	456,500
623170	Fiber, Paper, and Insulation Materials	42,200	45,000	47,000	47,000	42,200	42,200	42,200
623190	Paints, Solvents, and Related Materials	51,258	55,000	55,000	52,000	51,300	51,300	51,300
623250	Vehicle Parts and Supplies	12,108	10,000	10,000	10,000	10,500	10,500	10,500
623270	Mechanical Repair Parts	159,368	160,000	200,000	200,000	237,500	237,500	237,500
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	11,104	17,400	17,400	15,000	11,100	11,100	11,100
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	607,738	590,000	621,000	619,000	607,700	607,700	607,700

101 20000		Fund: Corporate Department: Procurement & Materials Management		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623660	Cleaning Supplies	263,317	300,000	300,000	300,000	263,300	263,300	263,300
623680	Tools and Supplies	72,971	80,000	100,000	99,700	73,000	73,000	73,000
623700	Wearing Apparel	163,777	173,000	173,000	170,000	145,200	145,200	145,200
623780	Safety and Medical Supplies	66,016	90,000	90,000	88,000	100,000	100,000	100,000
623810	Computer Supplies	47,986	76,600	76,600	70,000	48,000	48,000	48,000
623820	Fuel	185,881	270,300	220,300	192,000	265,900	265,900	265,900
623840	Gases	55,067	65,000	86,000	83,000	70,100	70,100	70,100
623850	Communications Supplies	6,627	8,100	8,100	8,100	8,100	8,100	8,100
623860	Lubricants	213,911	260,000	260,000	241,600	226,100	226,100	226,100
623990	Materials and Supplies, N.O.C.	52,093	117,100	118,600	118,600	52,100	52,100	52,100
300	TOTAL MATERIALS AND SUPPLIES	3,021,722	3,634,900	3,634,900	3,453,600	3,508,000	3,508,000	3,508,000
634650	Equipment for Process Facilities	-	-	-	-	30,000	30,000	30,000
400	TOTAL MATERIALS AND SUPPLIES	-	-	-	-	30,000	30,000	30,000
TOTAL PROCUREMENT & MATERIALS MGMT		\$ 8,327,556	\$ 9,567,100	\$ 9,567,100	\$ 8,851,000	\$ 9,383,500	\$ 9,383,500	\$ 9,466,700

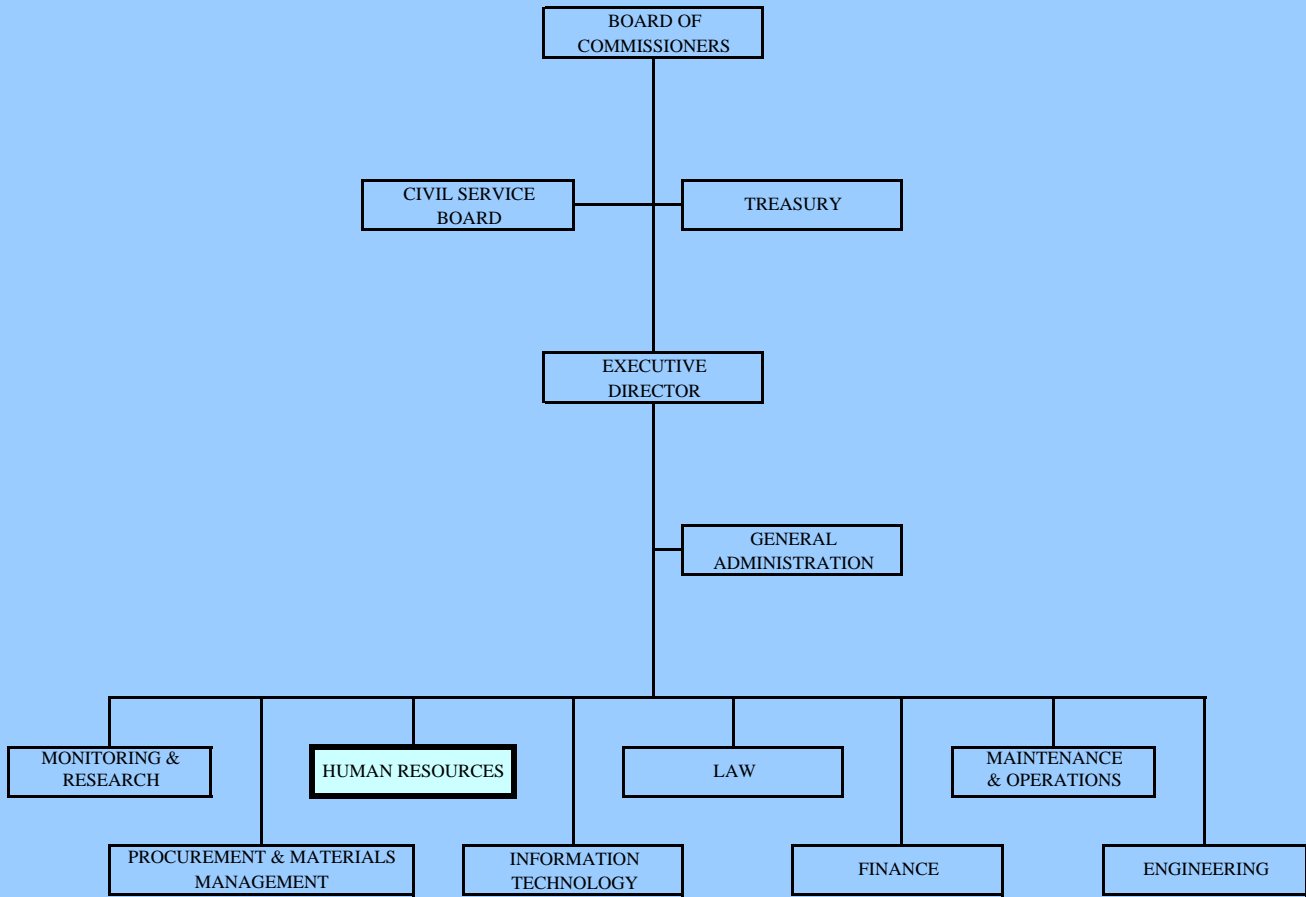
NOTES: 1. Amounts may not add up due to rounding.
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies. Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
211	Executive Section					
EX08	Director of Procurement & Materials Management	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	433,410.80	3	442,079.12
215	General & Inventory Control Division					
217	Inventory Control Section					
HP17	Supervising Stores Specialist #2 (New Grade HP16)	1	1		1	
HP16	Materials Planning Supervisor #2 (Senior Stores Specialist) (New Grade HP14)	1	1		1	
HP12	Stores Specialist	4	5		5	
HP09	Administrative Clerk	-	-		1	
TOTAL	Inventory Control Section	6	7	566,411.13	8	658,811.94
TOTAL	General & Inventory Control Division	6	7	566,411.13	8	658,811.94
220	Acquisition Division					
221	Administrative Section					
HP20	Assistant Director of Procurement & Materials Management	1	1		1	
HP14	Budget & Management Analyst	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Section	6	6	558,677.56	6	586,022.80
222	Buying Section					
HP18	Head Buyer	2	2		2	
HP17	Buyer III #2 (Senior Buyer) (New Grade HP16)	1	1		-	
HP16	Senior Buyer	4	4		5	
HP14	Buyer	4	4		4	
TOTAL	Buying Section	11	11	1,218,037.25	11	1,180,469.40
224	Clerical Section					
HP11	Administrative Specialist	2	2		2	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2016	2017		2018	
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	4	4	225,707.59	4	209,248.37
TOTAL	Acquisition Division	21	21	2,002,422.40	21	1,975,740.57
225	Stores & Inventory Division					
226	Administrative Section					
HP19	Stores & Inventory Manager #2 (New Grade HP18)	1	1		1	
HP15	Senior Stores Specialist #2 (New Grade HP14)	1	1		1	
TOTAL	Administrative Section	2	2	263,937.16	2	274,289.72
230	Stores Section					
231	Stores Administrative Unit					
HP17	Supervising Stores Specialist #2 (New Grade HP16)	1	1		1	
TOTAL	Stores Administrative Unit	1	1	127,410.36	1	129,958.60
232	Stickney Storeroom Unit					
HP11	Administrative Specialist	1	1		1	
HP09	Administrative Clerk	2	2		1	
NR1857	Principal Storekeeper	2	2		2	
NR1853	Storekeeper	8	8		8	
NR8651	Maintenance Laborer Class A	1	1		1	
NR1835	Materials Handler Laborer #1	1	1		1	
TOTAL	Stickney Storeroom Unit	15	15	1,158,399.01	14	1,103,873.78
233	Calumet Storeroom Unit					
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	Calumet Storeroom Unit	5	5	373,206.20	5	369,153.44
234	O'Brien Storeroom Unit					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR1853	Storekeeper	1	1		1	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	O'Brien Storeroom Unit	4	4	287,205.57	4	290,554.28
235	Egan Storeroom Unit					
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	370,755.88	5	374,152.73
TOTAL	Stores Section	30	30	2,316,977.02	29	2,267,692.83
TOTAL	Stores & Inventory Division	32	32	2,580,914.18	31	2,541,982.55
TOTAL	Procurement & Materials Management	62	63	5,583,158.51	63	5,618,614.18

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.

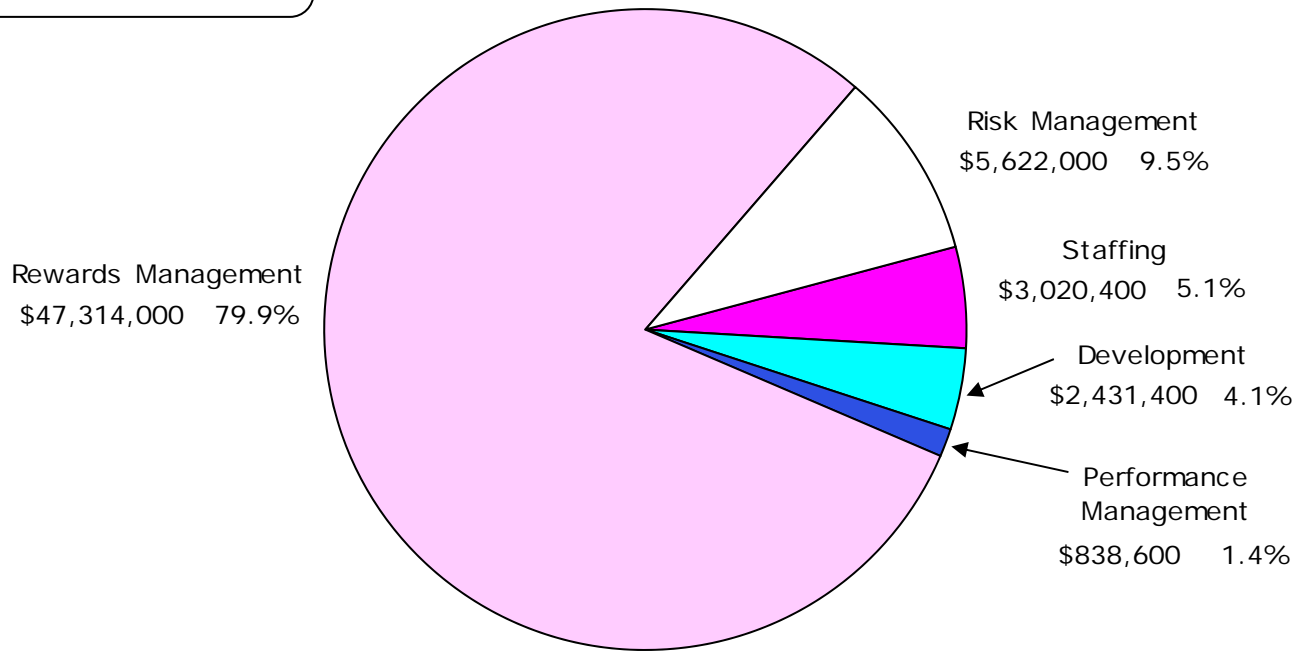


HUMAN RESOURCES

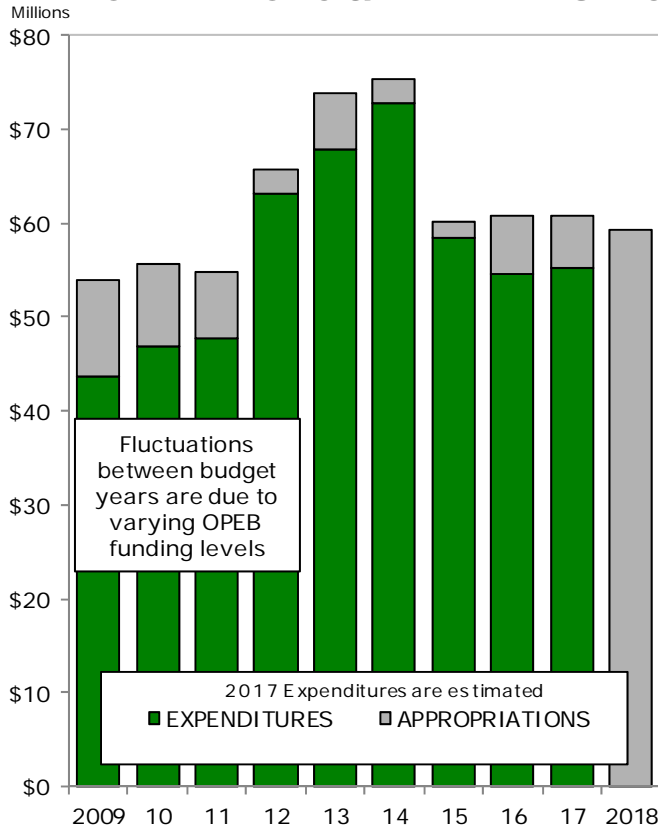
HUMAN RESOURCES

2018	\$59,226,400
2017	\$60,905,400
Decrease	(\$1,679,000)

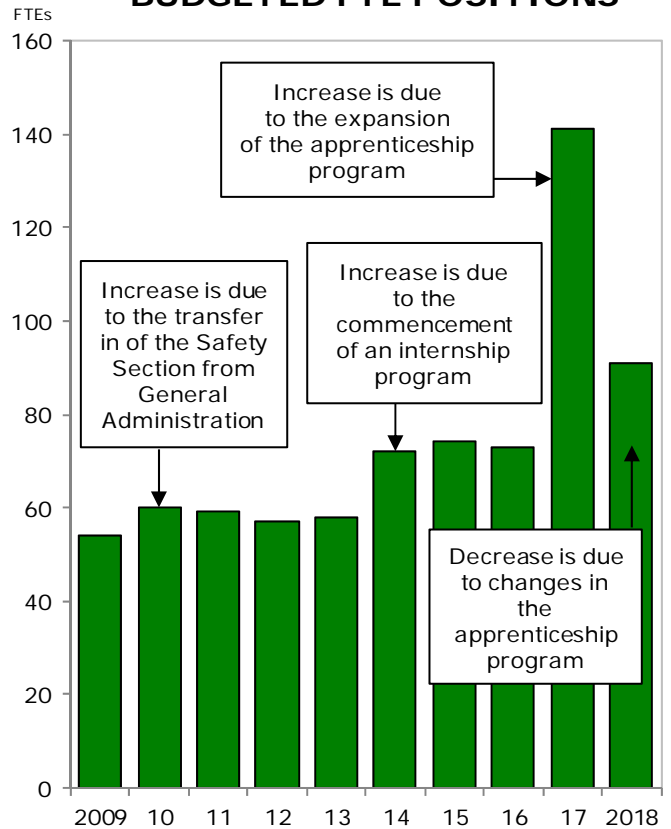
FUNCTIONS



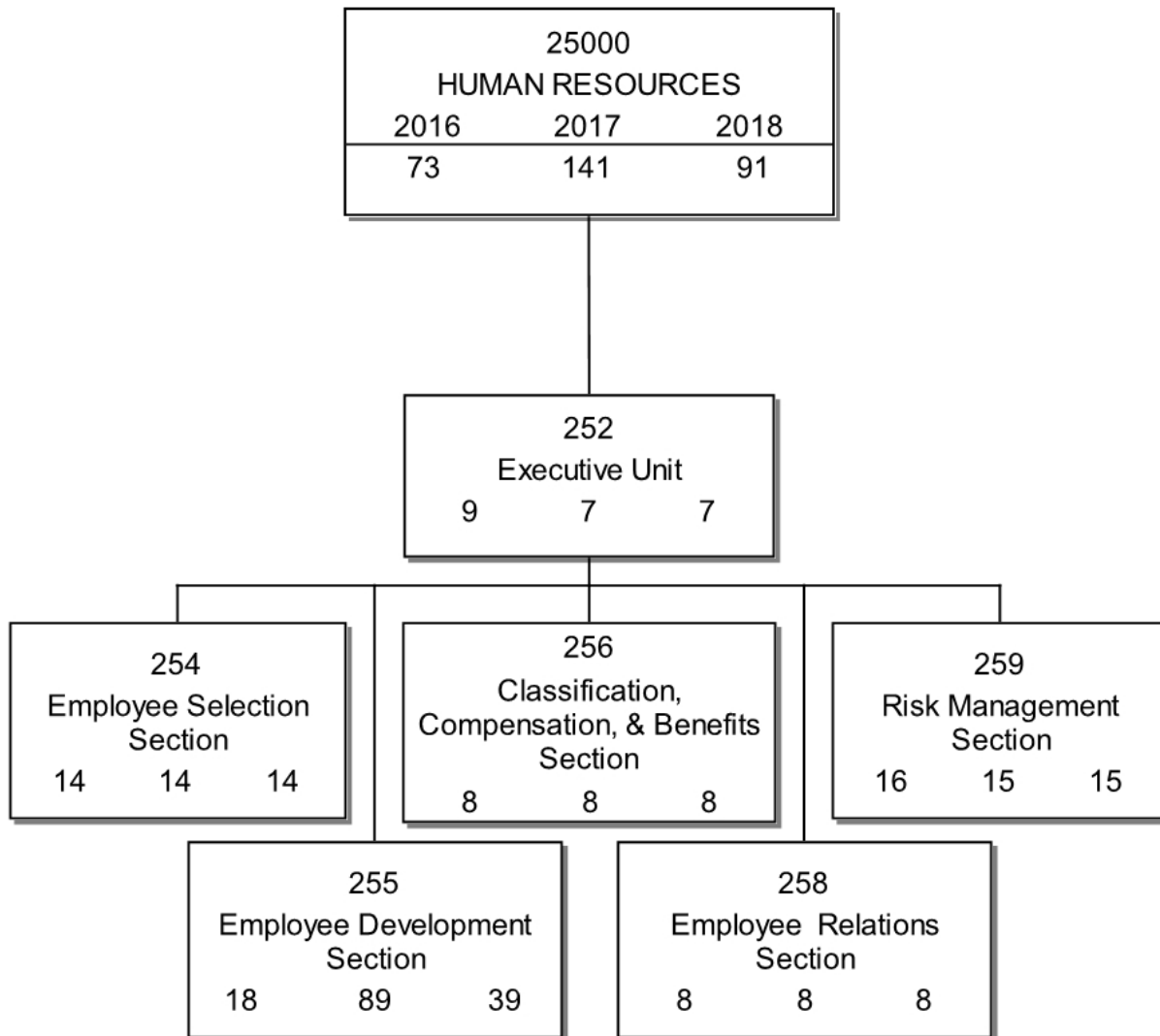
APPROPRIATIONS & EXPENDITURES



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 recruiting, hiring, and retaining 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 2017 Accomplishments

The following initiatives and accomplishments strengthened the District's financial stability and better assured the continuity of operations in adverse circumstances:

- The District's Emergency Operations Plan was updated and successfully tested in a second statewide exercise;
- The District's Business Continuity Plan was updated and critical operational guidance documents were developed for the Maintenance & Operations Department for mission-essential functions.

The following initiatives and accomplishments supported process improvement, were results-oriented, and decreased costs for the District:

- The District's Return-to-Work Program continued to reduce both the number and severity of employee injuries. The program was further strengthened by the creation of a new workers' compensation claim reporting form, as well as area-specific online dashboards that provide access to key workers' compensation claims information at all times;
- Safety staff conducted approximately 1,250 Occupational Safety and Health Administration focused training sessions, with approximately 10,000 attendees, including forklift recertification training and plant-level hands-on Lockout/Tagout training to safeguard employees from the unexpected startup of machinery and equipment.

Developed and implemented leadership initiatives that support succession planning:

- A coaching program was developed and delivered to approximately 275 District supervisors;
- Specialized leadership training was provided to 17 employees;
- Twenty engineering employees participated in mentoring activities.

Developed a culture that recognized the value of every employee:

- All employees received mandatory compliance training for workplace violence awareness in the spring and diversity and harassment awareness in the fall;
- Over 8,000 individuals, including employees and the public, were served by Employee Selection staff through the recruitment and selection process.

Other major accomplishments include:

- The internship program continued to provide meaningful educational training experiences for students interested in wastewater management and District operations;
- An ongoing training program is provided to new hires in specific job classifications and provided job readiness skills and an introduction to District core values and ethics;
- Civil Service examinations were administered for 62 classifications;
- Interview refresher training was provided to District supervisors and interview skills training was provided for all employees;
- Seven successor collective bargaining agreements were negotiated with the unions that represent District employees.

Budget Highlights

The 2018 Human Resources Department appropriation is \$59,226,400, a decrease of \$1,679,000, or 2.8 percent, from 2017. The staffing level has decreased from 141 to 91 positions, which includes the drop of 58 Apprentices, offset by the addition of eight Interns. The number of employees budgeted in the Human Resources Department includes 13 Apprentices, 20 full-time equivalent Interns, and three Civil Service Board members.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

In 2018, the Risk Management Section will continue its focus on the development and administration 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 and further development of key programs, including return-to-work, emergency operations, and continuity of operations.

Working within the Risk Management Section, Safety staff will continue to focus on safe work procedures, a safe work environment, preventive health measures, life protection, accident prevention and investigations, and recordkeeping. Increased emphasis will be placed on targeting programs to address the District’s key cost drivers. The emphasis will be on walking and working surfaces in order to reduce slips and falls. Additionally, back safety classes will continue to take place in 2018 in an effort to reduce back injuries. Safety staff will work more closely with 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 50 examinations in 2018. All employment applications are submitted and received online.

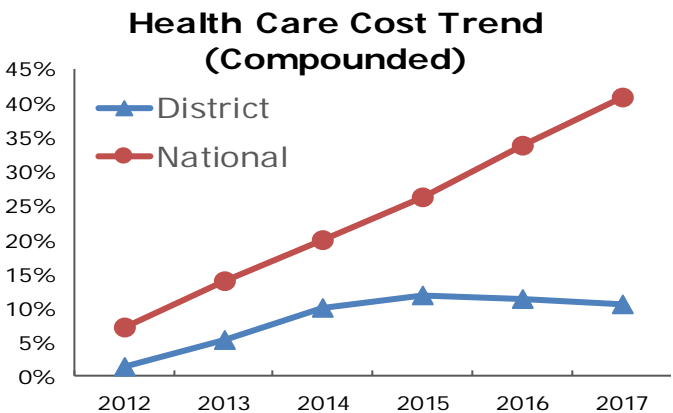
• **Excellence**

The District’s benefits program plays an integral part in its ability to attract and retain a high quality workforce. The District offers health care benefits to employees and eligible dependents, as well as approximately 1,963 retirees. The core components of the program are a Participating Provider Option and Health Maintenance Organization, a Medicare Advantage Plan (Medicare-eligible retirees only), and prescription drug coverage. Dental and vision benefits are also provided to active employees.

The cost of these health care benefits has a significant impact on the District’s budget each year with total spending of approximately \$48 million. While these costs are partially offset by employee and retiree contributions, they must be actively managed. The District continues to implement programs that help in managing these costs. In addition, the District continues its wellness initiatives with annual on-site health fairs, free on-site flu shots, and wellness events such as the Mainstream March 5K Walk/Run. The goal of these wellness initiatives is to build a work environment that promotes health and wellness for all District employees.

As a result of these efforts, the District has been able to control its health care costs. Over the period from 2012 through 2017, the average increase in health care costs or health trend nationally has been 6.8 percent annually resulting in a total increase of 33.9 percent over the period. The District’s health care trend over that same period has been 2.27 percent annually or a total of 11.4 percent.

In 2018, the District will explore various consumerism tools that would aid employees in making health care decisions. These tools assist employees in areas such as selecting the most appropriate health plan, navigating their insurance benefits, and finding high quality health care services at the most affordable cost. These consumer tools can play a key role in helping ensure employees are making informed decisions about their health care benefits and assist the District in controlling health care costs.



• **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.

Employee Development Participation			
	Tuition Reimbursement *	In-House Training	eLearning Courses Accessed
2015	58	3,854	3,912
2016	53	3,854	6,219
Estimated 2017	50	2,229	6,412
Projected 2018	50	2,300	6,400

*Number of participants who were reimbursed.

To ensure the ongoing professional development of all District employees in 2018, the Human Resources Department will continue to offer in-house training programs in areas such as business and financial management, development courses for specific classifications and supervisors, and specialized training as requested by departments. 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. 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 seven collective bargaining agreements for the District’s approximately 786 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 activities.

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.

• **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 December 31, 2017, was 41 percent, which compares favorably with the Cook County minority labor force availability rate of 36 percent. The District’s female workforce representation, as of December 31, 2017, was 26 percent, compared to the Cook County female labor force availability rate of 41 percent, when adjusted for District-specific occupations.

Percentage of District Employees Who Are Minorities or Females							2000 Census External Availability	2010 Census External Availability
	2013	2014	2015	2016	2017	2018 Proj.		
Minorities	40.0%	40.0%	40.0%	41.0%	41.0%	41.0%	33.0%	36.0%
Females	27.0%	26.0%	26.0%	26.0%	26.0%	26.0%	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 United States 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 2018, the District will continue to 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.

• **Technology**

The Employee Selection Section initiated implementation of a new applicant tracking system to manage the employee selection and appointment process. The system will facilitate use on multiple platforms, including smartphones and tablets, posting of job information to social media site platforms, and automation of the employment requisition, certification, and appointment process.

As part of its efforts to manage health care costs, the District will be introducing an employee benefits software platform in 2018. This system will include an employee portal to assist employees in managing their health benefits and provide consumerism tools to allow employees to make informed decisions when selecting a benefits plan. The District will benefit from an improved communication of benefit programs, a reduction in the need for paper mailings to employees, and a streamlined process for collecting benefits information from employees. This will result in a more efficient benefits administration process.

25000 HUMAN RESOURCES

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Review employment applications and develop and administer 50 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 administer diversity outreach activities.	\$ 1,718,900	2.9%
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.	\$ 5,622,000	9.5%
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, a flexible spending account plan, and voluntary insurance products.	\$ 28,694,600	48.5%
4. Administer seven collective bargaining agreements, covering 786 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.	\$ 838,600	1.4%
5. Provide health insurance benefits and administration for retirees and annuitants, which include Other Postemployment Benefits pre-funding for retiree health care expenses.	\$ 18,619,400	31.4%
6. Implement the District's equal employment opportunity and affirmative action objectives through targeted recruitment, counseling, and complaint investigation.	\$ 353,500	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.	\$ 948,000	1.6%
8. Provide educational opportunities for employees through professional development, technical training, and tuition reimbursement.	\$ 2,431,400	4.1%
Total	\$ 59,226,400	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 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 workers' compensation claims per 100 employees.	4.76	4.54	4.35
3. Reduce the number of lost time claims per 100 employees.	1.11	1.36	1.23

25000 HUMAN RESOURCES

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
7290	Examinations and Employment Activities	\$ 1,655,996	2018	13	\$ 1,718,900	\$ 12,900	0.8	
			2017	13	\$ 1,706,000			
7295	Equal Employment Opportunity Activities	\$ 351,265	2018	3	\$ 353,500	\$ 14,200	4.2	
			2017	3	\$ 339,300			
7310	Training and Development Activities	\$ 1,258,682	2018	39	\$ 2,431,400	\$ (976,400)	(28.7)	a)
			2017	89	\$ 3,407,800			
7315	Retiree Benefits	\$ 14,971,236	2018	1	\$ 13,619,400	\$ 319,600	2.4	b)
			2017	1	\$ 13,299,800			
7316	Other Postemployment Benefits Trust Management and Report Preparation	\$ 5,000,000	2018	-	\$ 5,000,000	\$ -	-	
			2017	-	\$ 5,000,000			
7320	Employee Benefits	\$ 24,094,777	2018	4	\$ 28,561,000	\$ (689,000)	(2.4)	c)
			2017	4	\$ 29,250,000			
7325	Labor and Employee Relations	\$ 744,946	2018	7	\$ 838,600	\$ 59,700	7.7	
			2017	7	\$ 778,900			
7330	Human Resources Administration	\$ 934,505	2018	9	\$ 948,000	\$ 58,200	6.5	
			2017	9	\$ 889,800			
7480	Safety Program	\$ 1,324,605	2018	11	\$ 1,528,200	\$ (37,100)	(2.4)	
			2017	11	\$ 1,565,300			
7500	Risk Management Operations	\$ 4,104,626	2018	4	\$ 4,093,800	\$ (473,500)	(10.4)	d)
			2017	4	\$ 4,567,300			
7604	Social Security and Medicare Contributions	\$ 99,569	2018	-	\$ 133,600	\$ 32,400	32.0	e)
			2017	-	\$ 101,200			
Totals		\$ 54,540,207	2018	91	\$ 59,226,400	\$ (1,679,000)	(2.8%)	
			2017	141	\$ 60,905,400			

- a) Decrease is due to changes in the Apprenticeship Program resulting in the drop of 58 Apprentice positions (\$1,054,000) and reduced related training (\$97,800), offset by the addition of eight Intern positions (\$255,100).
- b) Increase is due to an anticipated increase in the Affordable Care Act fee assessment.
- c) Decrease is due to the projected health care trend for active employee health benefits (\$680,500).
- d) Decrease is due to reduced insurance premiums for other than employee benefits (\$3,500,600), offset by the anticipated increased cost of insurance premiums for property (\$1,880,300), casualty (\$1,140,000), marine hull and liability (\$24,000), fiduciary liability (\$16,000), government crime (\$14,000), and business travel accident (\$6,000).
- e) Increase is due to the calculation for Social Security and Medicare as a percentage of salaries (\$32,400).

25000 HUMAN RESOURCES

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7290	Examinations and Employment Activities					
		Candidates	3,537	3,000	2,900	
		Examinations	50	55	50	
		Applications	7,453	6,000	6,500	
		Requisitions	284	230	275	
		Cost	\$ 1,534,827	\$ 1,588,400	\$ 1,599,067	
	Recruitment and Marketing Activities					
	Diversity/Outreach Recruitment	Cost	\$ 67,559	\$ 60,900	\$ 62,324	
	Campus Recruitment	Cost	\$ 53,610	\$ 56,700	\$ 57,509	
7295	Equal Employment Opportunity Activities					
	Provide Counseling and Investigate Complaints	Actions	1,000	1,000	1,000	
		Cost	\$ 351,265	\$ 339,300	\$ 353,500	
		Cost/Action	\$ 351.27	\$ 339.30	\$ 353.50	
7310	Training and Development Activities					
	In-House Training and Professional Development	Courses	3,854	2,300	2,300	
		Cost	\$ 634,757	\$ 1,044,200	\$ 799,037	a)
		Cost/Course	\$ 164.70	\$ 454.00	\$ 347.41	
	Seminars and Conferences	Cost	\$ 19,291	\$ 10,500	\$ 10,100	
	eLearning	Courses	6,219	2,200	6,400	
		Cost	\$ 14,200	\$ 20,000	\$ 25,000	b)
		Cost/Course	\$ 2.28	\$ 9.09	\$ 3.91	
	Apprenticeship Program	Cost	\$ 66,040	\$ 1,768,300	\$ 777,363	c)
	Administer and Finance the Tuition Reimbursement Program for the Entire District	Participants	58	50	50	
		Cost	\$ 314,350	\$ 314,000	\$ 314,000	
		Cost/Participant	\$ 5,419.83	\$ 6,280.00	\$ 6,280.00	
	Internship Program	Cost	\$ 210,044	\$ 250,800	\$ 505,900	d)
7315	Retiree Benefits					
	Health Insurance - Corporate Fund Retirees	Retirees	1,972	1,975	1,970	
		Cost	\$ 9,587,716	\$ 8,740,200	\$ 9,758,600	e)
		Cost/Retiree	\$ 4,861.92	\$ 4,425.42	\$ 4,953.60	
	Prescription Drug Retirees	Participants	1,972	1,975	1,970	
		Cost	\$ 5,383,520	\$ 4,559,600	\$ 3,860,800	f)
		Cost/Participant	\$ 2,729.98	\$ 2,308.66	\$ 1,959.80	

- a) Decrease is due to requirements of the annual schedule for District-wide training (\$223,400).
- b) Increase is due to higher anticipated cost for return-to-work eLearning courses (\$5,000).
- c) Decrease is due to changes in the Apprenticeship Program resulting in the drop of 58 Apprentice positions (\$1,054,000).
- d) Increase is due to an expansion of the Internship Program resulting in the addition of eight Intern positions (\$255,100).
- e) Increase is due to an increase in Affordable Care Act fee assessment.
- f) Decrease is due to an anticipated reduction in the cost of the medical and pharmacy benefits under the Medicare Advantage Plan (\$698,800).

25000 HUMAN RESOURCES

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7316	Other Postemployment Benefits Trust Management and Report Preparation	Cost	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	
7320	Employee Benefits					
	Health Insurance - Corporate Fund Employees (includes vision care) ¹	Participants	1,698	1,755	1,708	g)
		Cost	\$ 17,660,233	\$ 21,596,400	\$ 20,973,200	
		Cost/Participant	\$ 10,400.61	\$ 12,305.64	\$ 12,279.39	
	Prescription Drugs - Corporate Fund Employees ¹	Participants	1,698	1,755	1,708	
		Cost	\$ 4,915,578	\$ 5,924,100	\$ 5,806,900	
		Cost/Participant	\$ 2,894.92	\$ 3,375.56	\$ 3,399.82	
	Dental Insurance - Corporate Fund Employees ¹	Participants	1,692	1,750	1,702	
		Cost	\$ 1,176,224	\$ 1,364,500	\$ 1,428,900	
		Cost/Participant	\$ 695.17	\$ 779.71	\$ 839.54	
	Life Insurance - Corporate Fund Employees ¹	Employees	1,793	1,835	1,798	
		Cost	\$ 80,735	\$ 92,500	\$ 86,300	
		Cost/Employee	\$ 45.03	\$ 50.41	\$ 48.00	
	Deferred Compensation Administration	Cost	\$ 37,500	\$ 40,000	\$ 38,000	
	Other Benefits					h)
	Employee Assistance Program	Cost	\$ 66,672	\$ 67,500	\$ 42,000	
	Flexible Spending Accounts Program	Cost	\$ 36,035	\$ 37,400	\$ 42,000	
	Compensation and Classification Activities	Cost	\$ 121,800	\$ 127,600	\$ 143,700	
7325	Labor and Employee Relations					
	Labor and Employee Relations Activities	Employees	1,952	2,042	1,965	
		Cost	\$ 596,885	\$ 618,400	\$ 677,266	
	Compliance with Unemployment Compensation Requirements	Claims	14	15	15	
		Cost	\$ 45,773	\$ 58,500	\$ 59,014	
		Cost/Claim	\$ 3,269.50	\$ 3,900.00	\$ 3,934.27	
	Employee Performance Management	Cost	\$ 102,288	\$ 102,000	\$ 102,320	
7330	Human Resources Administration					
	Personnel Activity Administration	Employees Served	1,952	2,042	1,965	
		Cost	\$ 771,630	\$ 729,800	\$ 791,376	
		Cost/Employee	\$ 395.30	\$ 357.39	\$ 402.74	
	Medical Services Payments and Record Maintenance	Examinations	500	500	500	
		Cost	\$ 52,675	\$ 62,200	\$ 59,782	
		Cost/Examination	\$ 105.35	\$ 124.40	\$ 119.56	
	Civil Service Board Procedures					
	Hear and Render Decisions on Appeals from Employees,	Actions	23	40	40	
	Ratify Amendments to the Personnel Rules, Hear and	Cost	\$ 110,200	\$ 97,800	\$ 96,842	
	Render Decisions on Discharges	Cost/Action	\$ 4,791.30	\$ 2,445.00	\$ 2,421.05	

g) Decrease is due to the projected health care trend for active employee health benefits (\$563,300).

h) Decrease is due to a change in vendor for the employee assistance program (\$25,500).

¹ Additional funds are budgeted in the Stormwater Management Fund.

25000 HUMAN RESOURCES

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7480	Safety Program					
	Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation	Cost	\$ 598,936	\$ 630,700	\$ 625,700	
	Contract Review for Compliance with Safety Standards	# of Reviews	18	30	30	
		Cost	\$ 6,720	\$ 7,200	\$ 7,200	
		Cost/Review	\$ 373.33	\$ 240.00	\$ 240.00	
	Safety Equipment					
	New/Rental	Cost	\$ 23,552	\$ 140,700	\$ 138,750	
	Replacement	Cost	\$ 66,706	\$ 22,500	\$ 23,750	
	Maintenance	Cost	\$ 49,594	\$ 38,000	\$ 79,200	i)
	Medical Health Surveillance					
	First Aid Assistance	Cost	\$ 35,000	\$ 35,000	\$ 35,000	
	Hearing Tests	People Tested	388	450	450	
		Cost	\$ 6,208	\$ 9,500	\$ 9,500	
		Cost/Test	\$ 16.00	\$ 21.11	\$ 21.11	
	Respiratory Evaluations	People Tested	23	60	60	
		Cost	\$ 9,100	\$ 5,000	\$ 5,000	
		Cost/Test	\$ 395.65	\$ 83.33	\$ 83.33	
	Safety Training					
	CPR and First Aid	People Trained	260	250	250	
		Cost	\$ 45,700	\$ 46,100	\$ 38,600	j)
		Cost/Trainee	\$ 175.77	\$ 184.40	\$ 154.40	
	Confined Spaces	People Trained	128	100	100	
		Cost	\$ 10,380	\$ 10,400	\$ 9,400	
		Cost/Trainee	\$ 81.09	\$ 104.00	\$ 94.00	
	Lockout/Tagout	People Trained	34	500	500	
		Cost	\$ 4,240	\$ 4,800	\$ 4,800	
		Cost/Trainee	\$ 124.71	\$ 9.60	\$ 9.60	
	General Safety	People Trained	7,333	7,500	7,500	
		Cost	\$ 313,436	\$ 432,200	\$ 423,800	
		Cost/Trainee	\$ 42.74	\$ 57.63	\$ 56.51	
	Professional Safety	Cost	\$ 3,174	\$ 19,800	\$ 16,200	k)
	Industrial Hygiene/Right to Know	People Trained	390	650	650	
		Cost	\$ 29,430	\$ 29,400	\$ 28,400	
		Cost/Trainee	\$ 75.46	\$ 45.23	\$ 43.69	
	Fire Prevention and Protection	Cost	\$ 86,952	\$ 20,000	\$ 22,200	
	Hazardous Materials Abatement	Cost	\$ 35,477	\$ 114,000	\$ 60,700	l)

- i) Increase is due to the requirements of the annual schedule for the maintenance of safety equipment (\$39,300).
- j) Decrease is due to a reduced need for additional portable hand washing stations (\$5,000).
- k) Decrease is due to the reduced estimated cost for professional safety training (\$4,000).
- l) Decrease is due to a decrease in hazardous material abatement based on the current project schedule (\$53,300).

25000 HUMAN RESOURCES

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7500	Risk Management Operations					
	Administration	Cost	\$ 511,824	\$ 443,800	\$ 448,007	
	Asset Appraisal and Other Services	Cost	\$ 279,890	\$ 386,700	\$ 315,493	m)
	Broker Services	Cost	\$ 232,600	\$ 236,200	\$ 250,000	
	Insurance Premiums (such as property insurance)	Cost	\$ 3,080,312	\$ 3,500,600	\$ 3,080,300	n)
7604	Social Security and Medicare Contributions	Cost	\$ 99,569	\$ 101,200	\$ 133,600	o)
		Total	\$ 54,540,207	\$ 60,905,400	\$ 59,226,400	

- m) Decrease is due to the reduced need of special council for workers' compensation (\$50,000).
- n) Decrease is due to reduced insurance premiums for other than employee benefits (\$3,500,600), offset by the anticipated increased cost of insurance premiums for property (\$1,880,300), casualty (\$1,140,000), marine hull and liability (\$24,000), fiduciary liability (\$16,000), government crime (\$14,000), and business travel accident (\$6,000).
- o) Increase is due to the calculation for Social Security and Medicare as a percentage of salaries (\$32,400).

101 25000	Fund: Corporate Department: Human Resources	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,769,835	\$ 7,491,500	\$ 7,471,500	\$ 5,592,200	\$ 6,382,300	\$ 6,382,300	\$ 6,489,600
601060	Compensation Plan Adjustments	260,741	238,400	238,400	210,000	200,900	200,900	213,700
601070	Social Security and Medicare Contributions	99,569	101,200	121,200	115,300	133,600	133,600	133,600
601090	Employee Claims	39,155	60,200	60,200	26,600	60,000	60,000	60,000
601100	Tuition and Training Payments	357,755	741,800	509,800	480,400	553,600	553,600	553,600
601250	Health and Life Insurance Premiums	43,224,069	46,705,100	46,681,100	43,774,400	46,455,800	46,455,800	46,455,800
601300	Personal Services, N.O.C.	210,044	250,800	506,800	404,900	505,900	505,900	505,900
100	TOTAL PERSONAL SERVICES	49,961,169	55,589,000	55,589,000	50,603,800	54,292,100	54,292,100	54,412,200
612010	Travel	2,976	5,000	5,000	2,700	5,800	5,800	5,800
612030	Meals and Lodging	10,061	12,000	12,000	7,900	18,200	18,200	18,200
612040	Postage, Freight, and Delivery Charges	189	200	200	100	200	200	200
612050	Compensation for Personally-Owned Automobiles	2,230	4,400	4,400	600	2,200	2,200	2,200
612080	Motor Vehicle Operating Services	14	100	100	100	-	-	-
612250	Court Reporting Services	11,230	14,000	14,000	12,000	12,000	12,000	12,000
612260	Medical Services	121,997	123,700	123,700	89,600	97,300	97,300	97,300
612290	Insurance Premiums	3,080,312	3,500,600	3,500,600	3,196,700	3,080,300	3,080,300	3,080,300
612330	Rental Charges	23,759	23,500	23,500	10,200	26,700	26,700	26,700
612430	Payments for Professional Services	1,072,710	1,139,100	1,179,100	1,082,800	1,107,300	1,107,300	1,107,300
612490	Contractual Services, N.O.C.	43,617	62,900	62,900	57,100	46,400	46,400	46,400
612780	Safety Repairs and Services	85,071	172,000	132,000	79,100	135,100	135,100	135,100
612820	Computer Software Maintenance	14,200	20,000	20,000	-	-	-	-
200	TOTAL CONTRACTUAL SERVICES	4,468,367	5,077,500	5,077,500	4,538,900	4,531,500	4,531,500	4,531,500
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	14,581	58,500	67,800	67,800	58,300	58,300	58,300
623720	Books, Maps, and Charts	2,232	3,500	3,500	1,000	2,500	2,500	2,500
623780	Safety and Medical Supplies	90,562	173,000	163,700	95,000	193,500	193,500	193,500
623990	Materials and Supplies, N.O.C.	3,297	3,900	3,900	3,700	3,400	3,400	3,400
300	TOTAL MATERIALS AND SUPPLIES	110,671	238,900	238,900	167,500	257,700	257,700	257,700
634820	Computer Software	-	-	-	-	25,000	25,000	25,000
400	TOTAL MATERIALS AND SUPPLIES	-	-	-	-	25,000	25,000	25,000
TOTAL HUMAN RESOURCES		\$ 54,540,207	\$ 60,905,400	\$ 60,905,400	\$ 55,310,200	\$ 59,106,300	\$ 59,106,300	\$ 59,226,400

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.

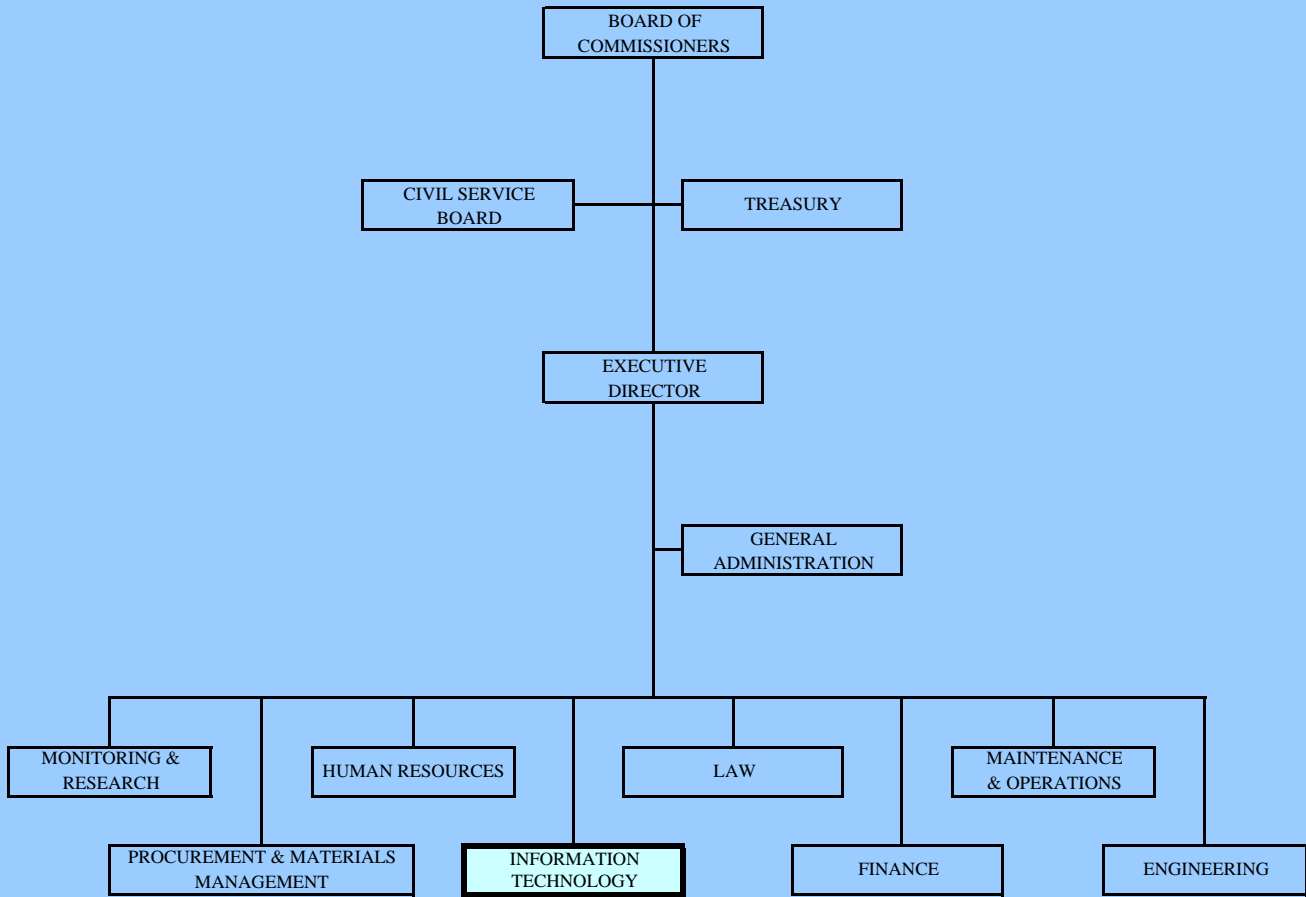
Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
252	Executive Unit					
EX10	Director of Human Resources	1	1		1	
HP20	Assistant Director of Human Resources	2	1		1	
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	-		-	
HP11	Administrative Specialist	1	1		1	
TOTAL	Executive Unit	9	7	605,236.30	7	632,697.10
254	Employee Selection Section					
HP19	Human Resources Manager #2 (New Grade HP18)	1	1		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	2	1		-	
HP16	Senior Human Resources Analyst	-	1		2	
HP16	Senior Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		-	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		1	
HP14	Human Resources Analyst	4	4		5	
HP13	Senior Administrative Specialist	2	2		2	
HP11	Administrative Specialist	3	3		3	
TOTAL	Employee Selection Section	14	14	1,337,882.65	14	1,328,447.53
255	Employee Development Section					
HP19	Human Resources Manager #2 (New Grade HP18)	1	1		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	1	1		1	
HP14	Human Resources Analyst	1	2		2	
HP12	Human Resources Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	1	1		1	
TM01	Intern	12	12		20	

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PR1025	Apprentice	1	71		13	
TOTAL	Employee Development Section	18	89	4,751,317.27	39	1,917,061.96
256	Classification, Compensation, & Benefits Section					
HP19	Human Resources Manager #2 (New Grade HP18)	1	1		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	2	2		2	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		-	
HP14	Human Resources Analyst	2	2		3	
HP11	Administrative Specialist	2	1		1	
HP11	Administrative Specialist #4	-	1		1	
TOTAL	Classification, Compensation, & Benefits Section	8	8	855,151.13	8	834,702.67
258	Employee Relations Section					
HP19	Human Resources Manager #2 (New Grade HP18)	1	-		-	
HP18	Human Resources Manager	-	1		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	2	-		-	
HP16	Senior Human Resources Analyst	-	2		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	2	2		2	
TOTAL	Employee Relations Section	8	8	780,137.86	8	820,659.01
259	Risk Management Section					
HP19	Risk Manager #2 (New Grade HP18)	1	1		1	
HP17	Claims Administrator #2 (New Grade HP16)	1	1		1	
HP17	Senior Risk Analyst #2 (New Grade HP16)	1	1		1	
HP17	Senior Safety Specialist #2 (New Grade HP16)	1	1		1	
HP15	Safety Coordinator #2 (Safety Specialist) (New Grade HP14)	4	4		3	
HP14	Human Resources Analyst	1	-		-	
HP14	Safety Specialist	5	5		6	

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	2	2		2	
TOTAL	Risk Management Section	16	15	1,540,083.71	15	1,529,378.70
TOTAL	Human Resources	73	141	9,869,808.92	91	7,062,946.97

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

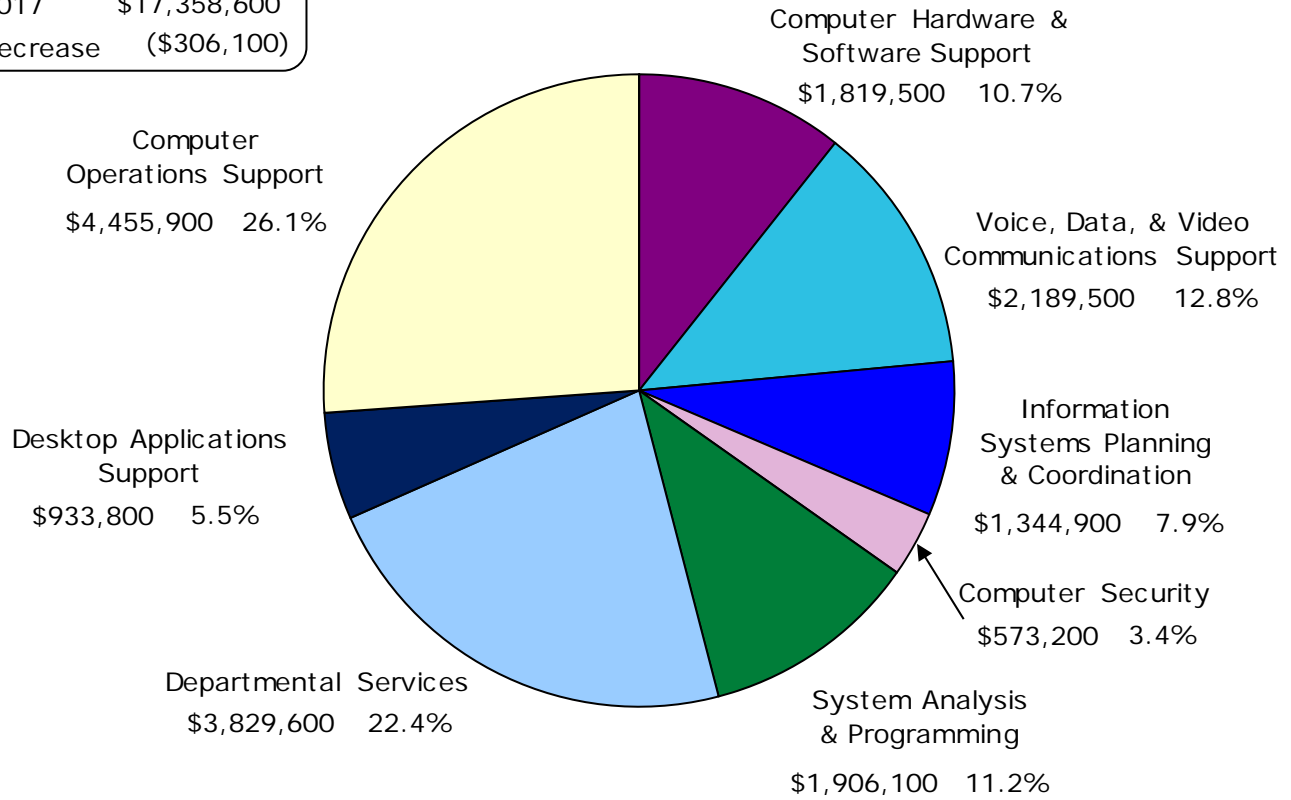


INFORMATION
TECHNOLOGY

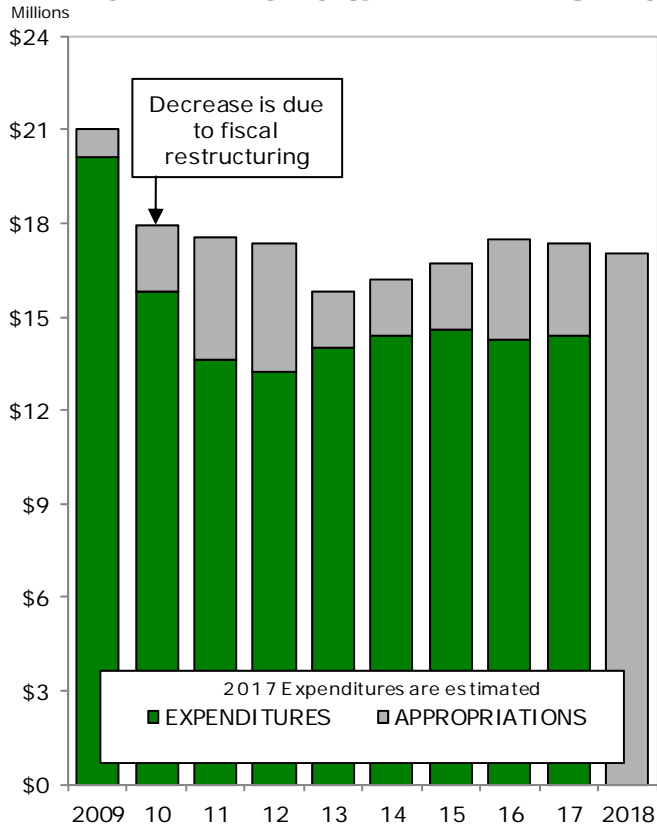
INFORMATION TECHNOLOGY

2018	\$17,052,500
2017	\$17,358,600
Decrease	(\$306,100)

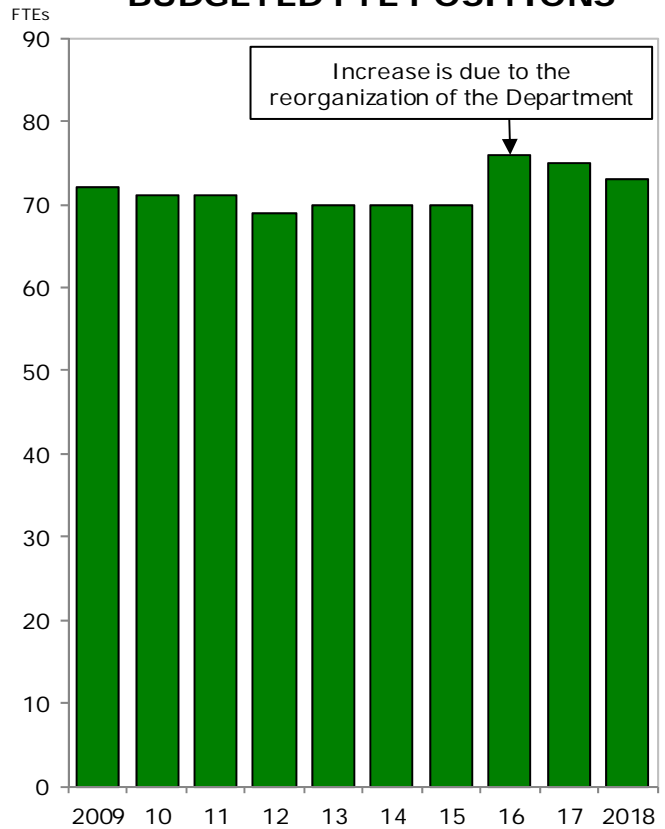
FUNCTIONS



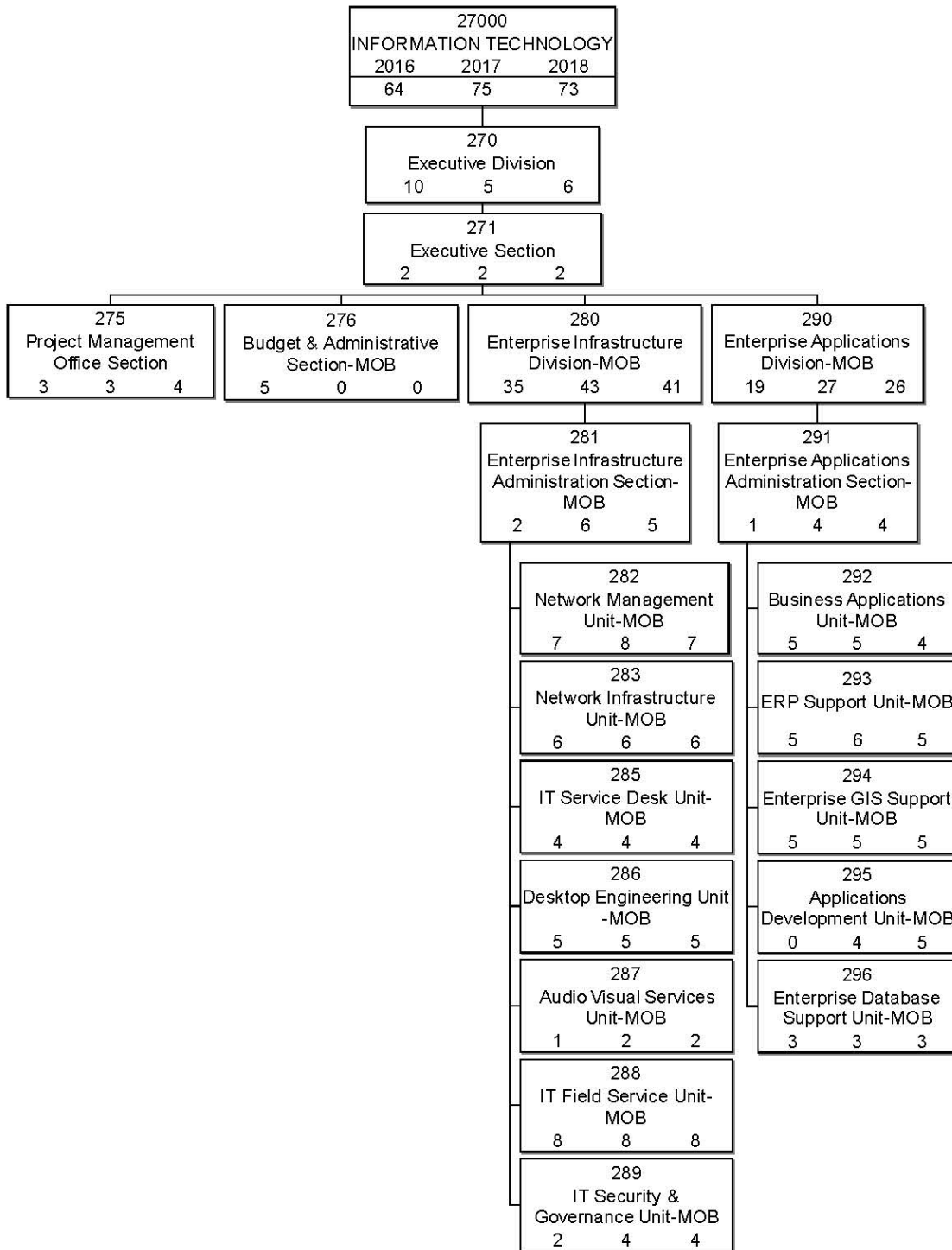
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



INFORMATION TECHNOLOGY



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 2017 Accomplishments

- Completed the decommissioning of the District's data centers at the Egan Water Reclamation Plant (WRP) and Main Office Building Complex (MOBC);
- Continued updating the District's MOBC networking hardware, increasing stability and efficiency;
- Continued the implementation of the IT Infrastructure Strategy, including upgraded firewalls and the implementation of continuous threat prevention and mobile device management platforms;
- Continued the upgrade of the District's videoconferencing infrastructure, including Polycom-based desktop and mobile device client capabilities, allowing videoconferencing from desktops and mobile devices;
- Completed the implementation of a new IT Service Management solution to enhance help desk services, improving customer response;
- Completed the migration of the District's Enterprise Resource Planning solution to a new database platform;
- Continued the deployment of personal computers to replace outdated thin client devices in the MOBC and North Service Area WRPs;
- Continued the implementation of a concise IT Service Catalog;
- Implemented single sign-on technology in the effort to streamline user passwords;
- Initiated the upgrade of the District's voicemail system;
- Completed the deployment of personal computers to replace outdated thin client devices at the Stickney WRP;
- Initiated the replacement of antiquated communication lines.

Budget Highlights

The 2018 appropriation for the ITD is \$17,052,500, a decrease of \$306,100, or 1.8 percent, from 2017. The staffing level has decreased from 75 to 73 positions, which include the drop of an Administrative Specialist and a Senior Network Engineer #1.

Significant features of the 2018 budget are:

- Continue the evaluation and alignment of the ITD's existing strategic plan to promote the achievement of the District's Strategic Business Plan;
- Continue the replacement of antiquated communication lines;
- Develop agile applications, reducing the time to market for in-house developed applications;
- Continue the implementation of a standardized project management methodology for all ITD-related projects;
- Continue to develop a center of excellence to align the ITD's priorities with overall District priorities through continuous review of projects and implementations, enhancing customer response;
- Complete the implementation of the IT Service Catalog which will increase transparency by detailing the services offered by the ITD;
- Complete the upgrade of the District's voicemail system;
- Implement additional cyber security protection;
- Continue the redesign of the District's website in collaboration with the Public Affairs Section.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:**• Add Value**

The ITD supports the various systems that are used by departments to implement their strategies. Among these are the internet-based Publicly owned treatment works Administration and Compliance System, the Laboratory Information Management System, the Combined Sewer Overflow Notification System, the Small Streams Maintenance Reporting System, the Metropolitan Water Reclamation District Incident Reporting System, the Stormwater Inundation Mapping Application, and the Stormwater Management Reporting Application.

The ITD will continue to pursue green initiatives, both in its own support environment and by assisting with other departments' initiatives. The ITD will provide conference calls, online meetings, and integrated messaging using Microsoft Office 365. This supports the District's green initiative by allowing individuals to schedule online meetings utilizing screen sharing and conference call management, providing savings in travel time and expenses.

• Excellence

The ITD will continue to assist the Public Affairs Section in improving the delivery and maintenance of the District's website content located at mwrdd.org, providing easy and transparent access to reports and data and clear, consistent, accurate, and accessible information about the District and its areas of responsibility. The ITD will also begin a project to redesign the District's public website.

The 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 Metropolitan Water Reclamation District Citizen Incident Reporting System, available at mwrdd.org, was developed for use by the public to report odor, water pollution, waterway blockage, or other incidents.

• Resource Recovery

The ITD supports systems that are used by the departments to implement their strategies to pursue the recovery of natural resources. Among these are the internet-based Publicly owned treatment works Administration and Compliance System, the Laboratory Information Management System, and the Scales application. In addition, the ITD is committed to maintaining a reliable and flexible technology infrastructure to support new initiatives.

• Develop Employees

The ITD will continue to develop a culture that encourages 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 ITD 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 the District's employees by providing the audio and video infrastructure to prepare in-house training sessions, which will be available to all employees via the District's portal. The portal also supports other training materials.

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 will maintain its relationship with the Water and Wastewater Chief Information Officer Forumsm, which is the only water and wastewater agency-focused organization for IT executives in the industry. The Water and Wastewater Chief Information Officer Forumsm 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 to simplify 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.

The Geographic Information System program will continue to grow via data and 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 2018, the Geographic Information System 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.

The ITD will continue to upgrade technology infrastructure, such as storage area networks, servers, VMware, Citrix, and desktops, which will provide higher reliability and availability as well as reduce power and cooling requirements. Completion is scheduled for the end of 2018.

The ITD will continue to evolve the District's information technology security offering by implementing new protection mechanisms in the effort to combat spam, malware, and other cyber security threats.

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 completing the rollout of Microsoft Office 365. The move to the use of Microsoft Office 365 provides employees with the latest versions of Microsoft Office software and also moves 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.

27000 INFORMATION TECHNOLOGY

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COMPUTER HARDWARE AND SOFTWARE SUPPORT: The Information Technology Department (ITD) provides maintenance and operations of all hardware, including SAP servers, storage area networks/thin client central computer hardware, and software for nine major locations.	\$ 1,819,500	10.7%
2. VOICE, DATA, AND VIDEO COMMUNICATIONS SUPPORT: 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 voice, data, and video communications for the entire District.	\$ 2,189,500	12.8%
3. INFORMATION SYSTEMS PLANNING AND COORDINATION: Provides a strategic perspective used to align the ITD with the stated goals and objectives of the District and its departments. Staff is responsible for services such as strategic planning of technology and communications as well as disaster recovery planning.	\$ 1,344,900	7.9%
4. SYSTEMS ANALYSIS AND PROGRAMMING: The Enterprise Applications Division is 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.	\$ 1,906,100	11.2%
5. COMPUTER OPERATIONS SUPPORT: The ITD operates two computer rooms which house the District's Sun and ALPHA systems, storage area networks, network servers, and ancillary equipment.	\$ 4,455,900	26.1%
6. DEPARTMENTAL SERVICES: 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 the Laboratory Information Management System, Maintenance Management System, and the internet-based Publicly owned treatment works Administration and Compliance System, along with Treasury Section and real estate applications.	\$ 3,829,600	22.4%
7. COMPUTER SECURITY: 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. Staff is also responsible for auditing remaining workstations to verify compliance.	\$ 573,200	3.4%
8. DESKTOP APPLICATIONS SUPPORT: The assigned staff will continue to provide applications and technical support to approximately 2,000 computer system users.	\$ 933,800	5.5%
Total	\$ 17,052,500	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 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	Below Budget	At Budget
5. Customer Satisfaction: Ensure user satisfaction with ITD systems, applications, and infrastructure. On a scale of one to five, where five is the highest.	3	4	4

27000 INFORMATION TECHNOLOGY

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
7381	Systems Analysis and Programming	\$ 1,355,270	2018	17	\$ 1,906,100	\$ 49,700	2.7	
			2017	17	\$ 1,856,400			
7382	Desktop Applications Support	\$ 850,802	2018	6	\$ 933,800	\$ (21,300)	(2.2)	
			2017	6	\$ 955,100			
7383	Voice, Data, and Video Communications Support	\$ 2,048,241	2018	9	\$ 2,189,500	\$ (484,100)	(18.1)	a)
			2017	9	\$ 2,673,600			
7384	Central Computer Hardware and Proprietary Software Support	\$ 1,582,135	2018	9	\$ 1,819,500	\$ 143,300	8.5	
			2017	8	\$ 1,676,200			
7385	Computer Operations, Maintenance, and Support	\$ 4,071,831	2018	7	\$ 4,455,900	\$ (18,100)	(0.4)	
			2017	8	\$ 4,474,000			
7387	Computer Security	\$ 278,079	2018	4	\$ 573,200	\$ (60,000)	(9.5)	
			2017	4	\$ 633,200			
7388	Information Systems Planning	\$ 499,864	2018	5	\$ 828,400	\$ 57,600	7.5	
			2017	6	\$ 770,800			
7389	Information Systems Coordination	\$ 491,994	2018	3	\$ 516,500	\$ (90,400)	(14.9)	
			2017	3	\$ 606,900			
7800	Information Technology Services	\$ 3,018,024	2018	13	\$ 3,709,700	\$ 104,000	2.9	
			2017	14	\$ 3,605,700			
7604	Social Security and Medicare Contributions	\$ 96,288	2018	-	\$ 119,900	\$ 13,200	12.4	
			2017	-	\$ 106,700			
Totals		\$ 14,292,528	2018	73	\$ 17,052,500	\$ (306,100)	(1.8%)	
			2017	75	\$ 17,358,600			

a) Decrease is due to a reduced estimate for AT&T switched ethernet services (\$204,000), the 2017 purchase of the Commvault data backup system (\$180,000), and the elimination of datacenter services (\$100,000).

27000 INFORMATION TECHNOLOGY

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7380	Information Technology and Telecommunications					
7381	Systems Analysis and Programming	Application Modules Supported	80	90	90	
		Cost	\$ 1,355,270	\$ 1,856,400	\$ 1,906,100	
		Cost/Module	\$ 16,940.88	\$ 20,626.67	\$ 21,178.89	
7382	Desktop Applications Support	# of Service Calls	12,126	13,002	13,002	
		Cost	\$ 850,802	\$ 955,100	\$ 933,800	
		Cost/Service Call	\$ 70.16	\$ 73.46	\$ 71.82	
7383	Voice, Data, and Video Communications Support	Cost	\$ 2,048,241	\$ 2,673,600	\$ 2,189,500	a)
7384	Central Computer Hardware and Proprietary Software Support	Cost	\$ 1,582,135	\$ 1,676,200	\$ 1,819,500	
7385	Computer Operations, Maintenance, and Support	Cost	\$ 4,071,831	\$ 4,474,000	\$ 4,455,900	
7387	Computer Security	Cost	\$ 278,079	\$ 633,200	\$ 573,200	
7388	Information Systems Planning	Cost	\$ 499,864	\$ 770,800	\$ 828,400	
7389	Information Systems Coordination	Cost	\$ 491,994	\$ 606,900	\$ 516,500	
7800	Information Technology Services	# of Users	1,976	2,000	2,000	
		Cost	\$ 3,018,024	\$ 3,605,700	\$ 3,709,700	
		Cost/User	\$ 1,527.34	\$ 1,802.85	\$ 1,854.85	
7604	Social Security and Medicare Contributions	Cost	\$ 96,288	\$ 106,700	\$ 119,900	
		Total	\$ 14,292,528	\$ 17,358,600	\$ 17,052,500	

a) Decrease is due to a reduced estimate for AT&T switched ethernet services (\$204,000), the 2017 purchase of the Commvault data backup system (\$180,000), and the elimination of datacenter services (\$100,000).

101 27000	Fund: Corporate Department: Information Technology	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 6,928,258	\$ 8,588,300	\$ 8,584,800	\$ 7,500,000	\$ 8,378,400	\$ 8,378,400	\$ 8,514,700
601060	Compensation Plan Adjustments	87,198	235,800	235,800	184,500	171,900	171,900	154,700
601070	Social Security and Medicare Contributions	96,288	106,700	110,200	105,600	119,900	119,900	119,900
601100	Tuition and Training Payments	13,483	86,700	86,700	32,000	66,000	66,000	66,000
100	TOTAL PERSONAL SERVICES	7,125,226	9,017,500	9,017,500	7,822,100	8,736,200	8,736,200	8,855,300
612010	Travel	476	400	500	500	800	800	800
612030	Meals and Lodging	1,058	1,500	1,400	900	2,400	2,400	2,400
612040	Postage, Freight, and Delivery Charges	287	-	1,200	600	500	500	500
612050	Compensation for Personally-Owned Automobiles	2,058	4,700	4,700	1,000	2,100	2,100	2,100
612210	Communication Services	1,078,326	1,422,400	1,422,400	765,100	1,177,600	1,177,600	1,177,600
612330	Rental Charges	331,336	325,500	325,500	294,000	325,500	325,500	325,500
612430	Payments for Professional Services	181,840	357,400	357,400	95,000	602,500	602,500	602,500
612490	Contractual Services, N.O.C.	2,750	20,000	20,000	-	49,600	49,600	49,600
612810	Computer Equipment Maintenance	486,509	376,100	376,100	237,400	364,200	364,200	364,200
612820	Computer Software Maintenance	3,472,181	4,057,600	4,057,600	3,750,000	4,216,900	4,216,900	4,216,900
612840	Communications Equipment Maintenance (Includes Software)	744,527	796,400	795,200	728,800	735,900	735,900	735,900
200	TOTAL CONTRACTUAL SERVICES	6,301,348	7,362,000	7,362,000	5,873,300	7,478,000	7,478,000	7,478,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	5,676	17,000	17,200	16,900	18,700	18,700	18,700
623720	Books, Maps, and Charts	166	-	-	-	-	-	-
623800	Computer Software	194,345	331,900	331,700	104,200	118,400	118,400	118,400
623810	Computer Supplies	465,659	423,500	423,500	415,600	431,500	431,500	431,500
623850	Communications Supplies	136,073	131,700	131,700	100,000	120,600	120,600	120,600
300	TOTAL MATERIALS AND SUPPLIES	801,920	904,100	904,100	636,700	689,200	689,200	689,200
634810	Computer Equipment	19,259	45,000	45,000	37,900	-	-	-
634820	Computer Software	-	30,000	30,000	30,000	-	-	30,000
634840	Communications Equipment (Includes Software)	44,774	-	-	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	64,034	75,000	75,000	67,900	-	-	30,000
TOTAL INFORMATION TECHNOLOGY		\$ 14,292,528	\$ 17,358,600	\$ 17,358,600	\$ 14,400,000	\$ 16,903,400	\$ 16,903,400	\$ 17,052,500

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: Information Technology		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
270	Executive Division					
271	Executive Section					
EX17	Director of Information Technology	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Section	2	2	333,125.16	2	339,787.74
275	Project Management Office Section					
HP19	Project Management Office Manager	1	1		1	
HP17	Senior Business Analyst #2 (New Grade HP16)	1	-		-	
HP16	Applications Administrator	-	-		1	
HP16	Senior Business Analyst	-	1		1	
HP15	Business Analyst #2 (New Grade HP14)	1	-		-	
HP14	Business Analyst	-	1		1	
TOTAL	Project Management Office Section	3	3	273,692.48	4	419,261.57
276	Budget & Administrative Section - MOB					
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	-	-	-	-
TOTAL	Executive Division	10	5	606,817.64	6	759,049.31
280	Enterprise Infrastructure Division - MOB					
281	Enterprise Infrastructure Administration Section - MOB					
HP20	Assistant Director of Information Technology	1	1		1	
HP19	Information Technology Manager	1	3		3	
HP11	Administrative Specialist	-	2		1	
TOTAL	Enterprise Infrastructure Administration Section - MOB	2	6	653,448.84	5	637,118.05
282	Network Management Unit - MOB					
HP18	Senior Network Engineer #1	1	1		-	

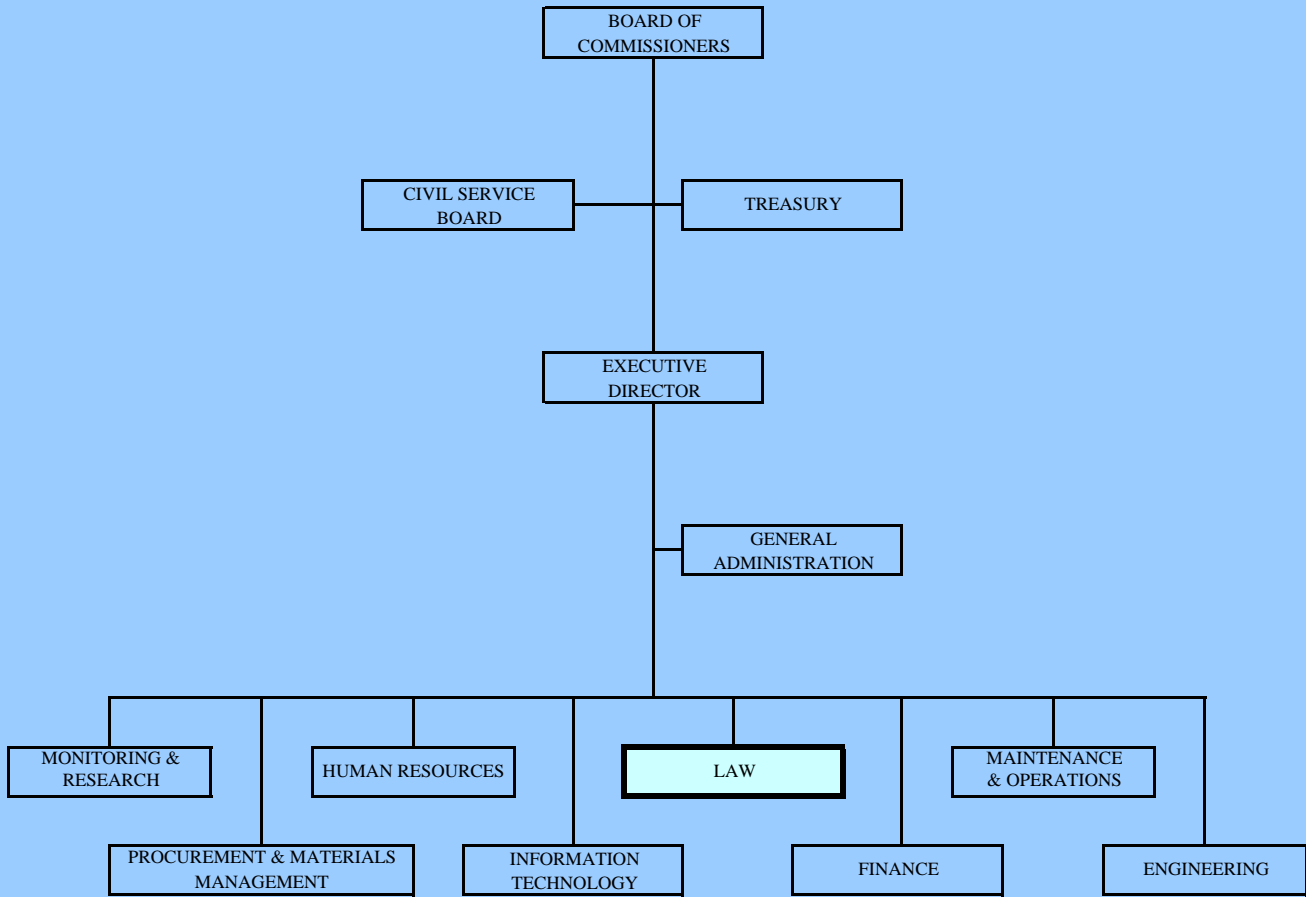
Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP18	Senior Systems Administrator	1	1		1	
HP18	Senior Systems Administrator #1	1	1		1	
HP17	Computer Systems Administrator #2 (Systems Administrator) (New Grade HP16)	3	3		3	
HP17	Senior Systems Programmer #2 (Systems Administrator) (New Grade HP16)	1	1		1	
HP16	Systems Administrator	-	1		1	
TOTAL	Network Management Unit - MOB	7	8	1,062,391.64	7	928,696.45
283	Network Infrastructure Unit - MOB					
HP18	Senior Network Engineer	1	1		1	
HP16	Network Engineer	4	4		4	
NR1541	Telecommunications Specialist	1	1		1	
TOTAL	Network Infrastructure Unit - MOB	6	6	679,019.76	6	691,673.81
285	IT Service Desk Unit - MOB					
HP15	IT Support Coordinator	1	1		1	
HP12	Systems Support Specialist II #2 (IT Support Analyst I) (New Grade HP11)	1	1		1	
HP11	IT Support Analyst I	2	2		2	
TOTAL	IT Service Desk Unit - MOB	4	4	302,872.61	4	293,749.84
286	Desktop Engineering Unit - MOB					
HP18	Senior Desktop Engineer	1	1		1	
HP17	Computer Systems Administrator #2 (Desktop Engineer) (New Grade HP16)	3	3		3	
HP15	Computer Systems Coordinator #2 (Desktop Analyst) (New Grade HP14)	1	1		1	
TOTAL	Desktop Engineering Unit - MOB	5	5	641,189.89	5	665,672.94
287	Audio Visual Services Unit - MOB					
HP16	A/V Administrator	1	1		1	
HP14	A/V Analyst	-	1		1	
TOTAL	Audio Visual Services Unit - MOB	1	2	194,587.38	2	188,759.01
288	IT Field Service Unit - MOB					
HP18	Senior Computer Systems Administrator #2 (IT Support Coordinator) (New Grade HP15)	1	1		1	
HP17	Computer Systems Administrator #2 (IT Support Analyst II) (New Grade HP13)	3	3		2	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Computer Systems Coordinator #2 (IT Support Analyst II) (New Grade HP13)	1	1		1	
HP15	Computer Systems Coordinator #2 (IT Support Analyst I) (New Grade HP11)	2	1		1	
HP13	IT Support Analyst II	-	-		1	
HP11	IT Support Analyst I	1	2		2	
TOTAL	IT Field Service Unit - MOB	8	8	910,783.72	8	832,290.40
289	IT Security & Governance Unit - MOB					
HP18	Senior IT Security Administrator	1	1		1	
HP17	Computer Systems Administrator #2 (IT Security Analyst) (New Grade HP14)	1	1		1	
HP16	IT Security Administrator	-	1		1	
HP14	IT Security Analyst	-	1		1	
TOTAL	IT Security & Governance Unit - MOB	2	4	465,011.29	4	474,311.52
TOTAL	Enterprise Infrastructure Division - MOB	35	43	4,909,305.13	41	4,712,272.02
290	Enterprise Applications Division - MOB					
291	Enterprise Applications Administration Section - MOB					
HP20	Assistant Director of Information Technology	-	1		1	
HP19	Information Technology Manager	1	2		2	
HP11	Administrative Specialist	-	1		1	
TOTAL	Enterprise Applications Administration Section - MOB	1	4	503,790.22	4	526,793.02
292	Business Applications Unit - MOB					
HP18	Senior Applications Administrator	1	1		1	
HP17	Webmaster #1	1	1		1	
HP16	Applications Administrator	2	2		1	
HP14	Applications Analyst	1	1		1	
TOTAL	Business Applications Unit - MOB	5	5	591,481.56	4	491,535.47
293	ERP Support Unit - MOB					
HP18	Senior Applications Administrator	1	1		1	
HP17	Senior Systems Programmer #1	2	2		2	
HP16	Applications Administrator	1	1		1	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Applications Analyst	1	2		1	
TOTAL	ERP Support Unit - MOB	5	6	700,562.95	5	645,851.37
	294 Enterprise GIS Support Unit - MOB					
HP18	Senior Applications Administrator	1	1		1	
HP16	Applications Administrator #2 (GIS Analyst) (New Grade HP14)	2	2		2	
HP14	GIS Analyst	2	2		2	
TOTAL	Enterprise GIS Support Unit - MOB	5	5	559,511.31	5	570,701.40
	295 Applications Development Unit - MOB					
HP18	Senior Applications Developer	-	1		1	
HP16	Applications Administrator	-	1		1	
HP16	Applications Developer	-	1		1	
HP14	Applications Analyst	-	1		2	
TOTAL	Applications Development Unit - MOB	-	4	386,012.01	5	464,394.10
	296 Enterprise Database Support Unit - MOB					
HP18	Senior Database Administrator	1	1		1	
HP16	Data Base Analyst II	2	-		-	
HP16	Database Administrator	-	2		2	
TOTAL	Enterprise Database Support Unit - MOB	3	3	373,967.88	3	386,785.19
TOTAL	Enterprise Applications Division - MOB	19	27	3,115,325.93	26	3,086,060.55
TOTAL	Information Technology	64	75	8,631,448.70	73	8,557,381.88

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.

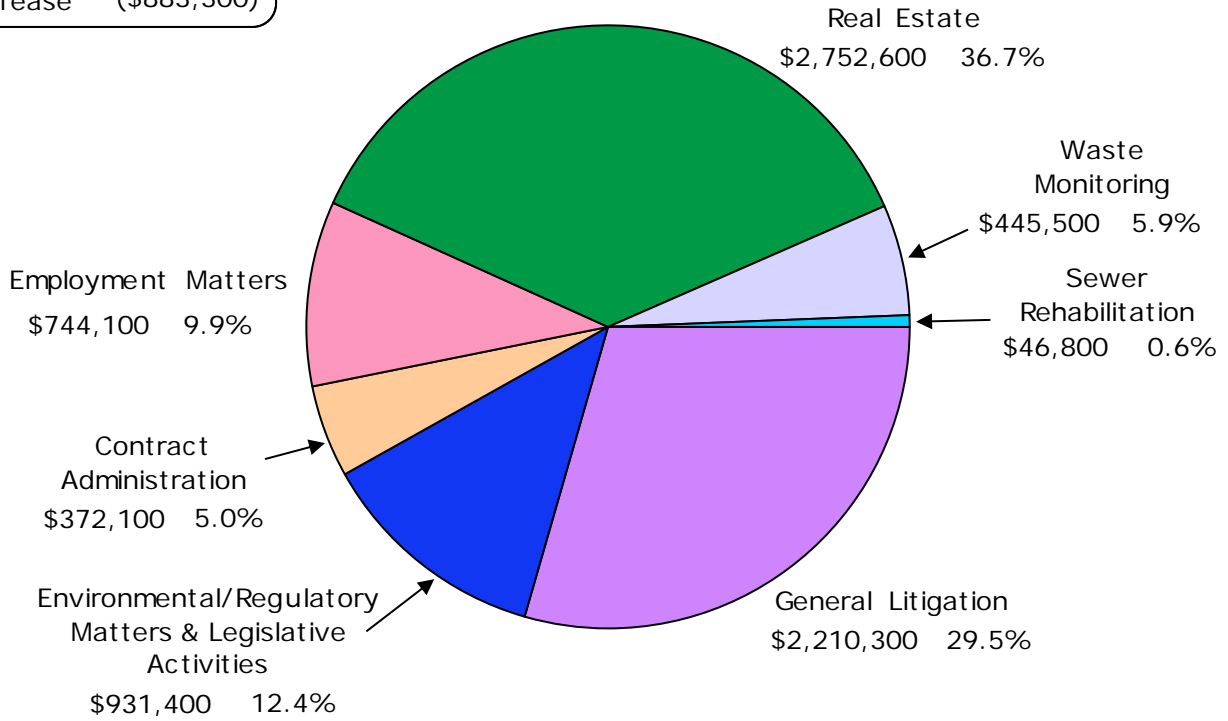
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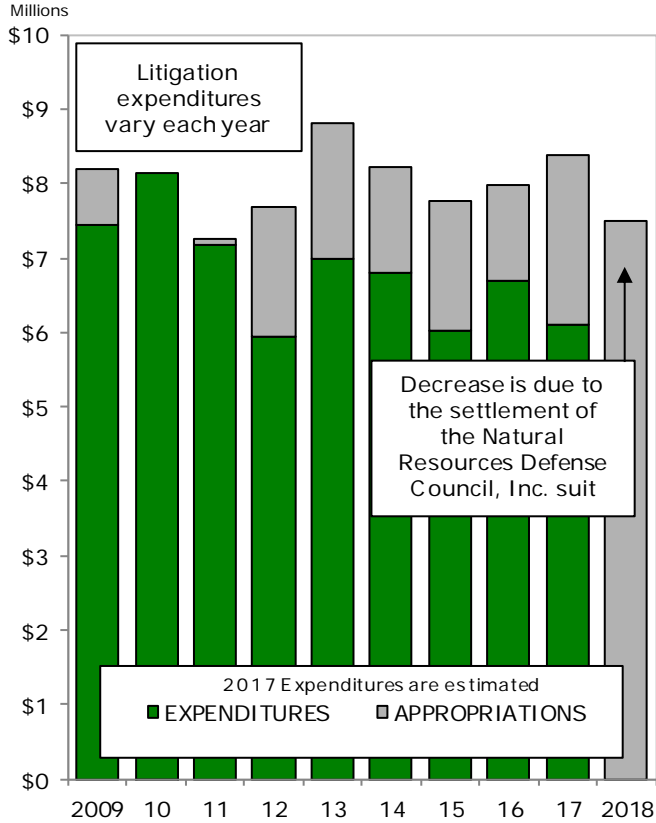
LAW

FUNCTIONS

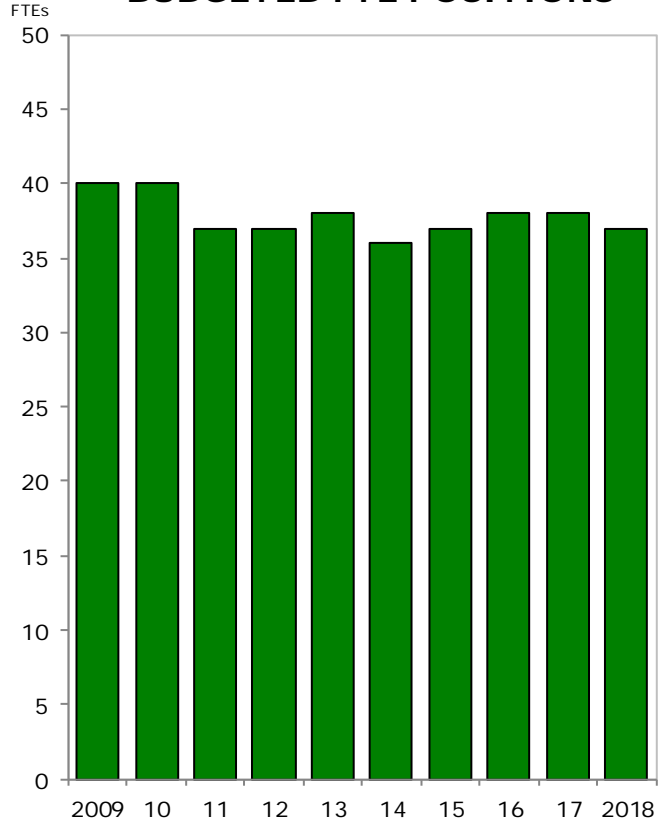
2018	\$7,502,800
2017	\$8,386,100
Decrease	(\$883,300)



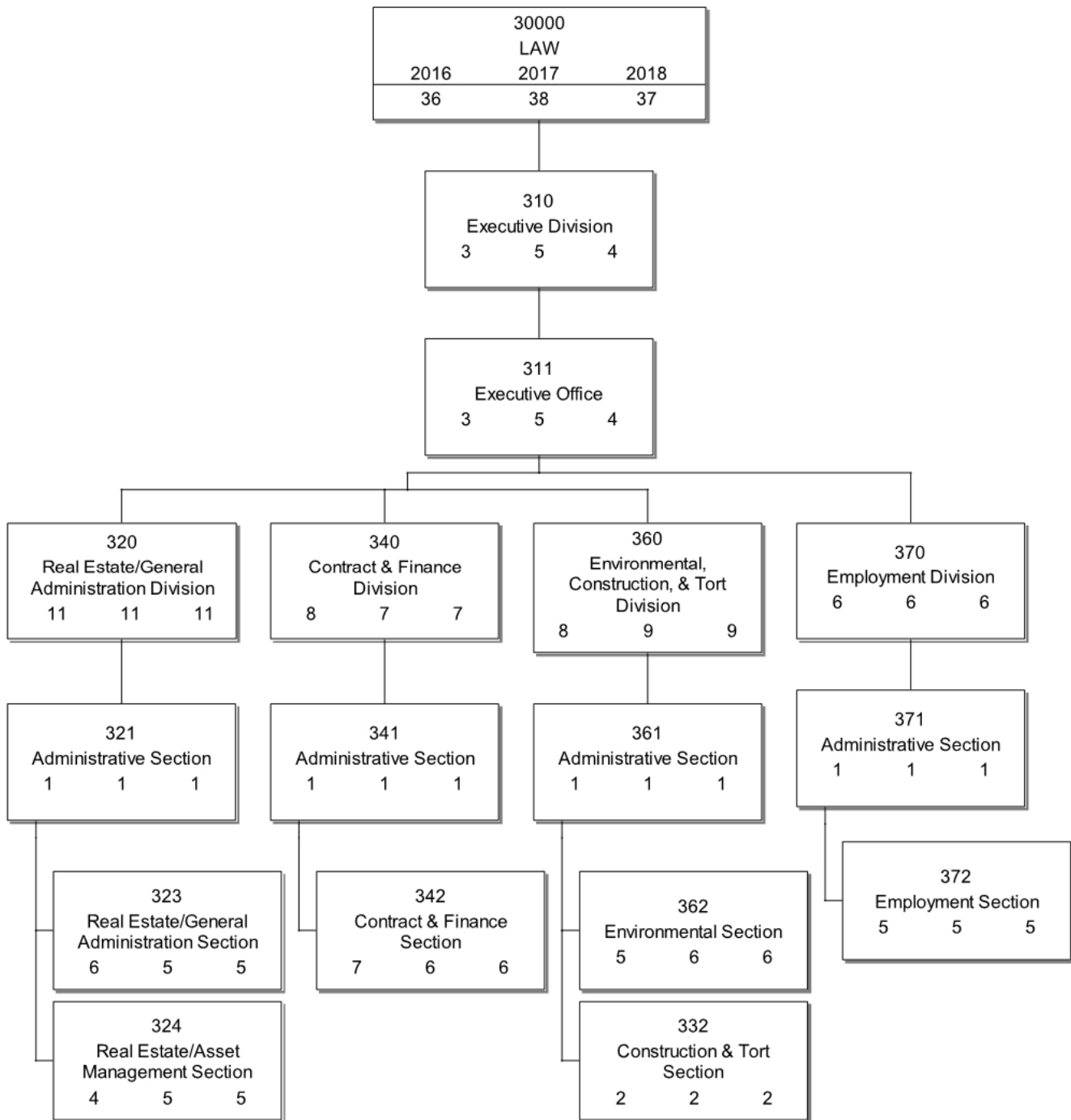
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



LAW



LAW

The mission of the Law Department is to provide high quality 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 state and federal courts;
- Administering approximately 24,000 acres of District real estate.

Summary of 2017 Accomplishments

- Processed 445 Freedom of Information Act requests;
- In collaboration with the Information Technology Department, expanded the capability of the Freedom of Information Act link on District's website to allow for public to access many documents online thereby making the website more accessible to the public;
- Successfully negotiated a complex settlement of Natural Resources Defense Council, Inc. et al. v. Metropolitan Water Reclamation District of Greater Chicago, a federal lawsuit brought by three environmental groups against the District alleging that the District's treated effluent violated certain narrative water quality standards (Citizens' Suit). A resolution of this Citizens' Suit also worked to resolve a National Pollutant Discharge Elimination System Permit appeal brought by these, and other, environmental groups before the Illinois Pollution Control Board. The resolution of both of these pieces of litigation operated to save significant financial resources. Both cases would have continued in the courts for years until the parties exhausted their appellate rights. The District engaged outside counsel to represent it in the Citizens' Suit. By resolving this litigation, the District no longer incurs the expense of outside counsel. In addition, in each case, the plaintiffs requested the courts impose a numeric phosphorus limit that was much lower than the 1.0 mg/L proposed limit. If the plaintiffs had prevailed, the District would have been forced to expend millions of dollars in capital improvements above the amounts already contemplated to achieve the much lower limit;
- Managed all legal aspects of the implementation of various Resource Recovery Programs including issuance of Organic Materials Discharge Authorizations to allow delivery of high strength liquid waste for use in the biological phosphorus removal initiative;
- Successfully negotiated a project partnership agreement with the Army Corps of Engineers for the design and construction of the River Riparian Connectivity and Habitat Ecosystem Restoration Project, including the removal of an existing dam on the North Branch of the Chicago River. Drafted an Intergovernmental Agreement with the Chicago Park District to maintain the restored stream bed, river bank, and native vegetation;
- Assisted operating departments in negotiating and defending against appeals of the National Pollutant Discharge Elimination System permits for the Stickney, O'Brien, and Calumet Water Reclamation Plants culminating in the issuance of the final discharge permits 10 years after submittal of the renewal application;
- Assisted in the implementation of providing Global Positioning System units to municipalities located within the District's service area to collect sanitary, storm, and combined sewer data for improved sewer mapping by drafting and reviewing Intergovernmental Agreements that set forth the terms and conditions for use of the Global Positioning System units;
- Closed 12 Civil Service Board cases and presented three complete evidentiary hearings in the first half of 2017, maintaining virtually no net increase to the Board's agenda;
- Drafted and worked to obtain passage of anticipatory authority to participate in a nutrient trading program in Illinois to help meet water quality standards;
- Worked with the Diversity section to follow up on recommendations from the recent Disparity Study to enhance and further improve our current Affirmative Action Ordinance, Revised Appendix D, by exploring increased opportunities for small firms to participate and diversify our program.

Budget Highlights

The 2018 appropriation for the Law Department is \$7,502,800, a decrease of \$883,300, or 10.5 percent, from 2017. The staffing level has decreased from 38 to 37 positions, which includes the drop of a Deputy General Counsel.

The significant feature of the 2018 budget is:

- Increase in real estate lease and easement income to approximately \$21,500,000.

2018 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.

The Law Department evaluates a variety of contracts and agreements for the acquisition of equipment, labor, software, construction, and professional services. The different categories include sole source, furnish and deliver, emergency matters, as well as maintenance. The dollar amounts of the agreements reviewed range from the thousands to the hundreds of millions. The agreements also vary in complexity. The Contract & Finance Division reviews approximately 100 agreements per year. The average number of workdays to review all contracts, from the fairly routine to the more complex, is approximately eight workdays. While the overall goal is to review and comment on all contracts within the timeframe requested by the operating department, the Law Department is striving to further reduce the average turnaround time.

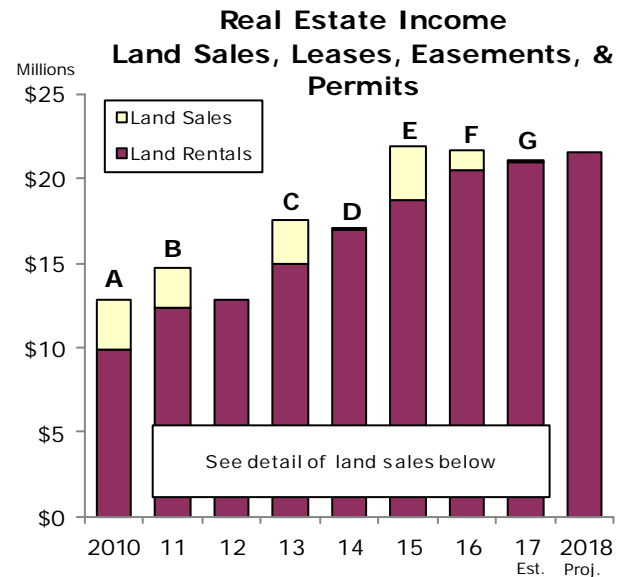
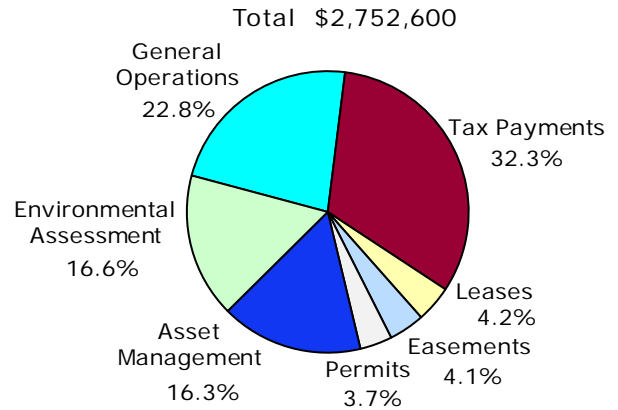
• Excellence

The Law Department employs multiple-tactic strategies to achieve optimal results for the District in the legal arena. First, by making sure the District maintains compliance with all applicable laws, we keep claim filings low. We continually counsel, train, and advise management as to best practices. When potential claims do arise, we assess the potential liability and costs and recommend actions to resolve them or maximize the District’s position. If litigation cannot be avoided, we use all tools at our disposal to obtain dismissal or summary judgment, negotiate favorable settlements, or if necessary, to prevail at trial. If necessary, we will pursue our cases all the way to the Supreme Court. Our careful preparation, skill, resource management, risk management, and determination allow the District to take the most advantageous route to accomplish its goals at the lowest possible cost.

• Resource Recovery

In 2018, the Law Department will continue the implementation of the District’s Resource Recovery Plan by assisting the operating departments in the administration of the District’s new Resource Recovery Ordinance. The ordinance outlines the District’s program 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

2018 Real Estate Program Budget



Land Sale Details	
A	- 60.0 acres sold in Will County
B	- 315.3 acres sold in Will County
C	- 326.4 acres sold in Will County
D	- 5.9 acres sold in Cook County
E	- 4.2 acres sold to the IL State Toll Highway Authority
F	- 4.4 acres sold to the City of Chicago
G	- .05 acres sold to the Wm. Wrigley Jr. Company

Commissioners, technical, and financial professionals in connection with various renewable energy initiatives that will enable the District to achieve its goal of energy neutrality by 2023.

Another component of these initiatives is to obtain high strength liquid waste to aid in the biological removal of phosphorus from the District's effluent water.

The Law Department continues to support the District's efforts to beneficially reuse biosolids that are a byproduct of the District's wastewater treatment operations.

- **Develop Employees**

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. The Law Department will continue to support the Human Resources Department in the legal aspects of the Tuition Reimbursement Program policy and procedures. Internally, the Law Department will enhance its onboarding procedure and develop orientation materials for staff new to the department. We will also resume our intradepartmental seminar series to further enhance employee development.

- **Leading Partnerships**

In 2018, the Law Department will continue to 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, and the acquisition and removal of repetitive loss flood-prone properties. Additionally, in order to continue implementation of the District's Resource Recovery Ordinance, the Law Department will continue to assist the operating departments with negotiation of any Intergovernmental Agreements to further the purpose of the Resource Recovery Ordinance.

The Local Governmental Law Consortium that the Law Department established in 2015 provides a professional network with other local government in-house counsel in Cook County. Regular semi-annual meetings have been conducted and the Local Government Law Consortium is currently comprised of 16 public bodies, including eight Cook County municipalities, the City of Chicago Corporation Counsel, City of Chicago Department of Water Management, City Colleges, Chicago Housing Authority, Forest Preserve District of Cook County, Metropolitan Pier and Exposition Authority, and the Public Building Commission of Chicago. The Law Department will continue its leadership role in the organization through active participation in planning meetings, giving presentations on various legal topics, and ongoing recruitment of new members.

- **Technology**

The Geographic Information System mapping component was completed in December 2016 and is now online on the District's website. It includes pertinent data and visuals for every parcel of real estate owned by the District.

The Law Department will continue to utilize electronic filing options before both the federal and state courts and the newly expanded electronic filing options available before the Equal Employment Opportunity Commission and the Illinois Pollution Control Board. In accordance with our goals to become paperless and efficient, the Law Department staff has been trained in the Circuit Court of Cook County electronic filing system in order to comply with procedures that become mandatory on January 1, 2018.

Additionally, all of the Law Department's claims data is tracked electronically within our Legal Files Document Management System and is readily reported on-demand to the Human Resources Department. The Law Department's electronic claims data report is able to be directly utilized and imported by the Human Resources Department's Origami Risk Management System. The Risk Management Information System (RMIS) integrates relevant case data tracked by the Law Department in our case management software, specifically for RMIS purposes. This RMIS information being tracked by the Law Department's case management software is an essential component used to analyze and report on risk and exposure data arising from the litigation of claims.

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.	\$ 2,210,300	29.5%
2. Handle all environmental matters and monitor all state legislation and legislative activities.	\$ 931,400	12.4%
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.	\$ 744,100	9.9%
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 \$21.5 million in income in 2018.	\$ 2,752,600	36.7%
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.	\$ 445,500	5.9%
6. Review proposed contracts, execute awarded contracts, review bond surety and insurance matters, and process Freedom of Information Act requests.	\$ 372,100	5.0%
7. Sewer Rehabilitation. Upon referral from the Engineering Department, the Law Department conducts administrative hearings to enforce compliance with the Watershed Management Ordinance.	\$ 46,800	0.6%
Total	\$ 7,502,800	100.0%

MEASURABLE GOALS:	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. Revise lease procedures and policies to enhance the marketability of District real estate while increasing the use of green infrastructure.	Millions	\$20.5	\$21.0	\$21.5
2. Conduct training for managers and supervisors at four District locations on Freedom of Information Act requests.	Training Sessions	-	2	2
3. Preparation of draft Intergovernmental Agreements for technical projects within 30 days of referral.	Percentage Completed	-	-	75%
4. Complete the acquisition of approximately 175 properties for proposed channel improvements along Addison Creek in the municipalities of Northlake, Melrose Park, Stone Park, Westchester, Bellwood, and Broadview.	Percentage of Right of Way Acquired	-	75%	100%

30000 LAW

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 45,895	2018	1	\$ 46,800	\$ 900	2.0	
			2017	1	\$ 45,900			
4660	Waste Monitoring	\$ 543,075	2018	3	\$ 445,500	\$ (14,600)	(3.2)	
			2017	3	\$ 460,100			
7350	General Legal Matters	\$ 3,764,028	2018	21	\$ 4,184,900	\$ (876,500)	(17.3)	a)
			2017	21	\$ 5,061,400			
7360	Real Estate Operations	\$ 2,286,158	2018	12	\$ 2,752,600	\$ 300	-	
			2017	13	\$ 2,752,300			
7604	Social Security and Medicare Contributions	\$ 65,357	2018	-	\$ 73,000	\$ 6,600	9.9	
			2017	-	\$ 66,400			
Totals		\$ 6,704,513	2018	37	\$ 7,502,800	\$ (883,300)	(10.5%)	
			2017	38	\$ 8,386,100			

a) Decrease is due to the reduction in outside professional services for special counsel on environmental matters (\$909,700) and the reduction of court reporting services (\$26,000).

30000 LAW

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Cases	18	19	20	
		Cost	\$ 45,895	\$ 45,900	\$ 46,800	
		Cost/Case	\$ 2,549.72	\$ 2,415.79	\$ 2,340.00	
4660	Waste Monitoring					
	Provide Legal Representation and Administrative Support for:					
4662	User Charge Ordinance - Tax-Exempt Users	Cases	8	7	7	
		Cost	\$ 48,819	\$ 51,200	\$ 52,500	
		Cost/Case	\$ 6,102.38	\$ 7,314.29	\$ 7,500.00	
4663	User Charge - Large Commercial/Industrial Users	Cases	21	20	21	
		Cost	\$ 248,788	\$ 226,500	\$ 240,800	
		Cost/Case	\$ 11,847.05	\$ 11,325.00	\$ 11,466.67	
4667	Sewage and Waste Control Ordinance - Significant Industrial Users	Cases	14	8	13	
		Cost	\$ 245,468	\$ 182,400	\$ 152,200	a)
		Cost/Case	\$ 17,533.43	\$ 22,800.00	\$ 11,707.69	
7350	General Litigation					
	Provide Prosecution and Defense Services to Protect the Interests of the District:					
7351	Legislative	Cost	\$ 105,039	\$ 175,200	\$ 190,800	
7352	Financial Matters	Cost	\$ 102,540	\$ 154,100	\$ 168,000	
7353	Environmental and Regulatory Matters	Cost	\$ 550,293	\$ 683,500	\$ 740,600	
7354	Contract Administration	Cost	\$ 371,390	\$ 364,600	\$ 372,100	
7355	Litigation	Cost	\$ 1,306,897	\$ 2,138,500	\$ 1,196,500	b)
7356	Employment Matters	Cost	\$ 597,884	\$ 717,200	\$ 744,100	
7359	General Legal Services	Cost	\$ 729,985	\$ 828,300	\$ 772,800	

a) Decrease is due to the drop of the Deputy General Counsel (\$38,000), offset by the reallocation of salaries to more accurately reflect current activities (\$12,200).

b) Decrease is due to the reduction in outside professional services for special counsel on environmental matters (\$909,700) and the reduction of court reporting services (\$26,000).

30000 LAW

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated
7360	Real Estate Operations				
	Provide Administration of All District Land:				
7361	Real Estate Leases - Administration of Leases and Granting of Leases	Leases	175	176	180
		Cost	\$ 124,456	\$ 120,200	\$ 116,600
		Cost/Lease	\$ 711.18	\$ 682.95	\$ 647.78
7362	Real Estate Easements - Administration of Easements and Granting of New Easements	Easements	376	371	382
		Cost	\$ 121,713	\$ 115,500	\$ 112,800
		Cost/Easement	\$ 323.70	\$ 311.32	\$ 295.29
7363	Real Estate Permits - Administration of Permits and Granting of New Permits	Permits	70	80	73
		Cost	\$ 113,096	\$ 104,500	\$ 101,600
		Cost/Permit	\$ 1,615.66	\$ 1,306.25	\$ 1,391.78
7367	Real Estate Asset Management - Administer Plan to Increase Revenue by Lease/Sale of Real Estate Holdings	Cost	\$ 432,745	\$ 450,200	\$ 447,400
7368	Real Estate Environmental Assessment - Administer Activities Related to Environmental Assessment and Remediation of Real Estate Holdings	Cost	\$ 195,615	\$ 419,800	\$ 455,400
7369	Other Real Estate Operations, Including Development of Agenda, Providing Information, Tax Litigation, and Support Services to the Board of Commissioners	Cost	\$ 508,592	\$ 652,100	\$ 628,800
	Payment of Real Estate Taxes	Cost	\$ 789,941	\$ 890,000	\$ 890,000
7604	Social Security and Medicare Contributions	Cost	\$ 65,357	\$ 66,400	\$ 73,000
		Total	\$ 6,704,513	\$ 8,386,100	\$ 7,502,800

101 30000	Fund: Corporate Department: Law	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 4,710,188	\$ 5,044,700	\$ 5,040,700	\$ 4,694,700	\$ 5,006,700	\$ 5,006,700	\$ 5,083,100
601060	Compensation Plan Adjustments	27,609	142,600	142,600	120,000	130,600	130,600	139,300
601070	Social Security and Medicare Contributions	65,357	66,400	70,400	67,300	73,000	73,000	73,000
601100	Tuition and Training Payments	11,382	14,000	14,000	12,000	14,000	14,000	14,000
100	TOTAL PERSONAL SERVICES	4,814,537	5,267,700	5,267,700	4,894,000	5,224,300	5,224,300	5,309,400
612010	Travel	2,390	6,000	6,000	5,000	5,000	5,000	5,000
612030	Meals and Lodging	3,085	7,500	12,500	11,000	13,000	13,000	13,000
612040	Postage, Freight, and Delivery Charges	943	1,000	1,000	900	1,000	1,000	1,000
612050	Compensation for Personally-Owned Automobiles	597	1,200	6,200	4,200	5,100	5,100	5,100
612090	Reprographic Services	3,358	25,000	25,000	2,500	17,000	17,000	17,000
612250	Court Reporting Services	4,763	80,000	70,000	10,000	50,000	50,000	50,000
612430	Payments for Professional Services	990,281	2,000,000	2,000,000	300,000	1,090,300	1,090,300	1,090,300
612490	Contractual Services, N.O.C.	78,210	90,000	90,000	87,000	103,800	103,800	103,800
200	TOTAL CONTRACTUAL SERVICES	1,083,627	2,210,700	2,210,700	420,600	1,285,200	1,285,200	1,285,200
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	5,489	5,000	5,000	3,500	5,500	5,500	5,500
623720	Books, Maps, and Charts	10,258	12,000	12,000	10,000	12,300	12,300	12,300
623990	Materials and Supplies, N.O.C.	661	700	700	100	400	400	400
300	TOTAL MATERIALS AND SUPPLIES	16,408	17,700	17,700	13,600	18,200	18,200	18,200
667130	Taxes on Real Estate	789,941	890,000	890,000	770,000	890,000	890,000	890,000
700	TOTAL FIXED AND OTHER CHARGES	789,941	890,000	890,000	770,000	890,000	890,000	890,000
TOTAL LAW		\$ 6,704,513	\$ 8,386,100	\$ 8,386,100	\$ 6,098,200	\$ 7,417,700	\$ 7,417,700	\$ 7,502,800

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.

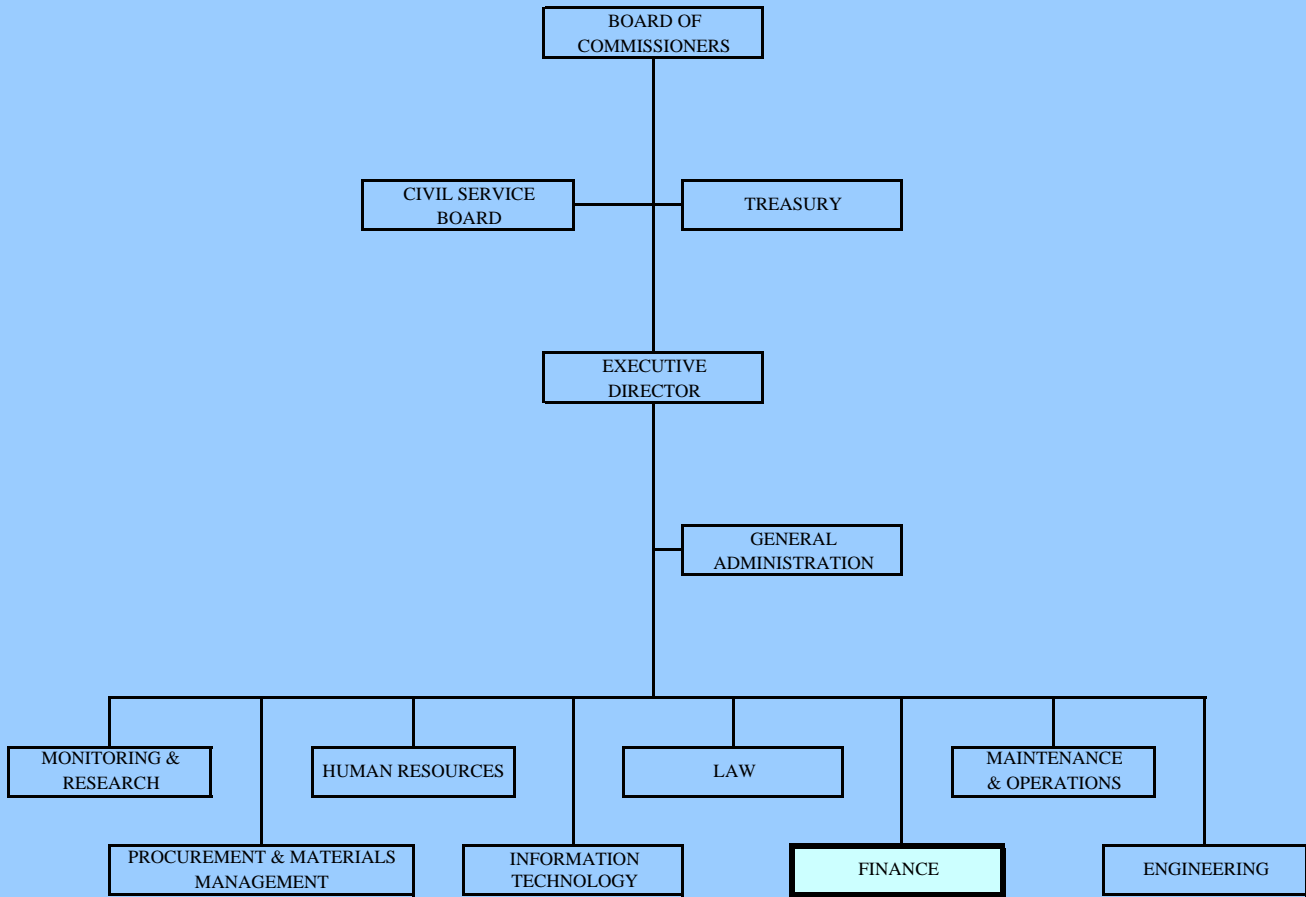
Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
310	Executive Division					
311	Executive Office					
EX12	General Counsel	1	1		1	
HP23	Deputy General Counsel	-	1		-	
HP22	Head Assistant Attorney	-	1		1	
EX06	Secretary to Officer	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Executive Office	3	5	812,762.76	4	667,135.78
TOTAL	Executive Division	3	5	812,762.76	4	667,135.78
320	Real Estate / General Administration Division					
321	Administrative Section					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	219,160.71	1	166,444.29
323	Real Estate / General Administration Section					
HP18	Senior Attorney	1	1		1	
HP15	Senior Legal Assistant	2	2		2	
HP13	Legal Assistant	1	-		-	
HP13	Investigator	-	-		1	
HP13	Investigator #2 (Legal Assistant)	1	1		-	
HP11	Administrative Specialist	1	1		1	
TOTAL	Real Estate / General Administration Section	6	5	502,483.25	5	518,543.96
324	Real Estate / Asset Management Section					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	1	1		1	
HP16	Assistant Attorney	-	1		1	
HP13	Legal Assistant	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Real Estate / Asset Management Section	4	5	583,757.17	5	578,310.19
TOTAL	Real Estate / General Administration Division	11	11	1,305,401.13	11	1,263,298.44

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
340	Contract & Finance Division					
341	Administrative Section					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	228,491.15	1	233,060.93
342	Contract & Finance Section					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	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	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
TOTAL	Contract & Finance Section	7	6	801,186.53	6	829,235.30
TOTAL	Contract & Finance Division	8	7	1,029,677.68	7	1,062,296.23
360	Environmental, Construction, & Tort Division					
361	Administrative Section					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	228,491.15	1	233,060.93
362	Environmental Section					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		2	
HP16	Assistant Attorney	-	1		1	
HP13	Legal Assistant	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Environmental Section	5	6	700,555.59	6	661,631.79
332	Construction & Tort Section					
HP20	Principal Attorney	2	2		2	
TOTAL	Construction & Tort Section	2	2	369,041.50	2	376,422.23
TOTAL	Environmental, Construction, & Tort Division	8	9	1,298,088.24	9	1,271,114.95

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2016		2017		2018
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
370	Employment Division					
371	Administrative Section					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	228,491.15	1	233,060.94
372	Employment Section					
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	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	Employment Section	5	5	583,489.05	5	611,464.98
TOTAL	Employment Division	6	6	811,980.20	6	844,525.92
TOTAL	Law	36	38	5,257,910.01	37	5,108,371.32

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.

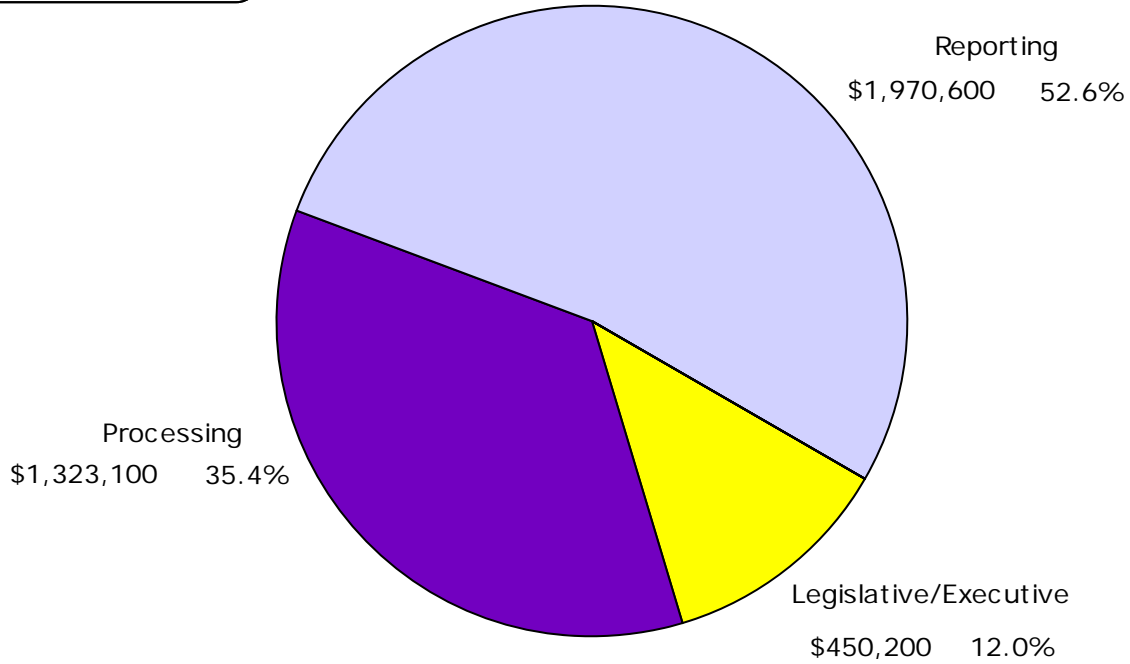
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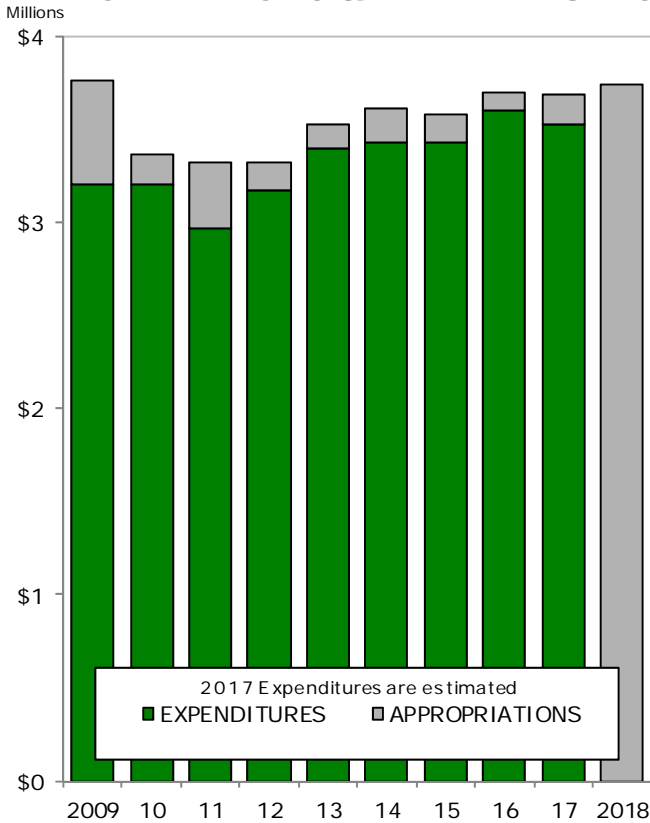
FINANCE

FUNCTIONS

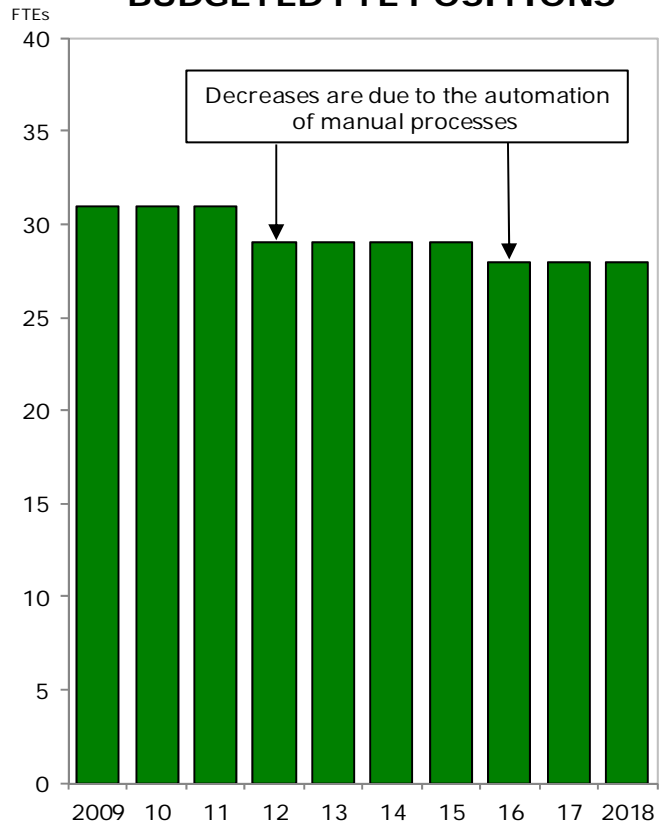
2018	\$3,743,900
2017	\$3,684,400
Increase	\$59,500



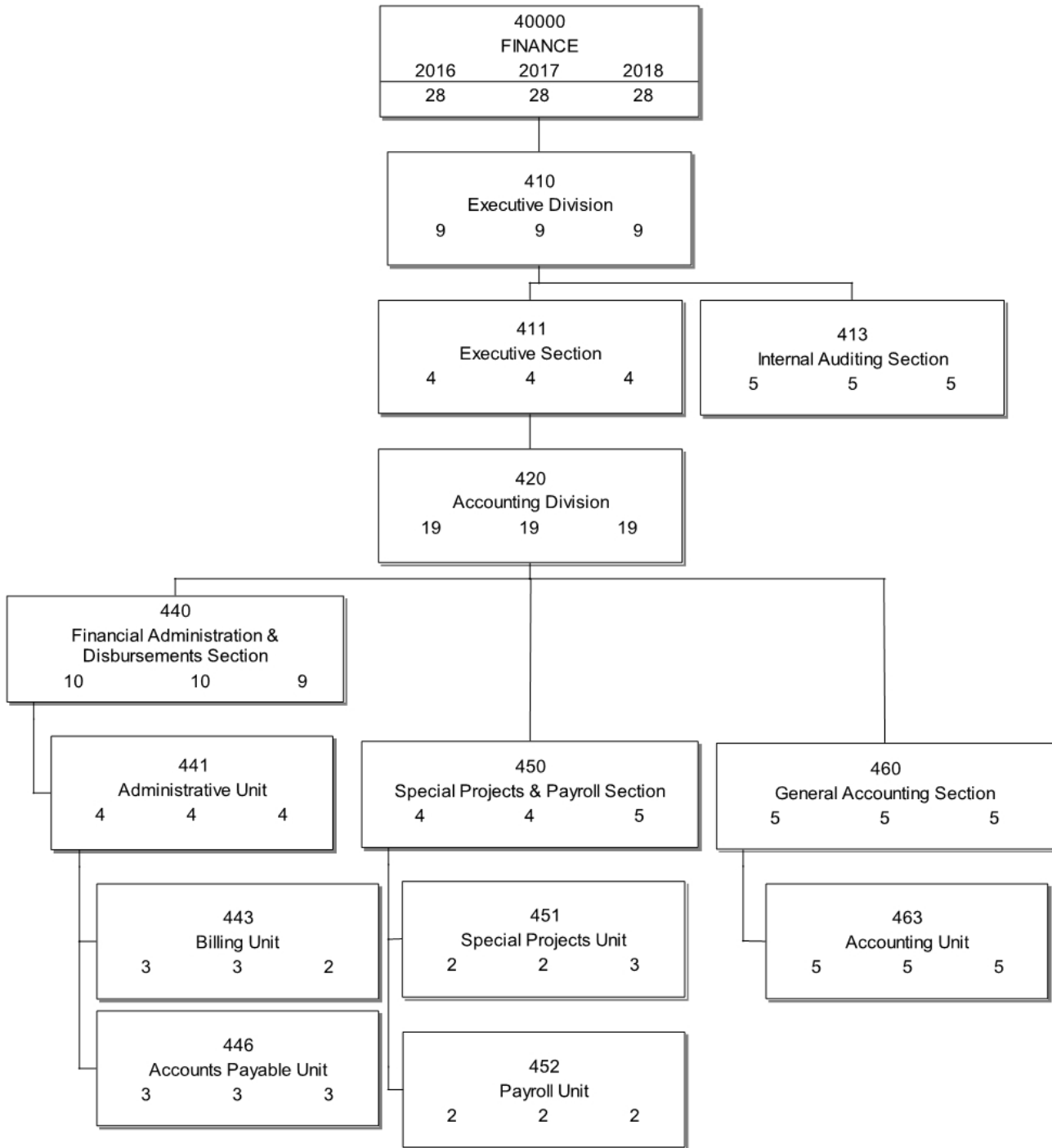
APPROPRIATIONS & EXPENDITURES



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 District financial information and audit of operational performance, compliance and internal controls;
- Process District financial transactions including vendor payments, payroll, billing and collection activities;
- Create Board of Commissioner agenda and minutes and maintain official records of the Board's 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 2017 Accomplishments

- The District was presented with the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for the 2016 Comprehensive Annual Financial Report for the 42nd consecutive year;
- The District received an unmodified opinion on the fair presentation, in all material aspects, of the District's 2016 financial statements from external auditors. This achievement aids in maintaining the District's excellent bond credit rating;
- Implemented a new Comprehensive Annual Financial Report publishing solution to compile, reconcile, organize, and map financial data from source systems to improve the accuracy and efficiency of report preparation;
- Completed 10 planned internal audit projects and provided financial review of 15 lease applications. Internal audits included a review of internal controls in the District's enterprise system (SAP), internet banking security authorizations, review of real estate application process, reconciliation of Flexible Spending Accounts transfer, Fox River Water Reclamation District cost allocation, clock overrides in the WorkForce automated time management system, the District's COBRA program, quarterly Procurement Card audits, professional legal engineering consultant contracts, job order contracts, medical claims, and portable gas meters. The audits provided assurance of continued compliance, operating efficiencies, and cost-saving solutions;
- Upgraded the WorkForce automated time management system with a new drop-down field that allows employees to distribute work time not only to the departmental projects, which had already been available, but also to District-wide projects;
- Assisted the Law Department in the implementation of the new real estate management system;
- Continued to administer the District's Whistleblower Hotline service that is used to improve accountability and transparency for District management, officials, staff, and taxpayers.

Budget Highlights

The 2018 appropriation for the Finance Department is \$3,743,900, an increase of \$59,500, or 1.6 percent, from 2017. The staffing level remains unchanged at 28 positions. The net zero change includes the addition of a Budget & Management Analyst, offset by the drop of an Accounting Associate.

Significant features of the 2018 Budget are:

- The Finance Department will continue to reduce cost by re-engineering the accounts payable system to increase the number of vendors paid via the Automated Clearing House. This will result in faster payments and improved internal controls;
- Complete safeguarding of the District's legislative permanent records and continue a project to convert approximately 100,000 records to electronic images.

2018 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 Finance 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 Finance 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. Training efforts have resulted in promotions for 32 percent of staff in the last six years. The Finance 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 current with government accounting and financial reporting standards by actively participating in GFOA conferences and training. The Finance Department also remains current with Enterprise and other financial systems by attending SAP conferences and other related webinars. It is equally important for the Finance Department to work closely with the operating departments to understand the changes in 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 performance measures and dashboard reports;
- Improve the Accounts Payable system by increasing the number of vendors paid via the Automated Clearing House;
- Provide on-line access to vendor payment information.

40000 FINANCE

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Provide for the processing 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. Provide for the accounting, billing and collection of all revenue such as user charge, State Revolving Fund, real estate, and other miscellaneous billings.	\$ 1,323,100	35.4%
2. Provide for the external audit, general accounting, and reporting of financial information (financial statement preparation, fixed assets, cost accounting analysis, general ledger maintenance, and bank account reconciliation). Provide for the independent appraisal and analysis of departmental internal activities approved for internal audit by the Audit Committee.	\$ 1,970,600	52.6%
3. 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.	\$ 450,200	12.0%
Total	\$ 3,743,900	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 Proposed
1. Maintain 100 percent compliance with the Prompt Payment Act.	100%	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 the Audit Committee.	98%	95%	95%
4. Maintain an unmodified audit opinion on Financial and Single Audit statements and submit all required filings by June 30.	100%	100%	100%

40000 FINANCE

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change	
Number	Name		FTEs	Dollars	Dollars	Percent
7391	Accounts Payable	\$ 352,580	2018	- \$ -	\$ -	-
			2017	- \$ -		
7392	Payroll and Employee Expense	\$ 421,127	2018	- \$ -	\$ -	-
			2017	- \$ -		
7393	Billing and Collections	\$ 361,037	2018	- \$ -	\$ -	-
			2017	- \$ -		
7394	Transaction Processing	\$ -	2018	13 \$ 1,323,100	\$ (96,100)	(6.8)
			2017	14 \$ 1,419,200		
7399	Accounting and Financial Reporting	\$ 1,002,137	2018	- \$ -	\$ -	-
			2017	- \$ -		
7405	Financial System Development	\$ 319,911	2018	- \$ -	\$ -	-
			2017	- \$ -		
7395	Internal Auditing	\$ 627,222	2018	- \$ -	\$ -	-
			2017	- \$ -		
7396	Reporting	\$ -	2018	12 \$ 1,924,600	\$ 154,100	8.7
			2017	11 \$ 1,770,500		a)
7398	Legislative/Executive	\$ 468,587	2018	3 \$ 450,200	\$ 6,100	1.4
			2017	3 \$ 444,100		
7604	Social Security and Medicare Contributions	\$ 43,939	2018	- \$ 46,000	\$ (4,600)	(9.1)
			2017	- \$ 50,600		
Totals		\$ 3,596,540	2018	28 \$ 3,743,900	\$ 59,500	1.6%
			2017	28 \$ 3,684,400		

a) Increase is due to the addition of one Budget & Management Analyst position (\$80,000).

40000 FINANCE

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
7390	Accounting and Auditing					
7391	Invoices Audited and Processed for Payment	Invoices	20,315	-	-	
		Cost	\$ 352,580	\$ -	\$ -	
		Cost/Invoice	\$ 17.36	\$ -	\$ -	
7392	Payroll and Expense Accounting, Auditing, and Check Processing Operations	Checks	47,645	-	-	
		Cost	\$ 421,127	\$ -	\$ -	
		Cost/Check	\$ 8.84	\$ -	\$ -	
7393	Billing and Collections	Billings	6,840	-	-	
		Cost	\$ 361,037	\$ -	\$ -	
		Cost/Billing	\$ 52.78	\$ -	\$ -	
7394	Transaction Processing	Transactions	-	73,680	77,700	
		Cost	\$ -	\$ 1,419,200	\$ 1,323,100	
		Cost/Transaction	\$ -	\$ 19.26	\$ 17.03	
7399	Accounting and Financial Reporting	Cost	\$ 1,002,137	\$ -	\$ -	
7405	Financial System Development	Cost	\$ 319,911	\$ -	\$ -	
7395	Internal Auditing	Cost	\$ 627,222	\$ -	\$ -	
7396	Reporting	Cost	\$ -	\$ 1,770,500	\$ 1,924,600	a)
7398	Legislative/Executive	Cost	\$ 468,587	\$ 444,100	\$ 450,200	
7604	Social Security and Medicare Contributions	Cost	\$ 43,939	\$ 50,600	\$ 46,000	
		Total	\$ 3,596,540	\$ 3,684,400	\$ 3,743,900	

a) Increase is due to the addition of one Budget & Management Analyst position (\$80,000).

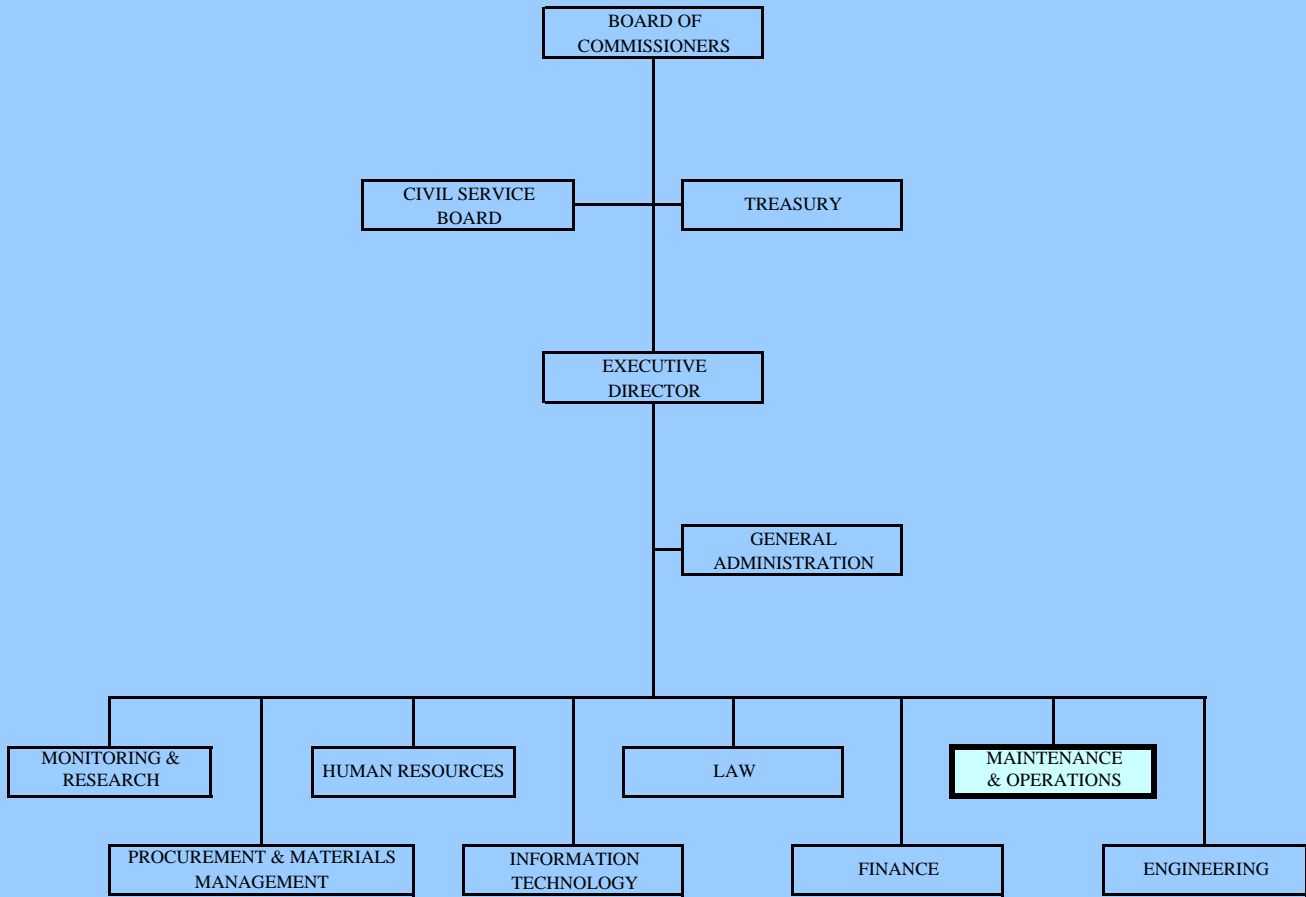
101 40000	Fund: Corporate Department: Finance	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 3,091,509	\$ 3,133,000	\$ 3,133,000	\$ 3,042,500	\$ 3,154,300	\$ 3,154,300	\$ 3,217,600
601060	Compensation Plan Adjustments	82,149	60,600	60,600	20,000	41,200	41,200	41,500
601070	Social Security and Medicare Contributions	43,939	50,600	50,600	42,500	46,000	46,000	46,000
601100	Tuition and Training Payments	22,189	26,000	31,000	30,000	30,000	30,000	30,000
100	TOTAL PERSONAL SERVICES	3,239,785	3,270,200	3,275,200	3,135,000	3,271,500	3,271,500	3,335,100
612010	Travel	3,098	4,100	1,100	800	12,800	12,800	12,800
612030	Meals and Lodging	3,570	5,300	2,600	2,600	13,600	13,600	13,600
612040	Postage, Freight, and Delivery Charges	45	200	200	200	100	100	100
612050	Compensation for Personally-Owned Automobiles	151	600	600	500	-	-	-
612090	Reprographic Services	2,190	2,300	2,300	2,300	2,300	2,300	2,300
612250	Court Reporting Services	47,262	50,000	55,900	50,000	50,000	50,000	50,000
612340	Discount Loss	-	1,500	3,500	2,600	1,500	1,500	1,500
612430	Payments for Professional Services	280,228	324,100	316,900	316,900	306,700	306,700	306,700
612490	Contractual Services, N.O.C.	1,015	1,100	1,100	1,100	1,500	1,500	1,500
612800	Repairs to Office Furniture and Equipment	4,922	5,400	5,400	5,000	4,900	4,900	4,900
200	TOTAL CONTRACTUAL SERVICES	342,481	394,600	389,600	382,000	393,400	393,400	393,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	12,258	18,400	18,400	10,600	13,400	13,400	13,400
623720	Books, Maps, and Charts	96	1,000	1,000	500	1,500	1,500	1,500
623800	Computer Software	1,920	-	-	-	-	-	-
623990	Materials and Supplies, N.O.C.	-	200	200	200	500	500	500
300	TOTAL MATERIALS AND SUPPLIES	14,274	19,600	19,600	11,300	15,400	15,400	15,400
TOTAL FINANCE		\$ 3,596,540	\$ 3,684,400	\$ 3,684,400	\$ 3,528,300	\$ 3,680,300	\$ 3,680,300	\$ 3,743,900

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: Finance		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
410	Executive Division					
411	Executive Section					
EX13	Clerk/Director of Finance	1	1		1	
HP21	Comptroller #4	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	4	4	645,475.01	4	658,384.72
413	Internal Auditing Section					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	2	1		2	
HP16	Financial Analyst	1	2		1	
HP12	Accounting Associate	1	1		1	
TOTAL	Internal Auditing Section	5	5	581,120.93	5	598,957.91
TOTAL	Executive Division	9	9	1,226,595.94	9	1,257,342.63
420	Accounting Division					
440	Financial Administration & Disbursements Section					
441	Administrative Unit					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	2	2		1	
HP16	Financial Analyst	-	-		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	4	4	499,207.58	4	508,937.37
443	Billing Unit					
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	-		-	
HP12	Accounting Associate	2	3		2	
TOTAL	Billing Unit	3	3	209,406.43	2	135,834.65
446	Accounts Payable Unit					
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	1		1	

Fund: Corporate Dept: Finance		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP12	Accounting Associate	2	2		2	
TOTAL	Accounts Payable Unit	3	3	223,248.07	3	231,649.01
TOTAL	Financial Administration & Disbursements Section	10	10	931,862.08	9	876,421.03
450	Special Projects & Payroll Section					
451	Special Projects Unit					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP16	Financial Analyst	1	1		1	
HP14	Budget & Management Analyst	-	-		1	
TOTAL	Special Projects Unit	2	2	263,370.20	3	334,132.91
452	Payroll Unit					
HP16	Financial Analyst	1	1		1	
HP12	Accounting Associate	1	1		1	
TOTAL	Payroll Unit	2	2	177,952.21	2	185,447.20
TOTAL	Special Projects & Payroll Section	4	4	441,322.41	5	519,580.11
460	General Accounting Section					
463	Accounting Unit					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP16	Financial Analyst	2	2		2	
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	2	1		1	
HP12	Accounting Associate	-	1		1	
TOTAL	Accounting Unit	5	5	548,975.28	5	580,263.43
TOTAL	General Accounting Section	5	5	548,975.28	5	580,263.43
TOTAL	Accounting Division	19	19	1,922,159.77	19	1,976,264.57
TOTAL	Finance	28	28	3,148,755.71	28	3,233,607.20

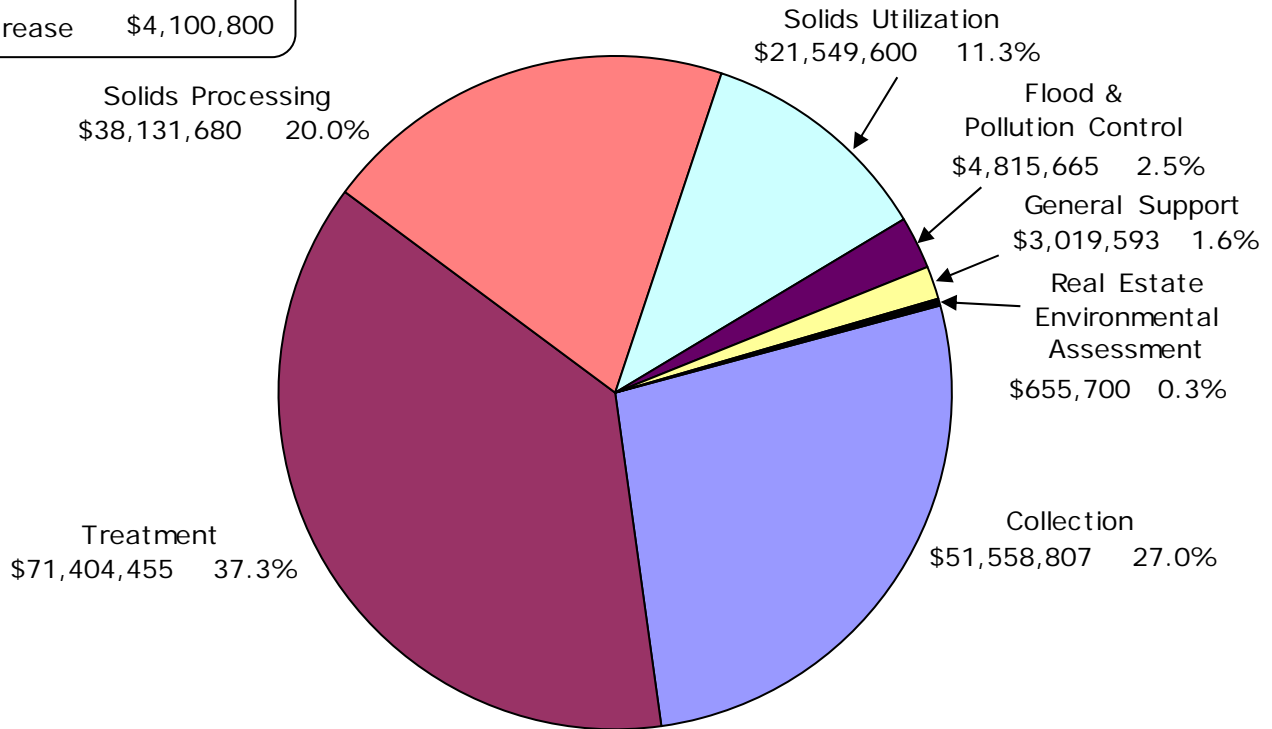
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



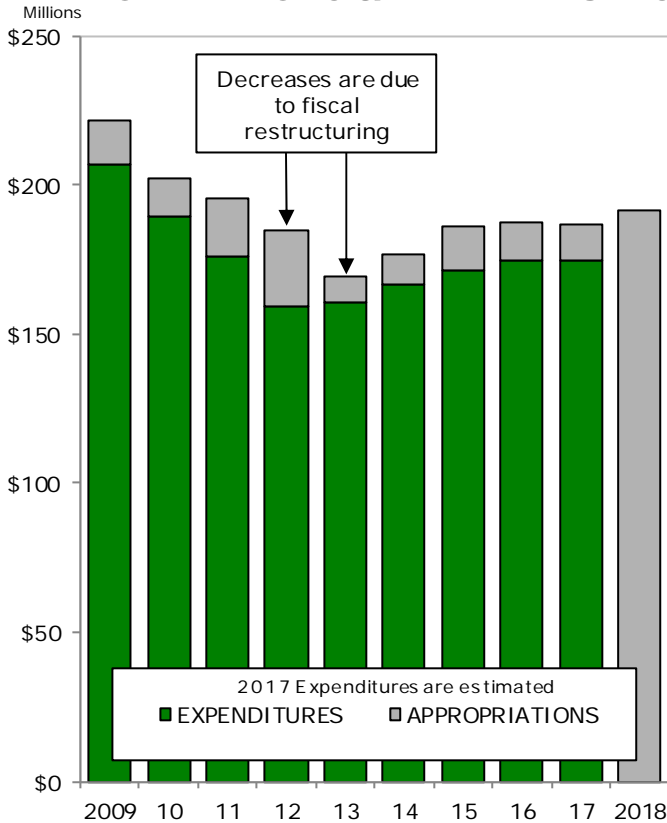
MAINTENANCE & OPERATIONS – ALL DIVISIONS

2018	\$191,135,500
2017	\$187,034,700
Increase	\$4,100,800

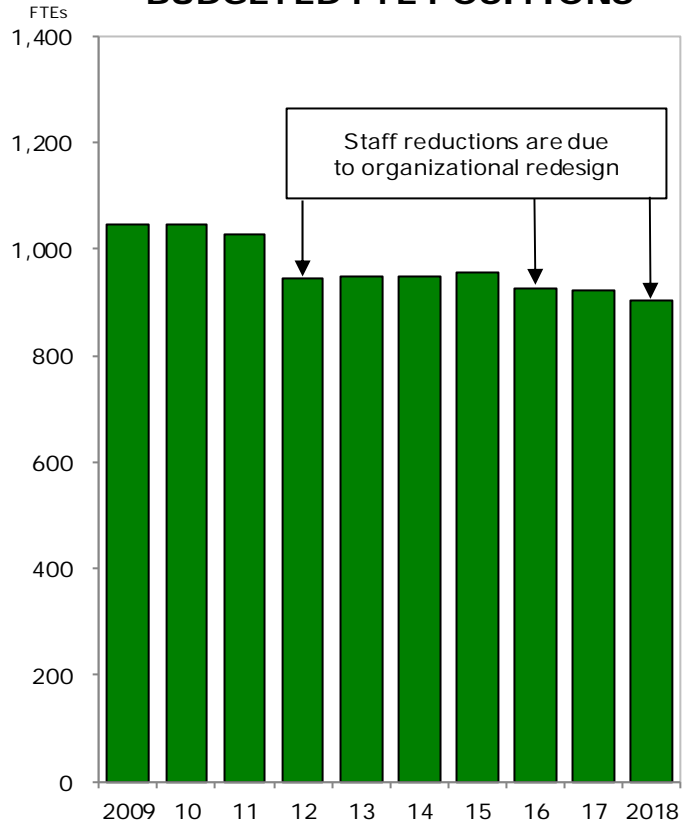
FUNCTIONS



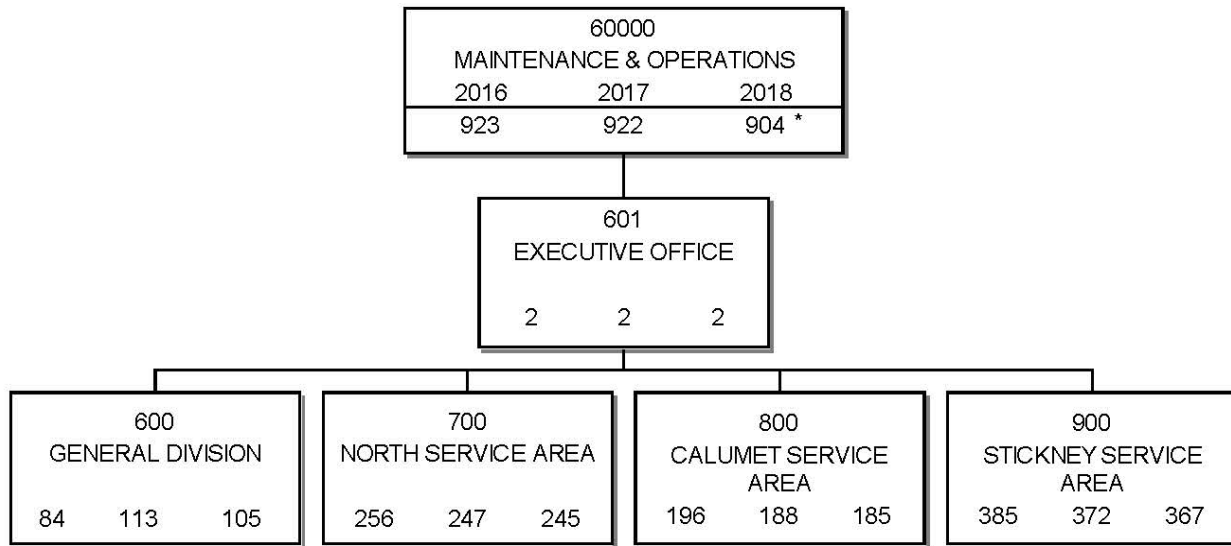
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MAINTENANCE & OPERATIONS – ALL DIVISIONS



* The 2018 position total for the Maintenance & Operations Department is 904. 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 882.1 square mile service area. Additionally, M&O maintains and operates the Lockport Powerhouse, the waterways, the collection systems, and three biosolids handling facilities. The department's primary responsibilities include:

- Collecting and treating approximately 503.7 billion gallons of wastewater annually by operating seven wastewater treatment plants and through a contract agreement with the Fox River Water Reclamation District, a 560 mile network of intercepting sewers, 109.4 miles of the Tunnel and Reservoir Plan tunnels, and three ancillary reservoirs;
- 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 Cook County by maintaining 532 miles of small streams and rivers and 37 detention reservoirs, of which 34 are dedicated solely to stormwater retention;
- Processing high quality biosolids for beneficial reuse, the byproduct of wastewater treatment, by operating three biosolids handling facilities.

Summary of 2017 Accomplishments

- Achieved a 99.97 percent overall compliance rate with the requirements of the National Pollutant Discharge Elimination System permits in 2016, resulting in five Platinum, one Gold, and one Silver Award from the National Association of Clean Water Agencies. M&O anticipates similarly strong results in 2017;
- Completed the renewal process for the Illinois Environmental Protection Agency Operating Permits for all locations and the National Pollutant Discharge Elimination System permits for the Calumet, O'Brien, and Stickney Water Reclamation Plants (WRPs);
- Worked closely with the Public Affairs Section to provide logistical support for the "Restore the Canopy, Plant a Tree" sapling distribution program, the aim of which is to restore the urban canopy in Cook County;
- Installed solar-powered dissolved oxygen meters in the waterways to optimize sidestream elevated pool aeration station operations and diversion water usage;
- Introduced high strength organic waste in the aeration battery and digesters at the Stickney WRP to enhance the biological phosphorus removal process and increase digester gas production, the energy from which is used to reduce the plant's expenditure on power;
- Acquired additional experience with chlorination/dechlorination disinfection at the Calumet WRP (the new disinfection facility was opened in July 2015) and determined that costs for sodium hypochlorite, the main chemical used in the process, were below the original estimate. The 2018 budget for sodium hypochlorite is \$1.2 million, down \$1.21 million, or 50.2 percent, from 2017;
- Completed the first full year of ultraviolet disinfection at the O'Brien WRP which serves more than 1.3 million people within 143 square miles. The disinfection system is now the largest wastewater treatment ultraviolet disinfection installation in the world. It was chosen by the American Council of Engineering Companies of Illinois as one of nine Honor Award winners and was also nominated for the Eminent Conceptor, the highest overall award bestowed by that organization;
- In 2016, the District generated 35,595,896 kilowatt-hours and received \$1.2 million in revenue from ComEd. Projected generation for 2017 and 2018 is 40,000,000 kilowatt-hours annually, with a projected annual value of approximately \$1.2 million and \$1.0 million, respectively.

Budget Highlights

The 2018 M&O Corporate Fund appropriation of \$191,135,500 reflects an increase of \$4,100,800, or 2.2 percent, from the 2017 appropriation. The Corporate Fund staffing level has decreased from 922 to 904 positions. An additional 27 positions are funded in the Stormwater Management Fund, a decrease of two positions from 2017. As a result of adding three positions, dropping 20 positions, and transferring three positions, one from M&O to the Stormwater Management Fund, one from M&O to the Engineering Department, and one to M&O from the Monitoring & Research Department, the total 2018 position count is 931, compared to the total 2017 position count of 951. Details of the position changes are listed in the M&O divisional and Stormwater Management Fund narratives.

For M&O, like the rest of the District, the Strategic Business Plan (SBP) guides and informs the department's activities. From a large-scale project to a routine task, each activity links to the plan. In 2018, M&O will continue to advance the SBP, its six goals, and accompanying strategies.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

To add value, the District must actively look for opportunities to leverage existing resources, including real estate, a strategy specified in the SBP. Case in point is the available real estate at the Hanover Park WRP, which is a key element in the District’s campaign to “Restore the Canopy, Plant a Tree.” The program aims to address Cook County’s declining tree population, decimated in recent years by the emerald ash borer infestation and extreme weather. In 2018, construction of an 8.2 acre native plant and tree nursery at the Hanover Park WRP is expected to begin. Once complete, the native plant and tree nursery will provide value by using the land to its full potential, educating the nursery industry and the community about the benefits of using biosolids-based compost, and serving as a worldwide example of the value and viability of biosolids.

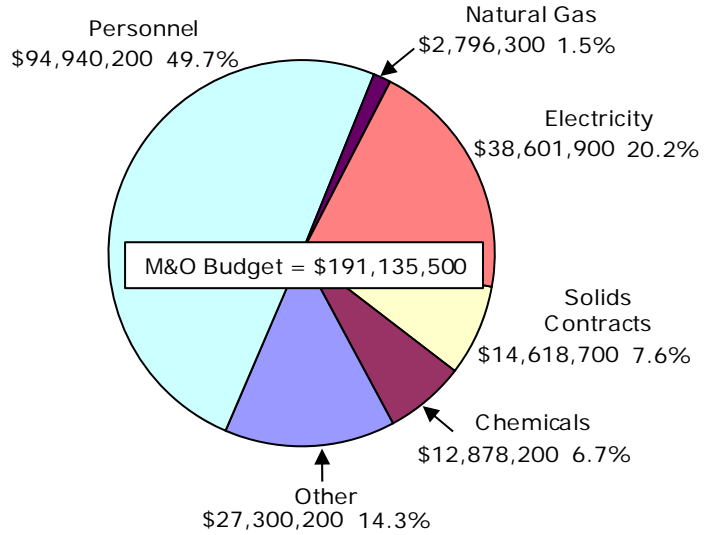
M&O is also partnering with the Monitoring & Research Department to use the District’s Fulton County, Illinois property for research related to nutrient recovery and control, another strategy defined in the SBP. In 2018, two drainage water management systems and three denitrifying bioreactor systems covering 82 acres of farmland will be installed. The systems are part of a project to demonstrate and study the recapture of nutrient runoff as a means of enhancing watershed health.

• **Excellence**

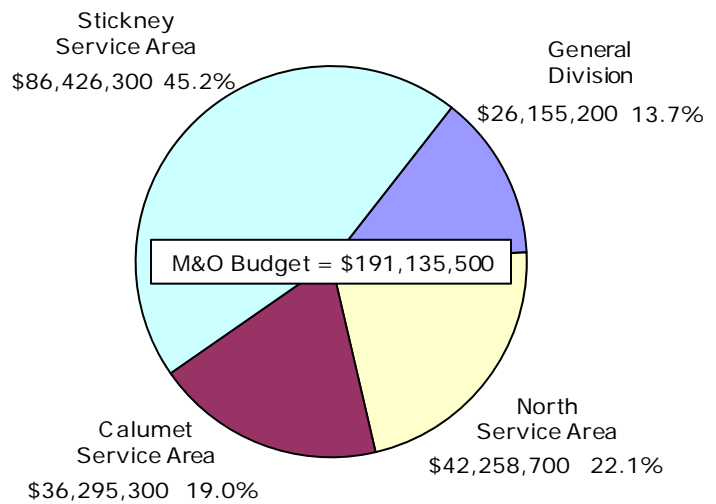
The SBP clearly establishes the strategies necessary to achieve excellence, with optimization as a recurring element. Using the plan as a guide to operations, M&O is working to optimize energy intensive processes, a strategy that is particularly important in the face of increasing external challenges. Going forward, disinfection, more stringent effluent requirements, and changing operations will only serve to amplify total energy costs, which account for approximately 20 percent of the department’s budget. To counterbalance these cost drivers, the department is aggressively pursuing energy efficiencies, especially in energy-intensive areas of the treatment process, such as aeration. To that end, the department continues to refine its air usage reduction program, which includes the installation of ammonia probes for aeration control at all of the large plants, the installation of better performing equipment, the creation of key performance indicators to monitor energy consumption, and the reduction of dissolved oxygen set points while still complying with permit requirements. As an example of the department’s commitment to energy conservation, the electrical energy budget for blowers and air mains has been reduced by \$772,700, or 5.7 percent, from 2016 to 2018.

In contrast with the energy efficiency gains, the Stickney Service Area’s 2018 electrical energy budget is up \$3.1 million or 17.0 percent from 2017, due to increased pumping for the recently completed first phase of the McCook Reservoir. The additional costs must, however, be placed in the larger context of the McCook Reservoir, a physical representation of the District’s commitment to excellence as a means of improving the quality of the environment. McCook Reservoir Stage 1 provides an additional 3.5 billion gallons of storage capacity to capture flood water and combined sewer overflows and is estimated to provide \$114 million annually in flood damage and combined sewer overflow pollution reduction benefits. It is also important to note that the calculation for the Stickney Service Area’s 2018 electrical energy budget includes an anticipated \$1 million in savings associated with the operation of the three megawatt gas turbine, a significant resource recovery project that is expected to come online in early 2018.

2018 Appropriations by Major Line Item



2018 Appropriations by Service Area



Excellence must also be pursued in the area of finance. In 2015, the Board of Commissioners selected EnergyConnect, Inc., to provide a voluntary energy curtailment program for a three-year period. The District is expected to receive a \$1.6 million rebate for the 2017-2018 period. 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. With its energy curtailment program, M&O is making effective use of the SBP strategy that calls for the responsible use of resources in the delivery of services.

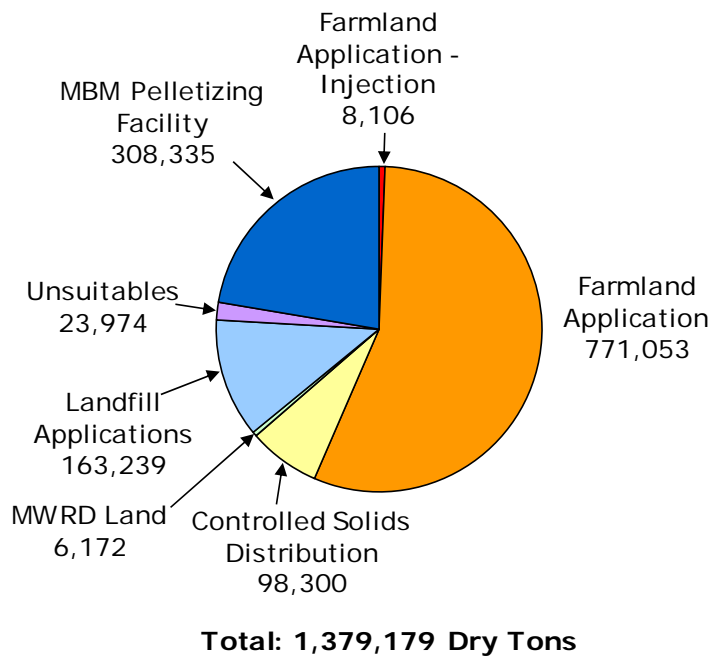
• Resource Recovery

The major pillars of the resource recovery program include biosolids, phosphorus, and energy. M&O is actively pursuing programs and initiatives that align with all three.

The District has produced biosolids as a product since the 1960s. The science surrounding biosolids management is due in large part to the work of the District. At the District, biosolids are not waste, rather they are considered a valuable resource to be beneficially reused as a safe and environmentally friendly alternative to synthetic fertilizer. In recognition of their value, the SBP identifies the sale of biosolids as a high-value, high-priority strategy. As a first step in executing that strategy, the District worked with the Illinois Environmental Protection Agency to adopt federal standards concerning Exceptional Quality (EQ) biosolids. In 2016, the State of Illinois recognized EQ biosolids as determined by the United States Environmental Protection Agency, with the result that EQ biosolids are recognized as a safe product for distribution and sale. A second major step was taken in 2017, when the Illinois Department of Agriculture approved the District’s registration to sell and distribute compost and air-dried biosolids as soil amendments. The District can now take advantage of the unique attributes of biosolids by creating a commercial market within its service area. With that end in mind, the District is implementing several new programs and initiatives. In 2017, the District began marketing the receipt of “clean yard waste” and the bulk distribution of the composted biosolids product. Plans are also underway to request proposals to provide services to market 240,000 cubic yards per year of composted biosolids and to provide brokerage services to obtain 350,000 cubic yards per year of woodchips and yard waste, which are used in the composting process. Still another initiative is the pilot project to bag composted biosolids for individual use. All of these programs are designed to cultivate a local customer base, improve product performance, and advance the goal of Resource Recovery.

The below chart illustrates how biosolids have been beneficially reused over the years. Given the District’s ongoing efforts to transform the biosolids market, the allocation of biosolids reuse will evolve over time.

**Resource Recovery: Biosolids Reuse (in Dry Tons)
2007 - 2016**



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. In 2016, the Ostara Pearl® Process was launched at the Stickney WRP to address nutrient recovery. This innovative technology addresses both the positive and negative aspects of phosphorus as it occurs in a wastewater treatment plant. It allows the waste stream to be disposed of in an efficient way,

while recovering phosphorus in a slow-release fertilizer for environmentally friendly reuse. Called the Ostara Pearl® Process, it 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. This nutrient recovery facility is an example of how progressive technology can be implemented to transform a wastewater treatment facility into a resource recovery center, providing significant environmental benefits to the Chicago Area Waterway System. Moreover, it serves as an example of the District's commitment to evaluating projects along multiple dimensions: financial, societal, and environmental. One of the financial benefits to be derived from the process is the revenue stream that will be generated from the sale of the fertilizer-rich crystalline pellets back to Ostara Nutrient Recovery Technologies. In order to optimize the process, the District will implement waste activated sludge stripping to remove internal phosphorus (WASSTRIP®) in late 2018. WASSTRIP® will accelerate the nutrient recovery process and increase the amount of phosphorus recovered (the phosphorus will be removed before it reaches the digesters). With the acceleration provided by WASSTRIP®, in ideal conditions, production may be tripled. The production estimate without WASSTRIP® is approximately four to seven tons of crystalline pellets per day, with WASSTRIP®, the estimate increases to approximately 13 to 21 tons of pellets per day. For 2018, revenue is projected at \$1.6 million, for 2019 and beyond, revenue is projected at \$1.9 million annually. As with any new process, the assumptions and estimates will be reevaluated as additional experience is acquired.

Another resource recovery project with high strategic value is the rehabilitation of the digester gas turbine at the Stickney WRP. The project is perfectly aligned with the goal of resource recovery as it relates to energy, specifically the maximization of digester gas usage. A contract to rehabilitate the turbine was awarded in 2016 and will be completed in early 2018. During the summer months, the turbine will operate using digester gas, a byproduct of the treatment process, to power equipment, such as pumps and aeration blowers. The digester gas will be consumed in the combustor of a three megawatt electric generator. The generated electricity will, in turn, be delivered back to the grid and distributed throughout the plant, thereby reducing total electrical demand. With the addition of the new primary tanks, there should be sufficient digester gas to operate the turbine regularly and realize annual savings in electrical costs of approximately \$1 million. The project, which is funded in the District's Construction Fund, exemplifies the organization's commitment to designing an operating budget and a capital improvement program that work together to fulfill the SBP.

Regarding resource recovery and energy, the SBP explicitly states that electrical capacity at the Lockport Powerhouse should be marketed to maximize the return on investment. To that end, the District has entered into an agreement for energy advisory services with the purpose of becoming a sub-member of the Pennsylvania-New Jersey-Maryland Interconnection energy market, a regional electrical transmission organization. Membership will, among other things, allow the District to obtain greater value for power generated by the Lockport Powerhouse, digesters, or other future assets by selling power directly into the Pennsylvania-New Jersey-Maryland Interconnection electricity grid and to maximize revenues by selling the associated renewable energy credits.

• **Develop Employees**

Understanding that a skilled workforce creates a strong organization, M&O is committed to providing training opportunities for its employees. The SBP measures value through personal contribution and growth. To acquire that value, for both the employee and the organization, M&O encourages staff to participate in meaningful exchanges with environmental organizations worldwide. In 2017, a contingent of M&O engineers traveled to India to share their knowledge in the pursuit of best management practices in wastewater treatment. They visited plants in Hyderabad, considered a "water-stressed" city due to insufficient wastewater treatment facilities, shared their experiences, and reviewed best practices for sustainable solutions, improved efficiency, committed governance, and reliable management concerning all aspects of protecting the water environment. International outreach activities go far in maintaining the District's leadership role by passing along competencies and developing future leaders.

A strong training program is also increasingly important as M&O reduces its reliance on maintenance outsourcing. In order to perform the maintenance function well, employees must be adequately trained. In 2018, staff will attend conferences and training sessions on a variety of topics, including electrical troubleshooting, generators and emergency power, pump repair, and programmable logic controllers.

• **Leading Partnerships**

The SBP recommends that strategic relationships be cultivated as a means of achieving Leading Partnerships. Strategic relationships, as the plan points out, cannot exist without becoming actively involved in the world around us. Following that recommendation, M&O is partnering with the City of Chicago in an innovative program that uses tree debris provided by the city as a bulking agent for composting biosolids. Under the program, an estimated 50,000 tons of composted biosolids are expected to be produced in 2018. The composting process raises the temperature of the biosolids and wood chip 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 for the District. Clearly, this is an example of one initiative serving multiple goals and strategies.

- **Technology**

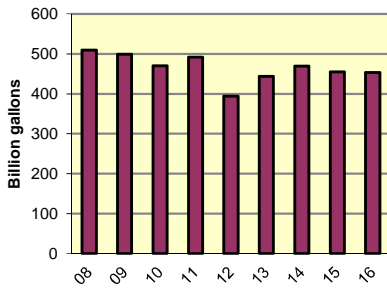
The SBP is based on several key values, one of which is innovation, described in the plan as the process of identifying challenges and opportunities and implementing new ideas to confront the challenges and exploit the opportunities. That innovation is evident in M&O as it seeks to use innovative, high-efficiency technologies to meet its regulatory and compliance needs and to optimize its 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, which treats effluents with a high ammonia concentration, became operational in 2016. 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

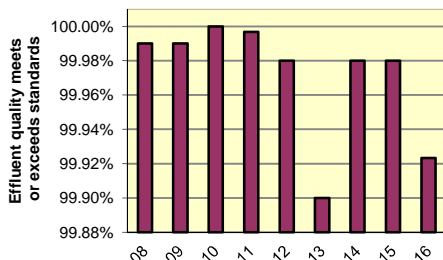
OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION & TREATMENT: The M&O Department will collect and treat approximately 503.7 billion gallons of wastewater through its seven treatment facilities and through a contract agreement with the Fox River Water Reclamation District.	\$ 122,963,262	64.3%
2. SOLIDS PROCESSING: The M&O Department will remove and process approximately 188,500 dry tons of concentrated sewage through various systems, including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 38,131,680	20.0%
3. SOLIDS UTILIZATION: The M&O Department will utilize approximately 100,000 dry tons of biosolids for application at final utilization sites, such as farm applications and daily and final cover at sanitary landfills.	\$ 21,549,600	11.3%
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 76.1 miles of canals and 532 miles of small streams and rivers, and through the operation of 37 detention reservoirs, of which 34 are dedicated solely to stormwater retention. 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.	\$ 4,815,665	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.	\$ 3,019,593	1.6%
6. REAL ESTATE ENVIRONMENTAL ASSESSMENT: The Site Remediation Section inspects and evaluates District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 655,700	0.3%
Total	\$ 191,135,500	100.0%

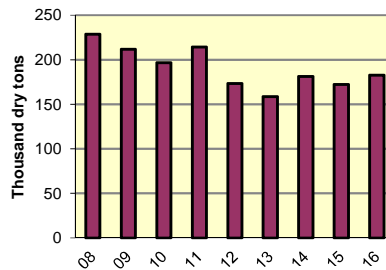
Collection & Treatment



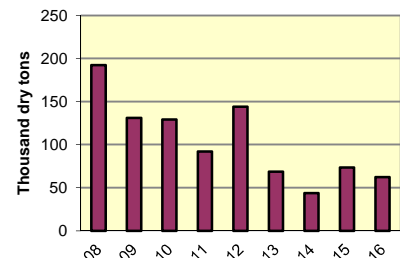
NPDES Permit Compliance



Solids Processing



Solids Utilization



60000 M&O - ALL DIVISIONS

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change	
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 44,890,366	2018 244	\$ 51,558,807	\$ 3,029,288	6.2	
			2017 237	\$ 48,529,519			
1100	Surface Interceptor Systems	\$ 4,096,827	2018 27	\$ 3,950,600	\$ 30,800	0.8	
			2017 29	\$ 3,919,800			
1200	Tunnel and Reservoir System	\$ 10,322,081	2018 43	\$ 13,478,600	\$ 2,822,300	26.5	
			2017 39	\$ 10,656,300			
1300	Pumping Station Facilities	\$ 13,788,972	2018 74	\$ 15,432,700	\$ (473,100)	(3.0)	
			2017 67	\$ 15,905,800			
1900	Collection - Indirect Costs	\$ 16,682,486	2018 100	\$ 18,696,907	\$ 649,288	3.6	
			2017 102	\$ 18,047,619			
2000	Treatment	\$ 65,296,435	2018 378	\$ 70,133,155	\$ 1,031,035	1.5	
			2017 382	\$ 69,102,120			
2000	Pre-Treatment	\$ 3,687,450	2018 29	\$ 3,355,500	\$ (380,400)	(10.2)	
			2017 32	\$ 3,735,900			
2100	Primary Treatment	\$ 3,532,421	2018 36	\$ 3,410,500	\$ (58,200)	(1.7)	
			2017 39	\$ 3,468,700			
2200	Secondary Treatment	\$ 22,837,294	2018 94	\$ 21,712,000	\$ 765,900	3.7	
			2017 97	\$ 20,946,100			
2300	Tertiary Treatment	\$ 2,781,740	2018 18	\$ 4,212,400	\$ (1,122,400)	(21.0)	
			2017 13	\$ 5,334,800			
2900	Treatment - Indirect Costs	\$ 32,457,530	2018 201	\$ 37,442,755	\$ 1,826,135	5.1	
			2017 201	\$ 35,616,620			
3000	Solids Processing	\$ 34,893,309	2018 200	\$ 38,131,680	\$ 343,271	0.9	
			2017 212	\$ 37,788,409			
3100	Thickening	\$ 5,921,118	2018 39	\$ 5,921,700	\$ (506,900)	(7.9)	
			2017 42	\$ 6,428,600			
3200	Stabilization	\$ 5,944,060	2018 43	\$ 6,022,200	\$ (62,100)	(1.0)	
			2017 44	\$ 6,084,300			
3300	Dewatering	\$ 11,161,207	2018 41	\$ 13,544,200	\$ 986,100	7.9	
			2017 42	\$ 12,558,100			
3900	Solids Processing - Indirect Costs	\$ 11,866,924	2018 77	\$ 12,643,580	\$ (73,829)	(0.6)	
			2017 84	\$ 12,717,409			

Note: Explanations of significant changes are provided by individual division.

60000 M&O - ALL DIVISIONS

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change	
Number	Name		FTEs	Dollars	Dollars	Percent
4000	Flood & Pollution Control	\$ 4,317,918	2018 23	\$ 4,815,665	\$ 34,134	0.7
			2017 24	\$ 4,781,531		
4200	Waterways Control and Stormwater Reservoirs	\$ 2,240,174	2018 17	\$ 2,495,400	\$ 193,100	8.4
			2017 15	\$ 2,302,300		
4210	Maintenance of Waterways	\$ 170,672	2018 -	\$ 231,100	\$ 59,200	34.4
			2017 1	\$ 171,900		
4300	Stormwater Management	\$ 142,948	2018 -	\$ 32,400	\$ (135,500)	(80.7)
			2017 2	\$ 167,900		
4400	Aeration Facilities	\$ 1,034,227	2018 2	\$ 1,014,700	\$ (67,400)	(6.2)
			2017 2	\$ 1,082,100		
4900	Flood & Pollution Control - Indirect Costs	\$ 729,897	2018 4	\$ 1,042,065	\$ (15,266)	(1.4)
			2017 4	\$ 1,057,331		
5000	Solids Utilization	\$ 19,690,063	2018 38	\$ 21,549,600	\$ 72,899	0.3
			2017 42	\$ 21,476,701		
5100	Solids Drying	\$ 4,709,936	2018 9	\$ 6,110,900	\$ 216,600	3.7
			2017 7	\$ 5,894,300		
5200	Solids Distribution	\$ 9,834,571	2018 7	\$ 10,608,400	\$ 459,000	4.5
			2017 8	\$ 10,149,400		
5900	Solids Utilization - Indirect Costs	\$ 5,145,556	2018 22	\$ 4,830,300	\$ (602,701)	(11.1)
			2017 27	\$ 5,433,001		
7000	General Support (excluding program numbers 7368 & 7604)	\$ 3,240,278	2018 19	\$ 3,019,593	\$ (105,927)	(3.4)
			2017 22	\$ 3,125,520		
7368	Real Estate Environmental Assessment	\$ 874,261	2018 2	\$ 655,700	\$ (347,200)	(34.6)
			2017 3	\$ 1,002,900		
7604	Social Security and Medicare Contributions	\$ 1,234,468	2018 -	\$ 1,271,300	\$ 43,300	3.5
			2017 -	\$ 1,228,000		
Totals		\$ 174,437,098	2018 904	\$ 191,135,500	\$ 4,100,800	2.2%
			2017 922	\$ 187,034,700		

* The 2018 position total for the M&O Department is 931, 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		2016 Actual	2017 Budgeted	2018 Estimated
1000-2900	Collection & Treatment				
	Collect and Treat Wastewater at Seven Treatment Facilities and Through a Contract Agreement with the Fox River Water Reclamation District	Mil. Gallons Cost Cost/Mil. Gallons	453,496 \$ 110,186,801 \$ 242.97	480,100 \$ 117,631,639 \$ 245.01	503,700 \$ 121,691,962 \$ 241.60
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	182,580 \$ 34,893,309 \$ 191.11	183,500 \$ 37,788,409 \$ 205.93	188,500 \$ 38,131,680 \$ 202.29
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	\$ 342,088	\$ 821,500	\$ 978,400
	Generate Electricity at Lockport Powerhouse to Obtain Approximately \$1.0 million in Revenue	kWh Cost Cost/kWh * Revenue Generated	35,595,896 \$ 555,296 \$ 0.0156 \$ 1,176,146	41,500,000 \$ 321,400 \$ 0.0077 \$ 1,000,000	40,000,000 \$ 139,700 \$ 0.0035 \$ 1,000,000
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion Cost Cost/Mil. Gal./Year	37,629 \$ 447,408 \$ 11.89	61,500 \$ 300,300 \$ 4.88	60,152 \$ 309,800 \$ 5.15
	Operation of Detention Reservoirs	Reservoirs Cost Cost/Reservoir	35 \$ 895,382 \$ 25,582.34	36 \$ 859,100 \$ 23,863.89	37 \$ 1,067,500 \$ 28,851.35
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	\$ 170,672	\$ 171,900	\$ 231,100
4300	Stormwater Management	Cost	\$ 142,948	\$ 167,900	\$ 32,400
4400	Aeration Facilities	Cost	\$ 1,034,227	\$ 1,082,100	\$ 1,014,700
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 729,897	\$ 1,057,331	\$ 1,042,065
5000	Solids Drying/Utilization				
	Utilize Biosolids 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	62,124 \$ 15,285,011 \$ 246.04	90,000 \$ 17,587,301 \$ 195.41	100,000 \$ 17,169,900 \$ 171.70
5271	Pelletizer Disposal	Dry Tons	37,143	40,000	40,000
	Control Management and Disposal of Solids by Private Contracts	Cost Cost/Dry Ton	\$ 4,405,052 \$ 118.60	\$ 3,889,400 \$ 97.24	\$ 4,379,700 \$ 109.49
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	\$ 3,240,278	\$ 3,125,520	\$ 3,019,593
7368	Real Estate Environmental Assessment	Cost	\$ 874,261	\$ 1,002,900	\$ 655,700
7604	Social Security and Medicare Contributions	Cost	\$ 1,234,468	\$ 1,228,000	\$ 1,271,300
Departmental Total			\$ 174,437,098	\$ 187,034,700	\$ 191,135,500

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						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 84,916,024	\$ 87,956,500	\$ 87,650,500	\$ 84,679,500	\$ 87,974,400	\$ 87,955,800	\$ 88,536,900
601060	Compensation Plan Adjustments	4,640,443	4,662,400	4,942,400	4,830,400	4,136,700	4,155,300	5,102,100
601070	Social Security and Medicare Contributions	1,234,467	1,228,000	1,254,000	1,243,900	1,271,300	1,271,300	1,271,300
601080	Salaries of Nonbudgeted Employees	1,544	34,800	34,800	7,000	29,900	29,900	29,900
601100	Tuition and Training Payments	126,273	265,500	265,500	206,200	239,200	239,200	239,200
100	TOTAL PERSONAL SERVICES	90,918,751	94,147,200	94,147,200	90,967,000	93,651,500	93,651,500	95,179,400
612010	Travel	19,247	34,700	34,700	25,000	30,300	30,300	30,300
612030	Meals and Lodging	53,986	70,000	70,000	56,700	71,000	71,000	71,000
612050	Compensation for Personally-Owned Automobiles	157,754	150,000	150,000	109,800	144,900	144,900	144,900
612080	Motor Vehicle Operating Services	862	1,700	1,700	1,500	900	900	900
612150	Electrical Energy	35,357,116	36,447,000	36,447,000	34,944,200	38,601,900	38,601,900	38,601,900
612160	Natural Gas	2,394,540	2,767,500	2,680,500	2,497,800	2,796,300	2,796,300	2,796,300
612170	Water and Water Services	1,894,889	1,740,600	1,740,600	1,661,400	1,795,000	1,795,000	1,795,000
612210	Communication Services	690,892	604,700	604,700	551,400	882,700	882,700	882,700
612240	Testing and Inspection Services	72,989	170,200	170,200	113,100	276,300	276,300	276,300
612330	Rental Charges	144,081	180,400	180,400	162,300	160,100	169,700	169,700
612410	Governmental Service Charges	3,223,500	3,300,200	3,300,200	3,295,100	3,427,800	3,427,800	3,473,800
612420	Maintenance of Grounds and Pavements	809,167	968,300	968,300	881,100	1,013,500	1,013,500	1,013,500
612430	Payments for Professional Services	457,012	720,000	720,000	713,500	534,400	535,400	535,400
612490	Contractual Services, N.O.C.	487,125	570,400	570,400	490,900	673,500	673,500	673,500
612520	Waste Material Disposal Charges	9,259,656	10,955,000	10,955,000	10,099,200	10,894,000	10,894,000	10,894,000
612530	Farming Services	29,600	233,200	210,100	24,700	24,700	24,700	24,700
612590	Sludge Disposal	3,748,196	3,204,300	3,650,300	3,200,000	3,700,000	3,700,000	3,700,000
612600	Repairs to Collection Facilities	3,028,249	3,332,900	3,253,100	2,806,600	3,189,300	3,189,300	3,249,300
612620	Repairs to Waterway Facilities	31,704	50,000	50,000	44,000	46,700	46,700	46,700
612650	Repairs to Process Facilities	5,255,155	4,975,800	4,823,500	4,531,900	5,549,900	5,528,900	5,528,900
612670	Repairs to Railroads	444,795	302,600	284,700	194,000	368,700	368,700	368,700
612680	Repairs to Buildings	873,528	1,050,200	941,200	601,900	1,059,100	1,059,100	1,059,100

101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612760	Repairs to Material Handling and Farming Equipment	246,867	304,000	304,000	273,500	313,600	313,600	313,600
612780	Safety Repairs and Services	120,914	368,000	368,000	337,700	314,000	324,400	324,400
612790	Repairs to Marine Equipment	60,370	60,000	60,000	55,700	65,000	65,000	65,000
612820	Computer Software Maintenance	5,156	5,400	5,400	5,400	7,500	7,500	7,500
612840	Communications Equipment Maintenance (Includes Software)	6,206	-	-	-	5,000	5,000	5,000
612860	Repairs to Vehicle Equipment	89,019	100,000	123,100	104,600	166,300	166,300	166,300
612990	Repairs, N.O.C.	8,598	20,000	20,000	13,500	25,000	25,000	25,000
200	TOTAL CONTRACTUAL SERVICES	68,971,173	72,687,100	72,687,100	67,796,500	76,137,400	76,137,400	76,243,400
623030	Metals	29,125	35,000	35,000	28,100	35,600	35,600	35,600
623070	Electrical Parts and Supplies	1,490,644	1,800,000	2,129,800	1,938,600	2,006,900	2,006,900	2,006,900
623090	Plumbing Accessories and Supplies	653,405	652,000	642,000	607,600	785,600	785,600	785,600
623110	Hardware	10,231	20,000	20,000	14,800	8,000	8,000	8,000
623130	Buildings, Grounds, Paving Materials, and Supplies	119,077	192,500	192,500	137,800	172,800	172,800	172,800
623170	Fiber, Paper, and Insulation Materials	9,674	14,100	14,100	5,700	9,900	9,900	9,900
623190	Paints, Solvents, and Related Materials	6,948	7,000	7,000	6,300	6,600	6,600	6,600
623250	Vehicle Parts and Supplies	147,982	200,100	200,100	159,600	151,200	151,200	151,200
623270	Mechanical Repair Parts	1,506,202	2,288,000	2,573,000	2,313,300	2,454,100	2,454,100	2,454,100
623300	Manhole Materials	212	11,000	11,000	10,700	6,900	6,900	6,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	50,808	49,600	49,600	45,400	48,900	48,900	48,900
623530	Farming Supplies	3,680	5,000	5,000	4,600	3,700	3,700	3,700
623560	Processing Chemicals	9,760,627	13,724,400	13,181,400	9,870,500	12,938,200	12,938,200	12,878,200
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	32,416	25,000	25,000	23,700	25,600	25,600	25,600
623660	Cleaning Supplies	3,728	5,000	5,000	3,400	1,700	1,700	1,700
623680	Tools and Supplies	189,823	500,000	435,000	397,400	220,300	220,300	210,300
623700	Wearing Apparel	714	2,400	2,400	1,500	1,300	1,300	1,300
623720	Books, Maps, and Charts	40	-	-	-	-	-	-

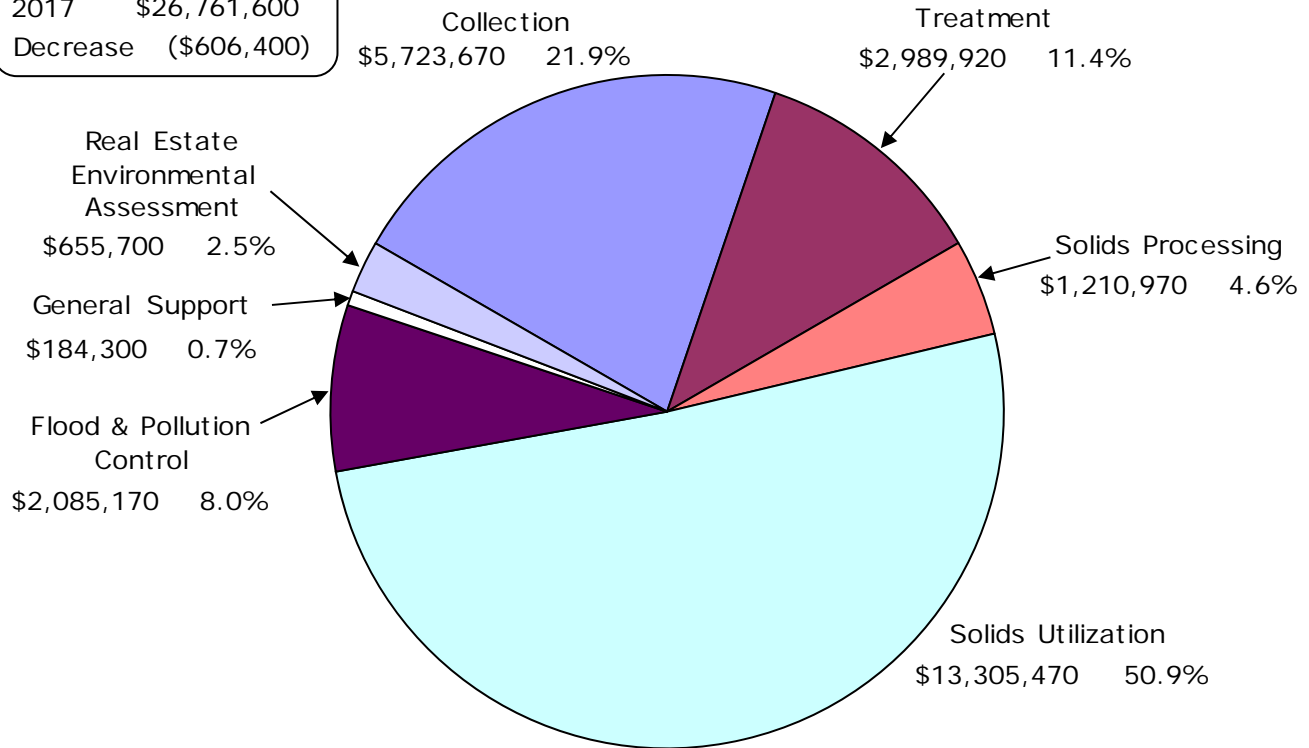
101 60000		Fund: Corporate Department: Maintenance & Operations Division: All Divisions		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623780	Safety and Medical Supplies	88,256	60,300	60,300	43,500	70,100	70,100	70,100
623800	Computer Software	1,733	7,500	7,500	4,300	24,700	24,700	24,700
623810	Computer Supplies	15,331	17,100	17,100	10,800	37,700	37,700	37,700
623820	Fuel	184,100	300,000	300,000	268,600	338,700	338,700	338,700
623840	Gases	732	5,000	5,000	2,300	1,100	1,100	1,100
623850	Communications Supplies	520	900	900	500	5,500	5,500	5,500
623860	Lubricants	4,556	5,000	8,200	7,300	21,400	21,400	21,400
623990	Materials and Supplies, N.O.C.	50,155	107,500	107,500	59,500	188,600	188,600	188,600
300	TOTAL MATERIALS AND SUPPLIES	14,360,719	20,034,400	20,034,400	15,965,800	19,565,100	19,565,100	19,495,100
634600	Equipment for Collection Facilities	44,177	50,000	45,200	45,200	44,200	44,200	44,200
634650	Equipment for Process Facilities	136,681	100,000	115,000	94,900	184,400	184,400	148,400
634860	Vehicle Equipment	5,597	10,000	-	-	-	-	-
634970	Testing and Laboratory Equipment	-	6,000	5,800	5,800	25,000	25,000	25,000
400	TOTAL MACHINERY AND EQUIPMENT	186,455	166,000	166,000	145,900	253,600	253,600	217,600
TOTAL MAINTENANCE & OPERATIONS		\$174,437,098	\$187,034,700	\$187,034,700	\$174,875,200	\$189,607,600	\$189,607,600	\$191,135,500

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.

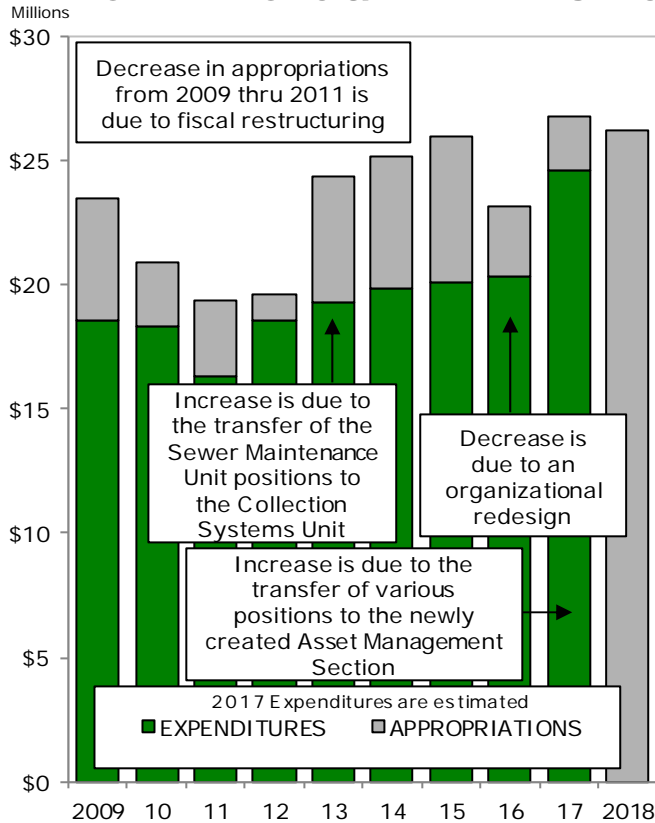
MAINTENANCE & OPERATIONS – GENERAL DIVISION

2018	\$26,155,200
2017	\$26,761,600
Decrease	(\$606,400)

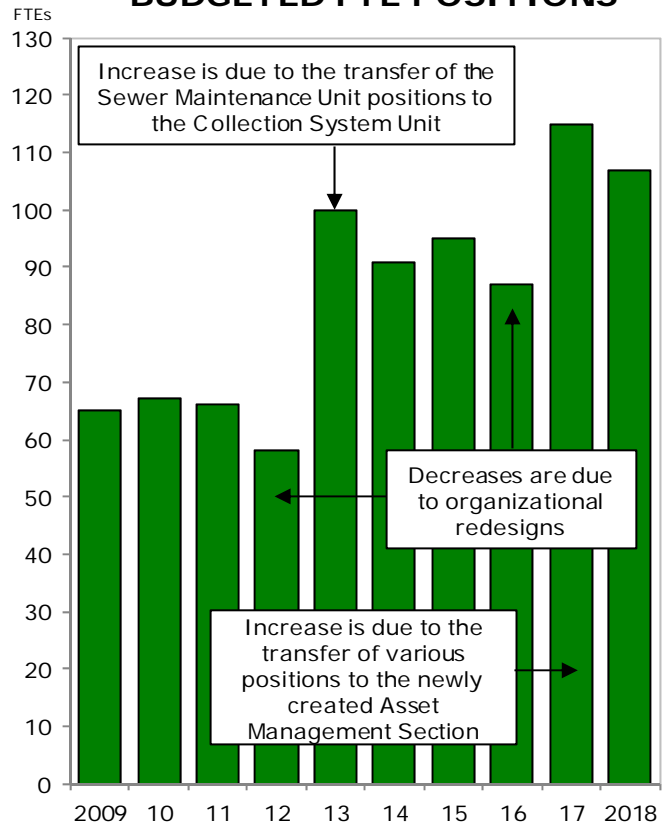
FUNCTIONS



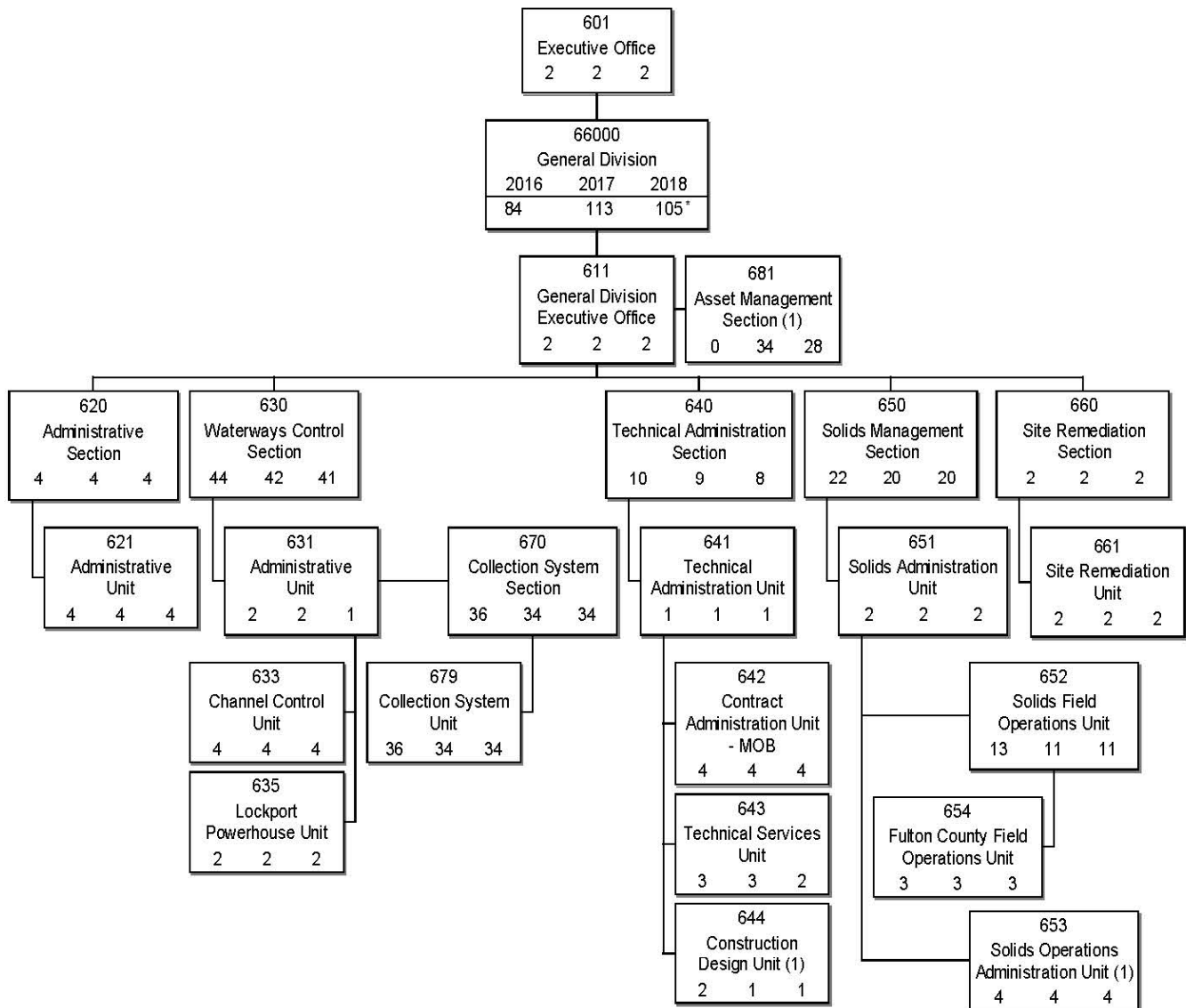
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MAINTENANCE & OPERATIONS – GENERAL DIVISION



* In 2018, 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.

(1) Effective 01/01/2017, 33 positions were transferred into Section 681 from Units 644, 653, 721, 722, 723, 754, 794, 822, 823, 922, and 923 with one position added for a total of 34 positions.

MAINTENANCE & OPERATIONS – GENERAL DIVISION

The General Division 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.

General Division Summary

The Waterways Control Section is responsible for the waterways, small streams, and rivers 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 76.1 miles of the District’s navigable inland waterways. The Lockport Powerhouse is integral to managing the Chicago Area Waterway System, reducing the risk of flooding throughout our service area, and provides energy credits from the hydroelectric power that it generates. The section also oversees programs and operations in the Stormwater Management Fund, including the Small Streams Maintenance Program and the Channel Maintenance Unit, which reduce flooding in urbanized areas by removing debris from 532 miles of small streams and rivers and 76.1 miles of navigable waterways in Cook County, respectively.

The Collection System Section inspects, cleans, and maintains the District’s collection facilities, including sewers and Tunnel and Reservoir Plan structures, and is also responsible for the Chicago River Controlling Works, the Lockport Controlling Works, the Centennial Fountain, and six bridges over the North Shore Channel.

The Solids Management Section manages the vegetative materials collection centers under the Resource Recovery Ordinance and the processing and utilization of biosolids. It also maintains and operates the Lawndale Avenue, Harlem Avenue, and Calumet Solids Management Areas and the District’s Prairie Plan Site in Fulton County.

The Site Remediation Section works with the Law Department to investigate, assess, and remediate environmental contamination found on leased District-owned property and to make vacant, District-owned property available for lease. The section also audits District tenant operations for lease compliance, and provides assistance in resolving site contamination, environmental compliance, hazardous waste handling, and disposal issues that arise at District-owned facilities.

The Technical Administration Section provides contract procurement services for the department, acts as the department’s liaison for technical, legal, and financial issues, handles regulatory communications with agencies such as the Illinois Environmental Protection Agency, and manages environmental permits including: National Pollutant Discharge Elimination System, Federally Enforceable State Operating Permit, 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 for plant personnel and other departments and agencies, reviews and comments on reports and contracts from other departments and the effect of proposed regulatory requirements on District operations, and coordinates Government Accounting Standards Board Statement 34 evaluations of District facilities.

The Administrative Section provides financial and budgetary services, implements an annual budget, prepares studies, reports, and correspondence to support the department’s progress towards its goals and strategies, and reviews and processes requisitions and payments for goods and services in conformance with the Prompt Payment Act and other statutes.

The Asset Management Section manages the maintenance of critical plant assets and infrastructure on a District-wide basis. It is composed of Electrical and Mechanical Engineers, and serves to centralize the department’s maintenance function.

Summary of 2017 Accomplishments

- Initiated the “Compost Bagging Program” that makes composted biosolids available for residents and consumers;
- Installed solar powered dissolved oxygen meters in the waterways to optimize Sidestream Elevated Pool Aeration operations and diversion water usage.

Budget Highlights

The 2018 appropriation for the General Division is \$26,155,200, a decrease of \$606,400, or 2.3 percent, from 2017. The staffing level has decreased from 115 to 107 positions due to the following changes: the addition of one Engineering Technician V, the drop of one Principal Electrical Engineer, one Engineering Technician IV, and one Administrative Specialist, the transfer of two Senior Electrical Engineers, one Associate Process Control Engineer, one Assistant Electrical Engineer, and one Administrative Specialist to the North Service Area, one Associate Process Control Engineer to the Calumet Service Area, one Principal Electrical Engineer and one Associate Process Control Engineer to the Stickney Service Area, and one Administrative Specialist to the Engineering Department, offset by the transfer in of one Principal Engineer and one Engineering Technician V from the North Service Area and one Associate Mechanical Engineer from the Monitoring & Research Department. In addition, four Senior Civil Engineers were reclassified to Senior Engineers, three Managing Civil Engineers were reclassified to Managing Engineers, and two Principal Civil Engineers were reclassified to Principal Engineers. Eighteen additional positions are funded by the Stormwater Management Fund and managed by the Maintenance & Operations Department.

The General Division budget achieves the District’s strategic goals as follows: Add Value by marketing the Lockport Powerhouse’s electrical capacity; Excellence by adopting odor control strategies; Resource Recovery by composting biosolids to create a Class A land applicable product; Develop Employees by emphasizing training; Leading Partnerships by developing relationships with municipalities, such as the City of Chicago, to utilize tree-based yard waste as bulking material in the creation of a biosolids compost blend; and Technology by developing nutrient control processes at Fulton County.

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.	\$ 8,713,590	33.3%
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.	\$ 1,210,970	4.6%
3. SOLIDS UTILIZATION: The General Division provides management and coordination of biosolids processing and utilization of District-wide activities.	\$ 13,305,470	50.9%
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 40 million kWh of electricity resulting in approximately \$1.0 million in revenue.	\$ 2,085,170	8.0%
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, Solids Utilization, and Flood & Pollution Control.	\$ 184,300	0.7%
6. REAL ESTATE ENVIRONMENTAL ASSESSMENT: The Site Remediation Section inspects and evaluates District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 655,700	2.5%
Total	\$ 26,155,200	100.0%

MEASURABLE GOALS:

	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. The operation of the Lockport Powerhouse will generate the equivalent of \$1.0 million worth of electricity revenue in 2018.	kWh Generated	35,595,896	40,000,000	40,000,000
	<i>* Revenue Generated</i>	<i>\$ 1,176,146</i>	<i>\$ 1,200,000</i>	<i>\$ 1,000,000</i>
2. The 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	37,629	60,152	60,152
3. The Solids Management Section will oversee the utilization of 99,000 dry tons of biosolids in 2018. (North Service Area's 1,000 dry tons of solids remain in that division.)	Dry Tons	61,474	99,000	99,000

** Revenue generated not included in total costs.*

66000 M&O - GENERAL DIVISION

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 4,242,950	2018 43	\$ 5,723,670	\$ (54,815)	(0.9)		
			2017 43	\$ 5,778,485				
1100	Surface Interceptor Systems	\$ 2,683,398	2018 20	\$ 2,750,400	\$ 148,700	5.7		
			2017 20	\$ 2,601,700				
1200	Tunnel and Reservoir System	\$ 745,422	2018 7	\$ 639,300	\$ (419,600)	(39.6)	a)	
			2017 9	\$ 1,058,900				
1300	Pumping Station Facilities	\$ 20,361	2018 6	\$ 650,600	\$ 181,900	38.8	b)	
			2017 4	\$ 468,700				
1900	Collection - Indirect Costs	\$ 793,769	2018 10	\$ 1,683,370	\$ 34,185	2.1		
			2017 10	\$ 1,649,185				
2000	Treatment	\$ 901,831	2018 19	\$ 2,822,620	\$ 53,260	1.9		
			2017 21	\$ 2,769,360				
2000	Pre-Treatment	\$ -	2018 1	\$ 110,100	\$ 6,000	5.8		
			2017 1	\$ 104,100				
2100	Primary Treatment	\$ -	2018 1	\$ 147,400	\$ 22,400	17.9	c)	
			2017 1	\$ 125,000				
2200	Secondary Treatment	\$ -	2018 2	\$ 325,900	\$ (13,800)	(4.1)		
			2017 3	\$ 339,700				
2300	Tertiary Treatment	\$ 6,347	2018 1	\$ 64,400	\$ (5,800)	(8.3)		
			2017 1	\$ 70,200				
2900	Treatment - Indirect Costs	\$ 895,484	2018 14	\$ 2,174,820	\$ 44,460	2.1		
			2017 15	\$ 2,130,360				
3000	Solids Processing	\$ 675,865	2018 9	\$ 1,210,970	\$ (127,715)	(9.5)		
			2017 11	\$ 1,338,685				
3100	Thickening	\$ -	2018 2	\$ 243,300	\$ 22,100	10.0		
			2017 2	\$ 221,200				
3200	Stabilization	\$ -	2018 1	\$ 86,800	\$ 3,100	3.7		
			2017 1	\$ 83,700				
3300	Dewatering	\$ 75,814	2018 1	\$ 69,700	\$ (23,500)	(25.2)	d)	
			2017 1	\$ 93,200				
3900	Solids Processing - Indirect Costs	\$ 600,051	2018 5	\$ 811,170	\$ (129,415)	(13.8)		
			2017 7	\$ 940,585				

- a) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$166,600), the transfer out of one FTE position (\$140,000), the reduced demand for valve actuator parts (\$57,200), and the reduced demand for repairs to sluice gate and valve operators (\$25,100).
- b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$214,300).
- c) Increase is due to the addition of an Engineering Technician V position (\$16,100).
- d) Decrease is due to the transfer out of an Associate Process Control Engineer position to the Stickney Service Area (\$21,100).

66000 M&O - GENERAL DIVISION

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
4000	Flood & Pollution Control	\$ 1,908,100	2018 12	\$ 2,085,170	\$ (101,215)	(4.6)		
			2017 14	\$ 2,186,385				
4200	Waterways Control and Stormwater Reservoirs	\$ 1,344,792	2018 9	\$ 1,536,800	\$ 93,600	6.5		
			2017 8	\$ 1,443,200				
4210	Maintenance of Waterways	\$ 170,672	2018 -	\$ 122,200	\$ (49,700)	(28.9)	e)	
			2017 1	\$ 171,900				
4300	Stormwater Management	\$ 142,948	2018 -	\$ 32,400	\$ (135,500)	(80.7)	f)	
			2017 2	\$ 167,900				
4400	Aeration Facilities	\$ 45,549	2018 1	\$ 103,100	\$ (21,300)	(17.1)	g)	
			2017 1	\$ 124,400				
4900	Flood & Pollution Control - Indirect Costs	\$ 204,139	2018 2	\$ 290,670	\$ 11,685	4.2		
			2017 2	\$ 278,985				
5000	Solids Utilization	\$ 11,100,417	2018 21	\$ 13,305,470	\$ (131,215)	(1.0)		
			2017 22	\$ 13,436,685				
5100	Solids Drying	\$ 4,470,133	2018 4	\$ 5,587,300	\$ (53,000)	(0.9)		
			2017 4	\$ 5,640,300				
5200	Solids Distribution	\$ 5,047,849	2018 6	\$ 5,958,700	\$ 107,800	1.8		
			2017 6	\$ 5,850,900				
5900	Solids Utilization - Indirect Costs	\$ 1,582,435	2018 11	\$ 1,759,470	\$ (186,015)	(9.6)	h)	
			2017 12	\$ 1,945,485				
7000	General Support (excludes program numbers 7368 and 7604)	\$ 510,603	2018 1	\$ 184,300	\$ 56,700	44.4	i)	
			2017 1	\$ 127,600				
7368	Real Estate Environmental Assessment	\$ 874,261	2018 2	\$ 655,700	\$ (347,200)	(34.6)	j)	
			2017 3	\$ 1,002,900				
7604	Social Security and Medicare Contributions	\$ 123,382	2018 -	\$ 167,300	\$ 45,800	37.7	k)	
			2017 -	\$ 121,500				
	Totals	\$ 20,337,409	2018 107	\$ 26,155,200	\$ (606,400)	(2.3%)	*	
			2017 115	\$ 26,761,600				

- e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$44,800).
- f) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$135,500).
- g) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$31,500).
- h) Decrease is due to the reduced demand for 17-697-11, Biosolids Odor Control (\$150,000), the reallocation of salaries to more accurately reflect current activities (\$52,700), the transfer out of one FTE position (\$30,000), and the reduced demand for truck scale maintenance (\$17,100), offset by the increased demand for fuel (\$29,700).
- i) Increase is due to the request for compost probes (\$75,000), offset by the reallocation of salaries to more accurately reflect current activities (\$20,300).
- j) Decrease is due to the reduced demand for Phase II Environmental Investigations (\$171,800) and the reallocation of salaries to more accurately reflect current activities (\$138,300).
- k) Increase is due to the calculation for Social Security and Medicare as a percentage of salaries (\$45,800).

* The 2018 position total for the General Division is 107, with 18 positions budgeted in the Stormwater Management Fund.

66000 M&O - GENERAL DIVISION

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1000-2900	Collection & Treatment					
	Technical and Administrative Support for Collection and Treatment Activities	Cost	\$ 5,144,781	\$ 8,547,845	\$ 8,546,290	
3000	Solids Processing					
	Technical and Administrative Support for Solids Removal and Processing	Cost	\$ 675,865	\$ 1,338,685	\$ 1,210,970	
4000	Flood & Pollution Control					
4200	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution	Cost	\$ 342,088	\$ 821,500	\$ 1,087,300	a)
	Generate Electricity at Lockport Powerhouse to Obtain Approximately \$1 million in Revenue	kWh	35,595,896	41,500,000	40,000,000	
		Cost	\$ 555,296	\$ 321,400	\$ 139,700	b)
		Cost/kWh	\$ 0.0156	\$ 0.0077	\$ 0.0035	
		* Revenue Generated	\$ 1,176,146	\$ 1,000,000	\$ 1,000,000	
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion	37,629	61,500	60,152	
		Cost	\$ 447,408	\$ 300,300	\$ 309,800	
		Cost/Mil. Gal./Year	\$ 11.89	\$ 4.88	\$ 5.15	
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	\$ 170,672	\$ 171,900	\$ 122,200	c)
4300	Stormwater Management	Cost	\$ 142,948	\$ 167,900	\$ 32,400	d)
4400	Aeration Facilities	Cost	\$ 45,549	\$ 124,400	\$ 103,100	e)
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 204,139	\$ 278,985	\$ 290,670	
5000	Solids Drying/Utilization					
	Management and Coordination of the Solids Utilization Program	Dry Tons	61,474	89,000	99,000	
		Cost	\$ 11,100,417	\$ 13,436,685	\$ 13,305,470	
		Cost/Dry Ton	\$ 180.57	\$ 150.97	\$ 134.40	
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	\$ 510,603	\$ 127,600	\$ 184,300	f)
7368	Real Estate Environmental Assessment	Cost	\$ 874,261	\$ 1,002,900	\$ 655,700	g)
7604	Social Security and Medicare Contributions	Cost	\$ 123,382	\$ 121,500	\$ 167,300	h)
	Division Total		\$ 20,337,409	\$ 26,761,600	\$ 26,155,200	

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$240,100).
- b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$200,900).
- c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$44,800).
- d) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$135,500).
- e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$31,500).
- f) Increase is due to the request for compost probes (\$75,000), offset by the reallocation of salaries to more accurately reflect current activities (\$20,300).
- g) Decrease is due to the reduced demand for Phase II Environmental Investigations (\$171,800) and the reallocation of salaries to more accurately reflect current activities (\$138,300).
- h) Increase is due to the calculation for Social Security and Medicare as a percentage of salaries (\$45,800).

* Revenue generated not included in total costs.

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 8,369,715	\$ 12,422,700	\$ 12,396,700	\$ 11,600,000	\$ 11,566,000	\$ 11,547,400	\$ 11,816,900
601060	Compensation Plan Adjustments	494,632	505,800	505,800	495,400	609,100	627,700	665,300
601070	Social Security and Medicare Contributions	123,382	121,500	170,800	169,500	167,300	167,300	167,300
601080	Salaries of Nonbudgeted Employees	-	19,700	12,700	-	19,700	19,700	19,700
601100	Tuition and Training Payments	16,845	15,700	15,700	14,800	16,800	16,800	16,800
100	TOTAL PERSONAL SERVICES	9,004,574	13,085,400	13,101,700	12,279,700	12,378,900	12,378,900	12,686,000
612010	Travel	2,024	2,100	2,100	1,900	3,400	3,400	3,400
612030	Meals and Lodging	10,552	5,500	10,000	9,500	9,700	9,700	9,700
612050	Compensation for Personally-Owned Automobiles	4,099	9,400	19,600	18,000	7,100	7,100	7,100
612080	Motor Vehicle Operating Services	370	400	400	300	300	300	300
612150	Electrical Energy	73,293	77,700	77,700	73,300	75,600	75,600	75,600
612160	Natural Gas	6,521	8,100	8,100	8,000	8,600	8,600	8,600
612170	Water and Water Services	57,794	33,600	62,600	60,000	53,200	53,200	53,200
612210	Communication Services	202,385	200,700	200,700	164,500	276,300	276,300	276,300
612240	Testing and Inspection Services	13,822	14,100	14,100	6,500	13,800	13,800	13,800
612330	Rental Charges	8,320	10,900	17,800	15,800	8,600	8,600	8,600
612410	Governmental Service Charges	15,900	21,000	21,000	20,100	18,600	18,600	18,600
612420	Maintenance of Grounds and Pavements	647,087	698,200	697,200	650,000	679,700	679,700	679,700
612430	Payments for Professional Services	438,926	702,000	702,000	695,500	516,400	516,400	516,400
612490	Contractual Services, N.O.C.	168,355	213,300	203,300	181,300	222,500	222,500	222,500
612520	Waste Material Disposal Charges	7,835,630	9,372,500	9,262,600	8,624,600	9,402,000	9,402,000	9,402,000
612600	Repairs to Collection Facilities	996,897	949,100	911,100	700,000	940,100	940,100	940,100
612620	Repairs to Waterway Facilities	31,704	40,000	50,000	44,000	46,700	46,700	46,700
612650	Repairs to Process Facilities	8,919	31,500	31,500	11,500	14,300	14,300	14,300
612680	Repairs to Buildings	11,754	39,400	39,400	13,900	40,400	40,400	40,400
612760	Repairs to Material Handling and Farming Equipment	199,269	226,000	226,000	222,000	239,900	239,900	239,900
612780	Safety Repairs and Services	11,628	12,900	20,500	18,600	14,000	14,000	14,000
612790	Repairs to Marine Equipment	60,370	60,000	60,000	55,700	65,000	65,000	65,000
612820	Computer Software Maintenance	5,156	5,400	5,400	5,400	7,500	7,500	7,500
612860	Repairs to Vehicle Equipment	27,151	30,500	35,800	33,900	49,500	49,500	49,500

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612990	Repairs, N.O.C.	1,075	3,400	3,400	1,900	3,500	3,500	3,500
200	TOTAL CONTRACTUAL SERVICES	10,838,999	12,767,700	12,682,300	11,636,200	12,716,700	12,716,700	12,716,700
623070	Electrical Parts and Supplies	9,265	15,000	16,000	10,100	10,600	10,600	10,600
623090	Plumbing Accessories and Supplies	11,242	10,000	10,000	6,100	11,000	11,000	11,000
623110	Hardware	1,967	4,100	3,400	800	2,000	2,000	2,000
623130	Buildings, Grounds, Paving Materials, and Supplies	32,294	56,000	55,000	47,600	47,000	47,000	47,000
623250	Vehicle Parts and Supplies	62,526	114,500	98,500	80,000	67,000	67,000	67,000
623270	Mechanical Repair Parts	50,606	117,300	96,300	86,800	91,600	91,600	91,600
623300	Manhole Materials	212	11,000	11,000	10,700	6,900	6,900	6,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	6,038	7,500	7,500	6,500	7,000	7,000	7,000
623530	Farming Supplies	3,680	5,000	5,000	4,600	3,700	3,700	3,700
623560	Processing Chemicals	118,507	359,000	359,000	271,800	197,000	197,000	197,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	20,116	-	-	-	-	-	-
623660	Cleaning Supplies	1,147	2,200	2,200	1,100	500	500	500
623680	Tools and Supplies	15,802	19,500	19,500	14,000	15,800	15,800	15,800
623700	Wearing Apparel	714	1,500	1,600	1,300	700	700	700
623780	Safety and Medical Supplies	34,426	6,500	6,500	5,100	8,000	8,000	8,000
623800	Computer Software	-	1,000	1,000	-	-	-	-
623810	Computer Supplies	448	2,000	2,000	100	400	400	400
623820	Fuel	101,748	157,000	157,000	137,100	184,400	184,400	184,400
623860	Lubricants	731	500	1,100	1,000	1,500	1,500	1,500
623990	Materials and Supplies, N.O.C.	22,367	18,900	18,900	13,000	97,400	97,400	97,400
300	TOTAL MATERIALS AND SUPPLIES	493,835	908,500	871,500	697,700	752,500	752,500	752,500
TOTAL GENERAL DIVISION		\$ 20,337,409	\$ 26,761,600	\$ 26,655,500	\$ 24,613,600	\$ 25,848,100	\$ 25,848,100	\$ 26,155,200

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 for a specific division as funding is controlled at the M&O Overall department-level or when transfers of funds are anticipated.

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
601	Executive Office					
EX14	Director of Maintenance & Operations	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Office	2	2	362,230.15	2	369,474.75
611	General Division Executive Office					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	General Division Executive Office	2	2	272,696.98	2	291,036.06
620	Administrative Section					
621	Administrative Unit					
HP18	Supervising Budget & Management Analyst	1	1		1	
HP16	Senior Budget & Management Analyst	1	1		1	
HP14	Budget & Management Analyst	2	2		2	
TOTAL	Administrative Unit	4	4	439,898.87	4	453,557.51
TOTAL	Administrative Section	4	4	439,898.87	4	453,557.51
630	Waterways Control Section					
631	Administrative Unit					
HP20	Managing Civil Engineer	1	1		-	
HP20	Managing Engineer	-	-		1	
HP11	Administrative Specialist	1	1		-	
TOTAL	Administrative Unit	2	2	257,872.15	1	188,211.11
633	Channel Control Unit					
NR6271	Systems Dispatcher	4	4		4	
TOTAL	Channel Control Unit	4	4	459,596.80	4	459,596.80
634	Channel Maintenance Unit					
(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)						
HP18	Principal Engineer	-	-		-	
HP17	Senior Civil Engineer	-	-		(*1)	
		(*1)	(*1)		-	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
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)	
635	Lockport Powerhouse Unit					
NR7394	Powerhouse Mechanic Leadman	1	1		1	
NR7393	Powerhouse Mechanic	1	1		1	
TOTAL	Lockport Powerhouse Unit	2	2	238,097.60	2	238,097.60
636	Boat Operations Unit					
	(* 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)	
639	Channel Maintenance Unit					
	(* 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)	
NR8650	Maintenance Laborer Class A Shift	-	-		-	
		(*2)	(*2)		(*2)	
TOTAL	Channel Maintenance Unit	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*4)	(*4)		(*4)	
670	Collection System Section					
679	Collection System Unit					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Engineer	-	-		1	
HP15	Associate Civil Engineer	2	1		1	
HP14	Assistant Civil Engineer	1	-		-	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Engineering Technician V	4	4		5	
HP12	Engineering Technician IV	1	1		-	
HP11	Engineering Technician III	1	1		1	
NR8331	Laborer Foreman	6	6		6	
		(*1)	(*1)		(*1)	
NR8650	Maintenance Laborer Class A Shift	14	14		14	
		(*4)	(*4)		(*4)	
PR6473	Truck Driver	6	6		6	
		(*1)	(*1)		(*1)	
TOTAL	Collection System Unit	36	34	2,922,122.06	34	2,953,305.42
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Collection System Section	36	34	2,922,122.06	34	2,953,305.42
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Waterways Control Section	44	42	3,877,688.61	41	3,839,210.93
TOTAL	Stormwater Management Fund Positions	(*18)	(*18)		(*18)	
640	Technical Administration Section					
641	Technical Administration Unit					
HP20	Managing Civil Engineer	1	1		-	
HP20	Managing Engineer	-	-		1	
TOTAL	Technical Administration Unit	1	1	192,722.14	1	196,576.59
642	Contract Administration Unit - MOB					
HP18	Principal Civil Engineer	1	1		-	
HP18	Principal Engineer	-	-		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Contract Administration Unit - MOB	4	4	485,051.36	4	477,810.03
643	Technical Services Unit					
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Engineer	-	-		1	
HP15	Associate Civil Engineer	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	1		-	
TOTAL	Technical Services Unit	3	3	309,945.48	2	237,958.12
644	Construction Design Unit					
HP18	Principal Civil Engineer	1	1		-	
HP18	Principal Engineer	-	-		1	
HP18	Principal Electrical Engineer	1	-		-	
TOTAL	Construction Design Unit	2	1	146,977.48	1	155,928.59
TOTAL	Technical Administration Section	10	9	1,134,696.46	8	1,068,273.33
650	Solids Management Section					
651	Solids Administration Unit					
HP20	Managing Civil Engineer	1	1		-	
HP20	Managing Engineer	-	-		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Solids Administration Unit	2	2	272,816.19	2	257,115.91
652	Solids Field Operations Unit					
HP18	Principal Engineer	1	1		1	
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Engineer	-	-		1	
HP15	Associate Civil Engineer	3	-		-	
HP14	Engineering Technician V	3	3		3	
HP14	Engineering Technician V #4	2	2		2	
HP12	Engineering Technician IV	2	3		3	
HP11	Engineering Technician III	1	1		1	
TOTAL	Solids Field Operations Unit	13	11	1,111,098.15	11	1,098,655.46
653	Solids Operations Administration Unit					
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Engineer	-	-		1	

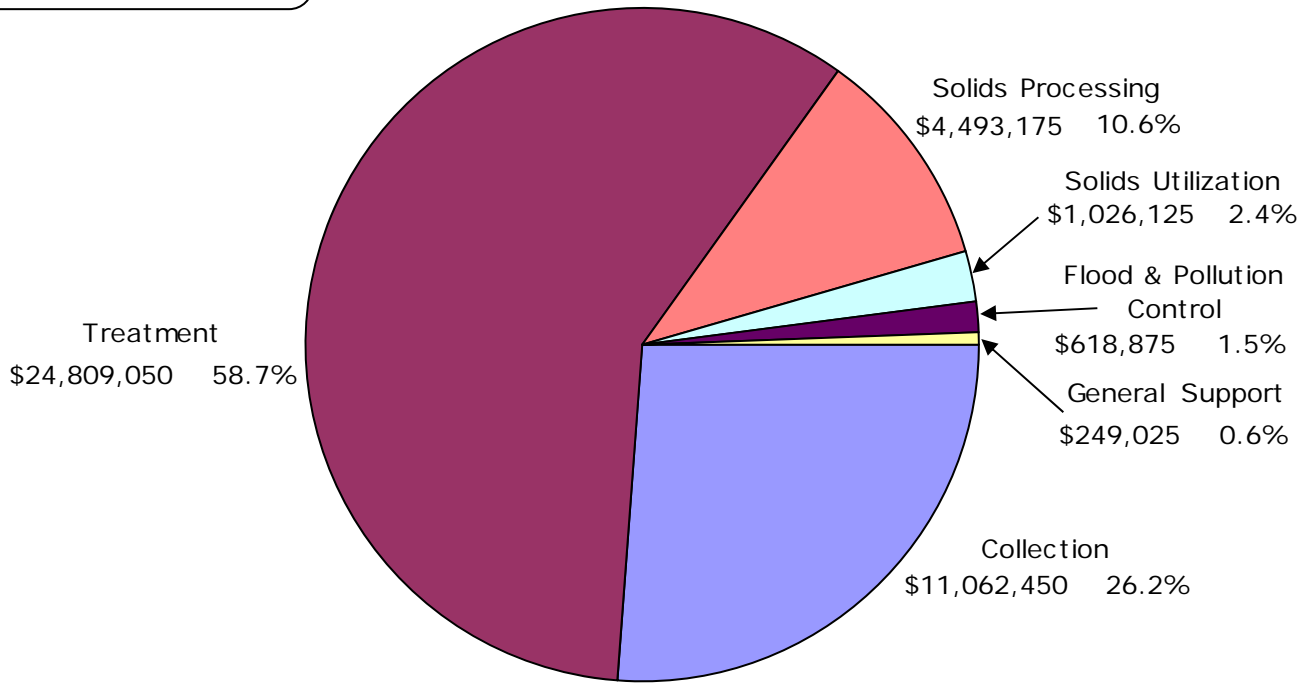
Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Civil Engineer	1	1		1	
HP12	Engineering Technician IV #4	1	1		1	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	Solids Operations Administration Unit	4	4	391,529.26	4	403,931.80
654	Fulton County Field Operations Unit					
HP12	Agricultural Technician II	1	1		1	
HP11	Agricultural Technician I	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Fulton County Field Operations Unit	3	3	216,888.68	3	221,226.39
TOTAL	Solids Management Section	22	20	1,992,332.28	20	1,980,929.56
660	Site Remediation Section					
661	Site Remediation Unit					
HP20	Engineer of Site Remediation	1	1		1	
HP17	Site Remediation Specialist	1	1		1	
TOTAL	Site Remediation Unit	2	2	317,468.70	2	323,818.21
TOTAL	Site Remediation Section	2	2	317,468.70	2	323,818.21
681	Asset Management Section					
HP20	Managing Engineer	-	1		1	
HP18	Principal Electrical Engineer	-	3		1	
HP18	Principal Engineer	-	-		1	
HP18	Principal Mechanical Engineer	-	3		3	
HP17	Senior Electrical Engineer	-	6		4	
HP17	Senior Mechanical Engineer	-	4		4	
HP15	Associate Electrical Engineer	-	6		6	
HP15	Associate Mechanical Engineer	-	3		4	
HP15	Associate Process Control Engineer	-	3		-	
HP14	Assistant Electrical Engineer	-	1		-	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Mechanical Engineer	-	2		2	
HP14	Assistant Mechanical Engineer #2 (Engineering Technician IV) (New Grade HP12)	-	1		1	
HP14	Engineering Technician V	-	-		1	
HP11	Administrative Specialist	-	1		-	
TOTAL	Asset Management Section	-	34	4,088,006.58	28	3,490,252.87
TOTAL	Maintenance & Operations General Division	86	115	12,485,018.63	107	11,816,553.22
TOTAL	Stormwater Management Fund Positions	(*18)	(*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.						

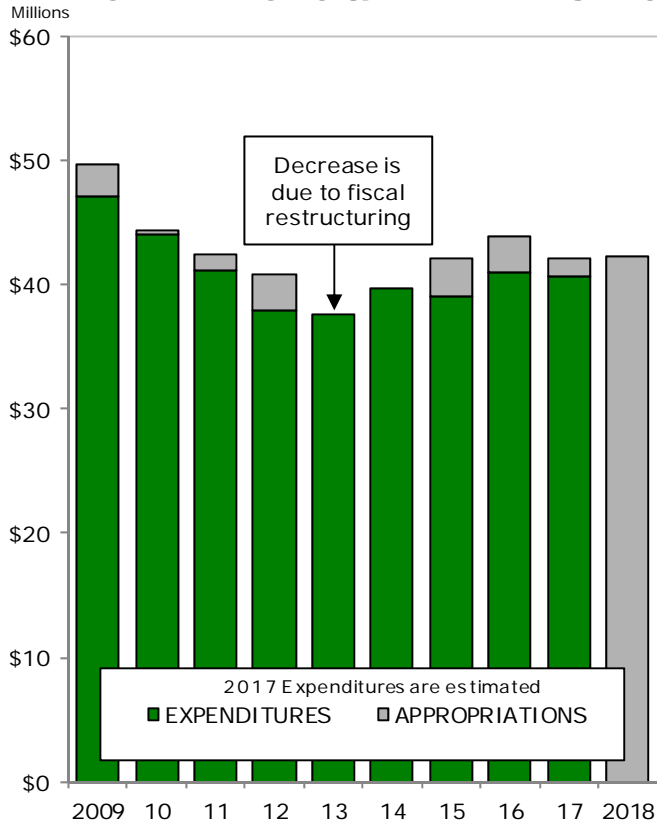
MAINTENANCE & OPERATIONS – NORTH SERVICE AREA

2018	\$42,258,700
2017	\$42,055,300
Increase	\$203,400

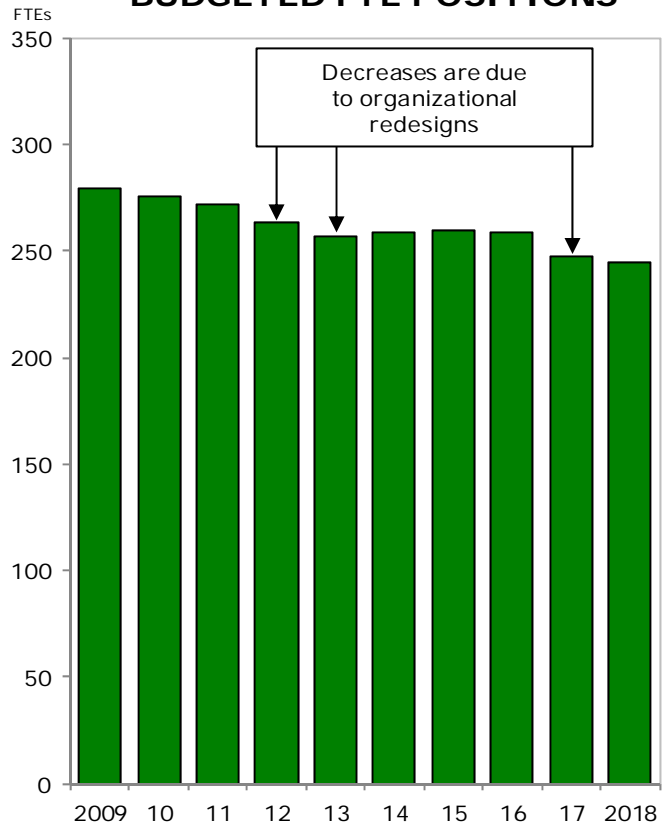
FUNCTIONS



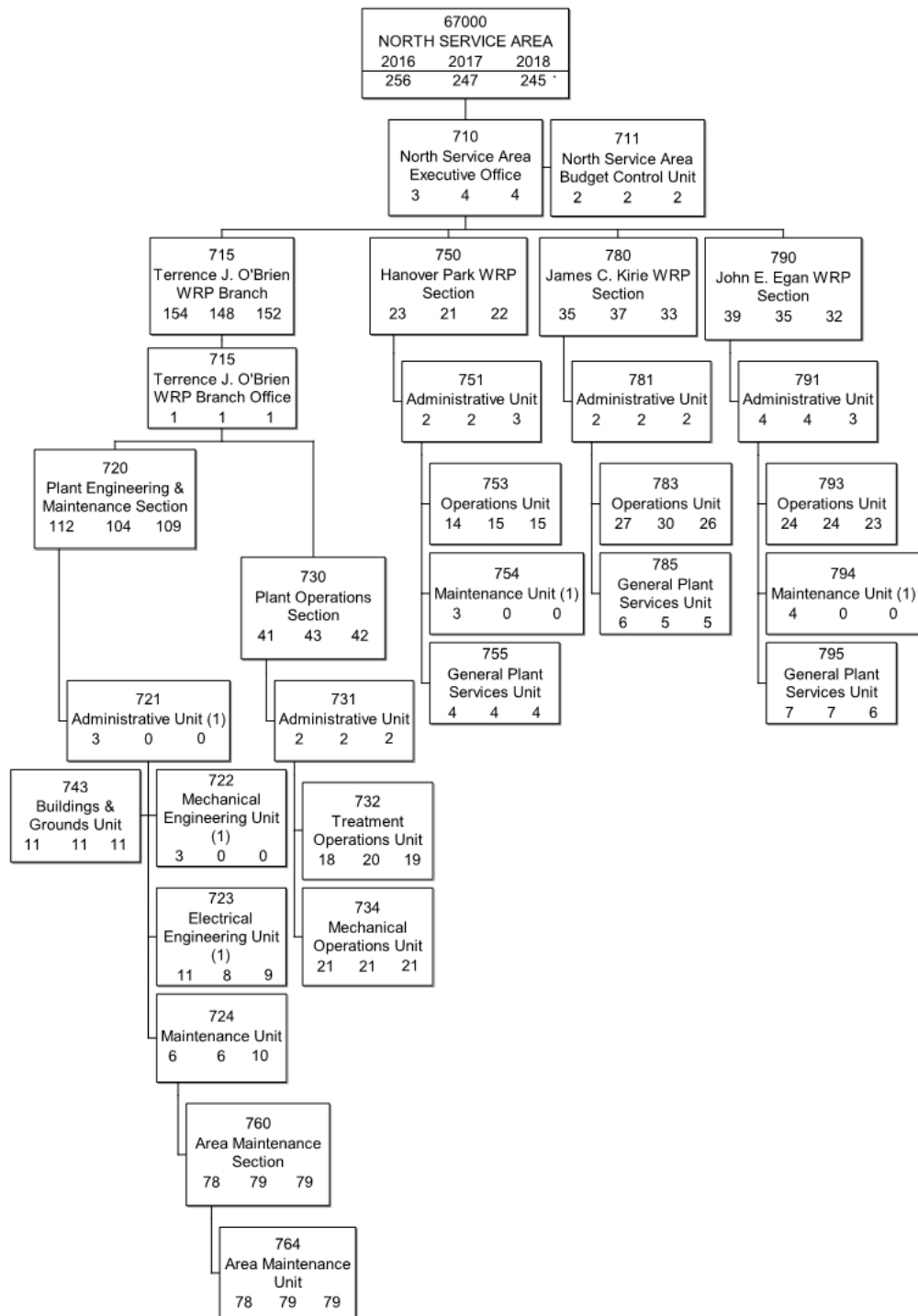
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MAINTENANCE & OPERATIONS – NORTH SERVICE AREA



* In 2018, there are no positions funded by the Stormwater Management Fund.

(1) Effective 01/01/2017, a total of 14 positions were transferred from Units 721, 722, 723, 754, and 794 into Section 681.

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 297.5 square miles, treating approximately 118.7 billion gallons of wastewater 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 for the Four WRPs 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 Plant Engineering & 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 Plant 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.

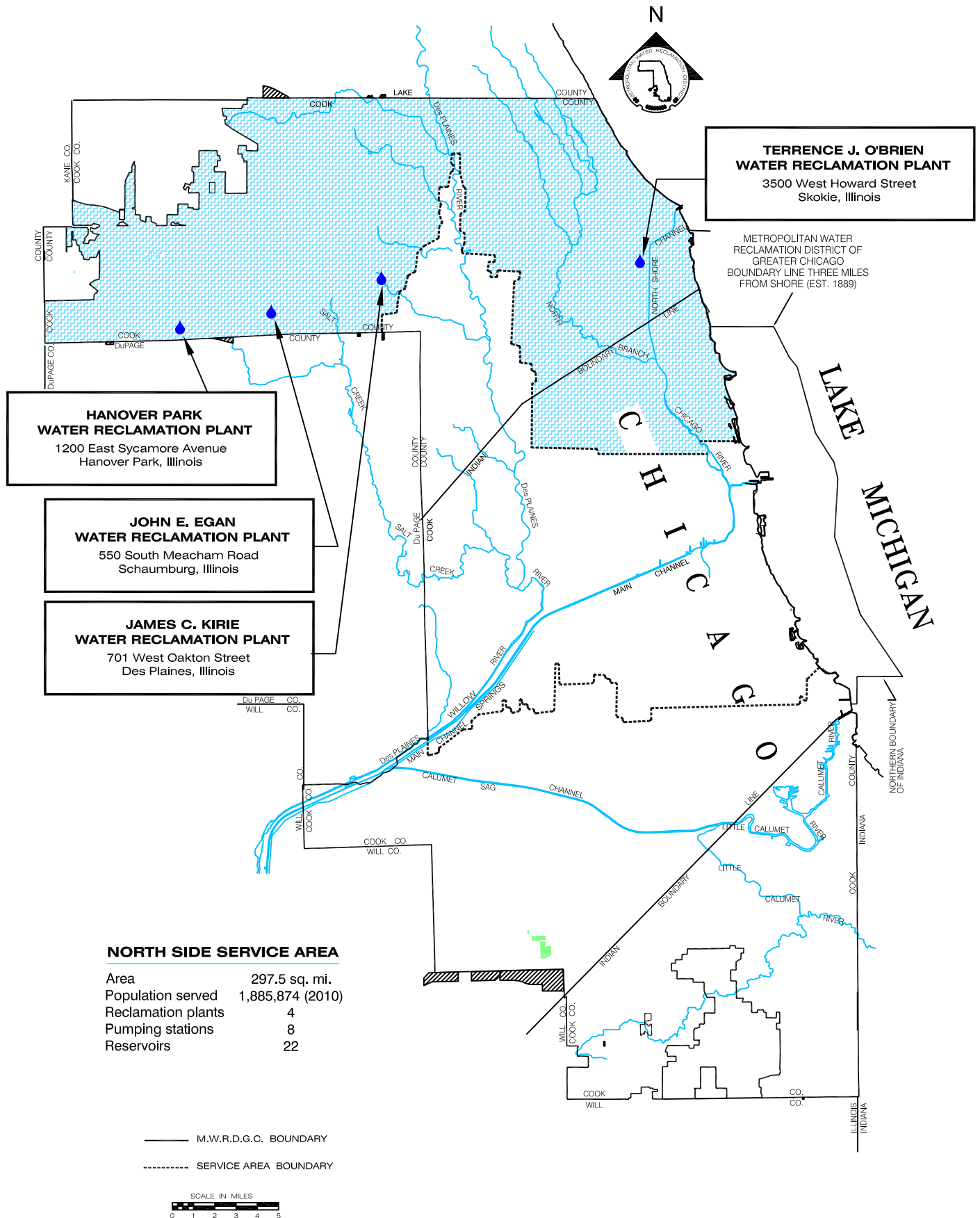
The Plant Services Sections maintain buildings and grounds at the plants and their outlying facilities in compliance with NPDES and other permit requirements and ensure their availability, cleanliness, and safety.

Summary of 2017 Accomplishments

- Achieved 100 percent NPDES compliance 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, including the replacement of Raw Sewage Pump 2 at the Kirie WRP;
- Collaborated with engineers, scientists, and trades to establish a significant pilot biological phosphorus removal facility in two aeration and final tanks at the Kirie WRP in order to assist in identifying future infrastructure needs to meet future phosphorus permit limits;
- Completed the cleaning of all four digesters and repair of their mixing systems to improve digester operations and gas production at the Egan WRP;
- Completed the first full year of ultraviolet disinfection at the O'Brien WRP. Ultraviolet disinfection earned recognition as one of the nine Honor Award winners as well as being nominated for the Eminent Conceptor, the highest overall award announced at the American Council of Engineering Companies of Illinois Conference;
- Housed approximately 2,220 tree and 1,000 shrub saplings at the Hanover Park WRP. The saplings will eventually become the first inhabitants of the Fischer Farm Horticultural Center, which is scheduled to break ground in 2018.

Budget Highlights

The 2018 appropriation for the NSA is \$42,258,700, an increase of \$203,400, or 0.5 percent, from 2017. The staffing level has decreased from 247 to 245 positions. One Managing Engineer and one Engineering Technician IV were added, two Senior Electrical Engineers, one Administrative Specialist, one Associate Process Control Engineer, and one Assistant Electrical Engineer were transferred in from the General Division, and one Senior Budget & Management Analyst was transferred in from the Stickney Service Area, offset by the drop of four Maintenance Laborer Class A Shift #1 positions, one Administrative Clerk, and one Budget & Management Analyst, and the transfer out of one Principal Engineer and one Engineering Technician V to the General Division, one Fireman-Oiler to the Stickney Service Area, and one Principal Engineer to the Stormwater Management Fund. In addition, two Senior Civil Engineers were reclassified to Senior Engineers. The NSA will continue to work with other departments to implement additional treatment processes like disinfection, ANITA™ Mox, enhanced biological phosphorus removal, and aeration control through ammonium control. Process automation, energy conservation, and implementation of new 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 118.7 billion gallons of wastewater through its treatment facilities and a contract agreement with the Fox River Water Reclamation District.	\$ 35,871,500	84.9%
Design: Flows ^ CBOD * SS *		
Terrence J. O'Brien Water Reclamation Plant (WRP)	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	- -
^ In millions of gallons per day (MGD).		
* National Pollutant Discharge Elimination System monthly effluent quality standards: CBOD - Carbonaceous Biochemical Oxygen Demand SS - Suspended Solids		
2. SOLIDS PROCESSING: The North Service Area will remove 53,500 dry tons and process 13,500 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and centrifuge cake in lagoons at CALSMA** and LASMA**.	\$ 4,493,175	10.6%
3. SOLIDS UTILIZATION: The North Service Area will provide support to utilize 1,000 dry tons of biosolids for the Fischer Farm in Hanover Park and other agricultural applications.	\$ 1,026,125	2.4%
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.	\$ 618,875	1.5%
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.	\$ 249,025	0.6%
Total	\$ 42,258,700	100.0%
**CALSMA - Calumet Solids Management Area and LASMA - Lawndale Avenue Solids Management Area		

MEASURABLE GOALS:	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. The North Service Area will collect and treat approximately 118.7 billion gallons of wastewater in 2018.	Billion Gallons	110.5	118.7	118.7
2. The North Service Area will remove 53,500 dry tons and process 13,500 dry tons of concentrated sewage.	Dry Tons Process Solids	13,387	13,500	13,500
3. The North Service Area will obtain 100 percent permit compliance in 2018 for National Pollutant Discharge Elimination System 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 2018.	Dry Tons	650	1,000	1,000

67000 M&O - NORTH SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 10,931,625	2018 67	\$ 11,062,450	\$ 251,180	2.3		
			2017 65	\$ 10,811,270				
1100	Surface Interceptor Systems	\$ 331,617	2018 3	\$ 314,200	\$ 3,800	1.2		
			2017 3	\$ 310,400				
1200	Tunnel and Reservoir System	\$ 1,541,580	2018 14	\$ 1,478,200	\$ 498,700	50.9	a)	
			2017 9	\$ 979,500				
1300	Pumping Station Facilities	\$ 4,546,360	2018 25	\$ 4,688,700	\$ (345,100)	(6.9)	b)	
			2017 25	\$ 5,033,800				
1900	Collection - Indirect Costs	\$ 4,512,068	2018 25	\$ 4,581,350	\$ 93,780	2.1		
			2017 28	\$ 4,487,570				
2000	Treatment	\$ 23,428,352	2018 151	\$ 24,469,950	\$ 384,250	1.6		
			2017 154	\$ 24,085,700				
2000	Pre-Treatment	\$ 839,538	2018 7	\$ 795,000	\$ 400	0.1		
			2017 6	\$ 794,600				
2100	Primary Treatment	\$ 654,959	2018 6	\$ 618,200	\$ (7,400)	(1.2)		
			2017 7	\$ 625,600				
2200	Secondary Treatment	\$ 8,019,511	2018 44	\$ 8,181,100	\$ 358,000	4.6	c)	
			2017 44	\$ 7,823,100				
2300	Tertiary Treatment	\$ 1,359,587	2018 11	\$ 1,770,500	\$ (53,900)	(3.0)		
			2017 12	\$ 1,824,400				
2900	Treatment - Indirect Costs	\$ 12,554,757	2018 83	\$ 13,105,150	\$ 87,150	0.7		
			2017 85	\$ 13,018,000				

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$395,600) and the transfer in of one FTE position from the General Division (\$104,000).
- b) Decrease is due to the reduced demand for electrical energy for the North Service Area's outlying stations connected to the O'Brien WRP (\$370,900).
- c) Increase is due to the increased demand for electrical energy (\$192,500), the increased need for ultraviolet disinfection parts and supplies (\$85,000), and the reallocation of salaries to more accurately reflect current activities (\$24,000).

67000 M&O - NORTH SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
3000	Solids Processing	\$ 3,972,962	2018 23	\$ 4,493,175	\$ (65,860)	(1.4)	
			2017 22	\$ 4,559,035			
3100	Thickening	\$ 777,183	2018 5	\$ 771,200	\$ (95,500)	(11.0)	
			2017 5	\$ 866,700			
3200	Stabilization	\$ 810,070	2018 6	\$ 750,600	\$ 7,200	1.0	
			2017 5	\$ 743,400			
3300	Dewatering	\$ 939,655	2018 6	\$ 1,256,800	\$ (78,400)	(5.9)	
			2017 6	\$ 1,335,200			
3900	Solids Processing - Indirect Costs	\$ 1,446,054	2018 6	\$ 1,714,575	\$ 100,840	6.2	
			2017 6	\$ 1,613,735			
4000	Flood & Pollution Control	\$ 751,620	2018 2	\$ 618,875	\$ (188,610)	(23.4)	
			2017 4	\$ 807,485			
4200	Waterways Control and Stormwater Reservoirs	\$ 468,743	2018 2	\$ 316,700	\$ (150,100)	(32.2)	d)
			2017 4	\$ 466,800			
4400	Aeration Facilities	\$ 208,435	2018 -	\$ 178,500	\$ (48,900)	(21.5)	e)
			2017 -	\$ 227,400			
4900	Flood & Pollution Control - Indirect Costs	\$ 74,442	2018 -	\$ 123,675	\$ 10,390	9.2	
			2017 -	\$ 113,285			
5000	Solids Utilization	\$ 1,280,748	2018 1	\$ 1,026,125	\$ (163,750)	(13.8)	
			2017 1	\$ 1,189,875			
5200	Solids Distribution	\$ 190,560	2018 -	\$ 181,900	\$ (24,000)	(11.7)	
			2017 -	\$ 205,900			
5900	Solids Utilization - Indirect Costs	\$ 1,090,188	2018 1	\$ 844,225	\$ (139,750)	(14.2)	
			2017 1	\$ 983,975			
7000	General Support (excluding program number 7604)	\$ 196,130	2018 1	\$ 249,025	\$ (14,110)	(5.4)	
			2017 1	\$ 263,135			
7604	Social Security and Medicare Contributions	\$ 340,523	2018 -	\$ 339,100	\$ 300	0.1	
			2017 -	\$ 338,800			
Totals		\$ 40,901,960	2018 245	\$ 42,258,700	\$ 203,400	0.5%	*
			2017 247	\$ 42,055,300			

d) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$146,300).

e) Decrease is due to the reduced demand for electrical energy for the Devon Avenue and Webster Street instream aeration stations (\$49,200).

* The 2018 position total for the North Service Area is 245, with no positions budgeted in the Stormwater Management Fund.

67000 M&O - NORTH SERVICE AREA

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at Treatment Facilities and Through a Contract Agreement with the Fox River Water Reclamation District					
	Terrence J. O'Brien Water Reclamation Plant	Mil. Gallons	82,304	89,000	89,000	
		Cost	\$ 19,057,594	\$ 19,202,620	\$ 19,572,500	a)
		Cost/Mil. Gallons	\$ 231.55	\$ 215.76	\$ 219.92	
	John E. Egan Water Reclamation Plant	Mil. Gallons	8,682	10,200	10,200	
		Cost	\$ 5,722,943	\$ 5,872,400	\$ 5,677,650	b)
		Cost/Mil. Gallons	\$ 659.17	\$ 575.73	\$ 556.63	
	Hanover Park Water Reclamation Plant	Mil. Gallons	3,514	3,500	3,500	
		Cost	\$ 2,739,114	\$ 2,599,100	\$ 2,680,800	
		Cost/Mil. Gallons	\$ 779.49	\$ 742.60	\$ 765.94	
	James C. Kirie Water Reclamation Plant	Mil. Gallons	13,837	14,400	14,000	
		Cost	\$ 5,669,379	\$ 5,807,850	\$ 6,098,450	c)
		Cost/Mil. Gallons	\$ 409.73	\$ 403.32	\$ 435.60	
	Fox River Water Reclamation District	Mil. Gallons	2,206	2,000	2,000	
		Cost	\$ 1,170,947	\$ 1,415,000	\$ 1,503,000	
		Cost/Mil. Gallons	\$ 530.80	\$ 707.50	\$ 751.50	
3000	Solids Processing					
	Remove 53,500 Dry Tons of Solids, Transfer 40,000 Dry Tons to the Stickney WRP and Process 13,500 Dry Tons from Concentrated Sewage Through Various Systems	Dry Tons	13,387	13,500	13,500	
		Cost	\$ 3,972,962	\$ 4,559,035	\$ 4,493,175	
		Cost/Dry Ton	\$ 296.78	\$ 337.71	\$ 332.83	

- a) Increase is due to the increased need for ultraviolet disinfection parts and supplies (\$85,000), the addition of one Engineering Technician IV position (\$65,600), and the increased demand for electrical energy for blowers and air mains (\$42,000), telemetry services (\$18,900), and Emerson remote terminal unit parts (\$14,000).
- b) Decrease is due to the transfer of two FTE positions to the General Division and one FTE position to the Stickney Service Area (\$247,700), offset by the increased demand for electrical energy for the Egan WRP (\$45,600).
- c) Increase is due to the increased demand for electrical energy for the Kirie WRP blowers (\$196,900).

67000 M&O - NORTH SERVICE AREA

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 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	\$ 468,743	\$ 466,800	\$ 316,700	d)
		Cost/Reservoir	\$ 21,306.50	\$ 21,218.18	\$ 14,395.45	
4400	Aeration Facilities	Cost	\$ 208,435	\$ 227,400	\$ 178,500	e)
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 74,442	\$ 113,285	\$ 123,675	
5000	Solids Utilization					
	Utilize Biosolids for Application at Final Utilization Sites Such as Fischer Farm at Hanover Park and Other Farm Application Sites	Dry Tons	650	1,000	1,000	
		Cost	\$ 1,280,748	\$ 1,189,875	\$ 1,026,125	f)
		Cost/Dry Ton	\$ 1,970.38	\$ 1,189.88	\$ 1,026.13	
7000	General Support (excluding program number 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	\$ 196,130	\$ 263,135	\$ 249,025	
7604	Social Security and Medicare Contributions	Cost	\$ 340,523	\$ 338,800	\$ 339,100	
	Division Total		\$ 40,901,960	\$ 42,055,300	\$ 42,258,700	

- d) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$146,300).
- e) Decrease is due to the reduced demand for electrical energy for the Devon Avenue and Webster Street instream aeration stations (\$49,200).
- f) Decrease is due to the delayed construction of the Fischer Farm Horticultural Center, for which, operational services will not be necessary until completion of the project (\$200,000).

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 23,823,701	\$ 23,246,300	\$ 22,966,300	\$ 22,559,500	\$ 23,578,100	\$ 23,578,100	\$ 23,691,800
601060	Compensation Plan Adjustments	1,304,392	1,205,800	1,440,800	1,400,000	1,201,300	1,201,300	1,443,100
601070	Social Security and Medicare Contributions	340,523	338,800	334,100	330,200	339,100	339,100	339,100
601080	Salaries of Nonbudgeted Employees	-	-	7,000	7,000	-	-	-
601100	Tuition and Training Payments	38,440	20,000	38,500	34,400	38,400	38,400	38,400
100	TOTAL PERSONAL SERVICES	25,507,055	24,810,900	24,786,700	24,331,100	25,156,900	25,156,900	25,512,400
612010	Travel	9,690	3,700	5,500	4,900	5,900	5,900	5,900
612030	Meals and Lodging	20,174	14,200	18,300	16,900	15,400	15,400	15,400
612050	Compensation for Personally-Owned Automobiles	30,265	30,800	30,800	21,000	30,300	30,300	30,300
612080	Motor Vehicle Operating Services	226	200	300	200	200	200	200
612150	Electrical Energy	7,579,634	8,278,600	8,278,600	8,107,100	7,709,800	7,709,800	7,709,800
612160	Natural Gas	430,769	567,500	567,500	498,600	460,900	460,900	460,900
612170	Water and Water Services	60,762	53,900	63,900	58,000	56,200	56,200	56,200
612210	Communication Services	150,413	135,000	135,000	134,900	174,500	174,500	174,500
612240	Testing and Inspection Services	20,250	31,700	38,500	34,000	39,300	39,300	39,300
612330	Rental Charges	5,079	12,900	10,900	4,000	10,400	10,400	10,400
612410	Governmental Service Charges	3,019,434	3,086,500	3,086,500	3,086,500	3,216,500	3,216,500	3,262,500
612420	Maintenance of Grounds and Pavements	18,336	35,000	36,000	35,000	35,000	35,000	35,000
612430	Payments for Professional Services	36	-	-	-	-	-	-
612490	Contractual Services, N.O.C.	3,469	4,200	4,200	4,100	9,400	9,400	9,400
612520	Waste Material Disposal Charges	506,448	537,400	588,200	500,800	506,400	506,400	506,400
612530	Farming Services	29,600	233,200	210,100	24,700	24,700	24,700	24,700
612600	Repairs to Collection Facilities	40,625	32,400	70,400	66,300	66,800	66,800	66,800
612650	Repairs to Process Facilities	1,021,471	1,099,200	1,099,200	1,024,600	1,199,200	1,199,200	1,199,200
612680	Repairs to Buildings	276,077	178,300	178,300	155,000	178,000	178,000	178,000
612760	Repairs to Material Handling and Farming Equipment	5,594	28,000	28,000	7,500	21,700	21,700	21,700
612780	Safety Repairs and Services	-	55,800	61,800	48,400	85,000	85,000	85,000
612860	Repairs to Vehicle Equipment	5,675	22,900	11,900	5,300	38,700	38,700	38,700
200	TOTAL CONTRACTUAL SERVICES	13,234,025	14,441,400	14,523,900	13,837,800	13,884,300	13,884,300	13,930,300
623030	Metals	10,047	7,000	9,300	9,000	15,100	15,100	15,100
623070	Electrical Parts and Supplies	548,594	457,200	747,000	682,000	679,800	679,800	679,800

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623090	Plumbing Accessories and Supplies	198,298	172,400	147,400	144,700	156,400	156,400	156,400
623110	Hardware	7,316	10,600	11,200	11,200	-	-	-
623130	Buildings, Grounds, Paving Materials, and Supplies	27,215	30,300	30,300	24,400	29,700	29,700	29,700
623190	Paints, Solvents, and Related Materials	2,534	2,600	1,700	1,600	2,500	2,500	2,500
623250	Vehicle Parts and Supplies	12,262	7,500	13,700	12,500	8,700	8,700	8,700
623270	Mechanical Repair Parts	371,933	380,800	533,800	490,000	501,800	501,800	501,800
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	20,790	18,500	15,000	14,200	20,900	20,900	20,900
623560	Processing Chemicals	717,330	1,393,800	1,180,500	802,600	1,143,500	1,143,500	1,143,500
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	12,233	25,000	24,700	23,400	25,600	25,600	25,600
623660	Cleaning Supplies	-	100	100	100	-	-	-
623680	Tools and Supplies	43,219	125,100	110,100	108,900	83,200	83,200	73,200
623700	Wearing Apparel	-	-	200	200	-	-	-
623720	Books, Maps, and Charts	40	-	-	-	-	-	-
623780	Safety and Medical Supplies	18,105	22,900	22,900	21,900	18,100	18,100	18,100
623800	Computer Software	1,623	700	700	300	1,600	1,600	1,600
623810	Computer Supplies	8,565	1,500	7,000	6,000	8,600	8,600	8,600
623820	Fuel	9,944	8,800	16,700	15,000	14,000	14,000	14,000
623840	Gases	99	500	500	200	-	-	-
623860	Lubricants	3,028	500	5,100	5,000	3,100	3,100	3,100
623990	Materials and Supplies, N.O.C.	1,498	9,200	9,200	9,200	6,500	6,500	6,500
300	TOTAL MATERIALS AND SUPPLIES	2,014,673	2,675,000	2,887,100	2,382,400	2,719,100	2,719,100	2,709,100
634600	Equipment for Collection Facilities	44,177	50,000	45,200	45,200	44,200	44,200	44,200
634650	Equipment for Process Facilities	102,030	72,000	59,200	59,200	98,700	98,700	62,700
634970	Testing and Laboratory Equipment	-	6,000	5,800	5,800	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	146,206	128,000	110,200	110,200	142,900	142,900	106,900
TOTAL NORTH SERVICE AREA		\$ 40,901,960	\$ 42,055,300	\$ 42,307,900	\$ 40,661,500	\$ 41,903,200	\$ 41,903,200	\$ 42,258,700

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 for a specific division as funding is controlled at the M&O Overall department-level or when transfers of funds are anticipated.

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
710	North Service Area Executive Office					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP20	Managing Engineer	1	1		1	
HP14	Engineering Technician V	-	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	North Service Area Executive Office	3	4	595,256.44	4	615,526.81
711	North Service Area Budget Control Unit					
HP16	Senior Budget & Management Analyst	-	-		1	
HP14	Budget & Management Analyst	2	2		1	
TOTAL	North Service Area Budget Control Unit	2	2	186,204.41	2	206,290.59
715	Terrence J. O'Brien Water Reclamation Plant Branch					
715	Terrence J. O'Brien Water Reclamation Plant Branch Office					
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	209,129.91	1	213,312.56
720	Plant Engineering & Maintenance Section					
721	Administrative Unit					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	-		-	
HP17	Senior Electrical Engineer	1	-		-	
HP15	Associate Mechanical Engineer	1	-		-	
TOTAL	Administrative Unit	3	-	-	-	-
743	Buildings & Grounds Unit					
HP14	Engineering Technician V	1	1		1	
HP09	Administrative Clerk	1	1		1	
NR8331	Laborer Foreman	1	1		1	
NR8651	Maintenance Laborer Class A	3	3		3	
NR8652	Maintenance Laborer Class B	5	5		5	
TOTAL	Buildings & Grounds Unit	11	11	725,230.63	11	722,990.34

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
722	Mechanical Engineering Unit					
HP18	Principal Mechanical Engineer	1	-		-	
HP15	Associate Mechanical Engineer	1	-		-	
HP14	Assistant Mechanical Engineer	1	-		-	
TOTAL	Mechanical Engineering Unit	3	-	-	-	-
723	Electrical Engineering Unit					
HP17	Senior Electrical Engineer	1	-		-	
HP15	Associate Electrical Engineer	1	-		-	
HP15	Associate Process Control Engineer	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	11	8	793,312.00	9	896,236.11
724	Maintenance Unit					
HP19	Master Mechanic II	1	1		1	
HP17	Assistant Master Mechanic	4	4		4	
HP17	Senior Electrical Engineer	-	-		2	
HP14	Assistant Electrical Engineer	-	-		1	
HP12	Engineering Technician IV	-	-		1	
HP11	Administrative Specialist	-	-		1	
HP09	Administrative Clerk	1	1		-	
TOTAL	Maintenance Unit	6	6	762,107.23	10	1,224,321.29
760	Area Maintenance Section					
764	Area Maintenance Unit					
PR5933	Architectural Ironworker	2	2		2	
PR5353	Bricklayer	1	1		1	
PR5153	Carpenter	2	2		2	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
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	5		5	
TOTAL	Area Maintenance Unit	78	79	7,687,742.40	79	7,847,008.00
TOTAL	Area Maintenance Section	78	79	7,687,742.40	79	7,847,008.00
TOTAL	Plant Engineering & Maintenance Section	112	104	9,968,392.26	109	10,690,555.74
730	Plant Operations Section					
731	Administrative Unit					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP12	Engineering Technician IV	1	1		1	
TOTAL	Administrative Unit	2	2	240,627.72	2	245,440.20
732	Treatment Operations Unit					
HP16	Treatment Plant Operator III	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Treatment Plant Operator II	5	6		8	
HP14	Treatment Plant Operator II #4	2	2		-	
HP12	Treatment Plant Operator I	4	4		4	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8650	Maintenance Laborer Class A Shift #1	-	1		-	
NR8651	Maintenance Laborer Class A	2	2		2	
TOTAL	Treatment Operations Unit	18	20	1,779,399.63	19	1,592,212.04
734	Mechanical Operations Unit					
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	2,095,797.92	21	2,101,092.77
TOTAL	Plant Operations Section	41	43	4,115,825.27	42	3,938,745.01
TOTAL	Terrence J. O'Brien Water Reclamation Plant Branch	154	148	14,293,347.44	152	14,842,613.31
750	Hanover Park Water Reclamation Plant Section					
751	Administrative Unit					
HP20	Managing Engineer	-	-		1	
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	240,777.93	3	391,978.86
753	Operations Unit					
HP17	Senior Civil Engineer	1	1		-	
HP17	Senior Engineer	-	-		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	6	6		6	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	5	5		5	
NR6810	Fireman-Oiler	-	1		1	
TOTAL	Operations Unit	14	15	1,387,746.60	15	1,398,899.27
754	Maintenance Unit					
HP17	Senior Mechanical Engineer	1	-		-	
HP15	Associate Electrical Engineer	1	-		-	
NR6810	Fireman-Oiler	1	-		-	
TOTAL	Maintenance Unit	3	-	-	-	-
755	General Plant Services Unit					
HP14	Engineering Technician V	1	1		1	
NR8651	Maintenance Laborer Class A	1	1		1	
NR8651	Maintenance Laborer Class A #2 (Maintenance Laborer Class B) (New Grade NR8652)	1	-		-	
NR8652	Maintenance Laborer Class B	1	2		2	
TOTAL	General Plant Services Unit	4	4	287,502.89	4	289,555.44
TOTAL	Hanover Park Water Reclamation Plant Section	23	21	1,916,027.42	22	2,080,433.57
780	James C. Kirie Water Reclamation Plant Section					
781	Administrative Unit					
HP20	Managing Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	233,157.82	2	242,818.18
783	Operations Unit					
HP18	Principal Engineer	1	1		-	
HP17	Senior Civil Engineer	-	1		-	
HP17	Senior Engineer	-	-		1	
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Civil Engineer	1	-		-	
HP14	Treatment Plant Operator II	5	5		6	
HP14	Treatment Plant Operator II #4	2	2		1	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	2		2	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8650	Maintenance Laborer Class A Shift #1	-	3		-	
NR6831	Operating Engineer I	6	6		6	
TOTAL	Operations Unit	27	30	2,815,842.75	26	2,456,923.90
785	General Plant Services Unit					
HP14	Engineering Technician V	1	-		1	
HP14	Engineering Technician V #4	-	1		-	
NR8331	Laborer Foreman	1	-		-	
NR8651	Maintenance Laborer Class A	3	3		3	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	General Plant Services Unit	6	5	395,439.49	5	385,282.86
TOTAL	James C. Kirie Water Reclamation Plant Section	35	37	3,444,440.06	33	3,085,024.94
790	John E. Egan Water Reclamation Plant Section					
791	Administrative Unit					
HP20	Managing Engineer	1	1		1	
HP18	Principal Engineer	2	2		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	4	4	559,317.26	3	420,586.51
793	Operations Unit					
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	-	-		1	
HP16	Treatment Plant Operator III #4	1	1		-	
HP14	Assistant Civil Engineer	1	-		-	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Treatment Plant Operator II	7	7		7	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	3		2	
NR8651	Maintenance Laborer Class A	1	1		1	
NR6832	Operating Engineer II	1	1		1	
NR6831	Operating Engineer I	6	6		6	
TOTAL	Operations Unit	24	24	2,164,834.71	23	2,111,176.84
794	Maintenance Unit					
HP17	Senior Electrical Engineer	1	-		-	
HP17	Senior Mechanical Engineer	1	-		-	
HP15	Associate Process Control Engineer	1	-		-	
HP14	Assistant Electrical Engineer	1	-		-	
TOTAL	Maintenance Unit	4	-	-	-	-
795	General Plant Services Unit					
HP14	Engineering Technician V	-	1		-	
HP14	Engineering Technician V #4	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	527,940.13	6	449,134.40
TOTAL	John E. Egan Water Reclamation Plant Section	39	35	3,252,092.10	32	2,980,897.75
TOTAL	Maintenance & Operations North Service Area	256	247	23,687,367.87	245	23,810,786.97

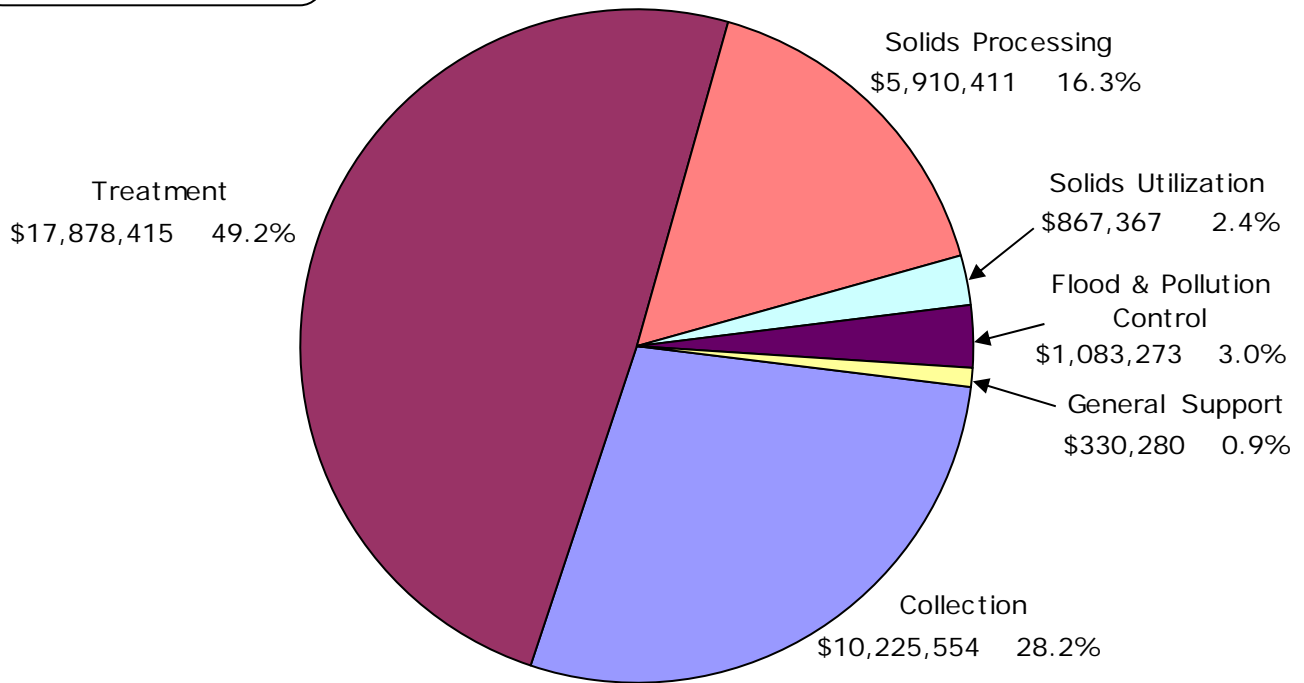
Note: There are no positions budgeted for the Stormwater Management Fund for 2018.

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.

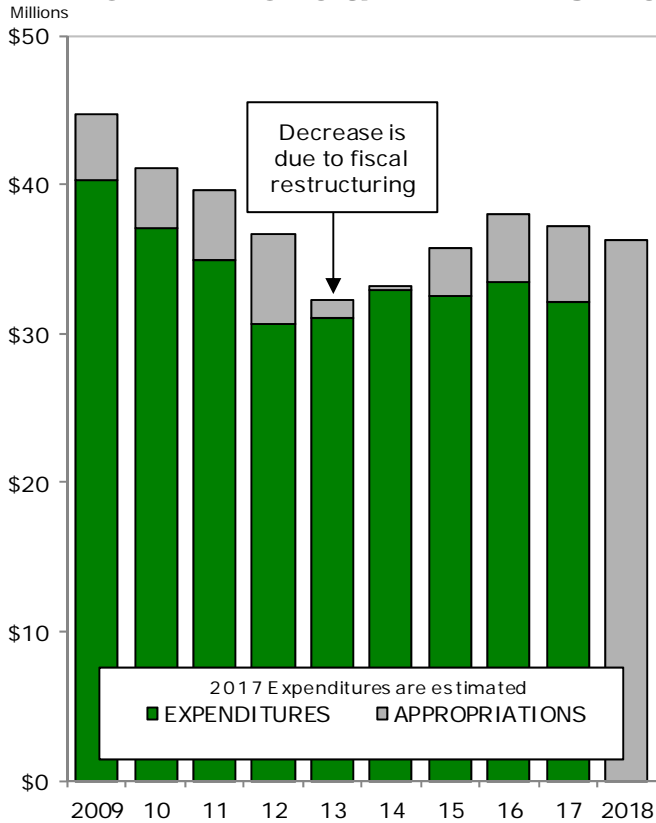
MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

2018	\$36,295,300
2017	\$37,210,100
Decrease	(\$914,800)

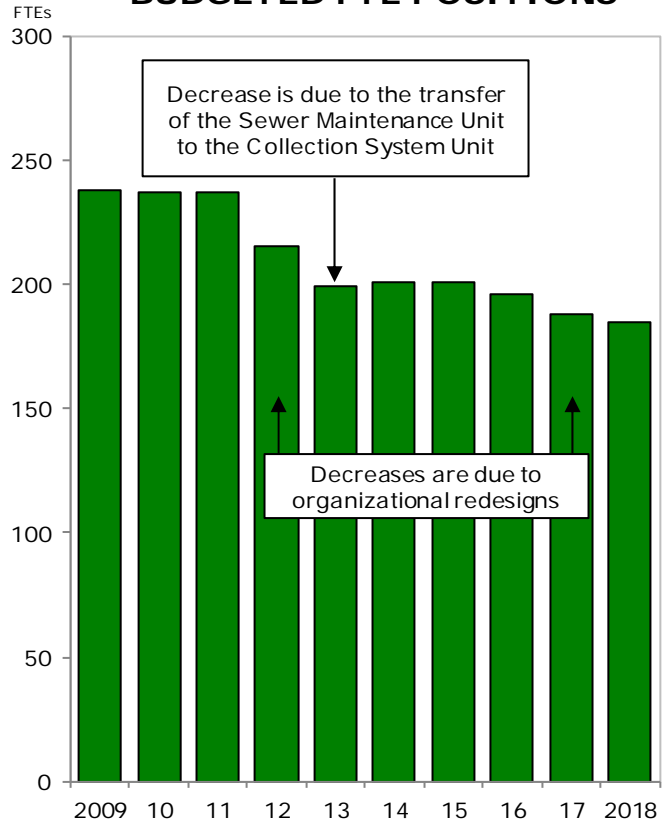
FUNCTIONS



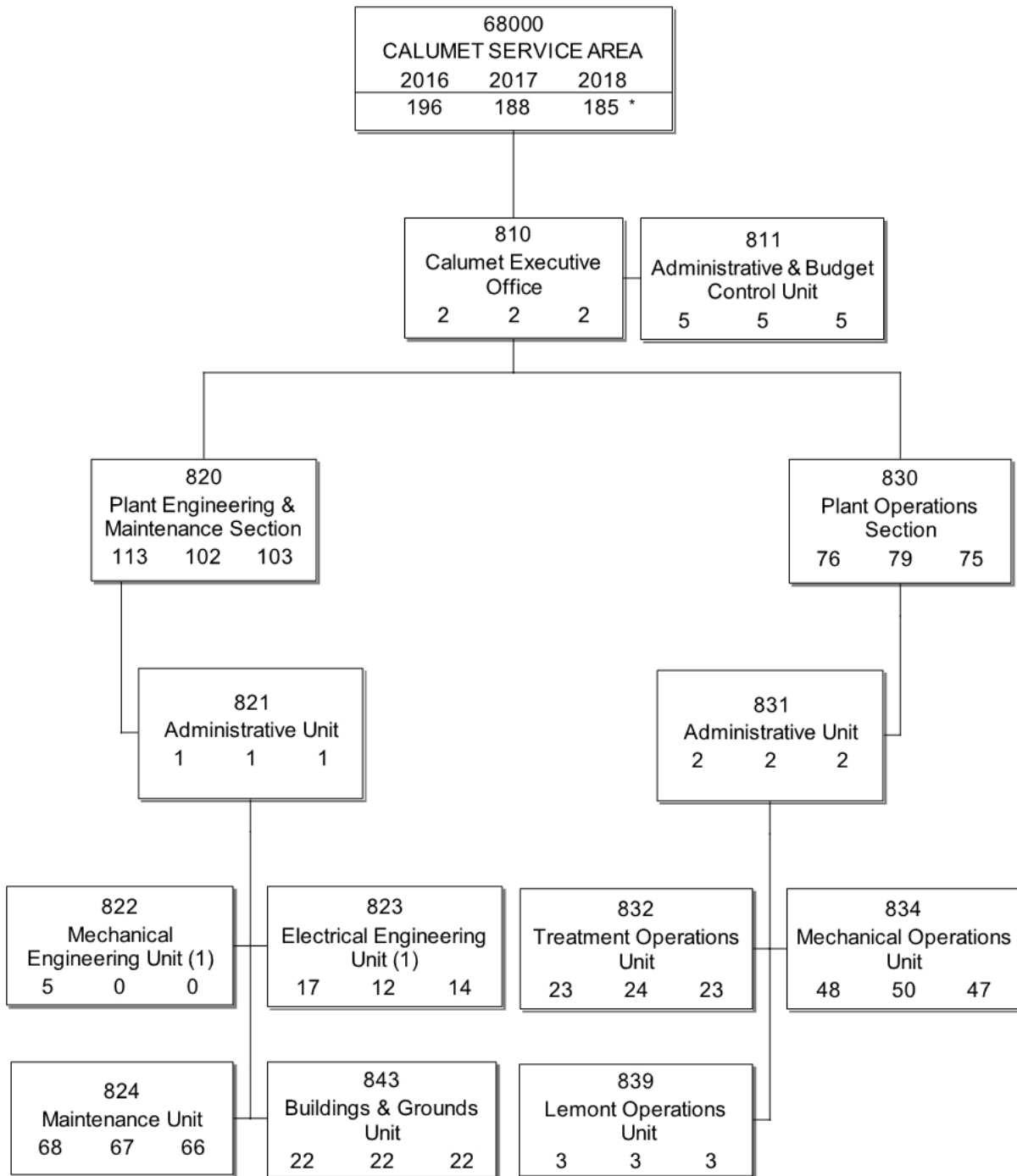
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA



* In 2018, there are no positions funded by the Stormwater Management Fund.

(1) Effective 01/01/2017, a total of eight positions were transferred from Units 822 and 823 into Section 681.

MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

The Calumet Service Area (CSA) 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 CSA collects wastewater discharges from a population equivalent of 1,026,983 people in an area of 324.8 square miles, treating approximately 101 billion gallons of wastewater 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 direction for the entirety of maintenance and operations for the CSA.

The Plant Engineering & Maintenance Section is comprised of the Administrative, 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.

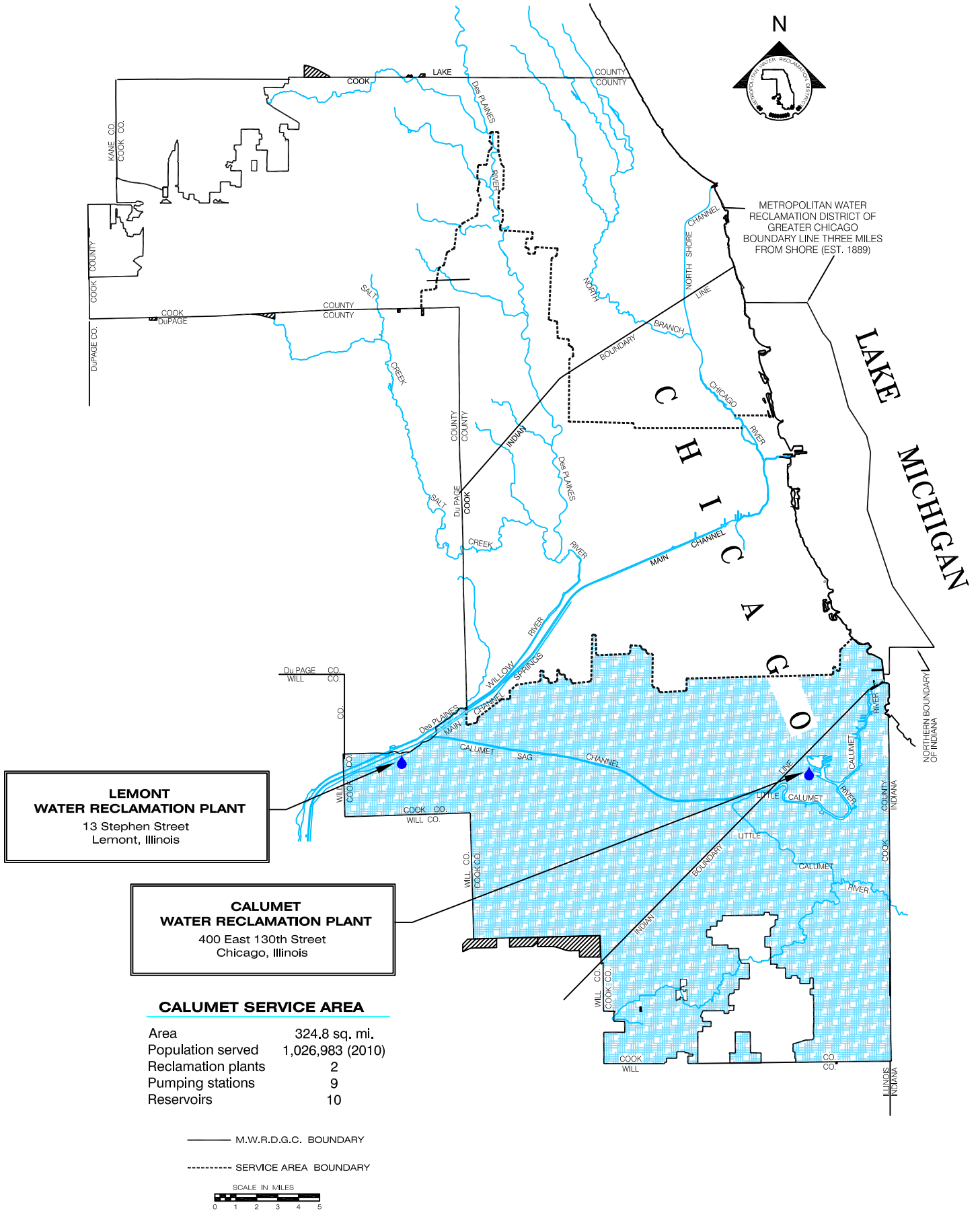
Summary of 2017 Accomplishments

- 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 26 and 21 years, respectively;
- Completed installation of new boilers at the 125th Street Pumping Station, which will provide increased steam production and improve overall operational efficiency;
- Completed rehabilitation of the hydraulic operator at the Tunnel and Reservoir Plan Gate Structure No. 1, which is a critical roller gate that aids in protecting the service area from localized flooding and reduces the risk of combined sewer overflows into Lake Michigan;
- Completed installation of new tank drives at the Lemont WRP;
- Began work to furnish, deliver, and install an upgraded sludge concentration conveyor, which will aid in the removal of excess water from sludge screenings, ensure efficient debris removal, and decrease future maintenance costs;
- Began work to install a turbo blower at the Lemont WRP, which is expected to decrease the electrical costs associated with blower operation by approximately 25 percent;
- Began work to furnish, deliver, and install an upgraded vacuum priming system at the 95th Street Pumping Station, which will increase the overall dependability of the vacuum system and reduce the risk of flooding during heavy rain events;
- Began work to replace and install a new gearbox for Sidestream Elevated Pool Aeration Station No. 4, which will aid in increasing dissolved oxygen levels to meet updated permit requirements.

Budget Highlights

The 2018 appropriation for the CSA is \$36,295,300, a decrease of \$914,800, or 2.5 percent, from 2017. The staffing level has decreased from 188 to 185 positions. One Hoisting Engineer #1, one Truck Driver #1, and three Maintenance Laborer Class A Shift #1 positions were dropped upon vacancy, offset by the transfer in of one Associate Process Control Engineer from the General Division and one Engineering Technician V from the Stickney Service Area.

During 2018, the Calumet WRP will install one new screw conveyor in a grit tank, rehabilitate blower No. 9, install replacement batteries in the main switchgear, replace obsolete and non-maintainable fire alarm panels and network components, install one new submersible pump for Sidestream Elevated Pool Aeration Station No. 1, and install replacement heating, ventilation, and air conditioning systems for the computer and control rooms.



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 wastewater through its Calumet and Lemont treatment facilities.	\$ 28,103,969	77.4%
Design: Flows ^ CBOD * SS *		
Calumet Water Reclamation Plant	354 MGD	10 mg/l 15 mg/l
Lemont Water Reclamation Plant	2.3 MGD	20 mg/l 25 mg/l
^ In millions of gallons per day (MGD).		
* National Pollutant Discharge Elimination System monthly effluent quality standards:		
CBOD - Carbonaceous Biochemical Oxygen Demand		
SS - Suspended Solids		
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.	\$ 5,910,411	16.3%
3. SOLIDS UTILIZATION: The Calumet Service Area will provide support to the Solids Management Section to utilize approximately 29,000 dry tons of biosolids for application at final utilization sites such as daily and final cover in sanitary landfills.	\$ 867,367	2.4%
4. FLOOD & POLLUTION CONTROL: The Calumet Service Area will work to prevent local area flooding through the operation of 10 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.	\$ 1,083,273	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.	\$ 330,280	0.9%
Total	\$ 36,295,300	100.0%

MEASURABLE GOALS:

	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. The Calumet Service Area will collect and treat approximately 101 billion gallons of wastewater in 2018.	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	34,024	40,000	40,000
3. The Calumet Service Area will obtain 100 percent permit compliance in 2018 for National Pollutant Discharge Elimination System effluent limits.	Percent	100.00%	100.00%	100.00%
4. The Calumet Service Area will provide support to utilize 29,000 dry tons of biosolids in 2018.	Dry Tons	15,347	29,000	29,000

68000 M&O - CALUMET SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
1000	Collection	\$ 9,957,142	2018 55	\$ 10,225,554	\$ 114,219	1.1		
			2017 49	\$ 10,111,335				
1100	Surface Interceptor Systems	\$ 684,053	2018 4	\$ 665,800	\$ 61,600	10.2		
			2017 4	\$ 604,200				
1200	Tunnel and Reservoir System	\$ 3,288,412	2018 10	\$ 3,206,600	\$ 239,500	8.1	a)	
			2017 9	\$ 2,967,100				
1300	Pumping Station Facilities	\$ 2,571,328	2018 15	\$ 2,628,500	\$ (626,700)	(19.3)	b)	
			2017 13	\$ 3,255,200				
1900	Collection - Indirect Costs	\$ 3,413,349	2018 26	\$ 3,724,654	\$ 439,819	13.4	c)	
			2017 23	\$ 3,284,835				
2000	Treatment	\$ 15,272,260	2018 83	\$ 17,624,515	\$ (309,287)	(1.7)		
			2017 81	\$ 17,933,802				
2000	Pre-Treatment	\$ 656,792	2018 4	\$ 479,300	\$ (209,700)	(30.4)	d)	
			2017 6	\$ 689,000				
2100	Primary Treatment	\$ 887,203	2018 11	\$ 1,053,800	\$ 218,200	26.1	e)	
			2017 10	\$ 835,600				
2200	Secondary Treatment	\$ 5,487,744	2018 22	\$ 5,604,900	\$ 158,700	2.9	f)	
			2017 22	\$ 5,446,200				
2300	Tertiary Treatment	\$ 1,368,915	2018 6	\$ 2,362,800	\$ (1,033,600)	(30.4)	g)	
			2017 -	\$ 3,396,400				
2900	Treatment - Indirect Costs	\$ 6,871,606	2018 40	\$ 8,123,715	\$ 557,113	7.4	h)	
			2017 43	\$ 7,566,602				

- a) Increase is due to the increased demand for electrical energy for the Tunnel and Reservoir Plan Pumping Station (\$201,000) and the reallocation of salaries to more accurately reflect current activities (\$52,000), offset by the reduction to 17-656-11, Rockwell Remote Terminal Unit Maintenance (\$48,000).
- b) Decrease is due to the decreased demand for electrical energy for dry weather pumps (\$780,800), offset by the reallocation of salaries to more accurately reflect current activities (\$155,900).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$319,000), the addition of an odor control misting system (\$60,000), and odor control chemicals for use in the odor control misting system (\$12,000).
- d) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$167,300) and the reduction to 17-613-11, Scavenger Service (\$42,000).
- e) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$212,800).
- f) Increase is due to the increased demand for electrical energy for blowers and air mains (\$104,800) and the reallocation of salaries to more accurately reflect current activities (\$50,400).
- g) Decrease is due to the reductions to 15-632-11, Sodium Hypochlorite (\$1,207,400) and 17-640-11, Sodium Bisulfite (\$313,900) based on the need for fewer chemicals than originally anticipated in the disinfection process, offset by the reallocation of salaries to more accurately reflect current activities (\$483,800).
- h) Increase is due to the increased need for 18-611-11, Rehabilitation and Alterations to Plant Facilities (\$400,000), the increase to 18-629-11, Rack and Pinion Manlift Inspection and Repair (\$128,200), and the increased need for boiler equipment and repair parts (\$120,000), offset by the reallocation of salaries to more accurately reflect current activities (\$231,200).

68000 M&O - CALUMET SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
3000	Solids Processing	\$ 5,902,566	2018 38	\$ 5,910,411	\$ (726,278)	(10.9)	
			2017 48	\$ 6,636,689			
3100	Thickening	\$ 801,207	2018 7	\$ 903,500	\$ (278,700)	(23.6)	i)
			2017 9	\$ 1,182,200			
3200	Stabilization	\$ 1,759,082	2018 9	\$ 1,630,200	\$ (158,500)	(8.9)	j)
			2017 11	\$ 1,788,700			
3300	Dewatering	\$ 337,802	2018 3	\$ 252,000	\$ (112,500)	(30.9)	k)
			2017 5	\$ 364,500			
3900	Solids Processing - Indirect Costs	\$ 3,004,475	2018 19	\$ 3,124,711	\$ (176,578)	(5.3)	l)
			2017 23	\$ 3,301,289			
4000	Flood & Pollution Control	\$ 1,082,341	2018 2	\$ 1,083,273	\$ 80,732	8.1	
			2017 2	\$ 1,002,541			
4200	Waterways Control and Stormwater Reservoirs	\$ 226,101	2018 1	\$ 205,600	\$ 36,700	21.7	m)
			2017 1	\$ 168,900			
4400	Aeration Facilities	\$ 780,243	2018 1	\$ 733,100	\$ 2,800	0.4	
			2017 1	\$ 730,300			
4900	Flood & Pollution Control - Indirect Costs	\$ 75,997	2018 -	\$ 144,573	\$ 41,232	39.9	n)
			2017 -	\$ 103,341			
5000	Solids Utilization	\$ 760,158	2018 5	\$ 867,367	\$ (74,820)	(7.9)	
			2017 6	\$ 942,187			
5100	Solids Drying	\$ 54,271	2018 -	\$ 51,800	\$ (49,800)	(49.0)	o)
			2017 1	\$ 101,600			
5200	Solids Distribution	\$ 54,466	2018 1	\$ 51,800	\$ (49,800)	(49.0)	p)
			2017 1	\$ 101,600			
5900	Solids Utilization - Indirect Costs	\$ 651,421	2018 4	\$ 763,767	\$ 24,780	3.4	
			2017 4	\$ 738,987			
7000	General Support (excluding program number 7604)	\$ 290,771	2018 2	\$ 330,280	\$ 5,734	1.8	
			2017 2	\$ 324,546			
7604	Social Security and Medicare Contributions	\$ 254,493	2018 -	\$ 253,900	\$ (5,100)	(2.0)	
			2017 -	\$ 259,000			
Totals		\$ 33,519,731	2018 185	\$ 36,295,300	\$ (914,800)	(2.5%)	*
			2017 188	\$ 37,210,100			

- i) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$153,100) and the favorable award for 17-633-11, Polymer (\$124,900).
- j) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$193,800).
- k) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$112,500).
- l) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$224,000).
- m) Increase is due to the increased demand for electrical energy for stormwater detention reservoirs (\$40,400).
- n) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$39,700).
- o) Decrease is due to the drop of one FTE position (\$50,800).
- p) Decrease is due to the drop of one FTE position (\$50,800).

* The 2018 position total for the Calumet Service Area is 185, with no positions budgeted in the Stormwater Management Fund.

68000 M&O - CALUMET SERVICE AREA

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Calumet and Lemont Water Reclamation Plants					
	Calumet Water Reclamation Plant	Mil. Gallons	92,800	100,000	100,000	
		Cost	\$ 24,784,525	\$ 27,597,813	\$ 27,388,999	a)
		Cost/Mil. Gallons	\$ 267.07	\$ 275.98	\$ 273.89	
	Lemont Water Reclamation Plant	Mil. Gallons	1,000	1,000	1,000	
		Cost	\$ 444,877	\$ 447,324	\$ 461,070	
		Cost/Mil. Gallons	\$ 444.88	\$ 447.32	\$ 461.07	
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	34,024	40,000	40,000	
		Cost	\$ 5,902,566	\$ 6,636,689	\$ 5,910,411	b)
		Cost/Dry Ton	\$ 173.48	\$ 165.92	\$ 147.76	
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	9	10	10	
		Cost	\$ 226,101	\$ 168,900	\$ 205,600	c)
		Cost/Reservoir	\$ 25,122.33	\$ 16,890.00	\$ 20,560.00	
4400	Aeration Facilities	Cost	\$ 780,243	\$ 730,300	\$ 733,100	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 75,997	\$ 103,341	\$ 144,573	d)
5000	Solids Utilization					
	Utilize Biosolids for Application at Final Utilization Sites, such as for Daily and Final Cover in Sanitary Landfills	Dry Tons	15,347	29,000	29,000	
		Cost	\$ 760,158	\$ 942,187	\$ 867,367	
		Cost/Dry Ton	\$ 49.53	\$ 32.49	\$ 29.91	
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 & Pollution Control, and Solids Utilization	Cost	\$ 290,771	\$ 324,546	\$ 330,280	
7604	Social Security and Medicare Contributions	Cost	\$ 254,493	\$ 259,000	\$ 253,900	
	Division Total		\$ 33,519,731	\$ 37,210,100	\$ 36,295,300	

- a) Decrease is due to the reduction to 15-632-11, Sodium Hypochlorite (\$1,207,400) and 17-640-11, Sodium Bisulfite (\$313,900) based on the need for fewer chemicals than originally anticipated in the disinfection process and the decreased demand for electrical energy for dry weather pumps (\$780,800), offset by the reallocation of salaries to more accurately reflect current activities (\$882,300), the increase to 18-611-11, Rehabilitation and Alterations to Plant Facilities (\$400,000), the increased demand for electrical energy for the Tunnel and Reservoir Plan Pumping Station (\$201,000), the increase to 18-629-11, Rack and Pinion Manlift Inspection and Repair (\$128,200), the increased need for boiler equipment and repair parts (\$120,000), the increased demand for electrical energy for blowers and air mains (\$104,800), the transfer in of one FTE position from the General Division (\$81,900) and one FTE position from the Stickney Service Area (\$52,000), and the addition of an odor control misting system (\$60,000) and odor control chemicals for use in the odor control misting system (\$12,000).
- b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$683,400) and the favorable award for 17-633-11, Polymer (\$124,900).
- c) Increase is due to the increased demand for electrical energy for stormwater detention reservoirs (\$40,400).
- d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$39,700).

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 17,435,845	\$ 17,339,500	\$ 17,339,500	\$ 16,680,000	\$ 17,524,700	\$ 17,524,700	\$ 17,605,700
601060	Compensation Plan Adjustments	762,125	829,600	874,600	870,000	641,000	641,000	850,100
601070	Social Security and Medicare Contributions	254,493	259,000	249,000	246,700	253,900	253,900	253,900
601080	Salaries of Nonbudgeted Employees	1,544	4,900	4,900	-	-	-	-
601100	Tuition and Training Payments	24,478	52,800	52,800	22,000	40,000	40,000	40,000
100	TOTAL PERSONAL SERVICES	18,478,484	18,485,800	18,520,800	17,818,700	18,459,600	18,459,600	18,749,700
612010	Travel	2,613	13,900	12,100	3,500	6,000	6,000	6,000
612030	Meals and Lodging	6,910	32,300	18,400	9,300	17,100	17,100	17,100
612050	Compensation for Personally-Owned Automobiles	60,862	45,700	45,700	26,800	45,000	45,000	45,000
612080	Motor Vehicle Operating Services	84	100	200	200	100	100	100
612150	Electrical Energy	8,922,676	9,724,500	9,724,500	8,665,100	9,330,700	9,330,700	9,330,700
612160	Natural Gas	546,886	626,200	626,200	626,200	597,000	597,000	597,000
612170	Water and Water Services	410,407	398,400	388,400	388,400	390,200	390,200	390,200
612210	Communication Services	232,185	152,000	152,000	152,000	196,500	196,500	196,500
612240	Testing and Inspection Services	27,482	62,900	54,900	30,600	66,600	66,600	66,600
612330	Rental Charges	600	10,100	17,500	17,500	400	10,000	10,000
612410	Governmental Service Charges	98,286	103,000	103,000	98,800	103,000	103,000	103,000
612420	Maintenance of Grounds and Pavements	-	20,000	20,000	6,100	20,000	20,000	20,000
612430	Payments for Professional Services	50	-	-	-	-	-	-
612490	Contractual Services, N.O.C.	9,592	12,300	12,300	6,500	16,200	16,200	16,200
612520	Waste Material Disposal Charges	379,145	438,600	438,600	373,300	379,100	379,100	379,100
612600	Repairs to Collection Facilities	212,769	145,100	145,100	43,000	99,900	99,900	159,900
612650	Repairs to Process Facilities	1,581,563	1,349,900	1,349,900	1,250,800	1,762,500	1,752,900	1,752,900
612680	Repairs to Buildings	213,258	285,000	309,000	198,000	471,400	471,400	471,400
612760	Repairs to Material Handling and Farming Equipment	37,239	50,000	50,000	44,000	52,000	52,000	52,000
612780	Safety Repairs and Services	19,400	16,300	20,900	20,700	20,000	20,000	20,000
612860	Repairs to Vehicle Equipment	38,237	30,900	56,700	46,700	53,500	53,500	53,500
612990	Repairs, N.O.C.	4,250	4,800	4,800	4,100	8,000	8,000	8,000
200	TOTAL CONTRACTUAL SERVICES	12,804,494	13,522,000	13,550,200	12,011,600	13,635,200	13,635,200	13,695,200

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623030	Metals	8,663	10,100	8,900	5,100	10,100	10,100	10,100
623070	Electrical Parts and Supplies	299,520	254,500	414,500	359,500	347,800	347,800	347,800
623090	Plumbing Accessories and Supplies	126,730	198,000	223,000	206,800	294,600	294,600	294,600
623110	Hardware	420	2,800	2,800	200	2,800	2,800	2,800
623130	Buildings, Grounds, Paving Materials, and Supplies	28,688	42,000	41,000	30,000	42,000	42,000	42,000
623190	Paints, Solvents, and Related Materials	2,833	2,500	2,500	2,200	2,800	2,800	2,800
623250	Vehicle Parts and Supplies	25,515	29,800	31,600	28,100	36,000	36,000	36,000
623270	Mechanical Repair Parts	239,605	645,800	597,000	436,500	705,800	705,800	705,800
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	13,540	7,900	11,400	11,000	10,000	10,000	10,000
623560	Processing Chemicals	1,377,354	3,802,000	2,800,300	996,100	2,227,800	2,227,800	2,167,800
623660	Cleaning Supplies	2,190	1,400	1,400	1,000	700	700	700
623680	Tools and Supplies	31,088	111,400	86,400	74,500	38,300	38,300	38,300
623780	Safety and Medical Supplies	20,292	17,000	17,000	15,000	20,300	20,300	20,300
623810	Computer Supplies	285	300	300	300	300	300	300
623820	Fuel	26,323	27,200	27,200	26,500	38,500	38,500	38,500
623860	Lubricants	-	3,500	700	-	14,900	14,900	14,900
623990	Materials and Supplies, N.O.C.	15,590	13,100	13,100	10,300	32,000	32,000	32,000
300	TOTAL MATERIALS AND SUPPLIES	2,218,636	5,169,300	4,279,100	2,203,100	3,824,700	3,824,700	3,764,700
634650	Equipment for Process Facilities	12,520	28,000	55,800	35,700	85,700	85,700	85,700
634860	Vehicle Equipment	5,597	5,000	-	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	18,117	33,000	55,800	35,700	85,700	85,700	85,700
TOTAL CALUMET SERVICE AREA		\$ 33,519,731	\$ 37,210,100	\$ 36,405,900	\$ 32,069,100	\$ 36,005,200	\$ 36,005,200	\$ 36,295,300

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 for a specific division as funding is controlled at the M&O Overall department-level or when transfers of funds are anticipated.

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
810	Calumet Executive Office					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	-		-	
HP11	Administrative Specialist	-	1		1	
TOTAL	Calumet Executive Office	2	2	298,539.43	2	307,879.42
811	Administrative & Budget Control Unit					
HP14	Budget & Management Analyst	2	2		2	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	-	1		1	
HP11	Administrative Specialist	2	1		1	
HP09	Administrative Clerk	1	1		1	
TOTAL	Administrative & Budget Control Unit	5	5	376,355.96	5	396,101.12
820	Plant Engineering & Maintenance Section					
821	Administrative Unit					
HP20	Managing Engineer	1	1		1	
TOTAL	Administrative Unit	1	1	184,520.60	1	196,576.57
822	Mechanical Engineering Unit					
HP18	Principal Mechanical Engineer	1	-		-	
HP17	Senior Mechanical Engineer	1	-		-	
HP15	Associate Mechanical Engineer	2	-		-	
HP14	Assistant Mechanical Engineer #2 (Engineering Technician IV) (New Grade HP12)	1	-		-	
TOTAL	Mechanical Engineering Unit	5	-	-	-	-
823	Electrical Engineering Unit					
HP17	Senior Electrical Engineer	1	-		-	
HP15	Associate Electrical Engineer	2	-		-	
HP15	Associate Process Control Engineer	1	-		1	
HP14	Assistant Electrical Engineer	1	-		-	
HP14	Engineering Technician V	-	-		1	
NR6251	Chief Electrical Operator	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6233	Electrical Operator II	5	5		5	
NR6232	Electrical Operator I	6	6		6	
TOTAL	Electrical Engineering Unit	17	12	1,168,044.80	14	1,375,653.95
824	Maintenance Unit					
HP18	Master Mechanic I	1	1		1	
HP17	Assistant Master Mechanic	3	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	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	68	67	6,646,368.96	66	6,686,592.03

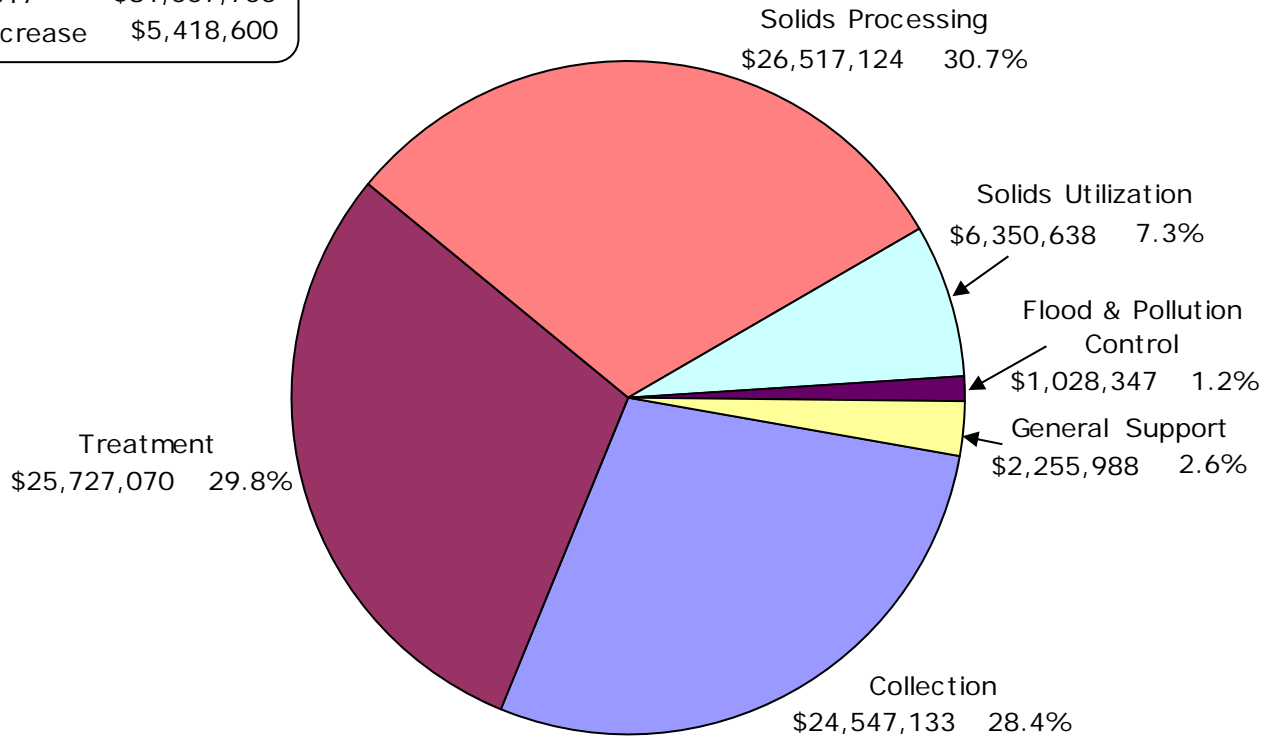
Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
843	Buildings & Grounds Unit					
HP12	Engineering Technician IV	2	2		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	22	22	1,485,241.44	22	1,492,305.69
TOTAL	Plant Engineering & Maintenance Section	113	102	9,484,175.80	103	9,751,128.24
830	Plant Operations Section					
831	Administrative Unit					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	-	1		1	
HP20	Managing Engineer	1	-		-	
HP18	Principal Engineer	1	1		1	
TOTAL	Administrative Unit	2	2	362,001.18	2	369,241.14
832	Treatment Operations Unit					
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	
NR8650	Maintenance Laborer Class A Shift #1	-	1		-	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Treatment Operations Unit	23	24	2,095,040.62	23	2,053,798.55
834	Mechanical Operations Unit					
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	

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8650	Maintenance Laborer Class A Shift #1	-	2		-	
NR6832	Operating Engineer II	12	12		12	
NR6831	Operating Engineer I	18	18		18	
PR6473	Truck Driver	3	2		2	
PR6473	Truck Driver #1	-	1		-	
TOTAL	Mechanical Operations Unit	48	50	4,794,140.66	47	4,548,244.02
839	Lemont Operations Unit					
HP14	Treatment Plant Operator II	1	1		1	
HP12	Treatment Plant Operator I	2	2		2	
TOTAL	Lemont Operations Unit	3	3	258,961.94	3	268,076.88
TOTAL	Plant Operations Section	76	79	7,510,144.40	75	7,239,360.59
TOTAL	Maintenance & Operations Calumet Service Area	196	188	17,669,215.59	185	17,694,469.37
Note: There are no positions budgeted for the Stormwater Management Fund for 2018.						
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.						

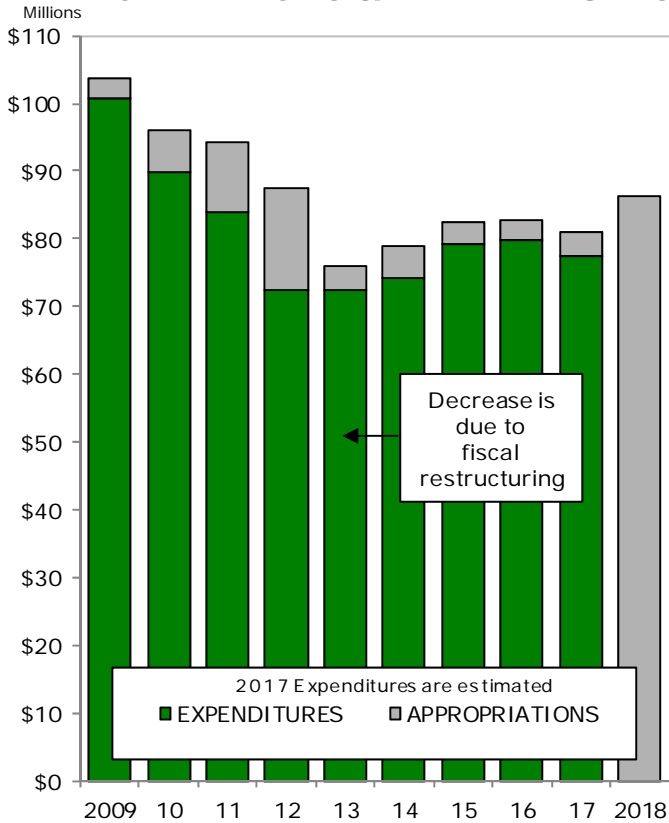
MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA

2018	\$86,426,300
2017	\$81,007,700
Increase	\$5,418,600

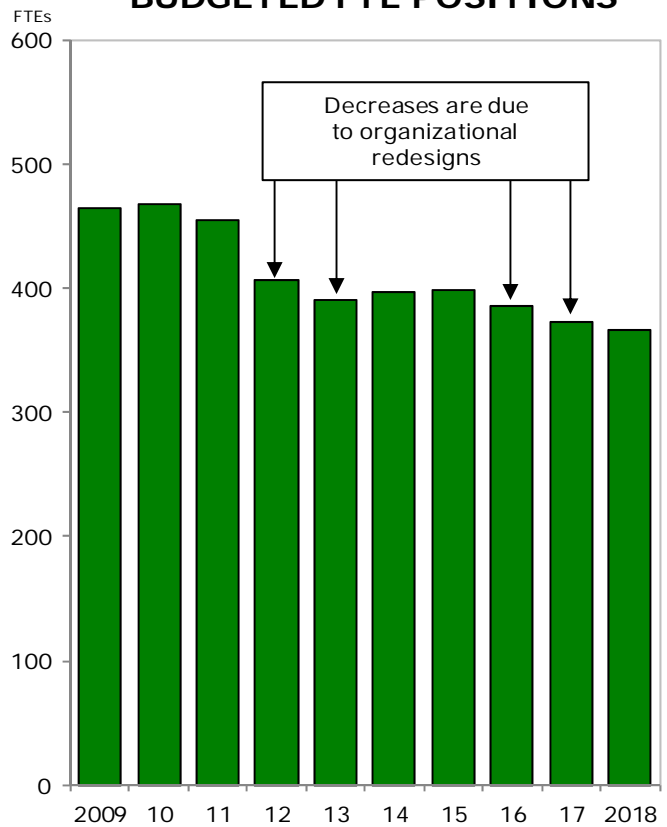
FUNCTIONS



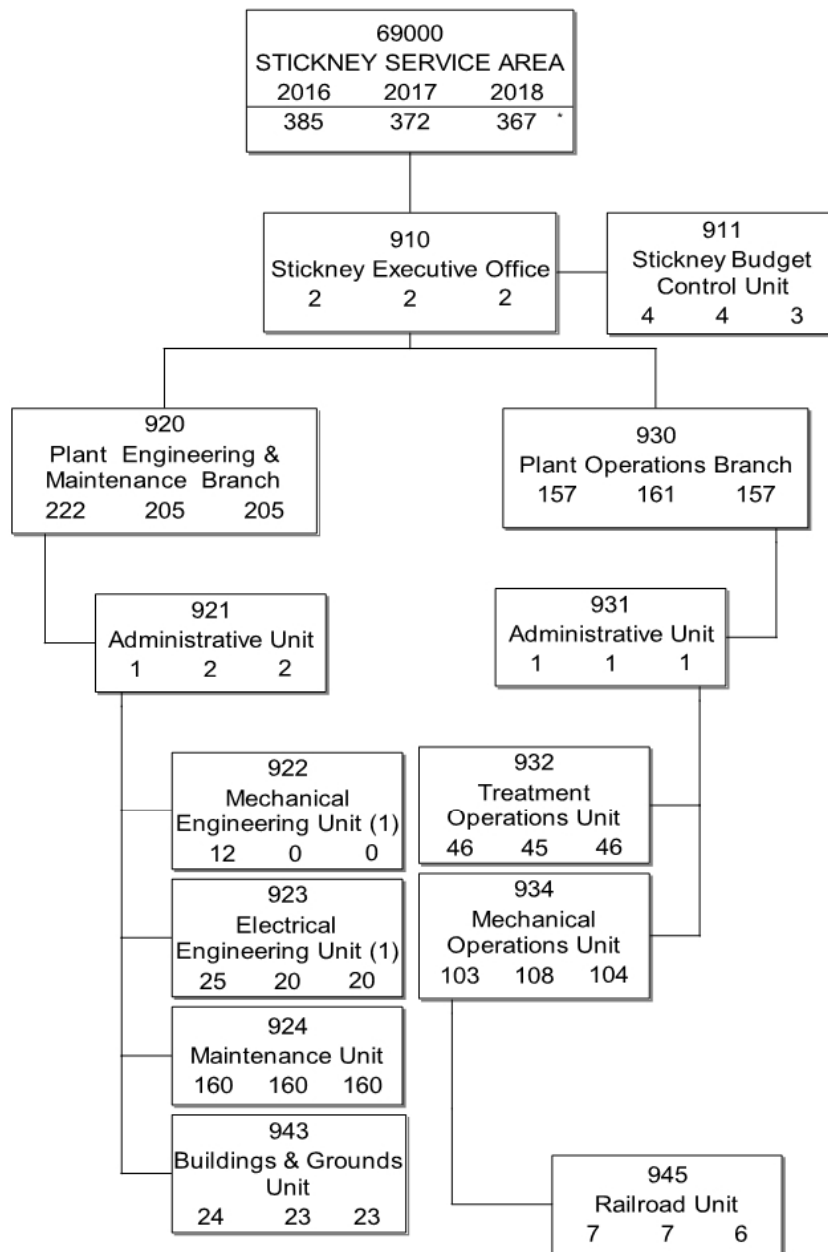
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA



* In 2018, 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.

(1) Effective 01/01/2017, a total of nine positions were transferred from Units 922 and 923 into Section 681.

MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA

The Stickney Service Area (SSA) 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 the canals, rivers and streams, to protect businesses and homes from flood damage, and to manage water as a vital resource.

Service Area Summary

The SSA’s primary responsibilities include the operation of the largest water reclamation plant in the world, two major pumping stations, and five detention reservoirs. The SSA plans to collect and treat approximately 284 billion gallons of wastewater in 2018, servicing 259.8 square miles and a population of 2,160,200. 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 guidelines and other permit requirements, assesses risk management at the SSA level, and assists the Director of Maintenance & Operations in long-term planning and decision making.

The Plant Engineering & Maintenance Branch is comprised of the Administrative, 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 and 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 Administrative, Treatment Operations, Mechanical Operations, and Railroad Units. 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 and the scope of its operations generate frequent requests for plant tours, which are conducted by operations staff in conjunction with the Public Affairs Section in General Administration. The Railroad Unit provides for the transportation of centrifuged biosolids to the Lawndale Avenue Solids Management Area facility. All units utilize a combination of in-house staff and outside contractor services to provide for cost-effective operations.

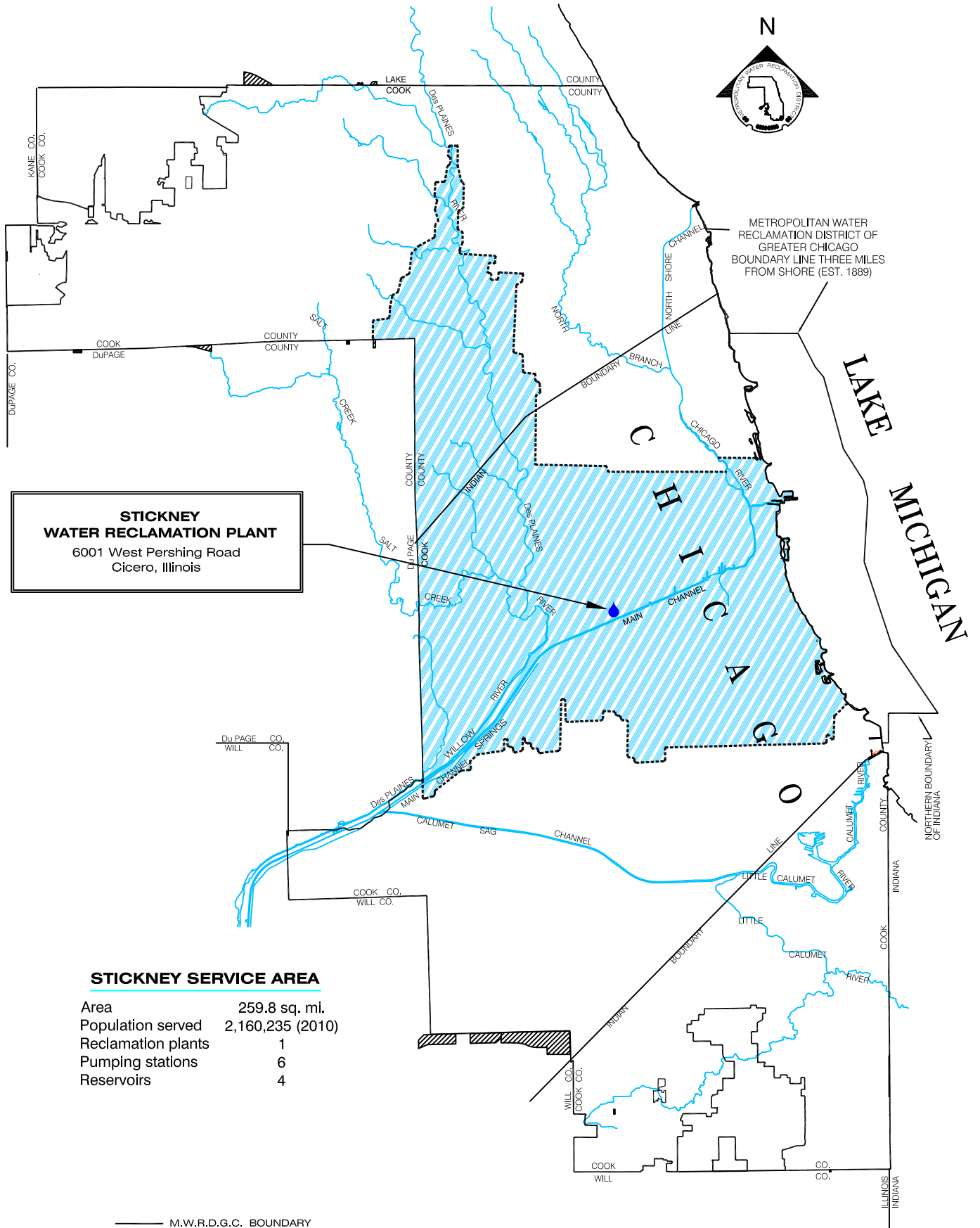
Summary of 2017 Accomplishments

- Completed installation of the control panel for a three megawatt gas turbine, which will utilize excess biogas from the digesters to generate electricity for internal use and help realize a cost savings of \$1 million per year;
- Introduced high strength organic waste to the aeration battery and digesters to enhance the biological phosphorus removal process and increase digester gas production;
- Completed installation of a citric acid flushing system and a sulfuric acid system, to help remediate struvite buildup in the biological phosphorus removal process;
- Completed installation of the Waste Activated Sludge Stripping process, which is anticipated to increase the amount of phosphorus pellets by a factor of three.

Budget Highlights

The 2018 appropriation for the SSA is \$86,426,300, an increase of \$5,418,600, or 6.7 percent, from 2017. The staffing level has decreased from 372 to 367 positions due to the following changes: the drop of five Maintenance Laborer Class A #1 positions, one Architectural Ironworker #1, and the transfer out of one Senior Budget & Management Analyst to the North Service Area and one Engineering Technician V to the Calumet Service Area, offset by the transfer in of one Principal Electrical Engineer and one Associate Process Control Engineer from the General Division and one Fireman-Oiler position from the North Service Area. In addition, one Senior Civil Engineer was reclassified to a Senior Engineer. Nine additional positions are 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 aeration controls to reduce blower operation costs; Resource Recovery via phosphorus capture and the generation of electricity via the use of digester gas in the gas turbine; Develop Employees as shown by Maintenance & Operations’ redesigned engineering work groups, structured to optimize employee performance and work distribution systems; Leading Partnerships through our work with Ostara Nutrient Recovery Technologies; and Technology as demonstrated by the 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 284 billion gallons of wastewater through its treatment facilities.	\$ 50,274,203	58.2%
Stickney Water Reclamation Plant	Design: Flows ^ CBOD * SS *	
	1,200 MGD 10 mg/l 12 mg/l	
^ In millions of gallons per day (MGD). * National Pollutant Discharge Elimination System monthly effluent quality standards: CBOD - Carbonaceous Biochemical Oxygen Demand SS - Suspended Solids		
2. SOLIDS PROCESSING: The Stickney Service Area will remove 95,000 dry tons and process solids from 135,000 dry tons of concentrated sewage (includes 40,000 dry tons from North Service Area) through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 26,517,124	30.7%
3. SOLIDS UTILIZATION: The Stickney Service Area will provide support to the Solids Management Section to utilize 70,000 dry tons of biosolids for application at final utilization sites, such as farm application, and as daily and final cover in sanitary landfills.	\$ 6,350,638	7.3%
4. FLOOD & POLLUTION CONTROL: The Stickney Service Area will work to prevent local area flooding through the operation of five 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.	\$ 1,028,347	1.2%
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.	\$ 2,255,988	2.6%
Total	\$ 86,426,300	100.0%

MEASURABLE GOALS:

	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. The Stickney Service Area will collect and treat approximately 284 billion gallons of wastewater in 2018.	Billion Gallons	249	260	284
2. The Stickney Service Area will remove and process solids from 135,000 dry tons of concentrated sewage, including 40,000 dry tons transferred from the North Service Area.	Dry Tons Process Solids	135,169	130,000	135,000
3. The Stickney Service Area will obtain 100 percent permit compliance in 2018 for National Pollutant Discharge Elimination System effluent limits.	Percent	99.77%	99.94%	100.00%
4. The Stickney Service Area will provide support to utilize 70,000 dry tons of biosolids in 2018 (does not include Pelletizer Facility Operations).	Dry Tons	46,127	70,000	70,000

69000 M&O - STICKNEY SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted		Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 19,758,649	2018 79	\$ 24,547,133	\$ 2,718,704	12.5	
			2017 80	\$ 21,828,429			
1100	Surface Interceptor Systems	\$ 397,759	2018 -	\$ 220,200	\$ (183,300)	(45.4)	a)
			2017 2	\$ 403,500			
1200	Tunnel and Reservoir System	\$ 4,746,667	2018 12	\$ 8,154,500	\$ 2,503,700	44.3	b)
			2017 12	\$ 5,650,800			
1300	Pumping Station Facilities	\$ 6,650,923	2018 28	\$ 7,464,900	\$ 316,800	4.4	c)
			2017 25	\$ 7,148,100			
1900	Collection - Indirect Costs	\$ 7,963,300	2018 39	\$ 8,707,533	\$ 81,504	0.9	
			2017 41	\$ 8,626,029			
2000	Treatment	\$ 25,693,992	2018 125	\$ 25,216,070	\$ 902,812	3.7	
			2017 126	\$ 24,313,258			
2000	Pre-Treatment	\$ 2,191,120	2018 17	\$ 1,971,100	\$ (177,100)	(8.2)	d)
			2017 19	\$ 2,148,200			
2100	Primary Treatment	\$ 1,990,259	2018 18	\$ 1,591,100	\$ (291,400)	(15.5)	e)
			2017 21	\$ 1,882,500			
2200	Secondary Treatment	\$ 9,330,039	2018 26	\$ 7,600,100	\$ 263,000	3.6	f)
			2017 28	\$ 7,337,100			
2300	Tertiary Treatment	\$ 46,891	2018 -	\$ 14,700	\$ (29,100)	(66.4)	g)
			2017 -	\$ 43,800			
2900	Treatment - Indirect Costs	\$ 12,135,683	2018 64	\$ 14,039,070	\$ 1,137,412	8.8	h)
			2017 58	\$ 12,901,658			

- a) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$193,400), offset by the increased demand for electrical energy for pumping stations and control gates at the Stickney Water Reclamation Plant (WRP) (\$13,100).
- b) Increase is due to the increased demand for electrical energy for the Mainstream Pumping Station and Tunnel and Reservoir Plan facilities (\$2,515,600) and the reallocation of salaries to more accurately reflect current activities (\$105,400), offset by reduced demand for valve actuator parts and services (\$76,800), 17-656-11, Rockwell Repair Services (\$33,600), and discharge valve actuator repair services (\$15,000).
- c) Increase is due to the increased demand for electrical energy for pumping stations at the Stickney WRP (\$357,500) and the reallocation of salaries to more accurately reflect current activities (\$257,500), offset by reduced demand for electrical energy for the Racine Avenue Pumping Station (\$290,400), and a reduced need for parts for pumps and screens (\$10,500).
- d) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$163,200) and reduced need for replacement parts for WEMCO pumps (\$9,600).
- e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$242,500) and drop of one Architectural Ironworker (\$47,300).
- f) Increase is due to the increased demand for electrical energy for aeration blowers at the Stickney WRP (\$558,400) and HACH® replacement parts (\$32,000), offset by the reallocation of salaries to more accurately reflect current activities (\$162,700), reduced demand for immediate repair services (\$81,300), 15-632-11, Sodium Hypochlorite (\$37,000), repair services for Roots blower (\$15,000), and suspended solids instruments (\$10,000).
- g) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$29,100).
- h) Increase is due the reallocation of salaries to more accurately reflect current activities (\$688,000), 18-611-11, Repairs and Alterations to Plant facilities (\$288,600), natural gas for process and building heating at the Stickney WRP (\$162,300), roof inspections (\$100,000), District-wide pavement repairs (\$100,000), and spare electrical parts (\$80,500), offset by the reduced need for roof and building repairs (\$100,000), water at the Stickney WRP and Racine Avenue Pumping Station (\$76,900), various tools (\$46,600), boiler repair parts (\$44,000), and HACH® replacement parts (\$12,200).

69000 M&O - STICKNEY SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
3000	Solids Processing	\$ 24,341,916	2018 130	\$ 26,517,124	\$ 1,263,124	5.0		
			2017 131	\$ 25,254,000				
3100	Thickening	\$ 4,342,728	2018 25	\$ 4,003,700	\$ (154,800)	(3.7)	i)	
			2017 26	\$ 4,158,500				
3200	Stabilization	\$ 3,374,908	2018 27	\$ 3,554,600	\$ 86,100	2.5		
			2017 27	\$ 3,468,500				
3300	Dewatering	\$ 9,807,936	2018 31	\$ 11,965,700	\$ 1,200,500	11.2	j)	
			2017 30	\$ 10,765,200				
3900	Solids Processing - Indirect Costs	\$ 6,816,344	2018 47	\$ 6,993,124	\$ 131,324	1.9		
			2017 48	\$ 6,861,800				
4000	Flood & Pollution Control	\$ 575,857	2018 7	\$ 1,028,347	\$ 243,227	31.0		
			2017 4	\$ 785,120				
4200	Waterways Control and Stormwater Reservoirs	\$ 200,538	2018 5	\$ 545,200	\$ 321,800	144.0	k)	
			2017 2	\$ 223,400				
4900	Flood & Pollution Control - Indirect Costs	\$ 375,319	2018 2	\$ 483,147	\$ (78,573)	(14.0)		
			2017 2	\$ 561,720				
5000	Solids Utilization	\$ 6,548,740	2018 11	\$ 6,350,638	\$ 442,684	7.5		
			2017 13	\$ 5,907,954				
5100	Solids Drying	\$ 185,532	2018 5	\$ 471,800	\$ 319,400	209.6	l)	
			2017 2	\$ 152,400				
5200	Solids Distribution	\$ 4,541,696	2018 -	\$ 4,416,000	\$ 425,000	10.6	m)	
			2017 1	\$ 3,991,000				
5900	Solids Utilization - Indirect Costs	\$ 1,821,512	2018 6	\$ 1,462,838	\$ (301,716)	(17.1)	n)	
			2017 10	\$ 1,764,554				

- i) Decrease is due to the favorable award of 17-633-11, Polymer (\$115,100), reduced need for various centrifuge parts (\$22,500) and repair parts for the sludge screen system (\$7,500), and reduced demand for electrical energy for pre-digestion centrifuges at the Stickney WRP (\$6,800).
- j) Increase is due to the increased need for 15-935-11, Sodium Hydroxide (\$1,035,000), 15-934-11, Magnesium Chloride (\$796,400), the reallocation of salaries to more accurately reflect current activities (\$292,000), and 18-959-11, Sulfuric Acid (\$156,000), offset by the favorable award of 17-633-11, Polymer (\$826,900), and the reduced need for various centrifuge parts (\$170,500).
- k) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$368,800), offset by the reduced need for valve actuator parts and services (\$52,500).
- l) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$319,400).
- m) Increase is due to the increased need for services under 98-RFP-10, Pelletizing Facility (\$495,700), offset by the reallocation of salaries to more accurately reflect current activities (\$65,300) and reduced demand for electrical energy for the pelletizing facility at the Stickney WRP (\$5,400).
- n) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$385,400) and a reduction in anticipated retirements (\$14,100), offset by increased water services for drying sites (\$98,800).

69000 M&O - STICKNEY SERVICE AREA

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted			Change		
Number	Name	Actuals	FTEs	Dollars	Dollars	Percent		
7000	General Support (excluding program number 7604)	\$ 2,242,774	2018 15	\$ 2,255,988	\$ (154,251)	(6.4)	o)	
			2017 18	\$ 2,410,239				
7604	Social Security and Medicare Contributions	\$ 516,070	2018 -	\$ 511,000	\$ 2,300	0.5		
			2017 -	\$ 508,700				
Totals		\$ 79,677,998	2018 367	\$ 86,426,300	\$ 5,418,600	6.7%	*	
			2017 372	\$ 81,007,700				

o) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$203,300), reduced demand for the sapling distribution program (\$27,000), and a reduction in anticipated retirements (\$7,100), offset by the increased need for spare mechanical, electrical, and plumbing parts (\$78,200).

* The 2018 position total for the Stickney Service Area is 367, with an additional nine positions budgeted in the Stormwater Management Fund.

69000 M&O - STICKNEY SERVICE AREA

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Stickney Water Reclamation Plant	Mil. Gallons Cost Cost/Mil. Gallons	249,153 \$ 45,452,641 \$ 182.43	260,000 \$ 46,141,687 \$ 177.47	284,000 \$ 49,763,203 \$ 175.22	a)
3000	Solids Processing					
	Remove 95,000 Dry Tons of Solids and Process 135,000 Dry Tons of Solids (Includes 40,000 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 Cost Cost/Dry Ton	135,169 \$ 24,341,916 \$ 180.09	130,000 \$ 25,254,000 \$ 194.26	135,000 \$ 26,517,124 \$ 196.42	b)
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 Cost Cost/Reservoir	4 \$ 200,538 \$ 50,134.50	4 \$ 223,400 \$ 55,850.00	5 \$ 545,200 \$ 109,040.00	c)
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 375,319	\$ 561,720	\$ 483,147	
5000	Solids Utilization					
	Utilize Biosolids 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 Cost Cost/Dry Ton	46,127 \$ 2,143,688 \$ 46.47	60,000 \$ 2,018,554 \$ 33.64	70,000 \$ 1,970,938 \$ 28.16	d)
5271	Pelletizer Disposal Control Management and Disposal of Solids by Private Contracts	Dry Tons Cost Cost/Dry Ton	37,143 \$ 4,405,052 \$ 118.60	40,000 \$ 3,889,400 \$ 97.24	40,000 \$ 4,379,700 \$ 109.49	e)
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 & Pollution Control, and Solids Utilization	Cost	\$ 2,242,774	\$ 2,410,239	\$ 2,255,988	f)
7604	Social Security and Medicare Contributions		\$ 516,070	\$ 508,700	\$ 511,000	
Division Total			\$ 79,677,998	\$ 81,007,700	\$ 86,426,300	

- a) Increase is due to the increased demand for electrical energy for the Stickney Service Area (\$3,147,800), the increased need for spare electrical, mechanical, and plumbing parts (\$362,900), and 18-611-11, Repairs and Alterations to Plant Facilities (\$288,600), the transfer in of one FTE position (\$146,600), and the reallocation of salaries to more accurately reflect current activities (\$99,300), offset by the reduced need for distributed control system replacement parts (\$233,400), the drop of one FTE position (\$94,700), and a reduction in anticipated retirements (\$70,600).
- b) Increase is due to the increased need for 15-935-11, Sodium Hydroxide (\$1,035,000), 15-934-11, Magnesium Chloride (\$796,400), the reallocation of salaries to more accurately reflect current activities (\$422,300), and an increased need for 18-959-11, Sulfuric Acid (\$156,000), offset by the favorable award of 17-633-11, Polymer (\$942,000), various centrifuge parts (\$193,000), 17-656-11, Rockwell parts and services (\$99,600), and mechanical seal repair parts and services (\$50,000).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$368,800), offset by the reduced need for valve actuator parts and services (\$52,500).
- d) Increase is due to the increased demand for solids utilization as a result of the estimated capture of additional solids from the operation of the McCook Reservoir, which were previously discharged into waterways.
- e) Increase is due to the increased need for services under 98-RFP-10, Pelletizing Facility (\$495,700).
- f) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$203,300), reduced demand for the sapling distribution program (\$27,000), and a reduction in anticipated retirements (\$7,100), offset by the increased need for spare mechanical, electrical, and plumbing parts (\$78,200).

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 35,286,763	\$ 34,948,000	\$ 34,948,000	\$ 33,840,000	\$ 35,305,600	\$ 35,305,600	\$ 35,422,500
601060	Compensation Plan Adjustments	2,079,295	2,121,200	2,121,200	2,065,000	1,685,300	1,685,300	2,143,600
601070	Social Security and Medicare Contributions	516,070	508,700	500,100	497,500	511,000	511,000	511,000
601080	Salaries of Nonbudgeted Employees	-	10,200	10,200	-	10,200	10,200	10,200
601100	Tuition and Training Payments	46,510	177,000	158,500	135,000	144,000	144,000	144,000
100	TOTAL PERSONAL SERVICES	37,928,638	37,765,100	37,738,000	36,537,500	37,656,100	37,656,100	38,231,300
612010	Travel	4,921	15,000	15,000	14,700	15,000	15,000	15,000
612030	Meals and Lodging	16,350	18,000	23,300	21,000	28,800	28,800	28,800
612050	Compensation for Personally-Owned Automobiles	62,527	64,100	53,900	44,000	62,500	62,500	62,500
612080	Motor Vehicle Operating Services	182	1,000	800	800	300	300	300
612150	Electrical Energy	18,781,512	18,366,200	18,366,200	18,098,700	21,485,800	21,485,800	21,485,800
612160	Natural Gas	1,410,364	1,565,700	1,478,700	1,365,000	1,729,800	1,729,800	1,729,800
612170	Water and Water Services	1,365,926	1,254,700	1,225,700	1,155,000	1,295,400	1,295,400	1,295,400
612210	Communication Services	105,909	117,000	117,000	100,000	235,400	235,400	235,400
612240	Testing and Inspection Services	11,435	61,500	62,700	42,000	156,600	156,600	156,600
612330	Rental Charges	130,082	146,500	134,200	125,000	140,700	140,700	140,700
612410	Governmental Service Charges	89,880	89,700	89,700	89,700	89,700	89,700	89,700
612420	Maintenance of Grounds and Pavements	143,743	215,100	215,100	190,000	278,800	278,800	278,800
612430	Payments for Professional Services	18,000	18,000	18,000	18,000	18,000	19,000	19,000
612490	Contractual Services, N.O.C.	305,710	340,600	350,600	299,000	425,400	425,400	425,400
612520	Waste Material Disposal Charges	538,434	606,500	665,600	600,500	606,500	606,500	606,500
612590	Sludge Disposal	3,748,196	3,204,300	3,650,300	3,200,000	3,700,000	3,700,000	3,700,000
612600	Repairs to Collection Facilities	1,777,958	2,206,300	2,126,500	1,997,300	2,082,500	2,082,500	2,082,500
612620	Repairs to Waterway Facilities	-	10,000	-	-	-	-	-
612650	Repairs to Process Facilities	2,643,203	2,495,200	2,342,900	2,245,000	2,573,900	2,562,500	2,562,500
612670	Repairs to Railroads	444,795	302,600	284,700	194,000	368,700	368,700	368,700
612680	Repairs to Buildings	372,439	547,500	414,500	235,000	369,300	369,300	369,300
612760	Repairs to Material Handling and Farming Equipment	4,764	-	-	-	-	-	-

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612780	Safety Repairs and Services	89,886	283,000	264,800	250,000	195,000	205,400	205,400
612840	Communications Equipment Maintenance (Includes Software)	6,206	-	-	-	5,000	5,000	5,000
612860	Repairs to Vehicle Equipment	17,956	15,700	18,700	18,700	24,600	24,600	24,600
612990	Repairs, N.O.C.	3,273	11,800	11,800	7,500	13,500	13,500	13,500
200	TOTAL CONTRACTUAL SERVICES	32,093,653	31,956,000	31,930,700	30,310,900	35,901,200	35,901,200	35,901,200
623030	Metals	10,415	17,900	16,800	14,000	10,400	10,400	10,400
623070	Electrical Parts and Supplies	633,265	1,073,300	952,300	887,000	968,700	968,700	968,700
623090	Plumbing Accessories and Supplies	317,134	271,600	261,600	250,000	323,600	323,600	323,600
623110	Hardware	529	2,500	2,600	2,600	3,200	3,200	3,200
623130	Buildings, Grounds, Paving Materials, and Supplies	30,880	64,200	66,200	35,800	54,100	54,100	54,100
623170	Fiber, Paper, and Insulation Materials	9,674	14,100	14,100	5,700	9,900	9,900	9,900
623190	Paints, Solvents, and Related Materials	1,580	1,900	2,800	2,500	1,300	1,300	1,300
623250	Vehicle Parts and Supplies	47,679	48,300	56,300	39,000	39,500	39,500	39,500
623270	Mechanical Repair Parts	844,058	1,144,100	1,345,900	1,300,000	1,154,900	1,154,900	1,154,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	10,441	15,700	15,700	13,700	11,000	11,000	11,000
623560	Processing Chemicals	7,547,436	8,169,600	8,841,600	7,800,000	9,369,900	9,369,900	9,369,900
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	67	-	300	300	-	-	-
623660	Cleaning Supplies	391	1,300	1,300	1,200	500	500	500
623680	Tools and Supplies	99,713	244,000	219,000	200,000	83,000	83,000	83,000
623700	Wearing Apparel	-	900	600	-	600	600	600
623780	Safety and Medical Supplies	15,432	13,900	13,900	1,500	23,700	23,700	23,700
623800	Computer Software	110	5,800	5,800	4,000	23,100	23,100	23,100
623810	Computer Supplies	6,033	13,300	7,800	4,400	28,400	28,400	28,400
623820	Fuel	46,086	107,000	99,100	90,000	101,800	101,800	101,800
623840	Gases	633	4,500	4,500	2,100	1,100	1,100	1,100
623850	Communications Supplies	520	900	900	500	5,500	5,500	5,500
623860	Lubricants	797	500	1,300	1,300	1,900	1,900	1,900

101 69000 Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area		LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	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.	10,701	66,300	66,300	27,000	52,700	52,700	52,700
300	TOTAL MATERIALS AND SUPPLIES	9,633,575	11,281,600	11,996,700	10,682,600	12,268,800	12,268,800	12,268,800
634650	Equipment for Process Facilities	22,131	-	-	-	-	-	-
634860	Vehicle Equipment	-	5,000	-	-	-	-	-
634970	Testing and Laboratory Equipment	-	-	-	-	25,000	25,000	25,000
400	TOTAL MACHINERY AND EQUIPMENT	22,131	5,000	-	-	25,000	25,000	25,000
TOTAL STICKNEY SERVICE AREA		\$ 79,677,998	\$ 81,007,700	\$ 81,665,400	\$ 77,531,000	\$ 85,851,100	\$ 85,851,100	\$ 86,426,300

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 for a specific division as funding is controlled at the M&O Overall department-level or when transfers of funds are anticipated.

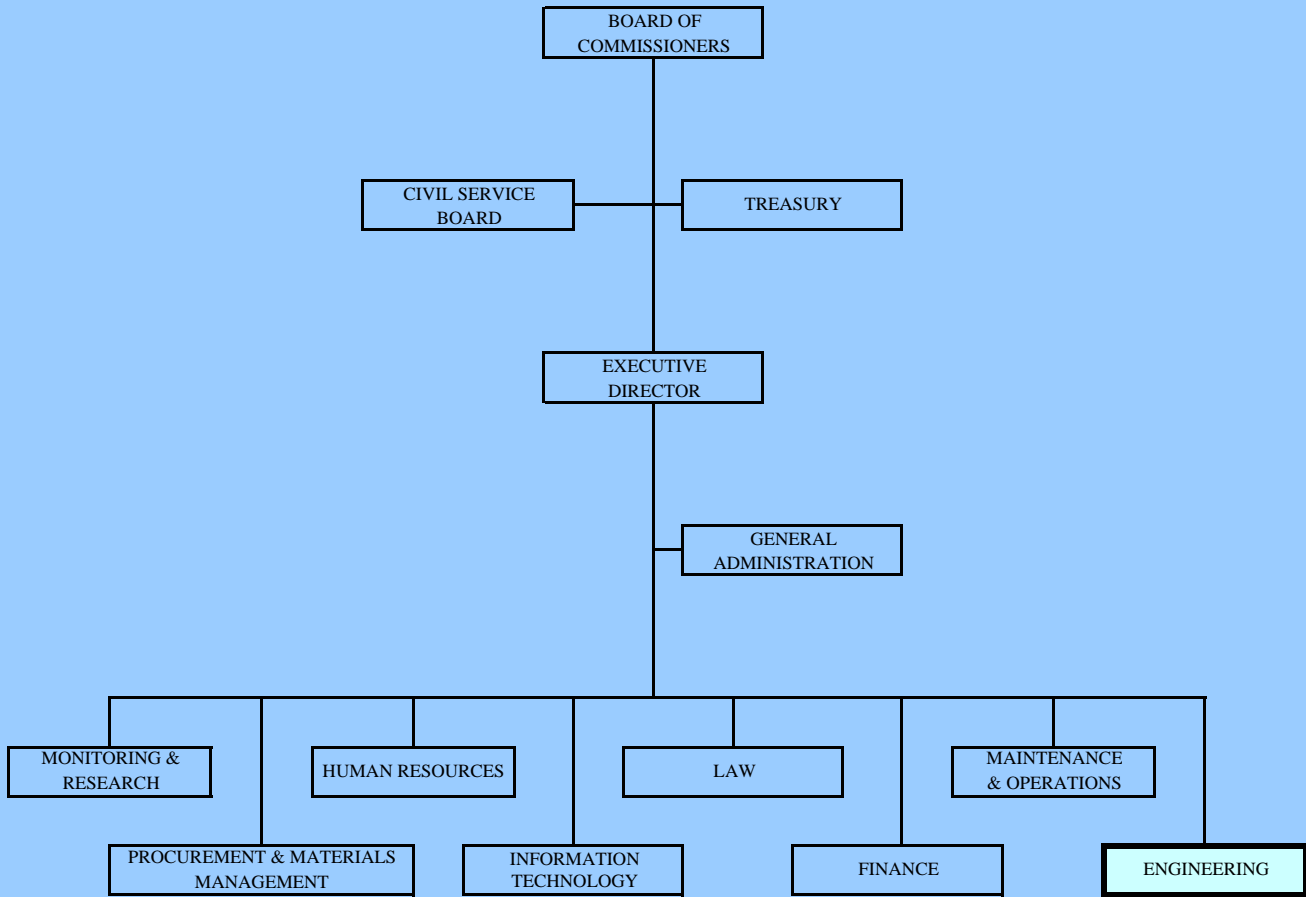
Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
910	Stickney Executive Office					
HP23	Deputy Director of Maintenance & 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	332,801.64	2	339,457.57
911	Stickney Budget Control Unit					
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		-	
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL	Stickney Budget Control Unit	4	4	394,736.92	3	264,746.27
920	Plant Engineering & Maintenance Branch					
921	Administrative Unit					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
HP11	Administrative Specialist	-	1		1	
TOTAL	Administrative Unit	1	2	275,876.26	2	281,393.91
922	Mechanical Engineering Unit					
HP20	Managing Mechanical Engineer	1	-		-	
HP18	Principal Mechanical Engineer	1	-		-	
HP17	Senior Mechanical Engineer	2	-		-	
HP15	Associate Mechanical Engineer	3	-		-	
HP14	Assistant Mechanical Engineer	2	-		-	
HP14	Engineering Technician V	1	-		-	
HP12	Engineering Technician IV	1	-		-	
HP11	Administrative Specialist	1	-		-	
TOTAL	Mechanical Engineering Unit	12	-	-	-	-
923	Electrical Engineering Unit					
HP18	Principal Electrical Engineer	1	-		1	
HP17	Senior Electrical Engineer	2	-		-	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Electrical Engineer	3	-		-	
HP15	Associate Process Control Engineer	-	-		1	
HP14	Engineering Technician V	2	3		1	
HP14	Engineering Technician V #4	1	-		-	
HP12	Engineering Technician IV	-	1		1	
NR6275	Chief Powerhouse Dispatcher I	1	1		1	
NR6272	Powerhouse Dispatcher	4	4		4	
NR6233	Electrical Operator II	11	11		11	
TOTAL	Electrical Engineering Unit	25	20	1,995,028.74	20	2,083,146.01
924	Maintenance Unit (* 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	5		5	
HP14	Engineering Technician V	1	1		2	
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	
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	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
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	Pipecoverer	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7775	Pipefitter Leadman	2	2		2	
PR7773	Pipefitter	23	23		23	
		(*1)	(*1)		(*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	160	15,690,765.32	160	16,028,465.44
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
943	Buildings & Grounds Unit					
HP18	Principal Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	2	1		1	
HP14	Engineering Technician V	2	2		2	
HP09	Administrative Clerk	1	1		1	
NR8331	Laborer Foreman	2	2		2	
NR8651	Maintenance Laborer Class A	7	7		7	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8652	Maintenance Laborer Class B	9	9		9	
TOTAL	Buildings & Grounds Unit	24	23	1,711,808.06	23	1,719,939.91
TOTAL	Plant Engineering & Maintenance Branch	222	205	19,673,478.38	205	20,112,945.27
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
930	Plant Operations Branch					
931	Administrative Unit					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	-		-	
HP20	Managing Engineer	-	1		1	
TOTAL	Administrative Unit	1	1	168,119.93	1	179,845.65
932	Treatment Operations Unit					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	-	1		1	
HP18	Principal Engineer	1	-		-	
HP17	Senior Civil Engineer	-	1		-	
HP17	Senior Engineer	-	-		1	
HP16	Treatment Plant Operator III	5	6		6	
HP16	Treatment Plant Operator III #4	1	-		-	
HP15	Associate Civil Engineer	1	-		-	
HP14	Assistant Mechanical Engineer	1	-		-	
HP14	Treatment Plant Operator II	8	8		8	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	6	6		6	
HP11	Administrative Specialist	1	1		1	
HP11	Engineering Technician III	-	-		1	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	15	15		15	
NR8651	Maintenance Laborer Class A	5	5		5	
TOTAL	Treatment Operations Unit	46	45	4,010,880.32	46	4,143,629.36

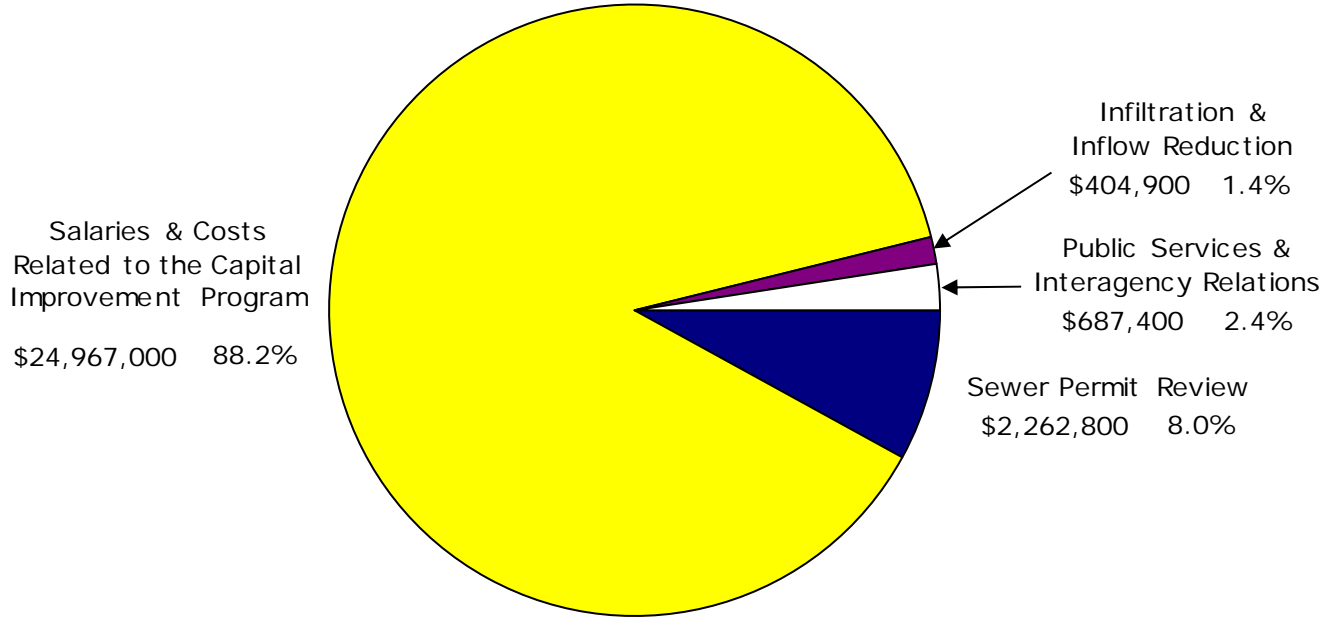
Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
934	Mechanical Operations Unit (* Number of positions budgeted 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		11	
NR8650	Maintenance Laborer Class A Shift	20	20		20	
		(*4)	(*4)		(*4)	
NR8650	Maintenance Laborer Class A Shift #1	-	5		-	
			(*2)			
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	108	10,401,130.50	104	10,067,975.38
TOTAL	Stormwater Management Fund Positions	(*8)	(*10)		(*8)	
945	Railroad Unit					
HP11	Engineering Technician III	1	1		-	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	5	5		5	
TOTAL	Railroad Unit	7	7	548,800.06	6	491,961.60
TOTAL	Plant Operations Branch	157	161	15,128,930.81	157	14,883,411.99
TOTAL	Stormwater Management Fund Positions	(*8)	(*10)		(*8)	
TOTAL	Maintenance & Operations Stickney Service Area	385	372	35,529,947.75	367	35,600,561.10
TOTAL	Stormwater Management Fund Positions	(*9)	(*11)		(*9)	
<p>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.</p>						
<p>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.</p>						



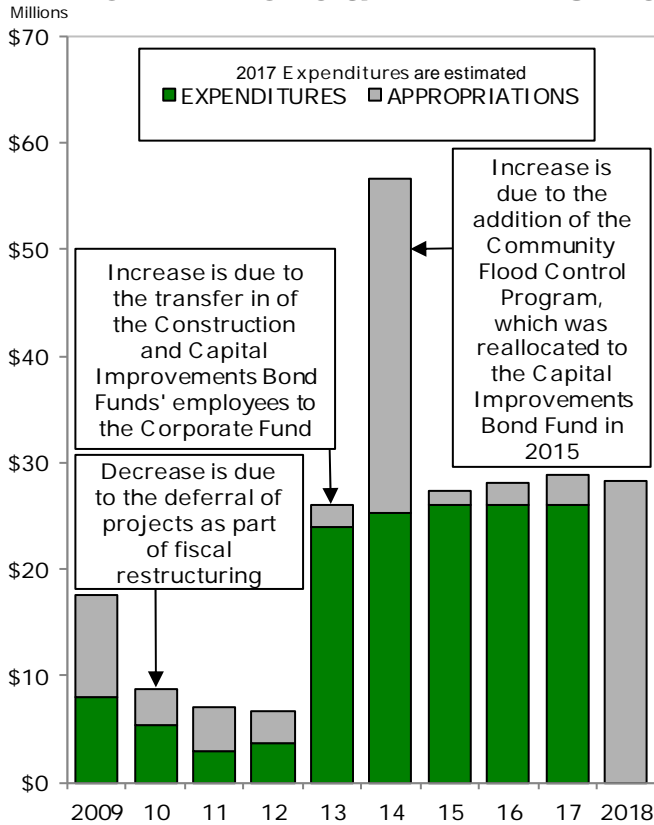
ENGINEERING – CORPORATE FUND

2018	\$28,322,100
2017	\$28,835,400
Decrease	(\$513,300)

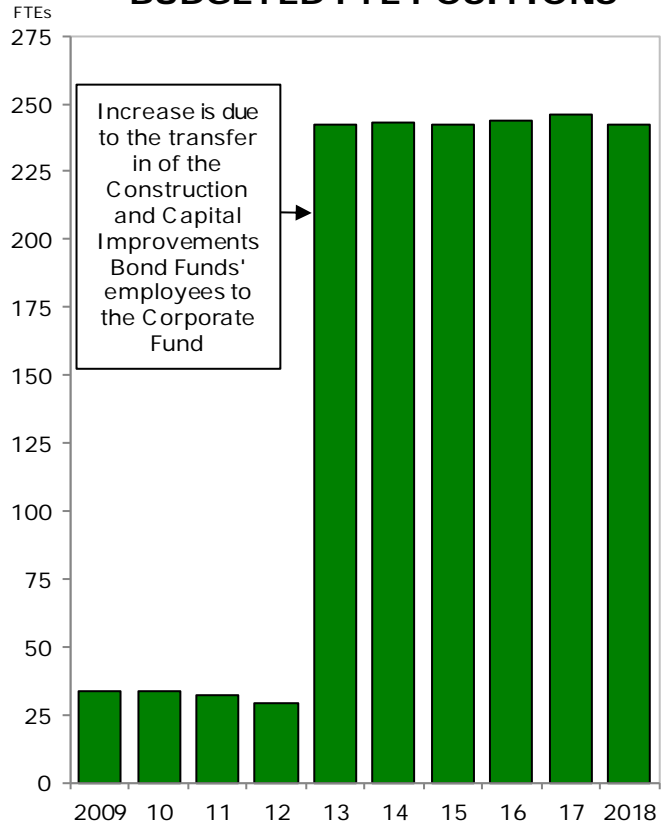
FUNCTIONS



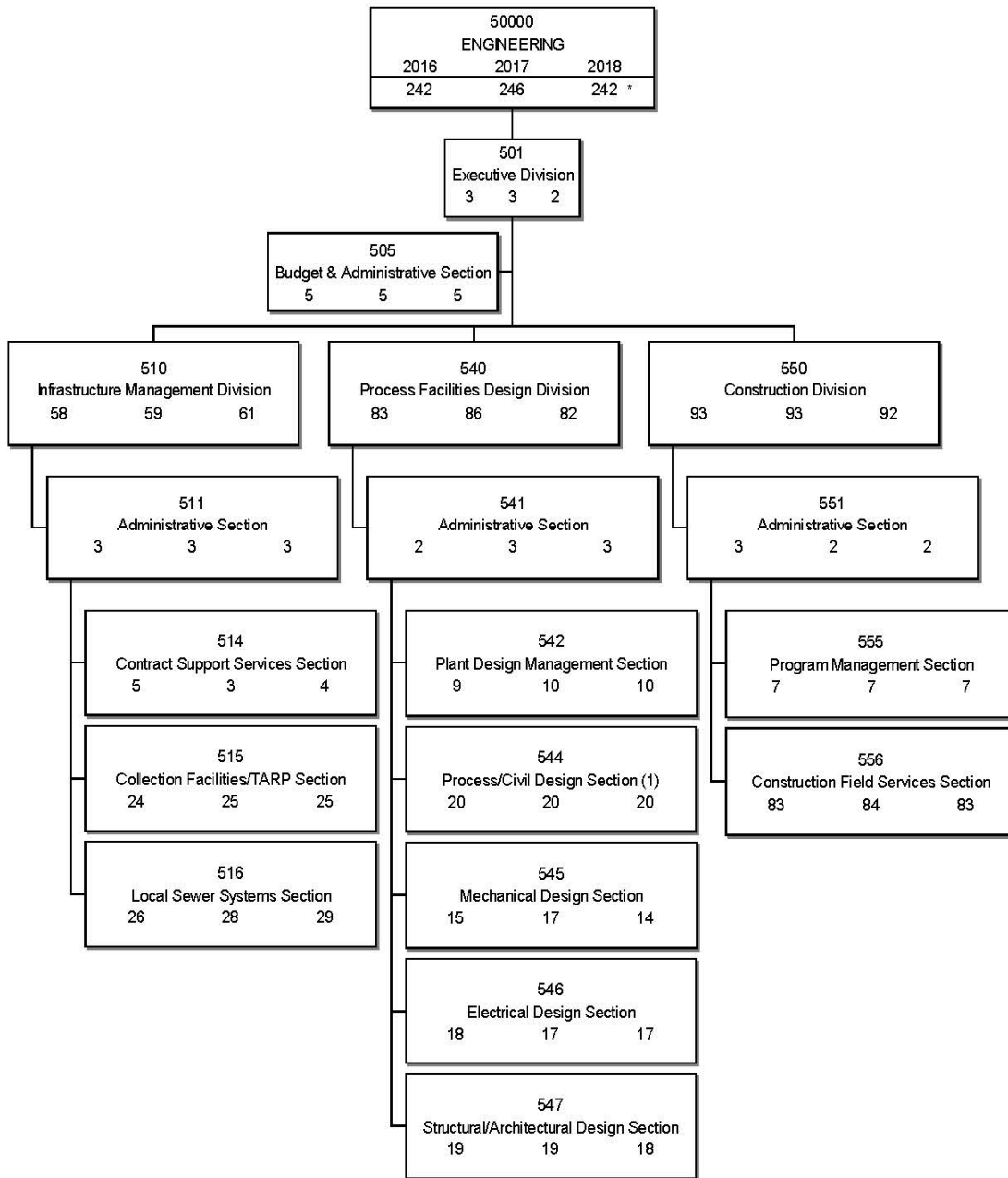
APPROPRIATIONS & EXPENDITURES



BUDGETED FTE POSITIONS



ENGINEERING



* The 2018 position total for the Engineering Department – Corporate Fund is 242. There are an additional 30 positions funded by the Stormwater Management Fund while the operations remain in the Engineering Department.

(1) Effective 01/01/17, Section 544 Process Design Section was retitled Process/Civil Design Section.

ENGINEERING CORPORATE FUND

The mission of the Engineering Department is to plan, design, and construct projects prioritized in the Capital Improvement Program and to regulate stormwater management, flood protection areas, and 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, which highlights the accomplishments of the Infrastructure Management Division, Process Facilities Design Division, and Construction Division, 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, complies with applicable state and federal regulations and requirements, and responds to the needs of the District's residents, as directed through the policies adopted by its Board of Commissioners in the areas of sewage treatment, stormwater management, resource recovery, and pollution control;
- Provide requested and required engineering assistance to other departments within the District in support of their missions. The Engineering Department engages internal staff for all intercepting sewer rehabilitation design, all construction management, and roughly half of the District's process facilities design. Employing a rigorous qualifications-based selection process, the balance of design work is completed by engineering consulting firms. By blending District staff design expertise with design expertise of highly qualified outside firms, the Engineering Department is able to ensure that water reclamation plant upgrade, rehabilitation, and resource recovery projects are state of the art.

The Corporate Fund supports the work of the LSSS, which is responsible for the implementation and enforcement of the Watershed Management Ordinance (WMO). The WMO regulates developments throughout Cook County, sewer construction within the District's service area, and requires compliance with the Infiltration/Inflow (I/I) Control Program.

The Corporate Fund budget is also used for repair and maintenance projects not eligible for Capital Improvement Program funding.

Summary of 2017 Accomplishments

- As a result of WMO enforcement, the following has been accomplished in 2017:
 - Approximately 18 million gallons of volume control storage;
 - Approximately four million gallons of compensatory storage;
 - Approximately 95 million gallons of locally-provided stormwater detention;
- Received revenue of approximately \$1.5 million from sewer service agreements;
- Conducted an advisory committee meeting to present status of the Watershed Specific Release Rate Study and updates to the Technical Guidance Manual (TGM);
- Simplified the WMO permit application and I/I Control Program reporting forms;
- Presented status of the Watershed Release Rate Study and I/I Control Program at conferences;
- Reviewed and issued permits in an adjusted average of 40 working days from the initial submittal to permit issuance;
- Conducted ongoing training events to enhance the permit review process.

Budget Highlights

The 2018 appropriation for the Engineering Department – Corporate Fund is \$28,322,100, a decrease of \$513,300, or 1.8 percent, from 2017. The staffing level has decreased from 246 to 242 positions, which includes the drop of an Assistant Director of Engineering, a Principal Electrical Engineer, a Managing Mechanical Engineer, a Senior Mechanical Engineer, and an Engineering Draftsman II, offset by the transfer in of an Administrative Specialist from the General Division of the Maintenance & Operations Department. In addition, three Engineering Technician V positions were reclassified to Engineering Technician III positions.

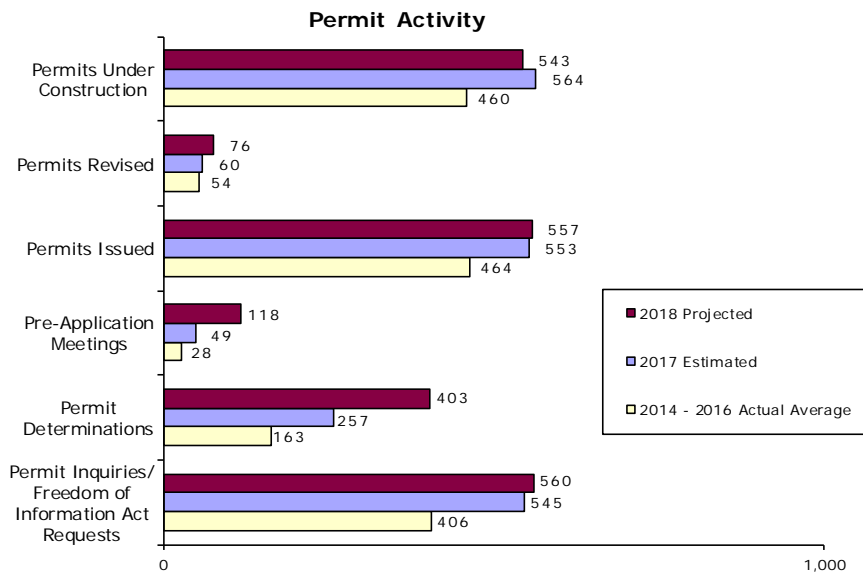
Significant features of the 2018 Budget for the LSSS include the following:

- Amend the WMO to include clarifications that will best serve the District and its constituents for future enforcement;
- Develop and update the TGM to add guidance for compliance with the amended WMO;
- Create an Earthwork/Foundation Only permit application to allow limited construction activities to commence prior to WMO permit issuance;
- Continue the implementation of the I/I Control Program to reduce sanitary sewer overflows and basement backups;
- Provide Global Positioning System (GPS) units to local municipalities as a resource to begin mapping their sewer systems in a Geographic Information System (GIS) or to improve their existing sewer system map.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• **Add Value**

LSSS staff seek opportunities to add value in all endeavors, and specifically strive to provide exemplary customer service. Staff are in continuous contact with consulting engineers, developers, and contractors throughout the permit application process. As shown on the Permit Activity exhibit below, Permit Inquiry and Freedom of Information Act requests are processed by the LSSS staff and provide historical permit information to consulting engineers for specific site locations. Permit determination letters are submitted for specific projects and LSSS staff respond if a permit is required. Prior to submitting a permit application, LSSS staff are available to meet with consulting engineers and developers to discuss WMO requirements and project compliance during pre-application meetings. The total number of permit determination letters and pre-application meetings are shown on the Permit Activity exhibit. During the permit application review process, LSSS staff frequently follow up with consulting engineers to provide a timely permit review. An average of three review letters per permit are sent to consulting engineers during permit review to ensure compliance with the WMO. The number of permits issued are shown on the Permit Activity exhibit.



After permit issuance and once construction is in progress, LSSS staff conduct site inspections to verify the work is in compliance with the approved permit documents. The number of site inspections conducted for each permit during the construction phase varies between eight and 35, depending on the size of the project. The total number of permits under construction are shown on the Permit Activity exhibit. Additionally, LSSS staff meet with engineers and contractors on-site to address unknown field conditions with acceptable design revisions to minimize project delays. The total number of permit revisions are also shown on the Permit Activity exhibit. In 2017, the overall permit issuance time averaged 40 days, the same as in 2016. LSSS staff also issue and process violations. A total of five permit violations are estimated to be processed annually.

The WMO fee schedule was established to be the least costly of all urbanized collar counties near Cook County. As outlined in Appendix F of the WMO, the fee schedule is based on the type of permit required for a project, the length of qualified sewer to be constructed, and review of stormwater management, impacts to flood protection areas, and other items that require detailed review. There are no fees to review Single-Family Home permits.

• **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, 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**

LSSS staff includes engineers and technicians who must remain current with technological developments in sewer construction, stormwater management, site development, construction inspection, sewer rehabilitation, flow monitoring, and GIS. LSSS staff will attend various seminars and conferences for continuing education and professional development.

• **Leading Partnerships**

The District developed the WMO and TGM in partnership with all stakeholders and remains committed to them and their concerns. LSSS staff respond to thousands of telephone and written inquiries from consulting engineers, developers, citizens, and public officials regarding the WMO including:

- Permit requirements and fees;
- Preliminary engineering reviews;
- Sewer construction;
- Stormwater management;
- Floodplains and wetlands;
- Projects impacting District facilities;
- Unique construction issues;
- Engineering design standards.

LSSS staff also collaborate with local municipalities and other governmental agencies to:

- Implement the WMO with the authorized municipalities and multi-county municipalities;
- Amend the WMO, as necessary, to include clarifications to best serve the District and its constituents for future enforcement;
- Further develop the TGM;
- Resolve multi-jurisdictional issues;
- Enter into sewer service agreements with municipalities that are within both Cook County and the District's corporate limits and also within adjoining counties such as Lake, DuPage, or Will;
- Exchange knowledge on new techniques to protect and mitigate floodplains and wetlands;
- Provide guidance on sewer system construction, inspection, and rehabilitation procedures and techniques.

LSSS staff will also undertake field investigations to resolve citizens' questions, concerns, and complaints related to:

- Sanitary sewer overflows and basement backups;
- Stormwater drainage and flooding;
- Other unsanitary or unsafe conditions detrimental to the health and welfare of the public.

• **Technology**

In 2017, the District began offering GPS units to provide sewer system owners with resources to begin mapping their sewer systems in a GIS or to improve their existing sewer system maps. In return, sewer system owners provide the District with their sanitary, storm, and combined sewer data. To obtain GPS equipment and related software at no cost, sewer system owners must enter into an Intergovernmental Agreement with the District. As of December 2017, seven municipalities have entered into an Intergovernmental Agreement with the District to utilize the GPS units.

LOCAL SEWER SYSTEMS SECTION PERMIT ADMINISTRATION

LSSS staff administer the WMO to protect public health and the environment by establishing uniform requirements for land development and sewer construction through the review and approval of WMO permit applications. To protect existing and new developments from increased stormwater runoff and flooding conditions, the WMO requires stormwater management facilities to be installed for new developments and redevelopments that exceed certain acreage limits. This places the responsibility for the cost and construction of the development's local flood control facility with the developer, rather than with the public for expanding or constructing new regional flood control facilities. The WMO regulates the design, construction, operation, and maintenance of all public and private sewers that discharge directly or indirectly into District collection and treatment facilities or into waters within the boundaries of the District. Special protection and mitigation is also required for flood protection areas, including floodplains, wetlands, and riparian environment.

The TGM provides guidance on how to apply and meet the WMO regulations for both project design and implementation. It is a valuable and useful resource for consulting engineers, developers, and municipalities and is intended to promote efficient and consistent permit submittal and review procedures. The TGM provides the following information and is expected to evolve as WMO compliance lessons are learned:

- Identifies when a permit is required for development;
- Identifies the information required to support a permit application;
- Provides clarification on WMO requirements and their applicability;
- Provides examples to aid with designing a development that meets the requirements of the WMO.

The types of permits reviewed and approved under the WMO include:

- Standard WMO Permit: This is the most common permit used to approve development;

- Notification and Request for Inspection Sewer Construction Permit: This is a short form permit to approve in-kind replacement of existing sewers, sanitary sewer rehabilitation work, and minor sewer work involving less than 25 linear feet of new sewer;
- Facility Connection Authorization Permit: This permit is used to approve work within the City of Chicago for construction on District property, sewer connections to District facilities, and connections to the waterways and Lake Michigan;
- Single-Family Home Permit: This is a short form permit used to approve the development and redevelopment of single-family homes that impact flood hazard areas such as floodplains, wetlands, and riparian environments;
- Authorized Municipality Permit: This permit is used for developments within municipalities that are authorized to administer the WMO and issue WMO permits. The authorized municipality reviews and approves the stormwater management requirements, and LSSS staff review and approve qualified sewer constructions, modifications to existing stormwater detention facilities, connections to District facilities, and new stormwater 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 2017, the average review and response time for an initial submittal was 10 working days and the average re-submittal response time was five working days. As illustrated in the Permit Activity exhibit, LSSS staff will issue an estimated 557 total permits in 2018, with an estimated average time from initial submittal to permit issuance of 40 working days. The number of total permits issued has averaged 464 annually from 2014-2016.

INFILTRATION/INFLOW CONTROL PROGRAM ADMINISTRATION

The District's I/I Control Program is also administered by the LSSS. The purpose of the program is to provide a framework for asset management of separate sewer systems to meet the following goals:

- Maintain infrastructure to prevent sanitary sewer overflows and basement backups due to sewer surcharging and other adverse sewer system conditions;
- Ensure District compliance with the National Pollutant Discharge Elimination System permits and all other applicable federal, state, and local laws and regulations;
- Minimize extraneous flows transported to District facilities due to defective system components or illegal connections.

The I/I Control Program is implemented due to special conditions imposed within the National Pollutant Discharge Elimination System permits issued by the Illinois Environmental Protection Agency for the District's water reclamation plants. In addition to adopting a Capacity, Management, Operation, and Maintenance Program for the conveyance and treatment facilities, the District is required to take action to reduce excessive I/I within the local sanitary sewer systems.

50000 ENGINEERING

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Protect public health by administering the Watershed Management Ordinance to regulate local sewer connections to local treatment plants, discharges to District waters, and migration of runoff from new developments and redevelopments.	\$ 2,262,800	8.0%
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.	\$ 687,400	2.4%
3. Reduce treatment costs by eliminating excessive infiltration/inflow of stormwater into sanitary sewers through a comprehensive rehabilitation program of local sewer systems.	\$ 404,900	1.4%
4. Ongoing maintenance projects, salaries, and employee expenses related to the Capital Improvement Program.	\$ 24,967,000	88.2%
Total	\$ 28,322,100	100.0%

MEASURABLE GOALS:	2016 Actual	2017 Estimated	2018 Proposed
1. Compliance status of the 114 satellite entities (sewer system owners) with the requirements of the Infiltration/Inflow Control Program.			
Number of satellite entities that have completed the Short Term Requirements ¹	-	-	10
Percentage Complete	0%	0%	9%
Annual Summary Reports Received	112	107	114
Annual Summary Reports in Compliance ²	88	70	114
<p>¹Under the Short Term Requirements, each satellite entity will perform a prioritized condition assessment of their high-risk public sewers, conduct rehabilitation work to address infiltration/inflow sources, and develop and submit their individual Private Sector Program and Long Term Operation and Maintenance Program to the District for approval. The deadline to complete the Short Term Requirements is July 10, 2019. It is anticipated that the majority of the satellite entities will take until July 10, 2019 to complete the Short Term Requirements due to the number of requirements and extensive amount of work required.</p> <p>²Annual Summary Reports in compliance with the reporting requirements of the Infiltration/Inflow Control Program. The District is continually providing assistance and collaborating with the satellite entities to produce compliant Annual Summary Reports.</p>			

50000 ENGINEERING

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$ 6,609,129	2018 65	\$ 7,363,400	\$ (90,500)	(1.2)
			2017 64	\$ 7,453,900		
1530	Local Sewer Permit Activity	\$ 1,749,933	2018 22	\$ 2,262,800	\$ 79,600	3.6
			2017 21	\$ 2,183,200		
1560	Local Sewer Public Service Coordination	\$ 692,018	2018 6	\$ 687,400	\$ (1,400)	(0.2)
			2017 6	\$ 688,800		
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 484,800	2018 3	\$ 404,900	\$ (53,100)	(11.6)
			2017 3	\$ 458,000		
1700	Collection System Design	\$ 1,077,032	2018 9	\$ 1,218,900	\$ (146,400)	(10.7)
			2017 9	\$ 1,365,300		
1800	Collection Construction	\$ 2,605,346	2018 25	\$ 2,789,400	\$ 30,800	1.1
			2017 25	\$ 2,758,600		
2000	Treatment	\$ 8,456,502	2018 75	\$ 8,723,700	\$ (108,900)	(1.2)
			2017 77	\$ 8,832,600		
2700	Treatment Design	\$ 3,097,327	2018 25	\$ 3,177,400	\$ (133,600)	(4.0)
			2017 27	\$ 3,311,000		
2800	Treatment Construction	\$ 5,359,175	2018 50	\$ 5,546,300	\$ 24,700	0.4
			2017 50	\$ 5,521,600		
3000	Solids Processing	\$ 5,363,990	2018 51	\$ 6,137,000	\$ (232,700)	(3.7)
			2017 53	\$ 6,369,700		
3700	Solids Processing Design	\$ 2,706,764	2018 23	\$ 2,880,900	\$ (281,400)	(8.9)
			2017 25	\$ 3,162,300		
3800	Solids Processing Construction	\$ 2,657,226	2018 28	\$ 3,256,100	\$ 48,700	1.5
			2017 28	\$ 3,207,400		

a) Decrease is due to the drop of two FTE positions (\$228,700) and a reduction in anticipated retirements (\$131,100), offset by the reallocation of salaries to more accurately reflect current activities (\$89,400).

50000 ENGINEERING

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
4000	Flood and Pollution Control	\$ 3,236,407	2018 28	\$ 3,300,300	\$ (115,400)	(3.4)	
			2017 30	\$ 3,415,700			
4216	Bridge and Road Maintenance	\$ 86,744	2018 -	\$ 105,000	\$ 29,700	39.4	b)
			2017 -	\$ 75,300			
4322	Storm and Flood Ordinance Development	\$ 16,687	2018 -	\$ 17,100	\$ 400	2.4	
			2017 -	\$ 16,700			
4341	Planning/Design	\$ 62,919	2018 -	\$ 63,500	\$ 1,300	2.1	
			2017 -	\$ 62,200			
4342	Contract Administration	\$ 101,359	2018 1	\$ 107,900	\$ 4,000	3.9	
			2017 1	\$ 103,900			
4343	Construction	\$ 97,231	2018 1	\$ 100,900	\$ 3,900	4.0	
			2017 1	\$ 97,000			
4700	Flood and Pollution Control Design	\$ 621,070	2018 6	\$ 672,100	\$ 14,200	2.2	
			2017 6	\$ 657,900			
4800	Flood and Pollution Control Construction	\$ 2,250,397	2018 20	\$ 2,233,800	\$ (168,900)	(7.0)	c)
			2017 22	\$ 2,402,700			
5000	Solids Disposal	\$ 320,393	2018 3	\$ 362,100	\$ (8,100)	(2.2)	
			2017 3	\$ 370,200			
5700	Solids Disposal Design	\$ 9,942	2018 -	\$ 10,200	\$ 200	2.0	
			2017 -	\$ 10,000			
5800	Solids Disposal Construction	\$ 310,451	2018 3	\$ 351,900	\$ (8,300)	(2.3)	
			2017 3	\$ 360,200			
7000	General Support (excluding program number 7604)	\$ 1,705,681	2018 20	\$ 2,052,000	\$ 33,400	1.7	
			2017 19	\$ 2,018,600			
7604	Social Security and Medicare Contributions	\$ 346,882	2018 -	\$ 383,600	\$ 8,900	2.4	
			2017 -	\$ 374,700			
Totals		\$ 26,038,984	2018 242	\$ 28,322,100	\$ (513,300)	(1.8%)	
			2017 246	\$ 28,835,400			

b) Increase is due to additional funding required for 13-059-1D, Biennial Bridge Inspection, based on scheduled contract payments (\$29,700).

c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$107,900).

50000 ENGINEERING

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 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 Cost Cost/Permit	545 \$ 878,395 \$ 1,611.73	550 \$ 1,095,800 \$ 1,992.36	557 \$ 1,204,100 \$ 2,161.76	
1533	Review of Other Permits	Cost	\$ 134,036	\$ 145,900	\$ 149,000	
1535	Local Sewer Construction Surveillance/Enforcement	Inspections Cost Cost/Inspection	4,536 \$ 676,337 \$ 149.10	5,400 \$ 857,300 \$ 158.76	543 \$ 823,500 \$ 1,516.57	a) a)
1537	Permit Revision	Revisions Cost Cost/Revision	- \$ 61,165 \$ -	- \$ 84,200 \$ -	76 \$ 86,200 \$ 1,134.21	b) b)
1560	Local Sewer - Public Service Coordination					
1561	Public Service	Requests Cost Cost/Request	1,021 \$ 457,804 \$ 448.39	1,632 \$ 450,400 \$ 275.98	560 \$ 447,100 \$ 798.39	c) c)
1563	Interagency Coordination	Cost	\$ 234,214	\$ 238,400	\$ 240,300	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Systems Cost Cost/System	250 \$ 484,800 \$ 1,939.20	250 \$ 458,000 \$ 1,832.00	114 \$ 404,900 \$ 3,551.75	d) d)
1700	Collection System Design	Cost	\$ 1,077,032	\$ 1,365,300	\$ 1,218,900	
1800	Collection Construction	Cost	\$ 2,605,346	\$ 2,758,600	\$ 2,789,400	
2700	Treatment Design	Cost	\$ 3,097,327	\$ 3,311,000	\$ 3,177,400	
2800	Treatment Construction	Cost	\$ 5,359,175	\$ 5,521,600	\$ 5,546,300	
3700	Solids Processing Design	Cost	\$ 2,706,764	\$ 3,162,300	\$ 2,880,900	e)
3800	Solids Processing Construction	Cost	\$ 2,657,226	\$ 3,207,400	\$ 3,256,100	

- a) The number of site inspections for each permit during the construction phase varies between eight and 35. Starting with Budget Year 2018, the method of accounting for inspections has been changed to track the number of permits under construction instead of estimated inspections, providing a more accurate measure of current activities.
- b) Starting with Budget Year 2018, activity tracking has been reallocated from Program Number 1531 to enhance clarity, resulting in an increase in cost per revision.
- c) Starting with Budget Year 2018, the method of accounting for the number of requests has been changed to track only permit inquiry and Freedom of Information Act correspondence instead of all written correspondence processed throughout the Local Sewer Systems Section, enhancing clarity and providing a more accurate measure of current activities.
- d) Starting with Budget Year 2018, the method of tracking ordinance enforcement activity has been changed to track annual summary reports received under the Infiltration/Inflow Control Program instead of estimated correspondence received under the Sewer Permit Ordinance, providing a more accurate measure of current activities.
- e) Decrease is due to the drop of two FTE positions (\$228,700) and a reduction in anticipated retirements (\$131,100), offset by the reallocation of salaries to more accurately reflect current activities (\$89,400).

50000 ENGINEERING

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
4200	Waterways Control and Stormwater Detention Reservoirs	Cost	\$ 86,744	\$ 75,300	\$ 105,000	f)
4300	Stormwater Management	Cost	\$ 278,196	\$ 279,800	\$ 289,400	
4700	Flood and Pollution Control Design	Cost	\$ 621,070	\$ 657,900	\$ 672,100	
4800	Flood and Pollution Control Construction	Cost	\$ 2,250,397	\$ 2,402,700	\$ 2,233,800	g)
5700	Solids Disposal Design	Cost	\$ 9,942	\$ 10,000	\$ 10,200	
5800	Solids Disposal Construction	Cost	\$ 310,451	\$ 360,200	\$ 351,900	
7000	General Support (excluding program number 7604)	Cost	\$ 1,705,681	\$ 2,018,600	\$ 2,052,000	
7604	Social Security and Medicare Contributions	Cost	\$ 346,882	\$ 374,700	\$ 383,600	
		Total	\$ 26,038,984	\$ 28,835,400	\$ 28,322,100	

f) Increase is due to additional funding required for 13-059-1D, Biennial Bridge Inspection, based on scheduled contract payments (\$29,700).

g) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$107,900).

101 50000	Fund: Corporate Department: Engineering	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 24,805,129	\$ 27,176,500	\$ 27,176,500	\$ 24,800,000	\$ 26,536,400	\$ 26,536,400	\$ 26,988,400
601060	Compensation Plan Adjustments	238,421	591,000	591,000	403,000	324,000	324,000	344,200
601070	Social Security and Medicare Contributions	346,881	374,700	374,700	350,300	383,600	383,600	383,600
601100	Tuition and Training Payments	100,330	150,000	150,000	106,000	124,000	124,000	124,000
100	TOTAL PERSONAL SERVICES	25,490,761	28,292,200	28,292,200	25,659,300	27,368,000	27,368,000	27,840,200
612010	Travel	12,897	12,000	12,000	7,800	12,000	12,000	12,000
612030	Meals and Lodging	32,404	25,000	25,000	17,900	25,000	25,000	25,000
612040	Postage, Freight, and Delivery Charges	3,257	2,500	2,500	900	2,000	2,000	2,000
612050	Compensation for Personally-Owned Automobiles	17,065	15,000	15,000	7,700	17,100	17,100	17,100
612080	Motor Vehicle Operating Services	412	1,000	1,000	200	400	400	400
612090	Reprographic Services	3,803	5,000	5,000	4,000	3,500	3,500	3,500
612170	Water and Water Services	3,364	3,200	4,000	3,900	3,300	3,300	3,300
612330	Rental Charges	-	500	500	100	100	100	100
612430	Payments for Professional Services	256,297	239,300	239,300	144,900	201,000	201,000	201,000
612440	Preliminary Engineering Reports and Studies	50,623	27,000	26,200	14,400	-	-	-
612490	Contractual Services, N.O.C.	78,593	85,000	85,000	82,200	82,100	82,100	82,100
612620	Repairs to Waterway Facilities	9,628	43,200	43,200	43,100	43,200	43,200	43,200
612970	Repairs to Testing and Laboratory Equipment	1,742	4,500	4,500	2,700	3,000	3,000	3,000
612990	Repairs, N.O.C.	9,494	9,800	9,800	8,900	8,800	8,800	8,800
200	TOTAL CONTRACTUAL SERVICES	479,579	473,000	473,000	338,700	401,500	401,500	401,500
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	40,899	40,500	40,500	40,000	60,400	60,400	60,400
623680	Tools and Supplies	3,418	10,000	10,000	6,000	10,000	10,000	10,000
623700	Wearing Apparel	7,007	7,500	7,500	6,500	6,500	6,500	6,500
623720	Books, Maps, and Charts	8,537	7,200	7,200	3,000	3,500	3,500	3,500
623990	Materials and Supplies, N.O.C.	8,783	5,000	5,000	5,000	-	-	-
300	TOTAL MATERIALS AND SUPPLIES	68,644	70,200	70,200	60,500	80,400	80,400	80,400
TOTAL ENGINEERING		\$ 26,038,984	\$ 28,835,400	\$ 28,835,400	\$ 26,058,500	\$ 27,849,900	\$ 27,849,900	\$ 28,322,100

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.

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
501	Executive Division					
EX15	Director of Engineering	1	1		1	
HP22	Assistant Director of Engineering	1	1		-	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Division	3	3	590,721.34	2	369,474.80
505	Budget & Administrative Section					
HP18	Supervising Budget & Management Analyst	1	1		1	
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	1		1	
HP14	Budget & Management Analyst	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Budget & Administrative Section	5	5	595,037.16	5	611,433.46
510	Infrastructure Management Division					
511	Administrative Section					
HP22	Assistant Director of Engineering	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Section	3	3	489,664.97	3	507,823.79
514	Contract Support Services Section					
HP20	Managing Civil Engineer	1	-		-	
HP14	Engineering Technician V #4	1	1		1	
HP12	Engineering Technician IV	1	1		1	
HP11	Administrative Specialist	1	-		1	
HP09	Administrative Clerk	1	1		1	
TOTAL	Contract Support Services Section	5	3	237,406.95	4	301,568.45
515	Collection Facilities / TARP Section					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Civil Engineer	6	6		6	
HP15	Associate Civil Engineer	4	3		3	
HP14	Assistant Civil Engineer	2	3		3	
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	3		3	
HP11	Engineering Technician III	3	3		3	
TOTAL	Collection Facilities / TARP Section	24	25	2,645,903.23	25	2,695,038.77
516	Local Sewer Systems Section (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP18	Principal Civil Engineer	2	2		2	
		(*1)	(*1)		(*1)	
HP17	Senior Civil Engineer	7	7		7	
		(*2)	(*2)		(*2)	
HP15	Associate Civil Engineer	5	6		6	
		(*3)	(*3)		(*3)	
HP14	Assistant Civil Engineer	3	2		3	
		(*2)	(*2)		(*2)	
HP14	Assistant Mechanical Engineer	-	1		-	
HP14	Assistant Mechanical Engineer #2 (Assistant Civil Engineer)	-	-		1	
HP14	Engineering Technician V	2	3		3	
HP14	Engineering Technician V #4	1	-		-	
HP12	Engineering Technician IV	2	2		2	
		(*2)	(*1)		(*1)	
HP12	Engineering Technician IV #4	1	1		1	
HP11	Administrative Specialist	1	1		1	
HP11	Engineering Technician III	-	1		1	
HP09	Administrative Clerk	2	2		2	
TOTAL	Local Sewer Systems Section	26	28	2,835,504.13	29	2,942,519.24
TOTAL	Stormwater Management Fund Positions	(*10)	(*9)		(*9)	
TOTAL	Infrastructure Management Division	58	59	6,208,479.28	61	6,446,950.25
TOTAL	Stormwater Management Fund Positions	(*10)	(*9)		(*9)	
522	Stormwater Management Section (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP20	Managing Civil Engineer	-	-		-	
		(*1)	(*1)		(*1)	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP18	Principal Civil Engineer	-	-		-	
		(*3)	(*3)		(*3)	
HP17	Senior Civil Engineer	-	-		-	
		(*7)	(*7)		(*7)	
HP15	Associate Civil Engineer	-	-		-	
		(*6)	(*6)		(*6)	
HP14	Assistant Civil Engineer	-	-		-	
		(*4)	(*3)		(*3)	
HP11	Administrative Specialist	-	-		-	
		(*1)	(*1)		(*1)	
TOTAL	Stormwater Management Section	-	-	-	-	-
TOTAL	Stormwater Management Fund Positions	(*22)	(*21)		(*21)	
540	Process Facilities Design Division					
541	Administrative Section					
HP22	Assistant Director of Engineering	-	1		1	
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Section	2	3	296,095.70	3	356,337.60
542	Plant Design Management Section					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	2	2		2	
HP17	Senior Civil Engineer	2	3		4	
HP16	Computer Aided Drafting and Design Administrator	1	1		1	
HP15	Associate Civil Engineer	2	2		1	
HP12	Engineering Technician IV	1	1		1	
TOTAL	Plant Design Management Section	9	10	1,236,437.38	10	1,318,920.42
544	Process / Civil Design Section (formerly Process Design Section)					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	
HP17	Senior Civil Engineer	7	7		6	
HP17	Senior Process Control Engineer	1	1		1	
HP15	Associate Civil Engineer	2	2		3	
HP15	Associate Process Control Engineer	1	1		1	
HP14	Assistant Civil Engineer	2	2		2	
HP13	Engineering Draftsman III #4	1	1		1	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP12	Engineering Draftsman II	1	1		2	
HP12	Engineering Draftsman II #4	1	1		-	
TOTAL	Process / Civil Design Section (formerly Process Design Section)	20	20	2,365,311.49	20	2,385,211.40
545	Mechanical Design Section					
HP20	Managing Mechanical Engineer	1	2		-	
HP18	Principal Mechanical Engineer	2	2		2	
HP17	Senior Mechanical Engineer	4	5		4	
HP15	Associate Mechanical Engineer	4	4		4	
HP14	Assistant Mechanical Engineer	1	1		1	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	1	1		1	
HP12	Engineering Draftsman II #4	1	1		1	
TOTAL	Mechanical Design Section	15	17	2,019,504.59	14	1,602,407.32
546	Electrical Design Section					
HP20	Managing Electrical Engineer	1	1		1	
HP18	Principal Electrical Engineer	2	2		2	
HP17	Senior Electrical Engineer	5	5		5	
HP15	Associate Electrical Engineer	5	5		5	
HP14	Assistant Electrical Engineer	2	1		1	
HP13	Engineering Draftsman III	-	1		1	
HP13	Engineering Draftsman III #4	1	-		-	
HP12	Engineering Draftsman II	2	2		2	
TOTAL	Electrical Design Section	18	17	2,002,549.50	17	2,061,162.13
547	Structural / Architectural Design Section					
HP20	Managing Structural Engineer	1	1		1	
HP18	Principal Architect	1	1		1	
HP18	Principal Structural Engineer	2	2		2	
HP17	Senior Architect	2	2		2	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Structural Engineer	3	3		3	
HP15	Associate Architect	3	3		3	
HP15	Associate Structural Engineer	2	2		2	
HP14	Assistant Structural Engineer	3	3		3	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II #4	1	1		-	
TOTAL	Structural / Architectural Design Section	19	19	2,149,368.69	18	2,080,466.61
TOTAL	Process Facilities Design Division	83	86	10,069,267.35	82	9,804,505.48
550	Construction Division					
551	Administrative Section					
HP22	Assistant Director of Engineering	1	1		1	
HP11	Administrative Specialist	2	1		1	
TOTAL	Administrative Section	3	2	295,237.50	2	301,142.30
555	Program Management Section					
HP20	Managing Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	1	-		-	
HP17	Senior Electrical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	2		2	
HP14	Assistant Civil Engineer	1	1		1	
HP14	Assistant Mechanical Engineer	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Program Management Section	7	7	815,304.96	7	826,463.18
556	Construction Field Services Section					
HP20	Managing Civil Engineer	1	1		1	
HP20	Managing Mechanical Engineer	-	-		1	
HP18	Principal Civil Engineer	4	4		4	
HP18	Principal Electrical Engineer	3	3		2	
HP17	Senior Civil Engineer	10	10		10	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Electrical Engineer	3	3		3	
HP17	Senior Mechanical Engineer	2	2		2	
HP15	Associate Civil Engineer	11	11		11	
HP15	Associate Civil Engineer #2 (Engineering Technician V) (New Grade HP14)	-	1		-	
HP15	Associate Electrical Engineer	3	3		3	
HP15	Associate Mechanical Engineer	2	4		4	
HP15	Associate Structural Engineer	1	1		1	
HP14	Assistant Civil Engineer	7	5		4	
HP14	Assistant Electrical Engineer	2	2		2	
HP14	Assistant Mechanical Engineer	1	1		1	
HP14	Engineering Technician V	12	12		11	
HP14	Engineering Technician V #4	3	3		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP12	Engineering Technician IV	9	9		9	
HP12	Engineering Technician IV #4	1	1		1	
HP11	Administrative Specialist	1	-		-	
HP11	Engineering Technician III	6	7		10	
TOTAL	Construction Field Services Section	83	84	8,738,414.36	83	8,763,580.88
TOTAL	Construction Division	93	93	9,848,956.82	92	9,891,186.36
TOTAL	Engineering	242	246	27,312,461.95	242	27,123,550.35
TOTAL	Stormwater Management Fund Positions	(*32)	(*30)		(*30)	

Note: Thirty 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 532 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.

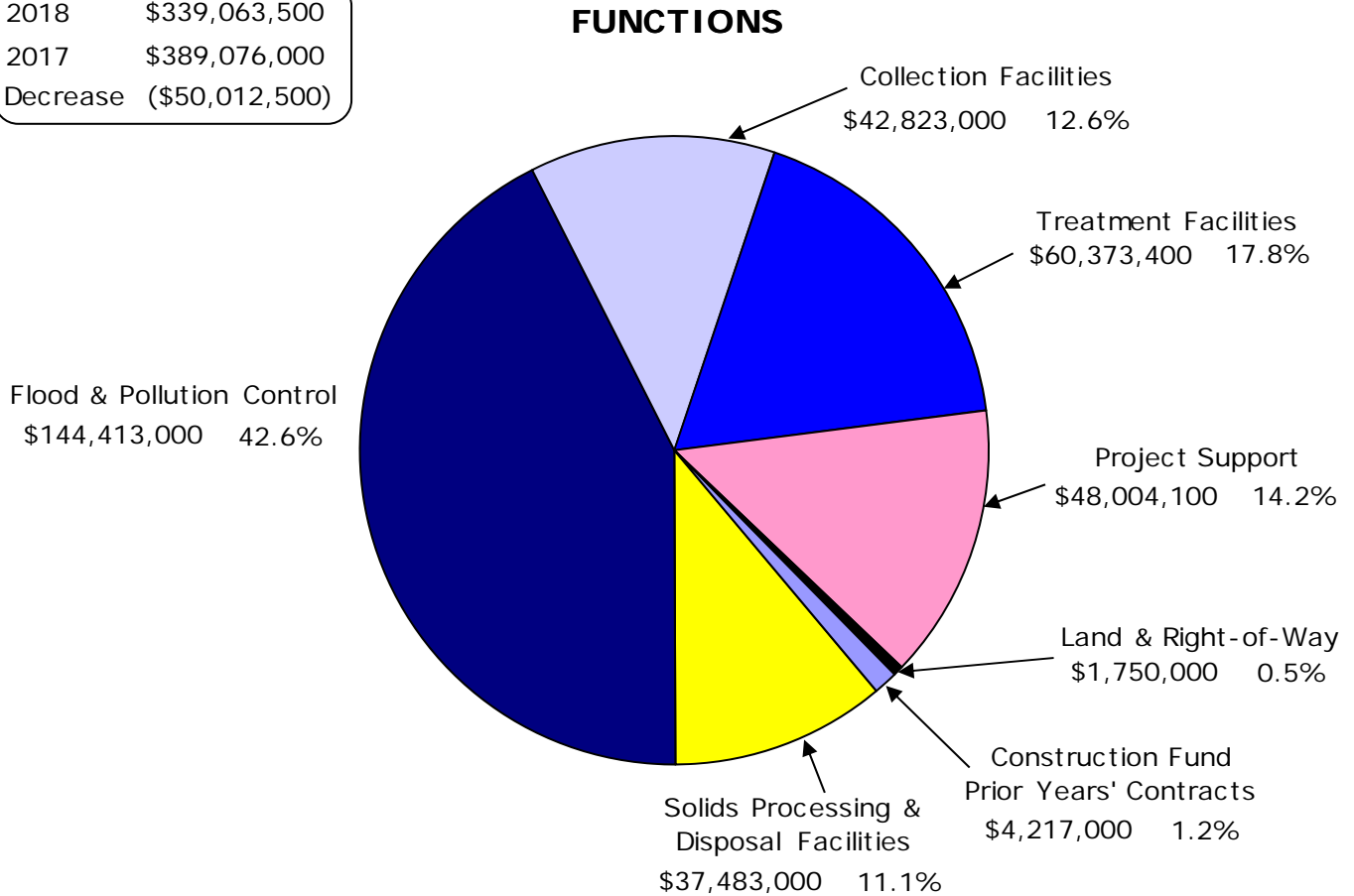
The narrative discussion of the District's 2018 Capital Improvement Program places the 2018 program within the context of our long-range plan. Information is provided on the levels of funding in 2018 and in the future. The graphs, charts, figures, and descriptions of the Construction Fund and Capital 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 2018 is presented in the Capital Improvement Program narrative.

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Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

CAPITAL IMPROVEMENT PROGRAM CONSTRUCTION AND CAPITAL IMPROVEMENTS BOND FUNDS

2018	\$339,063,500
2017	\$389,076,000
Decrease	(\$50,012,500)



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 and the Illinois Environmental Protection Agency, and pursuing funding for capital projects from the Army Corps of Engineers.

Budget Highlights

The 2018 Capital Improvement Program (Construction and Capital Improvements Bond Funds) totals \$339,063,500, a decrease of \$50,012,500, or 12.9 percent, from 2017. The decrease is primarily due to the decrease in the total value of capital projects budgeted in 2018. A total of 169 projects funded by the Construction or Capital Improvements Bond Funds will be under planning, design, or construction in 2018. There are three streambank stabilization projects, three reservoir projects, and three flood-prone property acquisition projects that are planned for award in 2018 under the Stormwater Management Program. There are no staff positions budgeted in the Construction and Capital Improvements Bond Funds.

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 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.

Governmental Accounting Standards Board 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 funds 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 and 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 United States Environmental Protection Agency implemented the State Revolving Fund (SRF) 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, but preserves a high degree of flexibility for operating 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 project cost to be borne by the District. The District continues to aggressively pursue federal and state funding to minimize the impact on our constituency. Low-interest SRF loans are 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 between \$50 to \$200 million annually in SRF loans through 2022.

Operating Cost Impacts of Capital Improvement Projects

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. For example, the aeration tanks air valves automation in batteries at the Stickney Water Reclamation Plant are cost effective improvements. Finer tune automation is required to enhance the biological phosphorus removal process. Implementation of finer tune automation also reduces air demand by five to seven percent, saving approximately \$600,000 in electrical energy annually.

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 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 previously discussed, projects must be built to meet regulatory requirements, but they may also be built to obtain operating efficiencies, provide a safer operating environment, or to 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 2018 overall Capital Improvement Program includes 2018 project awards, program support, and projects under construction, with a total estimated construction cost of approximately \$981.4 million. A breakdown of these projects (in millions of dollars) is as follows:

2018 project awards	\$ 289.8
2018 program support (project support and land)	49.8
Projects currently under construction (award value)	<u>641.8</u>
Total	\$ 981.4

◆ A breakdown of projects scheduled for 2018 award by fund is as follows:

Construction Fund projects	\$ 14.6
Capital Improvements Bond Fund projects	<u>275.2</u>
Total	\$ 289.8

◆ A breakdown of projects under construction (award value) by fund is as follows:

Construction Fund projects	\$ 16.6
Capital Improvements Bond Fund projects	<u>625.2</u>
Total	\$ 641.8

10-YEAR CAPITAL IMPROVEMENT PROGRAM SUMMARY

2013 - 2022 CAPITAL PROJECT CONSTRUCTION COST

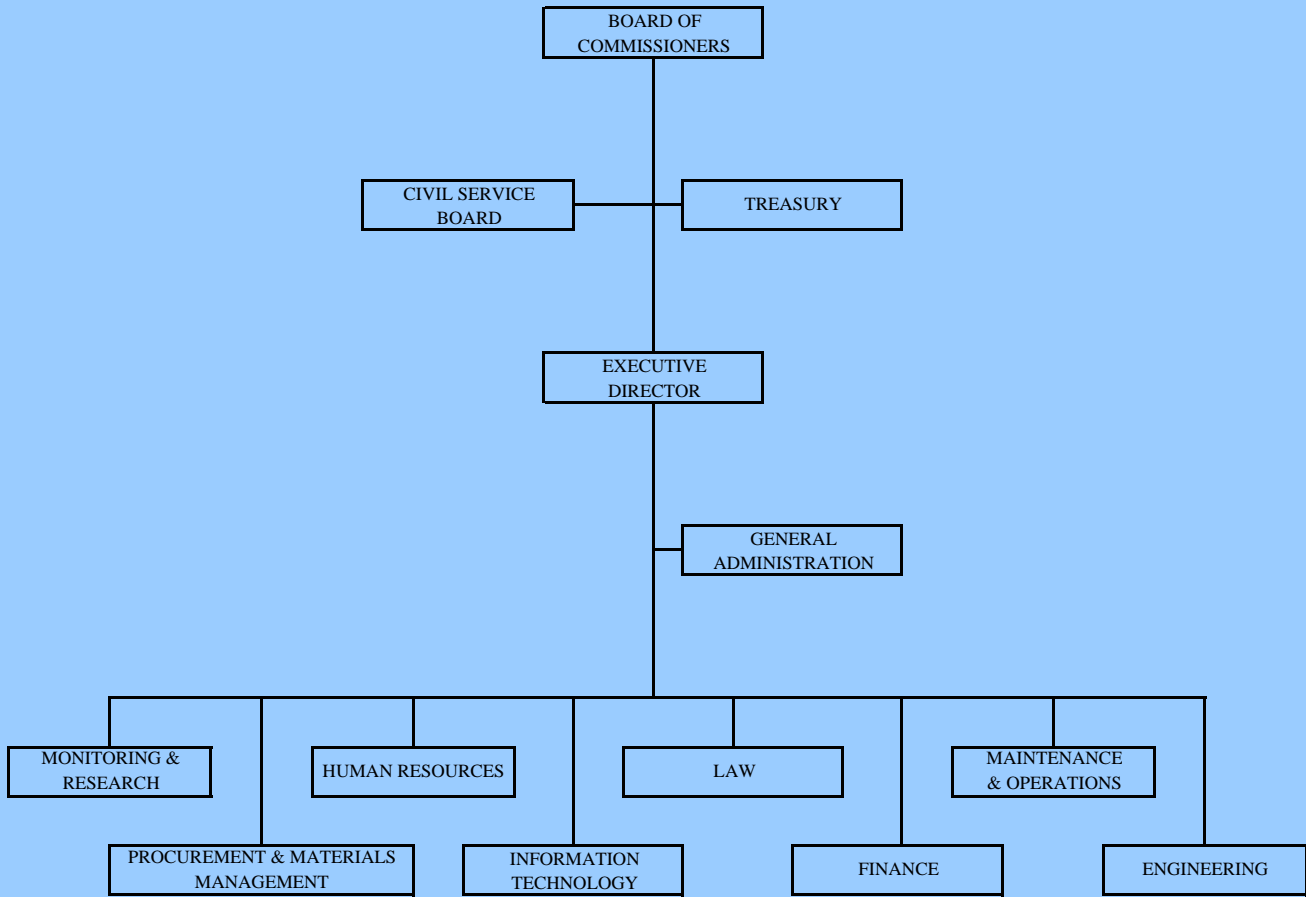
	ACTUAL CASH DISBURSEMENTS					ESTIMATED CASH DISBURSEMENTS					TOTAL
	2013	2014	2015	2016	2017*	2018	2019	2020	2021	2022	DISBURSE- MENTS
											2013-2022
BY CATEGORY											
Water Reclamation Plants and Solids Management	\$51.54	\$65.99	\$144.40	\$107.01	\$67.65	\$67.10	\$48.04	\$61.75	\$51.95	\$57.20	\$722.63
Replacement of Facilities	31.77	40.17	26.65	36.98	53.61	39.40	32.94	38.97	20.87	33.04	\$354.40
Collection Facilities	32.32	44.66	14.94	25.51	11.34	4.08	7.89	6.75	14.30	8.25	\$170.04
Stormwater Management	19.37	5.27	5.85	7.49	20.06	34.00	126.66	123.31	39.23	80.79	\$462.03
Tunnel and Reservoir Plan	35.99	37.49	75.18	47.68	51.46	27.80	23.63	20.65	103.60	43.92	\$467.40
TOTAL	\$170.99	\$193.58	\$267.02	\$224.67	\$204.12	\$172.38	\$239.16	\$251.43	\$229.95	\$223.20	\$2,176.50
BY FUND											
Stormwater Management Fund	\$19.37	\$5.27	\$5.00	\$6.34	\$10.99	\$2.67	\$26.58	\$23.56	\$21.16	\$18.49	\$139.43
Construction Fund	10.78	16.57	13.34	13.47	6.69	9.60	6.17	2.14	0.60	4.60	\$83.96
Capital Improvements Bond Fund	140.84	171.74	248.68	204.86	186.44	160.11	206.41	225.73	208.19	200.11	\$1,953.11
TOTAL	\$170.99	\$193.58	\$267.02	\$224.67	\$204.12	\$172.38	\$239.16	\$251.43	\$229.95	\$223.20	\$2,176.50

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.

3. Final year estimate is based upon the average of the previous four years.

* 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 a pay-as-you-go capital fund and is funded primarily by property taxes.

Summary of 2017 Accomplishments

Significant accomplishments include:

- Completed the upgrade of the Foxboro input/output modules for the distributed control system at the Calumet Water Reclamation Plant (WRP). The system is an integral component of the wastewater treatment process in the Calumet Service Area (CSA);
- Installed and tested a pilot fine screen at the Kirie WRP with the purpose of finding a suitable replacement for the aging fine screens and improving secondary treatment. Based on the successful results, additional fine screens of this type will be installed in the future;
- Continued work on the membrane gas holder and digester cleaning project at the Egan WRP;
- Replaced a storm pump at the Deerfield Reservoir to ensure the reservoir has maximum dewatering capabilities and to reduce the risk of flooding;
- Completed the rehabilitation of the hydraulic operator on Tunnel and Reservoir Plan Gate Structure 1 in the CSA. The gate is critical to isolating the Torrence Avenue leg of the Calumet Tunnel and Reservoir Plan system, protecting the service area from flooding, and providing a buffer to prevent combined sewer overflows into Lake Michigan;
- Installed a high-speed turbo blower at the Lemont WRP with an anticipated 25 percent reduction in electrical costs;
- Procured a benchtop fermenter system for the Monitoring & Research Department at the Stickney WRP, which can be used for the conceptual design and implementation of critical processes such as enhanced biological phosphorus removal;
- Continued to pilot test mainstream shortcut biological nitrogen removal approaches for low-energy nitrogen removal at the O'Brien WRP;
- Initiated a research study on a flow-through photobioreactor with floating media for phosphorus removal using algae treatment at the O'Brien WRP;
- Installed the second generation revolving algae biofilm reactor at the O'Brien WRP's Algae Research Facility and commenced a one-year feasibility and performance study for nutrient removal processes;
- Completed the energy conservation project for the installation of new boilers at the 125th Street Pumping Station in the CSA;
- Completed the renovation of the existing parking lot at the Egan WRP with a new permeable parking lot. The permeable pavement will provide several green benefits, including improved water quality, ground water recharge, and delayed discharge of stormwater into the receiving waterway;
- Awarded contracts to perform phosphorus removal feasibility studies at the Kirie, Egan, Hanover Park, and Lemont WRPs;
- Awarded a contract to evaluate odor control strategies for various process areas at the Egan and O'Brien WRPs;
- Upgraded outdated network equipment at the Main Office Building Complex for improved performance related to volume, speed, and security;
- Completed the database consolidation project to combine standalone databases into a central database server, which allows the Information Technology Department to focus its support efforts on a single standardized database platform;
- Awarded a contract for television inspection and recording of sewers and manholes at various locations to update condition assessments and prioritize repair and rehabilitation work;
- Continued renovating the first floor of the General Administration Building at the Calumet WRP to accommodate the needs of the Industrial Waste Division in the Monitoring & Research Department and the Construction Division in the Engineering Department.

Budget Highlights

The 2018 appropriation for the Construction Fund is \$26,080,600, a decrease of \$8,369,800, or 24.3 percent, from 2017. There are no staff positions budgeted in the Construction Fund. The 2018 value of the Construction Fund Program includes \$4,217,000 for projects under construction, \$13,092,000 for projects scheduled for award in 2018, and \$2,150,000 for pilot projects under development related to agriculture, alternate digestion processes, and phosphorus recovery. An additional \$6,621,600 is appropriated for purposes not specifically associated with listed project costs, including \$5,129,000 for professional engineering services in connection with initiatives sponsored by the Engineering and Monitoring & Research Departments, \$900,000 for replacement fleet vehicles, \$342,600 for contract contingencies, \$200,000 for the purchase of capital machinery and equipment, and \$50,000 for service fees associated with pilot test programs for odor monitoring.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• Add Value

- Implement the Strategic Business Plan (SBP) strategy of adhering to project timeframes by taking maximum advantage of the skills and talents of the District's in-house trades;
- Satisfy customer expectations, a core principle of the SBP, by using the Construction Fund to rehabilitate and improve facilities to ensure the long-term viability of assets;
- Use the District's real estate holdings, a strategy identified in the SBP, to explore opportunities to revitalize the environment. In 2018, two drainage water management systems and three denitrifying bioreactor systems, covering 82 acres of farmland at the District's Prairie Plan Site in Fulton County, Illinois will be installed. The systems are part of a demonstration project for recapture of nutrient runoff to enhance watershed health;
- Continue to implement the District's Odor Reduction Strategy through the evaluation of the various technologies available for wastewater odor control and through the purchase of odor monitoring equipment.

• Excellence

- Adhere to an asset maintenance schedule with the goal of reducing emergency sewer collapses and sludge line breaks and the high costs associated with them;
- Continue to prioritize projects to ensure the best use of current spending. In 2018, 53 new projects have been added to the Construction Fund project schedule based on their alignment with the SBP. The projects are vetted and approved using criteria specified in the SBP, including the ability to produce results, deliver services, and demonstrate financial soundness;
- Operate with the sense of urgency described in the SBP by establishing excellence in maintenance and operations. The Maintenance & Operations Department's Asset Management Section has identified 30 Construction Fund projects for 2018 related to collection, treatment, flood and pollution control, and solids disposal, which are the core programs and functions of the department;
- Continue to pursue research programs focused on addressing impending or anticipated future regulatory actions, achieving energy neutrality and resource recovery, or generating cost savings.

• Resource Recovery

The Capital Improvement Program is essential to achieving the goals of the SBP. This is especially true for Resource Recovery with its broad vision and reliance, in many cases, on new processes and equipment. In 2018, a variety of projects related to Resource Recovery – water, energy, phosphorus, and biosolids – are included in the Construction Fund.

- Complete the rehabilitation of the digester gas turbine at the Stickney WRP. Digester gas will be consumed in the combustor of a three-megawatt electric generator, and the generated electricity will be delivered back to the grid and distributed throughout the plant, resulting in reduced electrical demand;
- Continue research projects utilizing algae technology for the recovery of phosphorus and nitrogen from wastewater;
- Continue phosphorus removal feasibility studies for the Egan, Hanover Park, Lemont, and Kirie WRPs;
- Improve and expand the biosolids composting operation by acquiring composting equipment, including one screener for the Calumet Solids Management Area and one wheel loader for the Lawndale Avenue Solids Management Area, and installing a bulk storage dome at the Harlem Avenue Solids Management Area to protect ready-to-ship compost. Projects like these are directly aligned with the SBP strategy of establishing a sustainable commercial biosolids market within the District's service area.

• Leading Partnerships

- Under an Intergovernmental Agreement with the United States Geological Survey, operate a “multi-parameter, water-quality superstation” for real-time monitoring and data transmission of water conditions at Route 53 in the Des Plaines River, near Joliet. The data will be used by the Chicago Area Waterway System Nutrient Oversight Committee to develop and inform nutrient implementation plans, as described in the National Pollutant Discharge Elimination System permits for the Calumet, O'Brien, and Calumet WRPs. The station will be operated and maintained through federal fiscal year 2021. Agreements like this one support the SBP, which encourages the development of strategic relationships and the promotion of the District as an influential leader in the water industry.

• Technology

The technology projects that appear in the 2018 Construction Fund support the SBP goal of delivering data and information that is reliable and useful and that can be used to make sound decisions and navigate toward successful outcomes.

- Upgrade the voicemail hardware in the Calumet, North, and Stickney Service Areas into a consolidated virtual environment, which will generate cost savings in terms of reduced maintenance and equipment replacement, improve management flexibility and scalability, and execute the SBP strategy of providing reliable system services to every user;
- Develop plans to construct and operate a pilot unit of the MicroNiche™ technology, which is a suite of products that target specific pollutants for removal by way of biocatalysts that are self-contained stable communities of mature organisms. The unit will be located at the O'Brien WRP, where the operating conditions can provide a rigorous test of the technology. The project will be undertaken with the goals of achieving effluent standards with respect to the future O'Brien WRP's National Pollutant Discharge Elimination System permit, quantifying anticipated reductions in operating costs and solids production, and establishing parameters to assess the feasibility and economics of a full-scale application. This project reflects the SBP concept of embracing new technology as a means of advancing the District's mission.

Construction Fund Program

<u>Projects Under Construction</u>			Est.	MWRD		Award
#	Project Name	Project Number	Construc- tion Cost	2018 Appro- piation	Dura- tion (days)	/ Est. Award Date
1	FD&I New Tank Drives, LWRP	14-806-21	\$ 1,132	\$ 160	1,365	Sep-14
2	Membrane Gas Holder Replacement and Digester Cleaning, EWRP	11-403-2P	5,757	337	1,182	Nov-14
3	Parking Lot Replacement, EWRP	14-714-21	1,462	63	853	Oct-15
4	Rehabilitate the Digester Gas Turbine, SWRP	15-913-21	2,038	293	695	May-16
5	Industrial Waste Division and Construction Office Renovation, CWRP	16-268-2V	2,546	1,269	621	Nov-16
6	Applicant Management and Tracking, Onboarding, and Performance Management Systems	16-RFP-02	147	99	590	Nov-16
7	FD&I Upgraded Vacuum System at the 95th Street Pumping Station, CSA	16-806-21	286	86	407	Apr-17
8	F&D Stake Body Truck and Dump Truck, NSA	17-703-21	265	164	288	Jun-17
9	Recondition Raw Sewage Pump Motor No. 3, KWRP	17-710-21	127	110	243	Aug-17
10	Automated CAFR and Budget Solution	17-RFP-22	25	10	167	Sep-17
11	Television Inspection and Recording of Sewers and Manholes, District-wide	13-806-2S	1,944	800	1,080	Oct-17
12	FD&I Upgraded Coarse Screen Conveyor System at the North Branch Pumping Station, NSA	16-704-21	201	201	400	Oct-17
13	Rehabilitate One Raw Sewage Pump Rotating Assembly, OWRP	17-705-21	178	178	424	Nov-17
14	FD&I Boiler for Equipment Garage, CWRP	16-805-21	166	166	270	Dec-17
15	F&D Enhanced Bio-P Control Equipment, KWRP	17-609-21	165	165	60	Dec-17
16	F&D Uninterruptible Power Supplies, KWRP and EWRP	17-611-21	66	66	40	Dec-17
17	Local Sewer System Section Permit Database	17-RFP-09	50	50	365	Dec-17
Total Projects Under Construction			\$ 16,555	\$ 4,217		
<u>Awards in 2018</u>			Est.	MWRD		Est.
#	Project Name	Project Number	Construc- tion Cost	2018 Appro- piation	Dura- tion (days)	Award Date
1	F&D Six Grit Pumps, CWRP	16-810-21	\$ 102	\$ 102	347	Jan-18
2	F&D Two Air Lift Blowers, EWRP	17-704-21	150	150	107	Jan-18
3	Employee Benefits Software	17-RFP-37	75	75	364	Jan-18
4	F&D Fine Screens, Grit Classifier, and Screw Conveyors, HPWRP and SWRP	18-608-21	580	580	180	Jan-18
5	Rehabilitation of Blower No. 9, CWRP	18-803-21	450	450	364	Jan-18
6	Paint and Carpet Replacement, MOB	J15090-068	425	425	119	Jan-18
7	Enhancements to WorkForce System	MWD0000003FI	50	50	88	Jan-18
8	FD&I Fire Detection Systems, Various Locations	18-604-21	560	560	333	Feb-18
9	F&D Station Batteries, Various Locations	18-605-21	275	275	272	Feb-18
10	F&D Bio-P Control Equipment, NSA	18-702-21	70	70	333	Feb-18
11	F&D Turbo Blower for Process Air, HPWRP	18-705-21	185	185	211	Feb-18
12	F&D Motor Excitation Control Equipment, SWRP	18-901-21	290	290	319	Feb-18
13	Recondition Circuit Breakers, SSA	18-914-21	200	200	258	Feb-18
14	Installation of Drain Tile and Bioreactors, Fulton County	16-605-21	150	150	305	Mar-18
15	Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	16-708-21	600	600	305	Mar-18

<u>Awards in 2018 (continued)</u>			Est.	MWRD		Est.
#	Project Name	Project Number	Construc- tion Cost	2018 Appro- piation	Dura- tion (days)	Award Date
16	Microvi Pilot, OWRP	18-180-21	\$ 250	\$ 250	305	Mar-18
17	F&D Submersible Pump, CSA	18-601-21	200	200	91	Mar-18
18	F&D Hydraulic Submersible Pump, EWRP	18-703-21	50	50	152	Mar-18
19	FD&I Influent Gate Actuators, OWRP	18-708-21	200	200	150	Mar-18
20	Rehabilitation of Elevators, MOB	J15090-054	400	400	152	Mar-18
21	Replace Air Conditioning Unit at Waterways Control Center, MOB	J15090-065	20	20	121	Mar-18
22	Performance Management Software	MWD0000007HR	25	25	213	Mar-18
23	Network Communication Switches	MWD0000015IT	406	406	305	Mar-18
24	F&D Programmable Logic Controllers, Chicago River Controlling Works	17-602-21	90	90	274	Apr-18
25	FD&I Headrace Handrail, Guardrail, and Fence, LPH	17-604-21	50	50	121	Apr-18
26	Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	18-610-21	825	400	730	Apr-18
27	HVAC Equipment Replacement, Various Locations	18-611-21	1,350	875	639	Apr-18
28	Roof Replacement, HPWRP	18-707-21	490	490	274	Apr-18
29	F&D Four Scum Pumps, SWRP	18-902-21	100	100	152	Apr-18
30	F&D Stainless Steel Tandem Tanker Trailer, SWRP	18-904-21	70	70	274	Apr-18
31	F&D Submersible Slurry Gate Pumping System, SWRP	18-905-21	75	75	274	Apr-18
32	Replace Media in Cooling Towers, SWRP	18-910-21	110	110	213	Apr-18
33	FD&I Louvers for TARP Drop Shafts, SSA	18-911-21	500	500	213	Apr-18
34	Skylight Replacement, SWRP	18-912-21	400	400	274	Apr-18
35	Roof Life Extension, MOB	J15090-064	250	250	121	Apr-18
36	Avaya Telecom Project	MWD0000013IT	164	164	274	Apr-18
37	F&D Interoperable Distributed Control System Workstations and TARP Controllers, Various Locations	17-901-21	125	125	244	May-18
38	Rehabilitation of the Overhead Bridge Crane, SSA	18-906-21	240	240	244	May-18
39	Renovate Bathroom Stalls, MOBC	J15090-069	190	190	152	May-18
40	F&D Rubber Tire Excavator/Backhoe, LASMA	18-602-21	225	225	213	Jun-18
41	FD&I Spring-Loaded Covers, NSA	18-603-21	75	75	152	Jun-18
42	F&D Screener, CALSMA	18-606-21	400	400	213	Jun-18
43	F&D Wheel Loader, LASMA	18-607-21	350	350	213	Jun-18
44	FD&I Storage Dome for Biosolids, HASMA	18-609-21	350	350	213	Jun-18
45	Replacement of Railroad Grade Crossings, SSA	18-913-21	475	475	213	Jun-18
46	F&D Two Debris Baskets, KWRP	18-701-21	200	200	183	Jul-18
47	Recondition Raw Sewage Pump Motor No. 1, KWRP	18-704-21	180	100	548	Jul-18
48	FD&I Three Bar Screens, KWRP	18-706-21	750	250	548	Jul-18
49	FD&I Grit Screw Conveyor, CWRP	18-802-21	300	300	262	Jul-18
50	F&D Fire Alarm System Fiber Optic Cable, SWRP	18-903-21	25	25	183	Jul-18
51	Auditorium Improvements at the Stickney Lab, SWRP	18-181-21	125	125	151	Aug-18
52	Bathroom Improvements at the Stickney Lab, SWRP	18-182-21	250	250	151	Aug-18
53	HVAC Improvements at the Stickney Lab, SWRP	18-183-21	125	125	151	Aug-18
Total 2018 Awards			\$ 14,572	\$ 13,092		
Cumulative Projects Under Construction and 2018 Awards			\$ 31,127	\$ 17,309		

Projects Under Development

#	Project Name	Project Number	Est. Construction Cost	Duration (days)	Award / Est. Award Date
54	Agriculture Pilot Projects	To be determined	\$ 2,000	TBD	TBD
55	Alternate Digestion Pilot Program	To be determined	75	TBD	TBD
56	Phosphorus Recovery Pilot Program	To be determined	75	TBD	TBD
Total Future Awards			<u>\$ 2,150</u>		
Cumulative Projects Under Construction, 2018 Awards, and Future Awards			<u>\$ 33,277</u>		

Note: All cost figures are in thousands of dollars.

Construction Fund Program Operating Impacts

#	Project Name	Project Number	Justification				Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical
Projects Under Construction									
1	FD&I New Tank Drives, LWRP	14-806-21		x		x	=	+	=
2	Membrane Gas Holder Replacement and Digester Cleaning, EWRP	11-403-2P		x			=	+	=
3	Parking Lot Replacement, EWRP	14-714-21		x		x	=	=	=
4	Rehabilitate the Digester Gas Turbine, SWRP	15-913-21			x		=	++	=
5	Industrial Waste Division and Construction Office Renovation, CWRP	16-268-2V	x			x	=	=	=
6	Applicant Management and Tracking, Onboarding, and Performance Management Systems	16-RFP-02			x		=	=	=
7	FD&I Upgraded Vacuum System at the 95th Street Pumping Station, CSA	16-806-21		x			=	=	=
8	F&D Stake Body Truck and Dump Truck, NSA	17-703-21		x			=	=	=
9	Recondition Raw Sewage Pump Motor No. 3, KWRP	17-710-21		x		x	=	=	=
10	Automated CAFR and Budget Solution	17-RFP-22			x		=	=	=
11	Television Inspection and Recording of Sewers and Manholes, District-wide	13-806-2S		x		x	=	=	=
12	FD&I Upgraded Coarse Screen Conveyor System at the North Branch Pumping Station, NSA	16-704-21		x			=	=	=
13	Rehabilitate One Raw Sewage Pump Rotating Assembly, OWRP	17-705-21		x		x	=	=	=
14	FD&I Boiler for Equipment Garage, CWRP	16-805-21		x			=	=	=
15	F&D Enhanced Bio-P Control Equipment, KWRP	17-609-21				x	-	-	-
16	F&D Uninterruptible Power Supplies, KWRP and EWRP	17-611-21		x		x	++	=	=
17	Local Sewer System Section Permit Database	17-RFP-09		x	x	x	+	=	=
Awards in 2018									
1	F&D Six Grit Pumps, CWRP	16-810-21		x			+	=	=
2	F&D Two Air Lift Blowers, EWRP	17-704-21			x		=	+	=
3	Employee Benefits Software	17-RFP-37	x			x	=	=	=
4	F&D Fine Screens, Grit Classifier, and Screw Conveyors, HPWRP and SWRP	18-608-21		x			+	=	=
5	Rehabilitation of Blower No. 9, CWRP	18-803-21	x				=	+	=
6	Paint and Carpet Replacement, MOB	J15090-068		x			=	=	=
7	Enhancements to WorkForce System	MWD0000003FI			x		++	=	=
8	FD&I Fire Detection Systems, Various Locations	18-604-21		x		x	=	=	=
9	F&D Station Batteries, Various Locations	18-605-21			x		=	+	=
10	F&D Bio-P Control Equipment, NSA	18-702-21				x	-	-	-
11	F&D Turbo Blower for Process Air, HPWRP	18-705-21		x	x		+	-	-
12	F&D Motor Excitation Control Equipment, SWRP	18-901-21		x			=	=	=
13	Recondition Circuit Breakers, SSA	18-914-21		x			+	=	=
14	Installation of Drain Tile and Bioreactors, Fulton County	16-605-21				x	=	=	=
15	Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	16-708-21		x	x	x	+	-	-
16	Microvi Pilot, OWRP	18-180-21	x	x	x	x	=	++	+
17	F&D Submersible Pump, CSA	18-601-21	x			x	=	=	=
18	F&D Hydraulic Submersible Pump, EWRP	18-703-21	x			x	+	=	=
19	FD&I Influent Gate Actuators, OWRP	18-708-21			x		+	=	=
20	Rehabilitation of Elevators, MOB	J15090-054		x		x	=	=	=

<u>Construction Fund Operating Impacts for Awards in 2018 (continued)</u>		Justification				Impact			
		Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical	
#	Project Name	Project Number							
21	Replace Air Conditioning Unit at Waterways Control Center, MOB	J15090-065		x			+	+	=
22	Performance Management Software	MWD0000007HR			x		=	=	=
23	Network Communication Switches	MWD0000015IT	x	x	x		=	=	=
24	F&D Programmable Logic Controllers, Chicago River Controlling Works	17-602-21		x			=	=	=
25	FD&I Headrace Handrail, Guardrail, and Fence, LPH	17-604-21				x	=	=	=
26	Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	18-610-21		x		x	=	=	=
27	HVAC Equipment Replacement, Various Locations	18-611-21		x			+	=	=
28	Roof Replacement, HPWRP	18-707-21		x			+	+	+
29	F&D Four Scum Pumps, SWRP	18-902-21	x				+	=	=
30	F&D Stainless Steel Tandem Tanker Trailer, SWRP	18-904-21		x			=	=	=
31	F&D Submersible Slurry Gate Pumping System, SWRP	18-905-21	x		x		+	=	=
32	Replace Media in Cooling Towers, SWRP	18-910-21		x			=	=	+
33	FD&I Louvers for TARP Drop Shafts, SSA	18-911-21				x	=	=	=
34	Skylight Replacement, SWRP	18-912-21		x		x	=	=	=
35	Roof Life Extension, MOB	J15090-064		x		x	=	=	=
36	Avaya Telecom Project	MWD0000013IT		x	x		=	=	=
37	F&D Interoperable Distributed Control System Workstations and TARP Controllers, Various Locations	17-901-21		x			=	=	=
38	Rehabilitation of the Overhead Bridge Crane, SSA	18-906-21		x			+	=	=
39	Renovate Bathroom Stalls, MOBC	J15090-069		x			=	=	=
40	F&D Rubber Tire Excavator/Backhoe, LASMA	18-602-21		x		x	=	=	=
41	FD&I Spring-Loaded Covers, NSA	18-603-21				x	=	=	=
42	F&D Screener, CALSMA	18-606-21			x		=	=	=
43	F&D Wheel Loader, LASMA	18-607-21	x	x			=	=	=
44	FD&I Storage Dome for Biosolids, HASMA	18-609-21			x		=	=	=
45	Replacement of Railroad Grade Crossings, SSA	18-913-21				x	+	=	=
46	F&D Two Debris Baskets, KWRP	18-701-21		x	x		+	-	-
47	Recondition Raw Sewage Pump Motor No. 1, KWRP	18-704-21		x		x	=	=	=
48	FD&I Three Bar Screens, KWRP	18-706-21	x		x	x	=	+	=
49	FD&I Grit Screw Conveyor, CWRP	18-802-21		x	x		++	=	=
50	F&D Fire Alarm System Fiber Optic Cable, SWRP	18-903-21				x	=	=	=
51	Auditorium Improvements at the Stickney Lab, SWRP	18-181-21		x		x	=	=	=
52	Bathroom Improvements at the Stickney Lab, SWRP	18-182-21	x	x		x	=	=	=
53	HVAC Improvements at the Stickney Lab, SWRP	18-183-21		x		x	=	=	=
<u>Projects Under Development</u>									
54	Agriculture Pilot Projects	To be determined			x		=	=	=
55	Alternate Digestion Pilot Program	To be determined			x		=	++	=
56	Phosphorus Recovery Pilot Program	To be determined			x	x	=	-	--

See legend on following page.

LEGEND

Under "**Justification**," the marked columns note the categories of benefits expected from each project.

	Manpower	
+ 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.
	Energy	
+ 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.
	Chemical	
+ 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.		

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, for 2018 award, or under development.

**STICKNEY
SERVICE
AREA (SSA)**



Stickney Water Reclamation Plant (SWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
13-806-2S	Television Inspection and Recording of Sewers and Manholes, District-wide (9/2020)	\$ 1,944,000
15-913-21	Rehabilitate the Digester Gas Turbine, SWRP (3/2018)	2,038,000
16-RFP-02	Applicant Management and Tracking, Onboarding, and Performance Management Systems (6/2018)	147,000
17-RFP-09	Local Sewer System Section Permit Database (12/2018)	50,000
17-RFP-22	Automated CAFR and Budget Solution (2/2018)	25,000
	Total	\$ 4,204,000

Projects for 2018 Award

17-602-21	F&D Programmable Logic Controllers, Chicago River Controlling Works	\$ 90,000
17-604-21	FD&I Headrace Handrail, Guardrail, and Fence, LPH	50,000
17-901-21	F&D Interoperable Distributed Control System Workstations and TARP Controllers, Various Locations	125,000
17-RFP-37	Employee Benefits Software	75,000
18-181-21	Auditorium Improvements at the Stickney Lab, SWRP	125,000
18-182-21	Bathroom Improvements at the Stickney Lab, SWRP	250,000
18-183-21	HVAC Improvements at the Stickney Lab, SWRP	125,000
18-602-21	F&D Rubber Tire Excavator/Backhoe, LASMA	225,000
18-604-21	FD&I Fire Detection Systems, Various Locations	560,000
18-605-21	F&D Station Batteries, Various Locations	275,000
18-607-21	F&D Wheel Loader, LASMA	350,000
18-609-21	FD&I Storage Dome for Biosolids, HASMA	350,000
18-610-21	Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	825,000
18-901-21	F&D Motor Excitation Control Equipment, SWRP	290,000
18-902-21	F&D Four Scum Pumps, SWRP	100,000
18-903-21	F&D Fire Alarm System Fiber Optic Cable, SWRP	25,000
18-904-21	F&D Stainless Steel Tandem Tanker Trailer, SWRP	70,000
18-905-21	F&D Submersible Slurry Gate Pumping System, SWRP	75,000
18-906-21	Rehabilitation of the Overhead Bridge Crane, SSA	240,000
18-910-21	Replace Media in Cooling Towers, SWRP	110,000

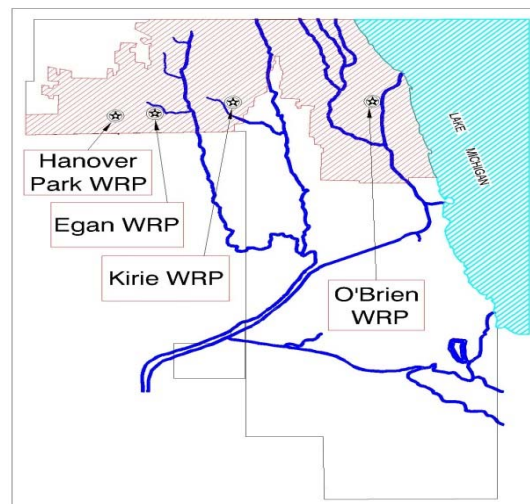
Stickney Water Reclamation Plant (SWRP)**Projects for 2018 Award (continued)**

		Estimated Construction Cost
18-911-21	FD&I Louvers for TARP Drop Shafts, SSA	\$ 500,000
18-912-21	Skylight Replacement, SWRP	400,000
18-913-21	Replacement of Railroad Grade Crossings, SSA	475,000
18-914-21	Recondition Circuit Breakers, SSA	200,000
J15090-054	Rehabilitation of Elevators, MOB	400,000
J15090-064	Roof Life Extension, MOB	250,000
J15090-065	Replace Air Conditioning Unit at Waterways Control Center, MOB	20,000
J15090-068	Paint and Carpet Replacement, MOB	425,000
J15090-069	Renovate Bathroom Stalls, MOBC	190,000
MWD0000003FI	Enhancements to WorkForce System	50,000
MWD0000007HR	Performance Management Software	25,000
MWD0000013IT	Avaya Telecom Project	164,000
MWD0000015IT	Network Communication Switches	406,000
Total		\$ 7,840,000

Projects Under Development

To be determined	Alternate Digestion Pilot Program	\$ 75,000
To be determined	Phosphorus Recovery Pilot Program	75,000
Total		\$ 150,000
Stickney Service Area Grand Total		\$ 12,194,000

NORTH SERVICE AREA (NSA)



Terrence J. O'Brien Water Reclamation Plant (OWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
17-703-21	F&D Stake Body Truck and Dump Truck, NSA (3/2018)	\$ 265,000
17-705-21	Rehabilitate One Raw Sewage Pump Rotating Assembly, OWRP (12/2018)	178,000
Total		\$ 443,000

Projects for 2018 Award

18-180-21	Microvi Pilot, OWRP	\$ 250,000
18-611-21	HVAC Equipment Replacement, Various Locations	1,350,000
18-708-21	FD&I Influent Gate Actuators, OWRP	200,000
Total		\$ 1,800,000

John E. Egan Water Reclamation Plant (EWRP)

Projects Under Construction (with estimated completion dates)

11-403-2P	Membrane Gas Holder Replacement and Digester Cleaning, EWRP (1/2018)	\$ 5,757,000
14-714-21	Parking Lot Replacement, EWRP (1/2018)	1,462,000
Total		\$ 7,219,000

Projects for 2018 Award

17-704-21	F&D Two Air Lift Blowers, EWRP	\$ 150,000
18-703-21	F&D Hydraulic Submersible Pump, EWRP	50,000
Total		\$ 200,000

James C. Kirie Water Reclamation Plant (KWRP)

Projects Under Construction (with estimated completion dates)

16-704-21	FD&I Upgraded Coarse Screen Conveyor System at the North Branch Pumping Station, NSA (11/2018)	\$ 201,000
17-609-21	F&D Enhanced Bio-P Control Equipment, KWRP (2/2018)	165,000
17-611-21	F&D Uninterruptible Power Supplies, KWRP and EWRP (1/2018)	66,000
17-710-21	Recondition Raw Sewage Pump Motor No. 3, KWRP (5/2018)	127,000
Total		\$ 559,000

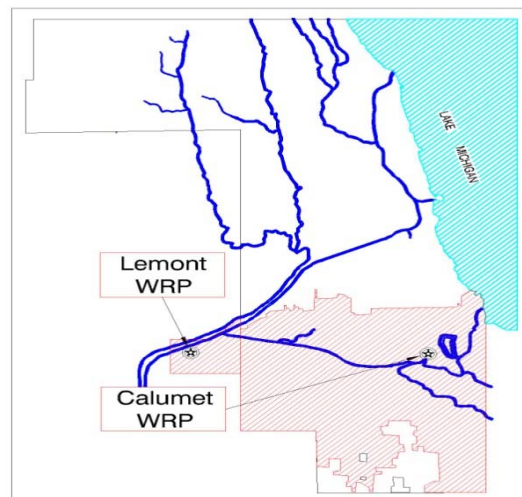
Projects for 2018 Award

16-708-21	Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	\$ 600,000
18-603-21	FD&I Spring-Loaded Covers, NSA	75,000
18-701-21	F&D Two Debris Baskets, KWRP	200,000
18-702-21	F&D Bio-P Control Equipment, NSA	70,000
18-704-21	Recondition Raw Sewage Pump Motor No. 1, KWRP	180,000
18-706-21	FD&I Three Bar Screens, KWRP	750,000
Total		\$ 1,875,000

Hanover Park Water Reclamation Plant (HPWRP)**Projects for 2018 Award**

		Estimated Construction Cost
18-608-21	F&D Fine Screens, Grit Classifier, and Screw Conveyors, HPWRP and SWRP	\$ 580,000
18-705-21	F&D Turbo Blower for Process Air, HPWRP	185,000
18-707-21	Roof Replacement, HPWRP	490,000
		Total \$ <u>1,255,000</u>
North Service Area Grand Total		\$ <u>13,351,000</u>

CALUMET SERVICE AREA (CSA)



Calumet Water Reclamation Plant (CWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
16-268-2V	Industrial Waste Division and Construction Office Renovation, CWRP (7/2018)	\$ 2,546,000
16-805-21	FD&I Boiler for Equipment Garage, CWRP (9/2018)	166,000
16-806-21	FD&I Upgraded Vacuum System at the 95th Street Pumping Station, CSA (6/2018)	286,000
Total		\$ 2,998,000

Projects for 2018 Award

16-605-21	Installation of Drain Tile and Bioreactors, Fulton County	\$ 150,000
16-810-21	F&D Six Grit Pumps, CWRP	102,000
18-601-21	F&D Submersible Pump, CSA	200,000
18-606-21	F&D Screener, CALSMA	400,000
18-802-21	FD&I Grit Screw Conveyor, CWRP	300,000
18-803-21	Rehabilitation of Blower No. 9, CWRP	450,000
Total		\$ 1,602,000

Project Under Development

To be determined	Agriculture Pilot Projects	\$ 2,000,000
Total		\$ 2,000,000

Lemont Water Reclamation Plant (LWRP)

Project Under Construction (with estimated completion date)

14-806-21	FD&I New Tank Drives, LWRP (5/2018)	\$ 1,132,000
Total		\$ 1,132,000

Calumet Service Area Grand Total \$ 7,732,000

Capital Projects Grand Total - All Service Areas \$ 33,277,000

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: \$5,757,000

Contract Award Date: November 2014

Substantial Completion Date: January 2018*



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 trades). 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.

Television Inspection and Recording of Sewers and Manholes, District-wide

Project Number: 13-806-2S

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: National Power Rodding Corporation

Estimated Construction Cost: \$1,944,000

Contract Award Date: October 2017

Substantial Completion Date: September 2020*



Project Description: 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, disposing, and hourly video inspecting services.

Project Justification: The purpose of this project is to determine and monitor the state of the District's existing collection systems infrastructure.

Project Status: This project is in progress.

*Information shown is estimated.

Parking Lot Replacement, EWRP

Project Number: 14-714-21

Service Area: North

Location: Egan WRP

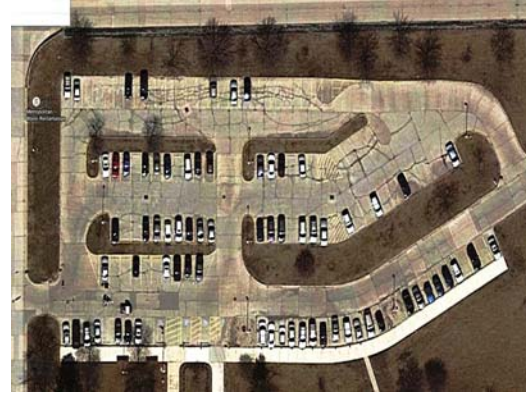
Engineering Consultant: In-house design

General Contractor: Path Construction Company, Inc.

Estimated Construction Cost: \$1,462,000

Contract Award Date: October 2015

Substantial Completion Date: January 2018*



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 in progress.

*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: \$1,132,000

Contract Award Date: September 2014

Substantial Completion Date: May 2018*



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 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: This project is in progress.

*Information shown is estimated.

Rehabilitate the Digester Gas Turbine, SWRP

Project Number: 15-913-21

Service Area: Stickney

Location: Central Heat Facility

Engineering Consultant: In-house design

General Contractor: Electrical Systems, Inc.

Estimated Construction Cost: \$2,038,000

Contract Award Date: May 2016

Substantial Completion Date: March 2018*



Project Description: Furnish, deliver, and install all equipment, materials, and appurtenances necessary to rehabilitate the three-megawatt digester gas turbine at the Stickney WRP's Central Heat Facility.

Project Justification: The purpose of the project is to rehabilitate the dormant digester gas turbine, as well as to install facility hazardous gas and fire detection systems. This project will contribute to the District's strategic goal of Resource Recovery by helping to achieve energy neutrality by 2023 and assisting with becoming more environmentally friendly through the conversion of unused digester gas into useful energy.

Project Status: This project is in progress.

*Information shown is estimated.

Industrial Waste Division and Construction Office Renovation, CWRP

Project Number: 16-268-2V

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: In-house design

General Contractor: Path Construction Company, Inc.

Estimated Construction Cost: \$2,546,000

Contract Award Date: November 2016

Substantial Completion Date: July 2018*



Project Description: The purpose of this project is to remodel the north half of the first floor of the General Administration Building to accommodate the needs of the Monitoring & Research Department's Industrial Waste Division and the Engineering Department's Construction Division. A section of a basement storeroom will be used by the Construction Division to accommodate its Troxler Electronic Laboratories, Inc. equipment. The existing roof on the entire building has reached its useful life and will be replaced.

Six existing trailers with associated accessories will be physically removed because they have reached the end of their useful lives. Utilities to these trailers will be terminated upon their removal.

Existing fume hood exhaust valves will be replaced in the Monitoring & Research Department's Laboratory Building.

Project Justification: Industrial Waste Division and Construction Division staff require updated spaces. The abandoned laboratory areas are to be repurposed for other uses.

Project Status: This project is in progress.

*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

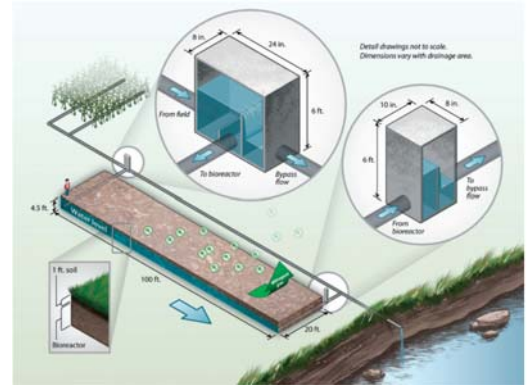
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$150,000

Contract Award Date: March 2018*

Substantial Completion Date: January 2019*



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, covering 82 acres of farmland. 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 strategic goal to add 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 will 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: This project is pending award.

*Information shown is estimated.

Furnish, Deliver, and Install Upgraded Coarse Screen Conveyor System at the North Branch Pumping Station, NSA

Project Number: 16-704-21

Service Area: North

Location: North Branch Pumping Station

Engineering Consultant: In-house design

General Contractor: Brieser Construction Company

Estimated Construction Cost: \$201,000

Contract Award Date: October 2017

Substantial Completion Date: November 2018*



Project Description: This project includes work to furnish, deliver, and install an upgraded coarse screen conveyor system at the North Branch Pumping Station in the North Service Area.

Project Justification: The North Branch Pumping Station's coarse screens remove debris from the incoming sewers to protect critical raw sewage pumps. The coarse screens utilize a conveyor system that was installed approximately 16 years ago to move the screenings to a dumpster. During severe rain events, the existing conveyor system becomes overloaded with debris. This condition, which has led to two drive failures in 2017, results in a build-up of debris, interferes with the operation of the coarse screens, and presents safety concerns as the screenings spill on the floor.

Project Status: This project is in progress.

*Information shown is estimated.

Rehabilitate Gloria Alitto Majewski Reservoir, KWRP

Project Number: 16-708-21

Service Area: North

Location: Gloria Alitto Majewski Reservoir

Engineering Consultant: In-house design and MWH Americas, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$600,000

Contract Award Date: March 2018*

Substantial Completion Date: January 2019*



Project Description: Installation of a process water cleaning system and miscellaneous repairs and rehabilitation of the Gloria Alitto Majewski Reservoir.

Project Justification: This water reuse project/initiative will greatly assist with cleaning the reservoir after fill events. In 2011, the Army Corps of Engineers' reservoir inspection identified many deficiencies with the geomembrane liner and under drainage system. The Engineering Department's Contract 06-363-3D implemented repairs based on the 2011 inspection, and the repairs were completed in 2013. In 2015, a follow-up inspection by the District's Engineering Department determined that the drainage underliner south of intake structure, the liner connection, concrete toe block, and roller compacted concrete are all in need of repair.

Project Status: The project is in development.

*Information shown is estimated.

Furnish, Deliver, and Install Boiler for Equipment Garage, CWRP

Project Number: 16-805-21

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: In-house design

General Contractor: Ideal Heating Company

Estimated Construction Cost: \$166,000

Contract Award Date: December 2017

Substantial Completion Date: September 2018*



Project Description: Furnish, deliver, and install a hot water boiler for the heavy equipment garage at the Calumet WRP.

Project Justification: The new heavy equipment garage at the Calumet WRP houses District equipment such as snow plows, tractors, portable cranes, trailers, and excavators. The garage protects this equipment from inclement weather and freezing conditions, significantly increasing the longevity of the equipment and decreasing the maintenance costs. A boiler is needed to provide hot water for the radiant hydronic heat tubing that was incorporated into the building floor at the time of construction.

The project will supply a cost-effective means to provide heating for the building and allow for the control of air temperature and relative humidity to protect District assets, increase their useful life, and minimize future maintenance costs.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish, Deliver, and Install Upgraded Vacuum System at the 95th Street Pumping Station, CSA

Project Number: 16-806-21

Service Area: Calumet

Location: 95th Street Pumping Station

Engineering Consultant: In-house design

General Contractor: Ornelas Construction Company

Estimated Construction Cost: \$286,000

Contract Award Date: April 2017

Substantial Completion Date: June 2018*



Project Description: Replace problematic equipment and install modern technology to ensure increased reliability of the vacuum priming systems at the 95th Street Pumping Station and reduce the risk of flooding during rain events.

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 caused significant operational difficulties during rain events.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Six Grit Pumps, CWRP

Project Number: 16-810-21

Service Area: Calumet

Location: Calumet WRP's Grit Building

Engineering Consultant: In-house design

General Contractor: Peterson and Matz, Inc.

Estimated Construction Cost: \$102,000

Contract Award Date: January 2018*

Substantial Completion Date: December 2018*



Project Description: Furnish and deliver six submersible grit pumps to the Grit Building at the Calumet WRP.

Project Justification: There are eight submersible aerated grit tanks, each of which uses a submersible grit pump for removing grit. The existing submersible grit pumps are rated at 300 gallons per minute, at 14 feet total dynamic head, and are prone to clogging. Newer submersible grit pumps are rated at 362 gallons per minute, at 17 feet total dynamic head and have been installed in Grit Tank Nos. 1 and 6 with no signs of clogging. Under this project, the remaining small submersible grit pumps will be replaced with the higher performing submersible grit pumps.

Project Status: This project is pending award.

*Information shown is estimated.

Applicant Management and Tracking, Onboarding, and Performance Management Systems

Project Number: 16-RFP-02

Service Area: North, Calumet, and Stickney

Location: District-wide

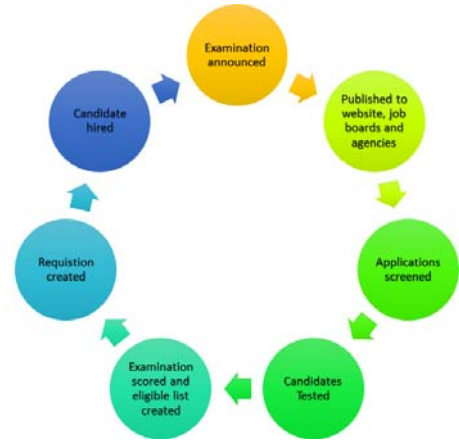
Engineering Consultant: In-house design

General Contractor: JobAps, Inc.

Estimated Construction Cost: \$147,000

Contract Award Date: November 2016

Substantial Completion Date: June 2018*



Project Description: Applicant tracking software is used to track and manage all activity related to the District’s recruitment, examination, eligible list certification, and requisition processes for employee hiring. Job applicants use the system to view open jobs, create, update, and submit applications, and receive automatic email notices when a job opens in their desired job class. The system is also used to score examinations, create eligible lists, communicate with applicants, and manage the eligible list certification process.

Project Justification: The District’s current applicant tracking system is antiquated and the replacement software solution is compatible with current technologies. In addition to the functionality described above, employment applications will display well on multiple platforms, including smartphones and tablets. The system will facilitate posting job information to social media platforms and will automate the employment requisition, certification, and appointment process.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Programmable Logic Controllers, Chicago River Controlling Works

Project Number: 17-602-21

Service Area: Stickney

Location: Waterways

Engineering Consultant: In-house design

General Contractor: Emerson Process Management Power & Water Solutions

Estimated Construction Cost: \$90,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver programmable logic controllers for the Chicago River Controlling Works.

Project Justification: Furnish and deliver three new Emerson-Bristol ControlWave programmable logic controllers with local operator interface to replace the existing and outdated equipment. The Maintenance & Operations Department's distributed control system (DCS) group will provide all labor to perform the design, programming, and integration of the existing logic controllers into the new system and connect these units to the existing Waterways Control Section's Emerson DCS. District trades will perform the installation and the DCS group will perform the testing.

Project Status: This project is under review.

*Information shown is estimated.

Furnish, Deliver, and Install Headrace Handrail, Guardrail, and Fence, LPH

Project Number: 17-604-21

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 2018*

Substantial Completion Date: August 2018*



Project Description: This project consists of replacing damaged handrails and installing guardrails and fencing at the Lockport Powerhouse.

Project Justification: Various sections of handrails on the headrace are in need of replacement. The handrails, which are essential for safety, have been removed and replaced multiple times to accommodate construction projects. They have also been bent and damaged over time, rendering them in poor condition. The Lockport Powerhouse garage also requires certain areas to be fenced for security reasons. Additionally, an open parking area, south of the main Powerhouse, requires guardrails on both the east and west ends of the lot to prevent vehicles from accidentally driving into the waterways.

Project Status: This project is pending advertisement.

*Information shown is estimated.

Furnish and Deliver Enhanced Bio-P Control Equipment, KWRP

Project Number: 17-609-21

Service Area: North

Location: Kirie WRP

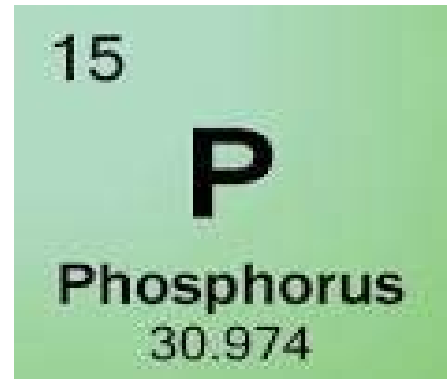
Engineering Consultant: In-house design

General Contractor: Gasvoda & Associates, Inc.

Estimated Construction Cost: \$165,000

Contract Award Date: December 2017

Substantial Completion Date: February 2018*



Project Description: Furnish and deliver new phosphorus, ammonia, dissolved oxygen, and oxidation reduction potential instrumentation probes and analyzers, as well as non-stock electrical material for installation by District trades.

Project Justification: The purpose of this project is to procure equipment and materials to facilitate the automation of phosphorus recovery at the Kirie WRP. This project will advance the District's strategic goal of Resource Recovery.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Uninterruptible Power Supplies, KWRP and EWRP

Project Number: 17-611-21

Service Area: North

Location: Kirie and Egan WRPs

Engineering Consultant: In-house design

General Contractor: CDW Government LLC

Estimated Construction Cost: \$66,000

Contract Award Date: December 2017

Substantial Completion Date: January 2018*



Project Description: The contractor shall furnish and deliver three new 12 kilovolt-ampere (kVA) uninterruptible power supply (UPS) units.

Project Justification: The purpose of this contract is to procure three new 12kVA UPS units for the Kirie and Egan WRPs. Two of the UPS units will replace the existing units for distributed control systems at the Kirie and Egan WRPs, which were installed in 2004 and are frequently in alarm mode. A similar unit at the Hanover Park WRP catastrophically failed in March 2017.

The third unit will replace a 30 kVA UPS unit in the Monitoring & Research Department's laboratory at the Egan WRP. The existing unit, which was installed in 2001, is not functioning properly and procurement of spare parts is not reliable. The new unit is redesigned with a lower capacity to better suit operational needs.

The new UPS units will be of a modular design with power and battery module swapping capabilities, which will provide greater reliability.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Stake Body Truck and Dump Truck, NSA

Project Number: 17-703-21

Service Area: North

Location: Egan and O'Brien WRPs

Engineering Consultant: In-house design

General Contractor: Rush Truck Centers of Illinois

Estimated Construction Cost: \$265,000

Contract Award Date: June 2017

Substantial Completion Date: March 2018*



Project Description: Furnish and deliver one stake body truck with a lift gate to the Egan WRP and one dump truck with a snow plow and salt spreader to the O'Brien WRP.

Project Justification: This project is to replace the stake body truck at the Egan WRP and the dump truck at the O'Brien WRP. There are only two large stake body trucks and one dump truck in the North Service Area. The trucks provide intra-plant and inter-plant transportation of equipment and material for all four North Service Area plants.

Current total maintenance costs are \$78,726, but these costs are anticipated to increase significantly due to the age of the vehicles.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Two Air Lift Blowers, EWRP

Project Number: 17-704-21

Service Area: North

Location: Egan WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$150,000

Contract Award Date: January 2018*

Substantial Completion Date: May 2018*



Project Description: Furnish and deliver two air lift blowers to the Egan WRP.

Project Justification: The purpose of this project is to purchase two dedicated air lift blowers for the Egan WRP's air lifts. The air main currently operates at 8.9 pounds per square inch gauge. Air pressure is required to operate the air lifts for the south aeration battery. Based on calculations, if two small blowers are installed and dedicated to operating the air lifts, the air main pressure could be reduced to 6.7 pounds per square inch gauge and still provide the desired dissolved oxygen in the aeration tanks. This would reduce operating costs by \$44,000 per year.

Project Status: This project is pending award.

*Information shown is estimated.

Rehabilitate One Raw Sewage Pump Rotating Assembly, OWRP

Project Number: 17-705-21

Service Area: North

Location: O'Brien WRP

Engineering Consultant: In-house design

General Contractor: Xylem Water Solutions U.S.A., Inc.

Estimated Construction Cost: \$178,000

Contract Award Date: November 2017

Substantial Completion Date: December 2018*



Project Description: This project will completely rebuild one 65 millions of gallons per day (MGD) main raw sewage pump (RSP) rotating assembly at the O'Brien WRP. Rehabilitation work includes sandblasting, inspection, machining, and weld repair of the impeller, as well as fabrication of new components to replace typical wear items. Typical wear items include a pump shaft, casing rings, impeller rings, and shaft sleeves. In addition, the work will require the reassembly and the balancing of the rotating assembly to International Organization for Standardization balance quality grade G6.3.

Project Justification: The O'Brien WRP has six main RSPs with various flow capabilities. RSP Nos. 1 and 2 can each pump 97 MGD, RSP Nos. 3 and 4 can each pump 65 MGD, and RSP Nos. 5 and 6 can each pump 130 MGD. During a rain event, five main RSPs are required to be in service to reach the maximum plant flow. Currently, the O'Brien WRP has no spare stainless steel rotating assembly for the 65 MGD pumps.

Centrifugal pumps are designed to allow for sacrificial wear rings to thin over time and protect the costly impellers from damage. As the rings wear, the gap between the wear rings and the casing rings increases, allowing additional recirculation within the pump casing. As a result, the flow generated by the pump and the overall efficiency of the pump are decreased.

This project will rehabilitate one worn rotating assembly, which has been removed from a 65 MGD main RSP at the O'Brien WRP. Having a spare rotating assembly on hand significantly reduces the downtime required to replace a main RSP rotating assembly in case of failure.

Project Status: This project is in progress.

*Information shown is estimated.

Recondition Raw Sewage Pump Motor No. 3, KWRP

Project Number: 17-710-21

Service Area: North

Location: Kirie WRP

Engineering Consultant: In-house design

General Contractor: Omnidrive Holdings, LLC

Estimated Construction Cost: \$127,000

Contract Award Date: August 2017

Substantial Completion Date: May 2018*



Project Description: Recondition the motor and magnetic drive for raw sewage pump (RSP) No. 3 at the Kirie WRP.

Project Justification: In 2016, vibration analysis testing of RSP No. 3 showed excessive vibration on the motor and clutch assembly, beyond the acceptable industry standard. The reliability and safe operation of RSP No. 3 are impacted due to the significant wear of its motor and clutch components. The RSP has been in service for 38 years and is in need of reconditioning.

Project Status: This project is in progress.

*Information shown is estimated.

Furnish and Deliver Interoperable Distributed Control System Workstations and TARP Controllers, Various Locations

Project Number: 17-901-21

Service Area: Stickney

Location: Mainstream and Racine Avenue Pumping Stations

Engineering Consultant: In-house design

General Contractor: Emerson Process Management Power & Water Solutions and Rockwell Automation, Inc.

Estimated Construction Cost: \$125,000

Contract Award Date: May 2018*

Substantial Completion Date: January 2019*



Project Description: This project will furnish and deliver two proprietary distributed control system workstations for the control rooms at the Mainstream and Racine Avenue Pumping Stations. District trades will install all equipment associated with the project. One mobile, single channel, and autonomous trunking unit will also be provided for each pumping station to enable control of the Tunnel and Reservoir Plan structures in the Stickney Service Area should the control room lose functionality.

Project Justification: Concerns were raised in 2015 over the lack of alternate site control over each plant. These concerns led to an internal study of the interoperability of major District plants and pumping stations, particularly for a scenario where the loss of local control room facilities/functionality would require remote control from an alternate location. The addition of two workstations at each pumping station will enable interoperable control of the alternate pumping station or control of the Stickney WRP in the event of a catastrophic failure at a remote control room.

Project Status: This project is in development.

*Information shown is estimated.

Local Sewer System Section Permit Database

Project Number: 17-RFP-09

Service Area: Stickney

Location: Chicago

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$50,000

Contract Award Date: December 2017

Substantial Completion Date: December 2018*



Project Description: Replace the Local Sewer System Section's permit database software with an enhanced system to streamline and improve the permit review process. An improved system is more important than ever with the adoption of the more complex Watershed Management Ordinance.

Project Justification: A new database will increase permit review and site inspection efficiency and accuracy and add value to our customer service interactions with public and private stakeholders.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

Automated CAFR and Budget Solution

Project Number: 17-RFP-22

Service Area: Stickney

Location: Main Office Building

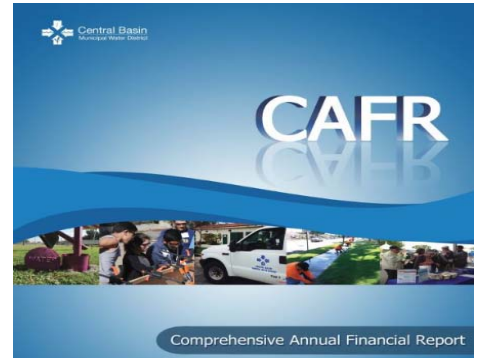
Engineering Consultant: In-house design

General Contractor: OpenGov, Inc.

Estimated Construction Cost: \$25,000

Contract Award Date: September 2017

Substantial Completion Date: February 2018*



Project Description: The scope of the project is to procure a fully hosted web application to compile and publish two Comprehensive Annual Financial Reports, one for the Other Postemployment Benefit Trust and one for the District, and the budget document for the District. The solution will integrate to the enterprise resource management system (SAP) in order to automatically link financial data to the final published document and will use workflow so documents can be requested and submitted electronically between departments.

Project Justification: Currently, financial schedules and a variety of documents are requested and compiled either using Microsoft Word, Microsoft Excel, In-Design, or the Public Budget Formulation software system. There have been significant improvements in publishing tools that will substantially automate the current manual processes of requesting, editing, and compiling documents and figures, and ultimately decrease the turnaround time to produce a final published document.

Project Status: This project is in progress.

*Information shown is estimated.

Employee Benefits Software

Project Number: 17-RFP-37

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$75,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2019*



Project Description: To provide a single source of information for employees in selecting their benefits and improve the functionality and user experience for existing and newly hired employees. The software platform will serve as the employee-facing portal for employees to manage their benefits, provide human resources staff with a benefits administration portal, serve as a conduit for the exchange of information between the District and its insurance carriers, and provide reporting related to District benefit programs.

Project Justification: This software platform will improve communication of benefit programs, reduce the need for paper mailings to employees, streamline the process for collecting benefits information from employees, and provide a more efficient exchange of information with benefit providers.

Project Status: This project is pending award.

*Information shown is estimated.

Microvi Pilot, OWRP

Project Number: 18-180-21

Service Area: North

Location: O'Brien WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$250,000

Contract Award Date: March 2018*

Substantial Completion Date: January 2019*



Project Description: The Monitoring & Research Department plans to begin construction and operation of a pilot unit of the MicroNiche™ technology at the O'Brien WRP. The MicroNiche™ technology is a suite of products that target specific pollutants for removal by way of biocatalysts that are self-contained stable communities of mature organisms. The MicroNiche™ technology can be used to remove Biochemical Oxygen Demand (BOD), ammonia, and phosphorus in a manner that provides numerous benefits over the traditional activated sludge and enhanced biological phosphorus removal processes. For example, MicroNiche™ can accomplish BOD, ammonia, and phosphorus removal in a tank with less volume than that required for activated sludge. This could be a benefit if applied at the O'Brien WRP, which does not have sufficient aeration tank capacity to create an anaerobic zone required for enhanced biological phosphorus removal, without negatively affecting nitrification. In addition, MicroNiche™ operates at a much lower mixed liquor suspended solids concentration than activated sludge. Therefore, BOD, ammonia, and phosphorus removal can be accomplished in a smaller tank volume and with less air requirements, leading to a potential 35 percent reduction in energy costs. MicroNiche™ operates with 95 percent less secondary solids production than activated sludge, which could also have multiple benefits if applied at the O'Brien WRP, including lower solids loading on the final clarifiers during stress periods, less impact on the aging sludge force main, and a significant savings in solids processing costs at the Stickney WRP. All this can be accomplished through repurposing the existing aeration tanks with a modest amount of modifications.

The goals of the project are as follows: 1) Achieve effluent requirements relative to future O'Brien WRP's National Pollutant Discharge Elimination System (NPDES) permit effluent discharge limits regarding total suspended solids, Carbonaceous BOD, ammonia-nitrogen, and phosphorus; 2) Quantify the reduction in operating costs and solids production; 3) Assess the ease of operation of the system; and 4) Establish design and economic parameters required for the Monitoring & Research Department's Process Facilities Capital Planning Section to prepare a life cycle analysis of the feasibility and economics of full-scale application at the O'Brien WRP.

This project works to address the following Strategic Business Plan's goals:

Goal 1: Add value by reducing mainstream operation costs and sludge production.

Goal 2: Deliver excellence in terms of developing an approach that will meet future NPDES permit effluent discharge limits without the need for construction of additional tank capacity.

Goal 3: The potential to help the District achieve its resource recovery goal through producing a phosphorus-rich stream for recovery and reducing energy requirements.

Goal 6: Accelerate the adoption of a disruptive technology that could potentially change the approach to wastewater treatment at other District WRPs.

Project Justification: The O'Brien WRP has limited aeration capacity to meet its current NPDES permit effluent discharge limits for BOD, ammonia, and phosphorus removal. This biocatalyst technology can be retrofitted into the current tank infrastructure and has the potential to replace activated sludge, reduce sludge to the Stickney WRP, meet the NPDES permit effluent discharge limits, and reduce operational and capital expenditure costs.

Project Status: This project is in the design phase.

*Information shown is estimated.

Auditorium Improvements at the Stickney Lab, SWRP

Project Number: 18-181-21

Service Area: Stickney

Location: Stickney WRP

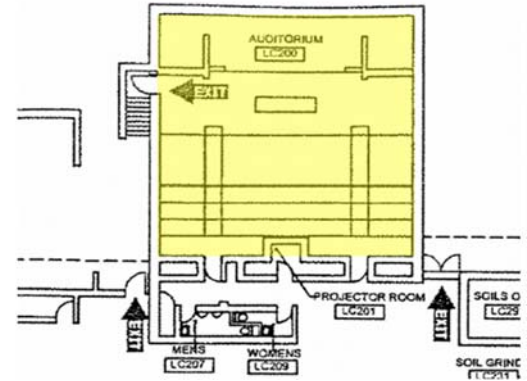
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$125,000

Contract Award Date: August 2018*

Substantial Completion Date: December 2018*



Project Description: Replace the ceiling and carpet and update the lighting in the auditorium of the Stickney WRP's Laboratory Building.

Project Justification: The auditorium is a public space that needs its ceiling, lighting, and carpeting updated. The ceiling is failing (ceiling tiles are sagging and falling), the lights are old and not conducive to presentations currently held in the auditorium and the carpet is worn.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

Bathroom Improvements at the Stickney Lab, SWRP

Project Number: 18-182-21

Service Area: Stickney

Location: Stickney WRP

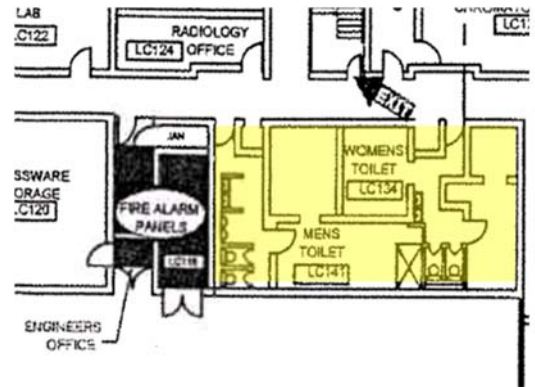
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$250,000

Contract Award Date: August 2018*

Substantial Completion Date: December 2018*



Project Description: Reconfigure and remodel bathrooms LC-141 and LC-134 to include new lockers, lavatories, showers, toilets, floors, and ceilings, in the Stickney WRP's Laboratory Building. The women's bathroom will include a nursing mother room.

Project Justification: Bathrooms are original to the building (circa-1960), dilapidated, and do not comply with minimum Americans with Disabilities Act regulations and occupancy standards. It is a legal requirement to have a nursing mother's room on-site.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

HVAC Improvements at the Stickney Lab, SWRP

Project Number: 18-183-21

Service Area: Stickney

Location: Stickney WRP

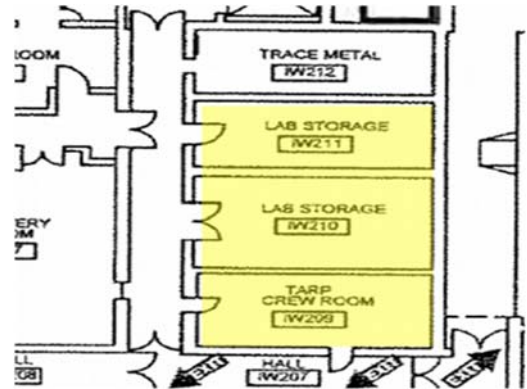
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$125,000

Contract Award Date: August 2018*

Substantial Completion Date: December 2018*



Project Description: Address HVAC improvements for rooms IW-209, IW-210, and IW-211 in the Stickney WRP's Laboratory Building.

Project Justification: Currently, these laboratories house inductively coupled plasma mass spectrometer instrumentation, which is necessary for testing metals used in required permit-related analysis and resource recovery. These machines generate a large amount of heat and the current HVAC system cannot adequately address the heat load.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

Furnish and Deliver Submersible Pump, CSA

Project Number: 18-601-21

Service Area: Calumet

Location: Sidestream Elevated Pool Aeration Station 1

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$200,000

Contract Award Date: March 2018*

Substantial Completion Date: June 2018*



Project Description: Furnish and deliver a submersible pump and components for Sidestream Elevated Pool Aeration (SEPA) Station 1.

Project Justification: SEPA Station 1 is required to operate under the Calumet WRP's National Pollutant Discharge Elimination System permit to maintain water quality standards in the waterways. The SEPA station originally had four pumps when the station was built in 1994. Historically, one pump has been required to maintain the dissolved oxygen limit in the waterway. There will be one new pump available in 2017, though the other three pumps are not functioning and are beyond repair. The additional pump will act as a backup when the new pump is down for maintenance or repair.

Additionally, SEPA Station 1 is surrounded by open lands that are visited by bird watchers and outdoor enthusiasts. The City of Chicago plans to install a trail for more public access on the adjacent property and is encouraging people to visit the area. As such, there is a potential for more people to visit the SEPA station and enjoy the flowing pools.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Rubber Tire Excavator/Backhoe, LASMA

Project Number: 18-602-21

Service Area: Stickney

Location: Lawndale Avenue Solids Management Area

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$225,000

Contract Award Date: June 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver one rubber tire excavator/backhoe to the Lawndale Avenue Solids Management Area.

Project Justification: The excavator/backhoe is needed to assist with unloading the centrifuge cakes from the train cars and to clear the ditches to improve drainage at the drying sites.

Project Status: This project is in development.

*Information shown is estimated.

Furnish, Deliver, and Install Spring-Loaded Covers, NSA

Project Number: 18-603-21

Service Area: North

Location: North Branch Tunnel and Reservoir Plan (TARP)

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$75,000

Contract Award Date: June 2018*

Substantial Completion Date: November 2018*



Project Description: Furnish, deliver, and install spring-loaded covers on four TARP control structure drop shafts.

Project Justification: The access hatches to four TARP control structure drop shafts, specifically, Drop Shafts NB-17 through NB-20, have been damaged and repaired several times after rapid fill events. With the completion of the McCook Reservoir Phase I, the rapid fill events and resultant damage to the access covers should not reoccur.

Project Status: This project is in development.

*Information shown is estimated.

Furnish, Deliver, and Install Fire Detection Systems, Various Locations

Project Number: 18-604-21

Service Area: Calumet and Stickney

Location: Calumet WRP, Mainstream Pumping Station, and Lockport Powerhouse

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$560,000

Contract Award Date: February 2018*

Substantial Completion Date: January 2019*



Project Description: Remove obsolete life-safety equipment and then furnish, deliver, and install new programmable fire alarm panels and network components at the Calumet WRP, Mainstream Pumping Station, and Lockport Powerhouse.

Project Justification: The fire panels have been in service since 1992 and the manufacturer will stop providing parts in 2018. The lack of replacement parts jeopardizes the District's ability to maintain this life-safety equipment to an acceptable standard. Specifically, only the obsolete fire control panels will be replaced as the hundreds of sensors connected to them, despite their age, can still be maintained and will be able to communicate with the replacement panels.

Upgrading the obsolete fire panels to newer models will improve our ability to properly maintain the life-safety systems at these locations.

Project Status: This project is being designed.

*Information shown is estimated.

Furnish And Deliver Station Batteries, Various Locations

Project Number: 18-605-21

Service Area: Calumet and Stickney

Location: Calumet and Stickney WRPs and Lockport Powerhouse

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$275,000

Contract Award Date: February 2018*

Substantial Completion Date: October 2018*



Project Description: The purpose of this project is to furnish and deliver station batteries to various locations in the Calumet and Stickney WRPs. The batteries will be replaced by District trades.

Project Justification: The station batteries at the various locations need to be replaced as they have started to deteriorate. The batteries are needed for the switchgear circuit breaker controls and for emergency loads. The existing batteries are in poor condition and the cells, jars, and specific gravities are all becoming unreliable.

At the Lockport Powerhouse, for instance, the jars have started to leak and the specific gravities have started to decrease, which may limit the charging capacities of the battery lineups. The Lockport Powerhouse generates electricity and transfers it to Commonwealth Edison's power grid, for which, the District receives a substantial energy credit.

Project Status: This project is being advertised.

*Information shown is estimated.

Furnish and Deliver Screener, CALSMA

Project Number: 18-606-21

Service Area: Calumet

Location: Calumet Solids Management Area

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$400,000

Contract Award Date: June 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver one screening machine to the Calumet Solids Management Area.

Project Justification: The screening machine is needed to expand and improve the composting operation. The overall goal is to create a sustainable commercial market for the District's biosolids and to create products tailored to the needs of the customer.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Wheel Loader, LASMA

Project Number: 18-607-21

Service Area: Stickney

Location: Lawndale Avenue Solids Management Area

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$350,000

Contract Award Date: June 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver one wheel loader to the Lawndale Avenue Solids Management Area.

Project Justification: The wheel loader is needed to create compost piles and to handle vegetative materials. The overall goal is to create a sustainable commercial market for the District's biosolids and to create products tailored to the needs to the customer.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Fine Screens, Grit Classifier, and Screw Conveyors, HPWRP and SWRP

Project Number: 18-608-21

Service Area: North and Stickney

Location: Hanover Park and Stickney WRPs

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$580,000

Contract Award Date: January 2018*

Substantial Completion Date: July 2018*



Project Description: At the Hanover Park WRP, replace the grit classifier, two catenary fine screens with traveling bar rake screens, and the flat belt conveyor with an enclosed shaftless screw conveyor. At the Stickney WRP, replace two shafted screw conveyors for scum concentration with one shaftless screw conveyor and one shafted screw conveyor.

Project Justification: At the Hanover Park WRP, the 35-year-old screens and conveyor frames are corroding. The bar screens and beaching plate are in need of replacement, and the grit classifier trough, which has been repaired numerous times, is beginning to wear through. The switch to enclosed equipment will reduce odors. All equipment will be installed by District trades.

At the Stickney WRP, the existing shafted screw conveyors move scum from the scum concentration tanks to the dumpster. The bearing supports have been repaired frequently and the auger is worn and in need of replacement. The support bearings trap debris causing the conveyor to overflow. The shaftless screw conveyor rides on the trough, so there are no supports for debris to get caught. Maintenance costs have risen drastically over the past five years. The conveyors will be installed by District trades.

Project Status: This project is being advertised.

*Information shown is estimated.

Furnish, Deliver, and Install Storage Dome for Biosolids, HASMA

Project Number: 18-609-21

Service Area: Stickney

Location: Harlem Avenue Solids Management Area

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$350,000

Contract Award Date: June 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish, deliver, and install a bulk storage dome for composted biosolids at the Harlem Avenue Solids Management Area.

Project Justification: The storage dome is needed to protect ready-to-ship compost from precipitation. It will also help to reduce odors. This project supports the Strategic Business Plan's strategies of creating a sustainable commercial market for the District's biosolids and adopting an approach that strives to deliver products and services that satisfy our customers.

Project Status: This project is in development.

*Information shown is estimated.

Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations

Project Number: 18-610-21

Service Area: Stickney

Location: O'Brien and Stickney WRPs

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$825,000

Contract Award Date: April 2018*

Substantial Completion Date: March 2020*



Project Description: This project will include a complete rebuild of one main raw sewage pump (RSP) rotating assembly for the O'Brien WRP and four main RSP rotating assemblies for the Stickney WRP. Rehabilitation work includes sandblasting, inspection, machining, and weld repair of the impellers as well as fabrication of new components to replace typical wear items. This would include new pump shafts, casing rings, impeller rings, and shaft sleeves for the rotating assemblies. In addition, the contract work will require the reassembly and the balancing of the rotating assemblies to International Organization for Standardization balance quality grade G6.3.

Project Justification: The O'Brien WRP has six main RSPs with various flow capabilities. RSP Nos. 1 and 2 can each generate 97 millions of gallons per day (MGD), RSP Nos. 3 and 4 can produce 65 MGD each, and RSP Nos. 5 and 6 can each pump 130 MGD. During a rain event, five main RSPs are required to be in service to reach the maximum plant flow. The Stickney WRP has seven main RSPs in the West Side Pumping Station. RSP Nos. 1 and 2 can each generate 65 MGD, while RSP Nos. 3 through 7 can each generate 130 MGD. In addition, the Stickney WRP has six main RSPs for the Southwest Pump and Blower House. RSP Nos. 1 through 4 can each generate 200 MGD, while RSP Nos. 5 and 6 can each generate 240 MGD. During a rain event, various combinations of main RSPs are utilized to reach the maximum plant flow. In some instances, 10 of the 12 main RSPs are required.

Centrifugal pumps are designed to allow for sacrificial wear rings to thin over time and protect the costly impellers from damage. As the rings wear, the gap between the wear rings and the casing rings increase, allowing additional recirculation within the pump casing. As a result, the flow generated by the pump and the overall efficiency of the pump are decreased.

This contract will rebuild one worn 65 MGD rotating assembly removed from RSP No. 4 at the O'Brien WRP, as well as four rotating assemblies at the Stickney WRP. This includes one 130 MGD rotating assembly removed from West Side Pumping Station RSP No. 3, two 200 MGD rotating assemblies removed from Southwest Pump and Blower House RSP Nos. 2 and 3, and one 240 MGD rotating assembly removed from Southwest Pump and Blower House RSP No. 5. Having spare rotating assemblies on hand significantly reduces the downtime required to replace a main RSP rotating assembly in case of failure.

Project Status: This project is in development.

*Information shown is estimated.

HVAC Equipment Replacement, Various Locations

Project Number: 18-611-21

Service Area: North and Calumet

Location: O'Brien, Egan, and Calumet WRPs

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,350,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2020*



Project Description: HVAC system replacements at the Calumet WRP include the Administration Building computer room HVAC and supplemental cooling, the Administration Building control room cooling, the digester control room cooling, the Tunnel and Reservoir Plan control room cooling, and the High Level Pumping Station cooling. Calumet WRP replacements also consist of make-up air units for concentration, penthouse air handling and condensing units for the Administration Building, and reciprocating chillers in the Process Control Building. At the O'Brien WRP, rooftop units for the Administration Building will be replaced. Egan WRP replacement work consists of the condensation control for chiller condenser water in the pump room.

Project Justification: The need for replacement is based on age, life expectancy, and reliability. The equipment being replaced has experienced numerous failures due to equipment corrosion and leaking coils and piping. This project will minimize future maintenance costs and ensure increased reliability to protect the District's assets.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Two Debris Baskets, KWRP

Project Number: 18-701-21

Service Area: North

Location: Kirie WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$200,000

Contract Award Date: July 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver two debris baskets to the Kirie WRP.

Project Justification: The debris baskets are currently positioned approximately 200 feet underground and screen influent prior to it reaching the coarse screens. The debris baskets capture any large objects that can significantly damage the coarse screens and the raw sewage pumps. The debris baskets are original to the plant and have only been modified once in the 38 years since installation. The baskets are corroded, which increases the chance of them being significantly damaged by incoming debris. Additionally, the corrosion poses a safety concern, due to baskets requiring hoisting and suspension in order to be manually cleaned.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Bio-P Control Equipment, NSA

Project Number: 18-702-21

Service Area: North

Location: Kirie and O'Brien WRPs

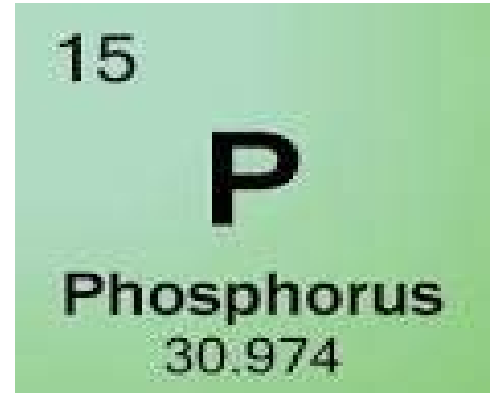
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$70,000

Contract Award Date: February 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver new phosphorus probes and analyzers to the Kirie and O'Brien WRPs.

Project Justification: The purpose of this project is to procure phosphorus instrumentation and appurtenances for nutrient removal. The probes are needed to facilitate the automation of the phosphorus recovery process. This project will advance the District's strategic goal of Resource Recovery.

Project Status: This project is under review.

*Information shown is estimated.

Furnish and Deliver Hydraulic Submersible Pump, EWRP

Project Number: 18-703-21

Service Area: North

Location: Egan WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$50,000

Contract Award Date: March 2018*

Substantial Completion Date: August 2018*



Project Description: Furnish and deliver a four-inch hydraulic submersible pump with a diesel power pack to the Egan WRP.

Project Justification: The requested pump will provide the ability to pump out tanks, tunnels, and siphons that are more than 60 feet underground. The current diesel pump can only pump to 25 feet below grade because it is a self-priming model. Another drawback of the self-priming pump is that it has to be in close proximity to the media being pumped. Alternately, a hydraulic submersible pump is attached to a power pack by hydraulic hoses. The power pack can be stationed more than 100 feet from the pump, which allows the pump to be placed in confined spaces without the worry of generating carbon monoxide from the diesel engine. The pump can also be operated safely in hazardous environments and can be lowered into a 19-inch diameter manhole.

Project Status: This project is in the preliminary planning stage.

*Information shown is estimated.

Recondition Raw Sewage Pump Motor No. 1, KWRP

Project Number: 18-704-21

Service Area: North

Location: Kirie WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$180,000

Contract Award Date: July 2018*

Substantial Completion Date: January 2020*



Project Description: Recondition the motor and magnetic drive for raw sewage pump (RSP) No. 1 at the Kirie WRP.

Project Justification: In 2016, vibration analysis testing of RSP No. 1 showed excessive vibration on the motor and clutch assembly, beyond the acceptable industry standard. The reliability and safe operation of RSP No. 1 are impacted due to the significant wear of its motor and clutch components. The RSP has been in service for 36 years and is in need of reconditioning.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Turbo Blower for Process Air, HPWRP

Project Number: 18-705-21

Service Area: North

Location: Hanover Park WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$185,000

Contract Award Date: February 2018*

Substantial Completion Date: September 2018*



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 District trades for the installation. The contractor will furnish and deliver the turbo blower assembly and all electrical and mechanical accessories needed to replace the blowers. Turbo blowers use 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 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 variable frequency drive motor controls, which will accurately control the speed based on the air flow, resulting in additional energy savings. Furthermore, due to a turbo blower's low-operating sound levels, noise pollution will be significantly reduced.

Project Status: This project is in the design phase.

*Information shown is estimated.

Furnish, Deliver, and Install Three Bar Screens, KWRP

Project Number: 18-706-21

Service Area: North

Location: Kirie WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$750,000

Contract Award Date: July 2018*

Substantial Completion Date: January 2020*



Project Description: Furnish, deliver, and install three bar screens at the Kirie WRP.

Project Justification: The current screens are 35 years old and their ability to capture debris has diminished significantly due to corrosion on the bars. Switching to a smaller screen opening will increase capture rates and reduce the amount of rags and debris in the return activated sludge channel. Because of the current screens' diminished performance, debris accumulates and prevents the return activated sludge butterfly valves from operating properly, which negatively impacts treatment operations and increases maintenance costs.

Project Status: This project is in development.

*Information shown is estimated.

Roof Replacement, HPWRP

Project Number: 18-707-21

Service Area: North

Location: Hanover Park WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$490,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: Removal and replacement of the roofing system at the Hanover Park WRP's Tertiary Building.

Project Justification: The Tertiary Building's roofing system is 17 years beyond its warranty expiration date. A 2016 inspection indicated that the roof is in poor condition. Moisture content test results indicated that 80 percent of the roof insulation is saturated. The report further indicated that some spray-on roofing materials had disintegrated and delamination was noted around the skylights.

Project Status: The project is in the preliminary design stage.

*Information shown is estimated.

Furnish, Deliver, and Install Influent Gate Actuators, OWRP

Project Number: 18-708-21

Service Area: North

Location: O'Brien WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$200,000

Contract Award Date: March 2018*

Substantial Completion Date: August 2018*



Project Description: Replace seven beveled gear actuators with direct mount actuators on the O'Brien WRP's ultraviolet channel inlet gates.

Project Justification: Two channel inlet gates have fallen due to the stem nuts stripping, as the stem nut height is too low. The current actuators have a stem nut height that is less than 1-1/2 times the stem diameter. A direct mount actuator's stem nut height is more than twice the stem diameter, so the possibility of stem nut stripping and resultant falling of a gate is greatly reduced. Inspection of the beveled gear actuator stem nut requires the complete actuator assembly to be removed from the stem, whereby a direct mount actuator's stem nut can be inspected without having to remove the actuator from the stem.

Project Status: This project is under review.

*Information shown is estimated.

Furnish, Deliver, and Install Grit Screw Conveyor, CWRP

Project Number: 18-802-21

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$300,000

Contract Award Date: July 2018*

Substantial Completion Date: March 2019*



Project Description: Furnish, deliver, and install one screw conveyor in a grit tank at the Calumet WRP's Grit Building.

Project Justification: The Grit Building has eight traveling bridge grit tanks that were installed four years ago. There have been seven bridge misalignment problems since installation. The bridges' festoon rollers have been replaced at a cost of approximately \$4,500 per grit tank; there have also been numerous problems with the proximity and limit switches. District staff investigated putting the bridges on rails to eliminate misalignments, but the cost of parts alone would be \$177,880. The estimated cost for installing a screw conveyor is \$300,000. Screw conveyors are less complex than traveling bridges because they have fewer moving parts. Additionally, electrical components on traveling bridges are prone to failure due to hydrogen sulfide exposure. On the other hand, the screw conveyor will be controlled via distributed control systems that will limit electrical component exposure to hydrogen sulfide.

Project Status: The project is in development.

*Information shown is estimated.

Rehabilitation of Blower No. 9, CWRP

Project Number: 18-803-21

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: Howden Roots, LLC

General Contractor: Howden Roots, LLC

Estimated Construction Cost: \$450,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2019*



Project Description: Sole source project to rehabilitate a damaged diffuser ring and rotating assembly on Blower No. 9.

Project Justification: Blower No. 9 is one of two 75,000 cubic feet per minute blowers required for the aeration process in the Calumet WRP's secondary treatment facilities. The blower diffuser ring and rotating assembly were damaged during operation. If this blower becomes inoperable, a larger blower may have to be used instead, which would increase energy costs.

Project Status: This project is being designed.

*Information shown is estimated.

Furnish and Deliver Motor Excitation Control Equipment, SWRP

Project Number: 18-901-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$290,000

Contract Award Date: February 2018*

Substantial Completion Date: December 2018*



Project Description: Furnish and deliver replacement Basler Electric motor excitation control equipment for the main raw sewage pump synchronous motors. Installation will be performed by District trades.

Project Justification: The existing synchronous motor power factor controllers and voltage regulators that control the excitation of the Southwest and West Side main raw sewage pumps are obsolete and no longer manufactured or supported. Due to the analog controllers no longer being able to hold a setting, they negatively affect sewage conveyance.

Project Status: This project is being advertised.

*Information shown is estimated.

Furnish and Deliver Four Scum Pumps, SWRP

Project Number: 18-902-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$100,000

Contract Award Date: April 2018*

Substantial Completion Date: September 2018*



Project Description: Furnish and deliver four scum pumps for the Battery D ejector houses.

Project Justification: The scum troughs in the 24 Battery D final tanks operate via gravity flow to feed a single scum pump in the D-1 ejector house, which is located in the northeast corner of the battery. There is no pit for the scum to flow into and the pump is on a timer. This arrangement prevents the piping system from draining completely, which, in turn, prevents the full and equal removal of scum from the final tanks, resulting in backups. This project will furnish and deliver scum pumps for four ejector houses, which will then receive flow from either four or eight final tanks. By installing these pumps, there will be a more consistent removal of scum from each final tank to eliminate backups. The installation will be performed by District trades.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Fire Alarm System Fiber Optic Cable, SWRP

Project Number: 18-903-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$25,000

Contract Award Date: July 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver a fiber optic network for the fire alarm system at the Stickney WRP.

Project Justification: An independent fiber optic network will make full use of the proprietary communication protocols of the fire alarm system, while avoiding scheduled and unplanned network outages associated with the Stickney WRP's distributed control system. The current fire alarm system uses the distributed control system to pass alarm active/inactive status to the main fire alarm control panel. The fiber optic network will allow communication of all available status and alarm information from field panels to the main fire alarm control panel and the annunciator located outside of the main control room. Installation will be performed by District trades.

Project Status: This project is in development.

*Information shown is estimated.

Furnish and Deliver Stainless Steel Tandem Tanker Trailer, SWRP

Project Number: 18-904-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$70,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver an 8,000 gallon stainless steel tandem tanker trailer to the Stickney WRP.

Project Justification: The acquisition of a replacement tanker trailer is needed to move sludge, water, effluent, high strength waste, and other liquids throughout the Stickney Service Area. The current tanker trailer has numerous leaks and a rotting frame, both of which limits its use.

Project Status: This project is in the preliminary design phase.

*Information shown is estimated.

Furnish and Deliver Submersible Slurry Gate Pumping System, SWRP

Project Number: 18-905-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$75,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: Furnish and deliver a six-inch hydraulic submersible slurry gate pumping system to the Stickney WRP.

Project Justification: This pumping system will enable District staff to pump out digester tanks to allow for cleaning and repairs, as well as other process areas containing thick sludge and/or grit that is not removable through existing drainage systems.

Project Status: This project is in the preliminary design phase.

*Information shown is estimated.

Rehabilitation of the Overhead Bridge Crane, SSA

Project Number: 18-906-21

Service Area: Stickney

Location: Mainstream Pumping Station

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$240,000

Contract Award Date: May 2018*

Substantial Completion Date: January 2019*



Project Description: This project will rehabilitate the existing overhead bridge crane located in the discharge valve chamber at the Mainstream Pumping Station.

Project Justification: The existing 40-ton overhead bridge crane has sustained corrosion to both of its end trucks, as well as to the rail clips and fasteners on both bridge rails. These issues have resulted in the crane being removed from service. In its current condition, the asset cannot perform the intended function and corrective measures are needed to restore its integrity and operability.

Project Status: This project is in development.

*Information shown is estimated.

Replace Media in Cooling Towers, SWRP

Project Number: 18-910-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$110,000

Contract Award Date: April 2018*

Substantial Completion Date: November 2018*



Project Description: This project will replace deteriorated cooling tower media used for the office, shop, and storage facility air conditioning system at the Stickney WRP.

Project Justification: The existing corrugated panels have deteriorated and distorted with age and exposure. New cooling tower media will restore the water distribution, which is critical to maximizing evaporation and subsequent cooling.

Project Status: This project is in the preliminary design stage.

*Information shown is estimated.

Furnish, Deliver, and Install Louvers for TARP Drop Shafts, SSA

Project Number: 18-911-21

Service Area: Stickney

Location: Mainstream Tunnel and Reservoir Plan

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$500,000

Contract Award Date: April 2018*

Substantial Completion Date: November 2018*



Project Description: Furnish, deliver, and install louvers at Mainstream Tunnel and Reservoir Plan Drop Shaft Nos. 44 and 45 and Construction Drop Shaft No. 4 to alleviate odors.

Project Justification: The purpose of this project is to alleviate odors emanating from Mainstream Tunnel and Reservoir Plan drop shafts. There are plans to develop the area in which the drop shafts are located and the installation of the louvers will reduce odors.

Project Status: This project is in development.

*Information shown is estimated.

Skylight Replacement, SWRP

Project Number: 18-912-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$400,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: Removal and replacement of 146 engineered fiberglass skylight panels at the Stickney WRP's West Side Pumping Station.

Project Justification: The existing panels, which are over 40 years old, have degraded such that fiberglass is falling onto the floor. Falling debris could injure District staff and/or damage the building and equipment it contains.

Project Status: The project is in development.

*Information shown is estimated.

Replacement of Railroad Grade Crossings, SSA

Project Number: 18-913-21

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$475,000

Contract Award Date: June 2018*

Substantial Completion Date: January 2019*



Project Description: This project will replace two railroad grade crossings and remove one crossing. The existing crossing, outside of the Stickney WRP, on the main line to the Lawndale Area Solids Management Area and located under I-55, will be replaced. In addition, one crossing within the Stickney WRP that intersects D Street and leads to the Railroad Terminal Building, will be replaced. One other crossing within the Stickney WRP that intersects D Street will be removed and replaced with roadway.

Project Justification: The existing grade crossing under I-55 has degraded appreciably over the past year. Portions of the center panels have buckled, causing them to become elevated with respect to the surrounding road elevation. The buckling creates gaps in the roadway and interferes with the underside of the locomotives. In addition to problems with the center panels, several side panels no longer interlock with the track, causing them to become elevated and loose and create additional gaps in the roadway.

Both intraplant crossings on D Street have developed large gaps between the rails and adjacent roadway. These gaps disrupt street traffic due to their size and depth.

Project Status: The project is in the preliminary design stage.

*Information shown is estimated.

Recondition Circuit Breakers, SSA

Project Number: 18-914-21

Service Area: Stickney

Location: Lockport Powerhouse and Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$200,000

Contract Award Date: February 2018*

Substantial Completion Date: October 2018*



Project Description: Recondition various circuit breakers within the Stickney Service Area.

Project Justification: This project will recondition and warranty various circuit breakers in the Stickney Service Area to extend the useful life of the distribution equipment. The reconditioned breakers will ensure the safety and reliability of electrical equipment during normal and fault operating conditions. The reconditioned breakers will meet the original manufacturer's specifications.

Project Status: This project is being advertised.

*Information shown is estimated.

Rehabilitation of Elevators, MOB

Project Number: J15090-054

Service Area: Stickney

Location: Main Office Building

Engineering Consultant: In-house design

General Contractor: Meccor Industries, Ltd.

Estimated Construction Cost: \$400,000

Contract Award Date: March 2018*

Substantial Completion Date: August 2018*



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 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 District's strategic goal of Excellence, 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 variable frequency drives are expected.

Project Status: This project is under review.

*Information shown is estimated.

Roof Life Extension, MOB

Project Number: J15090-064

Service Area: Stickney

Location: Main Office Building

Engineering Consultant: In-house design

General Contractor: Meccor Industries, Ltd.

Estimated Construction Cost: \$250,000

Contract Award Date: April 2018*

Substantial Completion Date: August 2018*



Project Description: Rehabilitate the existing 21-year-old Main Office Building roof, which is showing signs of wear, in order to extend its service life at least five years.

Project Justification: The 21-year-old Main Office Building roof is no longer under warranty. Rehabilitating the roof now will extend the life of the roof by at least five years.

Project Status: This project is under review.

*Information shown is estimated.

Replace Air Conditioning Unit at Waterways Control Center, MOB

Project Number: J15090-065

Service Area: Stickney

Location: Main Office Building

Engineering Consultant: In-house design

General Contractor: Meccor Industries, Ltd.

Estimated Construction Cost: \$20,000

Contract Award Date: March 2018*

Substantial Completion Date: July 2018*



Project Description: Upgrade the Main Office Building cooling system by replacing the existing air conditioning unit with a new, energy-efficient model of a similar size and cooling capacity. Some ductwork reconfiguration may be required as a part of the project to accommodate the new unit by integrating it with the existing Main Office Building HVAC system. The new unit must be an energy-efficient cooling unit.

Project Justification: The electric elements of the existing unit, installed in 1997, are failing, which may result in a fire hazard. Also, the Waterways Control Center houses mission critical operations on a 24-hour basis.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

Paint and Carpet Replacement, MOB

Project Number: J15090-068

Service Area: Stickney

Location: Main Office Building

Engineering Consultant: In-house design

General Contractor: Meccor Industries, Ltd.

Estimated Construction Cost: \$425,000

Contract Award Date: January 2018*

Substantial Completion Date: May 2018*



Project Description: Replace old carpet and wall-coverings on the second floor of the Main Office Building utilizing "green" practices, such as recycling 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 Main Office Building was last remodeled in 1985. Since then, only partial repairs to floor and wall coverings have been made on the second floor. The carpet throughout the second floor 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: The project scope is being developed.

*Information shown is estimated.

Renovate Bathroom Stalls, MOBC

Project Number: J15090-069

Service Area: Stickney

Location: Main Office Building Complex

Engineering Consultant: In-house design

General Contractor: Meccor Industries, Ltd.

Estimated Construction Cost: \$190,000

Contract Award Date: May 2018*

Substantial Completion Date: October 2018*



Project Description: Replace 31 restroom partitions and doors and five swinging doors in the Main Office Building and 28 restroom partitions and doors in the Main Office Building Annex. Existing partitions will be demolished and new hardware and anchoring points (if necessary) will also be installed. Painting and patching of any unused anchoring points will be done after the partitions are installed.

Project Justification: Some existing partitions and hardware are original to each building. Replacement parts are becoming increasingly difficult to procure given the date of original installation in some cases. A project to replace all partitions with standard equipment will help improve the aesthetics of the buildings and ensure the privacy of District staff and visitors.

Project Status: This project is in development.

*Information shown is estimated.

Enhancements to WorkForce System

Project Number: MWD0000003FI

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: WorkForce Software LLC

Estimated Construction Cost: \$50,000

Contract Award Date: January 2018*

Substantial Completion Date: April 2018*



Project Description: This project will modify the District's WorkForce software to create a new acknowledgeable error exception level to occur when certain pay codes are used, create a new information level exception to generate when an error level exception has been acknowledged, add a new "reimbursement" column between the current "unpaid hours" and "exception" columns, modify the mobile timesheet approval layout linked to the new acknowledgeable error exceptions, and deploy the configured changes upon the District's approval.

Project Justification: The modifications are the result of an auditor recommendation that the system be configured to alert supervisors, when approving time in WorkForce, that the employee timesheet contains reimbursement codes. The exception will ensure that all supervisors have examined reimbursements before approving them.

Project Status: This project is in development.

*Information shown is estimated.

Performance Management Software

Project Number: MWD0000007HR

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$25,000

Contract Award Date: March 2018*

Substantial Completion Date: October 2018*



Project Description: A configurable Performance Management solution is required that will enable goal setting based on District and departmental competencies that will be more objective to evaluate; provide evaluations that can flow through the chain of command utilizing SAP organizational charts; provide the ability for quarterly reviews for updates; provide for evaluations that are different for probationary periods; provide structure for performance improvement plans; and provide simple reporting for departments and administration.

Project Justification: The District will see as a consequence of this project: more efficient use of the Human Resources Department's employees from administrative data entry to streamlined management, exception reporting, and analysis; more objective and actionable performance measures supporting District and departmental goals; reduced data transcription; and more utilization of a performance management process to provide critical feedback and coaching for employees.

Project Status: This project is in development.

*Information shown is estimated.

Avaya Telecom Project

Project Number: MWD0000013IT

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: Avaya

Estimated Construction Cost: \$164,000

Contract Award Date: April 2018*

Substantial Completion Date: January 2019*



Project Description: The voicemail hardware at the North, Calumet, and Stickney Service areas will be upgraded with the purpose of creating a consolidated virtual environment District-wide. The hardware at the Main Office Building Complex was upgraded in 2017. The upgrade will result in cost savings in terms of both equipment replacement and overall maintenance, with the added benefits of management flexibility and scalability.

Project Justification: The District's voicemail and supporting telecommunications infrastructure is over seven years old. The project will upgrade the old voicemail system and allow for the added benefit of more responsive redundancy in the design, a feature not available with a physical environment.

Project Status: This project is being designed.

*Information shown is estimated.

Network Communication Switches

Project Number: MWD0000015IT

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$406,000

Contract Award Date: March 2018*

Substantial Completion Date: January 2019*



Project Description: The network communication switches project is an initiative to procure new network switches to replace the aging switches currently in use. The scope of this project in 2018 is to upgrade network equipment (more than seven years old) in the network rooms at the Stickney WRP and other plant locations. The purchase includes Cisco Local Area Network equipment, layer 3, Power over Ethernet equipment, and also includes supporting cables, mounting equipment, and power supplies for the equipment. Each District location/site will need to be upgraded over the next two years.

Project Justification: Currently installed network switches are aging, which is slowing District-wide network communications. Replacing the switches will ensure that the District's network will remain stable and speed up data transfer, allowing for better network speeds. Current Cisco network hardware is more than seven years old. The District requires access to core applications, files, and the Internet, as well as requires upgraded network equipment to handle the volume, speed, and security for support. The upgrade will provide 1) twice the speed of the current District and Internet, 2) a more secure and reliable network for new applications and systems dependent on the Internet and cloud-based services, 3) a robust, sustainable network platform to support data analytics and metrics, 4) an enterprise network optimized to provide a strong foundation for volume (storage), system performance (bandwidth), and accessibility (business continuity), 5) a foundation to expand mobile, remote and wireless needs of District staff and guests, and 6) an increased security network and reduction of old equipment maintenance costs.

Project Status: This project is in the initiation phase.

*Information shown is estimated.

50000 CONSTRUCTION FUND

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION FACILITIES: Award projects, such as the rehabilitation of an overhead bridge crane located at the Mainstream Pumping Station, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 1,765,000	6.8%
2. TREATMENT FACILITIES: Award projects, such as the installation of fire detection systems at various locations and the rehabilitation of Blower No. 9 at the Calumet WRP, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 5,675,400	21.8%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award projects, such as the procurement of an excavator/backhoe for the Lawndale Avenue Solids Management Area, which will reduce costs and/or provide facility improvements.	\$ 6,216,000	23.8%
4. FLOOD AND POLLUTION CONTROL: Provide funding for construction projects addressing flood control.	\$ 1,210,000	4.6%
5. CONSTRUCTION FUND PROJECT COST: Provide funding for contracts awarded prior to 2018.	\$ 4,217,000	16.2%
6. PROJECT SUPPORT: Development, design, and administration of current and future contracts, funding support, construction materials, and utility support services.	\$ 6,997,200	26.8%
Total	\$ 26,080,600	100.0%

MEASURABLE GOAL:

	2016 Actual	2017 Estimated	2018 Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	39	54	53
Number of contracts awarded	40	39	53
Number of plans available for award	40	39	53

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.

50000 CONSTRUCTION FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change		
Number	Name		Positions	Dollars	Dollars	Percent	
1110	Interceptor Systems	\$ 770,352	2018	- \$ 800,000	\$ 42,600	5.6	
			2017	- \$ 757,400			
1530	Local Sewer Permit Activity	\$ -	2018	- \$ 50,000	\$ -	-	
			2017	- \$ 50,000			
1700	Collection System Design	\$ 80,703	2018	- \$ -	\$ -	-	
			2017	- \$ -			
1800	Collection Construction	\$ 1,684,649	2018	- \$ 2,340,000	\$ (776,400)	(24.9)	a)
			2017	- \$ 3,116,400			
2700	Treatment Design	\$ 14,848	2018	- \$ -	\$ (400,000)	(100.0)	b)
			2017	- \$ 400,000			
2800	Treatment Construction	\$ 11,002,124	2018	- \$ 8,021,400	\$ (8,112,400)	(50.3)	c)
			2017	- \$ 16,133,800			
2900	Treatment Processes	\$ -	2018	- \$ -	\$ (100,000)	(100.0)	d)
			2017	- \$ 100,000			
3700	Solids Processing Design	\$ 285,513	2018	- \$ 1,995,400	\$ 83,400	4.4	
			2017	- \$ 1,912,000			
3800	Solids Processing Construction	\$ 2,523,521	2018	- \$ 607,600	\$ 84,700	16.2	e)
			2017	- \$ 522,900			
4600	Monitoring	\$ 1,385,688	2018	- \$ 4,067,600	\$ (714,300)	(14.9)	f)
			2017	- \$ 4,781,900			
4800	Flood and Pollution Control Construction	\$ 581,551	2018	- \$ 1,210,000	\$ (1,526,000)	(55.8)	g)
			2017	- \$ 2,736,000			

- a) Decrease is due to the 2017 completion of 16-902-21, Pavement Rehabilitation, District-wide (\$697,400) and the transfer of 14-107-2J, Stickney Effluent Reuse Line, SSA (\$600,000) and 17-902-21, FD&I Grit Screw Conveyors, SWRP from the Construction Fund to the Capital Improvements Bond Fund (\$600,000), offset by the addition of several new projects to the 2018 schedule, including 18-610-21, Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations (\$400,000), 18-601-21, F&D Submersible Pumps, CSA (\$200,000), 18-701-21, F&D Two Debris Baskets, KWRP (\$200,000), 18-914-21, Recondition Circuit Breakers, SSA (\$200,000), and 18-603-21, FD&I Spring-Loaded Covers, NSA (\$75,000), and increased funding for 16-704-21, FD&I Upgraded Coarse Screen Conveyor at the North Branch Pumping Station, NSA, due to a revised cost estimate (\$51,300).
- b) Decrease is due to the cancellation of 15-534-2C, Procurement of Membrane Aerated Biofilm, HPWRP (\$400,000).
- c) Decrease is due to the 2017 completion of several projects, including the upgrade of the distributed control system at the Calumet WRP (\$2,913,800), 15-802-21, Rehabilitation of Hydraulic Operator at TARP Gate Structure 1, CSA (\$1,000,000), 17-607-21, F&D Utility Vehicles to Various Locations (\$867,000), 15-711-21, Restoration of Process Control Building, OWRP (\$483,900), and 17-802-21, F&D Turbo Blower, LWRP (\$170,000), the transfer of several projects from the Construction Fund to the Capital Improvements Bond Fund, including 17-708-21, FD&I Disc Filters, HPWRP (\$1,200,000), 17-601-21, Painting of Final Tanks, District-wide (\$776,000), 16-901-21, FD&I Boiler Controls, SWRP (\$650,000), and the agreement to install an odor monitoring system at the Stickney WRP (\$300,000), as well as the reduced request for 15-913-21, Rehabilitate the Digester Gas Turbine, SWRP, as it nears completion (\$466,800), offset by the planned 2018 award of several new projects, including 18-707-21, Roof Replacement, HPWRP (\$490,000) and 18-706-21, FD&I Three Bar Screens, KWRP (\$250,000).
- d) Decrease is due to the one-time 2017 contribution to DuPage County Stormwater Management for green infrastructure projects (\$100,000).
- e) Increase is due to the planned 2018 award of an agreement for geotechnical analysis (\$150,000) and 18-905-21, F&D Submersible Slurry Gate Pumping System, SWRP (\$75,000) and the revised estimate for 11-403-2P, Membrane Gas Holder Replacement and Digester Gas Cleaning, EWRP (\$16,200), offset by the decreased estimate for project change orders (\$106,500) and the transfer of 16-412-2M, Pump Rehabilitation and Diverter Gate Installation, EWRP from the Construction Fund to the Capital Improvements Bond Fund (\$50,000).
- f) Decrease is due to the cancellation of the project to acquire a volute dewatering press (\$974,000) and reduced requests for equipment (\$304,000) and professional services in connection with the lake diversion management study (\$67,000) and groundwater monitoring evaluation (\$50,000), offset by increased requests for building improvements (\$250,000) and new requests for pilot projects related to treatment processes (\$300,300), digestion processes (\$75,000) and phosphorus recovery (\$75,000).
- g) Decrease is due to the transfer of 17-707-21, Re-pipe Devon Avenue Instream Aeration Station Air Main, OWRP (\$1,500,000) and 17-605-21, Cofferdam Services, LPH (\$375,000) from the Construction Fund to the Capital Improvements Bond Fund, the cancellation of 17-705-21, Touhy Avenue Reservoir Rehabilitation, NSA (\$283,000), and the completion of 16-815-21, F&D Replacement Gearbox for SEPA 4, CSA (\$225,000), offset by the addition of 18-911-21, FD&I Louvers for TARP Drop Shafts, SSA (\$500,000) to the 2018 project schedule and increased funding for 16-708-21, Rehabilitate Gloria Alitto Majewski Reservoir, KWRP, the result of an expanded scope of work (\$377,000).

50000 CONSTRUCTION FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actuals	Budgeted		Change		
Number	Name		Positions	Dollars	Dollars	Percent	
5800	Solids Disposal Construction	\$ -	2018 -	\$ 3,950,000	\$ 3,150,000	393.8	h)
			2017 -	\$ 800,000			
7284	Store Operations and Issue	\$ 155,464	2018 -	\$ -	\$ -	-	
			2017 -	\$ -			
7290	Examinations and Employment Activities	\$ -	2018 -	\$ 198,500	\$ 52,000	35.5	i)
			2017 -	\$ 146,500			
7350	General Legal Matters	\$ 500,000	2018 -	\$ -	\$ (100,000)	(100.0)	j)
			2017 -	\$ 100,000			
7367	Real Estate Asset Management	\$ 194,967	2018 -	\$ -	\$ -	-	
			2017 -	\$ -			
7380	Information Technology and Telecommunications	\$ 675,881	2018 -	\$ 570,100	\$ (272,400)	(32.3)	k)
			2017 -	\$ 842,500			
7390	Accounting and Auditing	\$ 48,125	2018 -	\$ 60,000	\$ (65,000)	(52.0)	l)
			2017 -	\$ 125,000			
7460	Main Office Complex Building Services	\$ 526,250	2018 -	\$ 1,310,000	\$ 490,000	59.8	m)
			2017 -	\$ 820,000			
7480	Safety Program	\$ 127,853	2018 -	\$ -	\$ -	-	
			2017 -	\$ -			
7491	Automotive Fleet Procurement	\$ 191,910	2018 -	\$ 900,000	\$ -	-	
			2017 -	\$ 900,000			
7745	Utility Review	\$ -	2018 -	\$ -	\$ (190,000)	(100.0)	n)
			2017 -	\$ 190,000			
7801	Information Technology Services - General Administration	\$ -	2018 -	\$ -	\$ (16,000)	(100.0)	o)
			2017 -	\$ 16,000			
7900	Maintenance & Operations General Support Services	\$ 394,704	2018 -	\$ -	\$ -	-	
			2017 -	\$ -			
Totals		\$ 21,144,103	2018 -	\$ 26,080,600	\$ (8,369,800)	(24.3%)	
			2017 -	\$ 34,450,400			

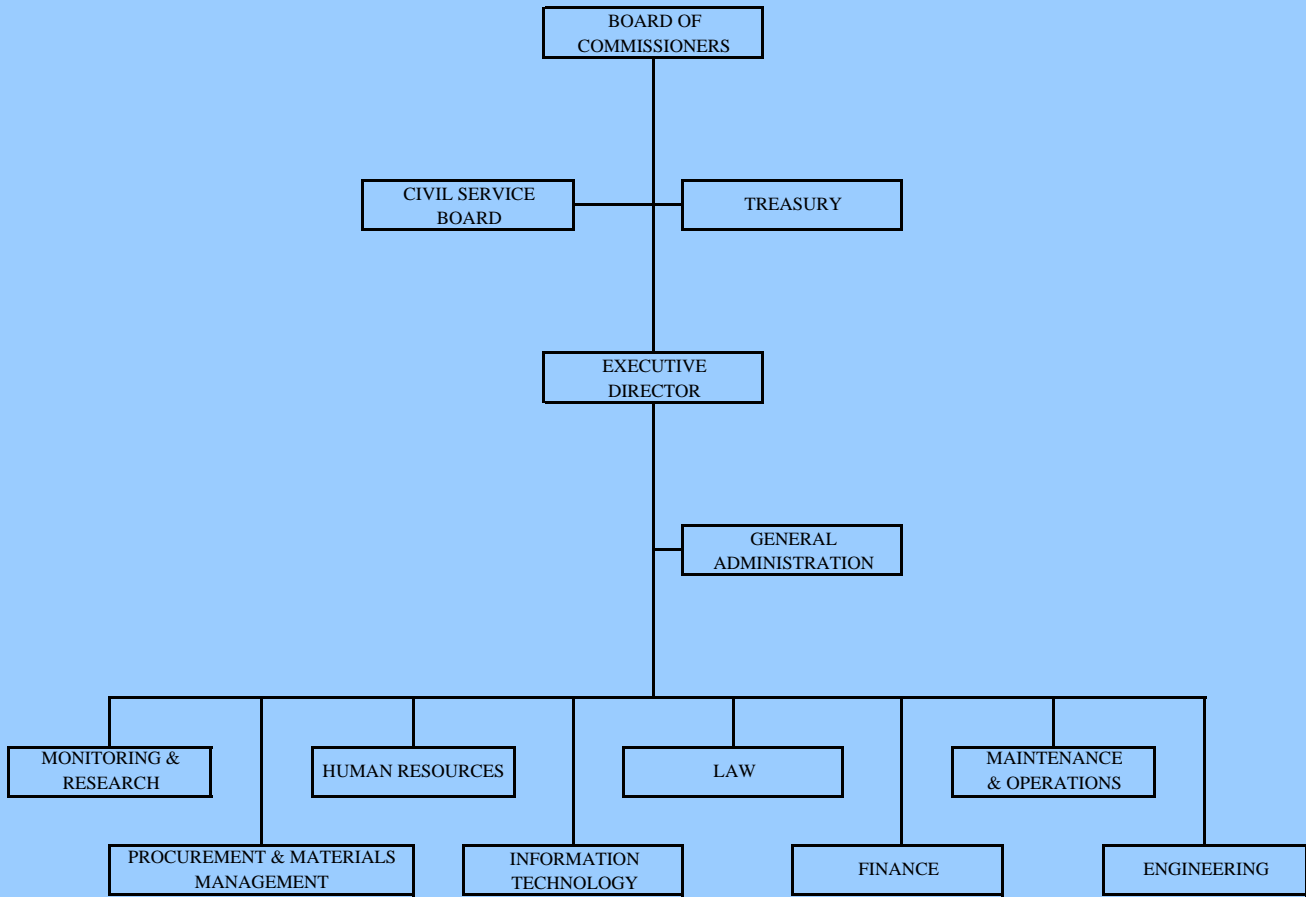
- h) Increase is due to the planned 2018 award of agriculture pilot projects (\$2,000,000), 18-913-21, Replacement of Railroad Grade Crossings, SSA (\$475,000), 18-609-21, FD&I Storage Dome for Biosolids, HASMA (\$350,000), and a net increase in funding for heavy equipment for the biosolids composting program, a major element of the Strategic Business Plan (\$325,000).
- i) Increase is due to software consulting services related to employee benefits (\$50,000) and performance management (\$48,500), offset by reduced requests for software purchases (\$46,500).
- j) Decrease is due to the 2017 request for a contribution to the Chi-Cal Rivers Fund with no contribution planned for 2018 (\$100,000).
- k) Decrease is due to the 2017 completion of several information technology and telecommunication projects, including database consolidation (\$264,000), infrastructure upgrades at the Main Office Building Complex (\$162,600), SAP simplification (\$100,000), voice over internet protocol assessment (\$100,000), data backup and retention (\$95,000), and document management system assessment (\$50,000), offset by the 2018 project to upgrade network communication switches (\$406,000) and increased funding for the ongoing Avaya telecommunication project (\$93,200).
- l) Decrease is due to the reduced request for the project related to the production of the Comprehensive Annual Financial Report as it nears completion (\$115,000), offset by the 2018 project to upgrade the WorkForce time and attendance system (\$50,000).
- m) Increase is due to the planned 2018 award of projects to paint and replace the carpeting (\$425,000) and renovate the bathroom stalls (\$190,000) in the Main Office Building Complex, offset by the reduced estimate to rehabilitate the elevators in the Main Office Building (\$150,000).
- n) Decrease is due to the one-time 2017 request for sewer relocation services (\$190,000).
- o) Decrease is due to the 2017 acquisition of a security camera for the Main Office Building Complex (\$16,000).

201 50000	Fund: Construction Department: Engineering	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612240	Testing and Inspection Services	\$ -	\$ 600,000	\$ 350,000	\$ 78,000	\$ 1,016,000	\$ 1,016,000	\$ 1,016,000
612400	Intergovernmental Agreements	-	100,000	100,000	92,000	70,000	70,000	70,000
612430	Payments for Professional Services	1,438,423	3,624,900	3,724,900	2,242,000	3,239,400	3,267,400	3,282,100
612440	Preliminary Engineering Reports and Studies	14,848	-	-	-	50,000	50,000	50,000
612450	Professional Engineering Services for Construction Projects	225,625	1,859,000	1,859,000	578,500	1,834,400	1,834,400	1,834,400
612490	Contractual Services, N.O.C.	20,681	60,000	60,000	58,200	50,000	50,000	50,000
612600	Repairs to Collection Facilities	770,352	157,400	307,400	307,400	-	-	-
200	TOTAL CONTRACTUAL SERVICES	2,469,929	6,401,300	6,401,300	3,356,100	6,259,800	6,287,800	6,302,500
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	30,965	-	-	-	-	-	-
300	TOTAL MATERIALS AND SUPPLIES	30,965	-	-	-	-	-	-
634600	Equipment for Collection Facilities	80,703	340,000	340,000	-	745,000	790,000	665,000
634620	Equipment for Waterway Facilities	182,777	335,000	335,000	202,400	90,000	110,000	110,000
634650	Equipment for Process Facilities	990,257	1,996,000	1,996,000	457,500	1,711,000	1,886,000	1,958,000
634760	Material Handling and Farming Equipment	-	-	-	-	975,000	975,000	975,000
634780	Safety and Medical Equipment	28,680	-	-	-	-	-	-
634810	Computer Equipment	419,708	273,600	273,600	263,400	406,000	406,000	406,000
634820	Computer Software	102,529	131,500	131,500	35,000	35,000	35,000	85,000
634840	Communications Equipment (Includes Software)	-	70,900	70,900	67,500	64,100	64,100	64,100
634860	Vehicle Equipment	191,910	2,072,000	2,072,000	1,850,900	1,134,000	1,134,000	1,134,000
634990	Machinery and Equipment, N.O.C.	362,601	1,404,000	1,404,000	139,000	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	2,359,164	6,623,000	6,623,000	3,015,700	5,160,100	5,400,100	5,397,100
645600	Collection Facilities Structures	1,448,745	2,469,000	2,169,000	1,036,500	1,150,400	860,400	876,000
645620	Waterway Facilities Structures	922,081	349,000	349,000	-	75,000	75,000	75,000
645650	Process Facilities Structures	3,605,960	5,329,300	5,329,300	1,599,000	2,402,500	2,402,500	2,526,500
645680	Buildings	1,866,327	2,767,400	2,767,400	1,141,900	3,335,000	3,355,000	3,781,000
645690	Capital Projects, N.O.C.	2,272,093	3,737,700	3,737,700	2,996,600	2,625,000	2,625,000	2,625,000
645700	Preservation of Collection Facility Structures	1,173,190	1,500,000	1,500,000	-	940,000	940,000	1,140,000

201 50000		Fund: Construction Department: Engineering		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
645720	Preservation of Waterway Facility Structures	87,168	931,000	931,000	-	600,000	650,000	650,000
645750	Preservation of Process Facility Structures	3,322,189	1,485,600	1,913,600	1,115,500	450,000	450,000	832,600
645780	Preservation of Buildings	129,834	2,484,000	2,484,000	1,908,100	1,796,300	1,796,300	1,796,300
645790	Preservation of Capital Projects, N.O.C.	1,456,459	373,100	245,100	-	-	-	78,600
500	TOTAL CAPITAL PROJECTS	16,284,046	21,426,100	21,426,100	9,797,600	13,374,200	13,154,200	14,381,000
TOTAL ENGINEERING CONSTRUCTION		\$ 21,144,103	\$ 34,450,400	\$ 34,450,400	\$ 16,169,400	\$ 24,794,100	\$ 24,842,100	\$ 26,080,600

NOTES: 1. Amounts may not add up due to rounding.
 2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

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. Capital projects pursued by the Engineering Department are: (a) mission critical, improve environmental quality, (b) preservation/rehabilitation of existing infrastructure to maintain service levels, or (c) commitment to community through process optimization. The Capital Improvements Bond Fund is funded by the sale of bonds and receipt of loans from the Illinois Environmental Protection Agency and State Revolving Loan Fund. The use of these funds is governed by state statutes and federal guidelines.

Summary of 2017 Accomplishments

The District's Capital Improvements Bond Fund is grouped into three categories: mission critical, preservation of infrastructure, and commitment to community.

Mission Critical, Improve Environmental Quality

- Completed construction of Stage 1 of the McCook Reservoir, adding 3.5 billion gallons of combined sewer overflow storage capacity;
- Completed construction of an energy efficient nitrogen removal system for the Egan Water Reclamation Plant (WRP) centrate, allowing it to be recycled rather than conveyed to the O'Brien WRP.

Preservation of Infrastructure

- Began rehabilitation work on the Salt Creek Intercepting Sewer 2 and the Calumet Intercepting Sewer 19F;
- Awarded construction contracts to rehabilitate the Summit Conduit and corroded portions of the Upper Des Plaines Drop Shaft 5;
- Completed construction to replace the aging coarse screens and raw sewage pump slide gates at the Egan WRP;
- Completed construction to rehabilitate Pump 8 at the Mainstream Pumping Station.

Commitment to Community

- Began engineering design work for a digester gas cleaning facility at the Calumet WRP, which is essential to achieve energy neutrality;
- Entered into a partnership with the Army Corps of Engineers and the Chicago Park District to rehabilitate riparian areas and remove an aging dam at the North Branch of the Chicago River to improve diversity and habitat;
- Completed an engineering study on the feasibility of achieving energy neutrality at the Egan and Hanover Park WRPs;
- Awarded a construction contract for an organic waste receiving facility at the Calumet WRP, which is essential to achieve energy neutrality;
- Awarded a construction contract to provide a covered composting system to produce a high quality composted biosolids product at the Calumet WRP;
- Awarded a construction contract to convert two gravity concentration tanks into primary fermenters at the Stickney WRP to improve the Enhanced Biological Phosphorus Removal (EBPR) process;
- Awarded a construction contract to replace aging switchgear at the Devon Instream Aeration Station to improve the health of the waterway.

Budget Highlights

The Capital Improvements Bond Fund's 2018 appropriation is \$312,982,900, a decrease of \$41,642,700, or 11.7 percent, from 2017. There are no staff positions budgeted in the Capital Improvements Bond Fund. The 2018 appropriation includes construction costs for capital projects to be awarded in 2018 in the amount of \$275,206,000, including funding for stormwater management capital projects. The remaining \$37,776,900 includes funding for acquisition of easements, allowances for contract change orders, and legal and other support services relating to capital projects.

Significant features of the 2018 Budget are:

Mission Critical, Improve Environmental Quality

- Continue construction of the Des Plaines Inflow Tunnel at the McCook Reservoir;
- Continue mining and construction Stage 2 of the McCook Reservoir;
- Continue work on the automation of air valves to allow better control of air usage for the EBPR process at the Stickney WRP;
- Continue construction of nine new primary settling tanks and aerated grit removal facilities at the Stickney WRP;
- Award a contract to provide baffle plates on final settling tanks to improve effluent quality at the O'Brien WRP;
- Award a contract to construct facilities to receive organic waste, assisting in the EBPR process at the Calumet WRP.

Preservation of Infrastructure

- Continue construction of pump rehabilitation and diverter gate installation at the Egan WRP;
- Continue Phase II rehabilitation of the service and connecting tunnels at the Stickney WRP;
- Continue construction to replace the medium voltage switchgear in the D799 substation at the Stickney WRP;
- Continue construction to replace the Tunnel and Reservoir Plan (TARP) pumps, motors, variable frequency drives, and screens at the Calumet WRP;
- Continue construction to replace the TARP pumping station screens, which require manual cleaning, with a fully automated self-cleaning screen system at the Calumet WRP;
- Continue to upgrade and improve the heating, ventilation, and air conditioning system for the Monitoring & Research Laboratory to meet the evolving needs of the Monitoring & Research personnel and regulatory compliance;
- Complete construction of the Salt Creek Intercepting Sewer 2 and the Calumet Intercepting Sewer 19F;
- Award a contract to replace switchgear and motor control central at the O'Brien WRP;
- Award a construction contract to replace the North Side Sludge Line Section 1;
- Award a construction contract to rehabilitate Upper Des Plaines Intercepting Sewer 11D, extension C;
- Award a contract to replace the roof at the 95th Street Pumping Station in the Calumet Service Area;
- Award a contract to rehabilitate the North Branch Pumping Station in the North Service Area;
- Award a contract to rehabilitate the service tunnels at the O'Brien and Kirie WRPs;
- Award a contract to replace Tailrace Stop Logs, Headrace Gates, and Equipment at the Lockport Powerhouse.

Commitment to Community

- Award an engineering design contract for the development of a digester gas utilization facility at the Stickney WRP;
- Award odor control contracts at the Stickney, Kirie, Hanover Park, and Calumet WRPs;
- Award a contract for the Fischer Farms Horticultural Center at the Hanover Park WRP;
- Award a contract for an effluent reuse line at the Stickney WRP.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:

• Add Value

Though only partially complete, TARP has already been effective in reducing pollution and flooding throughout the District's combined sewer service area. The Engineering Department has continued working with the Army Corps of Engineers to complete the reservoir phase of that project, and at the end of 2017, Stage 1 of the McCook Reservoir was placed into service and will begin accepting flow in 2018. This will capture combined sewer overflows and flood water from 37 communities in southwest Cook County. This first stage of the reservoir will provide 3.5 billion gallons of storage and benefit the health and welfare of 3.1 million area residents.

The Engineering Department has worked with the Monitoring & Research and Maintenance & Operations Departments to develop odor control strategies at several of the WRPs to reduce the odor emissions that affect the District's neighbors and staff. Three projects are under design and will be awarded in 2018 to accomplish this goal, improving the quality of life for many individuals. One such project will be implemented at the Hanover Park WRP. The coarse screen building exhaust, gravity belt thickener exhaust, aerated grit tanks, and pre-treatment building are odorous areas at the plant, which is located in a residential neighborhood and adjacent to an elementary school. Odor compounds, concentrations, and associated air flows were collected and evaluated to determine the best available strategy to address the odor emissions. The following technologies will be applied: a biotrickling filter unit will be installed to address odors from the gravity belt thickener exhaust, a separate biotrickling filter unit will be installed to address the odors from the pre-treatment building and the aerated grit tanks, and a carbon adsorption filter unit will be installed to address the coarse screen building exhaust. The project will also include the installation of covers over the aerated grit tanks.

The Engineering Department is pursuing a project to contain odors at the Calumet WRP in another, innovative way, which will also produce a Class A biosolids product while containing nuisance odors generated during the process. The scope of work for this project is to design a covered composting system to be located at the Calumet WRP's East Drying Cells 5 and 6. The design shall utilize the GORE® system, which requires a biosolids feedstock with 15 to 25 percent solids content and a bulking agent (e.g. wood chips, yard waste, or shredded paper) to be mixed with the biosolids. The GORE® system consists of three phases: Phase I—High Rate Composting, Phase II—Maturation, and Phase III—Finishing. Each phase occurs at its own location. A total of 15 bunkers are required for Phase I and 12 bunkers are required for Phase II. No cover is needed in Phase III. Also included are conveyors to move material between phases, a receiving and mixing building, a biofilter system, blowers, and ancillary mechanical and electrical equipment.

- **Excellence**

In order to supplement carbon loading, which supports the EBPR process at the Calumet WRP, the Engineering Department is pursuing a project that will allow for the addition of organic waste to the aeration tanks. The conversion of the primary tanks through this project will allow for the receiving, storage, and distribution of the organic waste. EBPR is a sustainable approach to removing phosphorus. Contrary to chemical phosphorus removal, there is no increase in sludge production, and it allows for the phosphorus captured in the biosolids to be recovered and reused. However, influent characteristics need to be favorable to encourage the microorganisms to uptake phosphorus, including sufficient usable carbon.

The Engineering Department strives to achieve best-in-class performance for budgeting and scheduling of all Capital Improvement Program projects and has implemented comprehensive metrics to keep track of performance. In addition, projects are reviewed after construction is complete to document best practices and foster continuous improvement. The Engineering Department's capital projects have consistently averaged at or below the best-in-class goal in cost of 105 percent of the award value. This is due to the quality assurances and control of both in-house and consultant designs. Additionally, the Department strives to meet or beat the industry standard of 120 percent of the originally scheduled contract time and has made consistent improvements in this arena. The improvement is reflected in the data that shows that recent close outs of projects started in 2009 had averaged over 200 percent of the original contract time, whereas those projects beginning in 2015 had averaged closer to 110 percent of the original contract time.

- **Resource Recovery**

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. There are periods of time in the year when the steam demand is low and not all of the biogas is fully utilized. The Engineering Department is pursuing a project that will permit the increase in biogas production by approximately 70 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 the District steps towards energy neutrality. Liquid organic waste will be supplied by a single supply chain manager to provide consistency and certainty of volume. Organic wastes will include liquid waste from industrial sources such as food processing plants and fats, oils, and greases from traps and commercial waste. The liquid organics supply chain manager will be selected under a separate request for proposal process. The receiving station constructed under this project will handle up to 200,000 gallons of liquid organic wastes per day.

Water is an extremely valuable resource and the District's effluent is of exceptionally high quality. The Engineering Department is pursuing opportunities for water reuse by entities external to the District. Recently, the District entered into a contract with American Water to pursue reuse opportunities in the Calumet Service Area's industrial corridor. Additionally, Koppers, Inc., a global manufacturer and distributor located near the Stickney WRP, has expressed interest in pursuing reuse water at their plant. The District has also received interest from Intren, LLC, a Women-owned Business Enterprise and innovative utility solutions partner of the energy industry, to purchase water directly from the District. This strategy in the business plan has a goal to promote conservation and recycling.

The District recognizes the value of phosphorus as a non-renewable resource. The National Pollutant Discharge Elimination System permit limit for phosphorus has been established at a monthly average of 1.0 milligram per liter, with the possibility of a future further reductions. In an effort to optimize the sustainable removal of phosphorus from its wastewater influents and the subsequent recovery of phosphorus in various forms suitable for use as an agronomic fertilizer, the District initiated the EBPR process and a phosphorus recovery strategy, Ostara's Pearl® nutrient recovery technology, to recover this valuable resource. As the largest nutrient recovery facility in the world, this signifies a fundamental shift in water resource management and water stewardship. The project has begun operation and recovery of phosphorus in a reusable form for the fertilizer industry.

In order to optimize aeration processes and reduce energy consumption, the Engineering Department contracted Donohue & Associates, Inc. to evaluate the aeration system at the Stickney WRP. The study indicates that reducing the dissolved oxygen concentration to 2.0 milligrams per liter, along with the existing dissolved oxygen control system, will provide a 22 percent reduction of air usage in the aeration batteries. Also discussed was additional air usage reduction by implementing an ammonia control system. The existing air reduction utilized in the biological phosphorus operation in the aeration tanks was not included in the report, but does provide additional reduction in air usage. To realize savings from these control strategies, the existing large blowers at the Stickney WRP must be evaluated for optimized operation. Currently, the Engineering Department is evaluating the complex piping configuration to determine the improvements required to reliably provide the reduced air flow equally to all four aeration batteries. Also, the Engineering Department is evaluating the turn-down capacity of the existing large blowers in order to determine if air reduction from a new blower control system can be realized.

Specifications are in place for every Capital Improvement Program project in the Engineering Department that includes administrative and procedural requirements for the recycling and disposing of non-hazardous construction and demolition waste. This includes building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations, including packaging materials. Under this specification, the contractor is required to develop a Waste Management Plan that results in a recycling rate of 60 percent by weight of total waste generated by the work. This plan

must include how the weights of each type of debris will be calculated and documented. The District's goal is to recycle as much non-hazardous construction and demolition waste as possible.

- **Develop Employees**

The Engineering Department encourages staff to attend professional development conferences and seminars that present the most state of the art technologies and provide information on the latest developments in engineering design and construction. Engineering staff includes numerous licensed professional engineers who are leaders in their respective field. Staff regularly attend, present papers, and act as chairs or moderators at national and international conferences, seminars, and society meetings, in their areas of expertise. Additionally, the Engineering Department rotates staff between the design and construction administration sections in order to gain perspective and understanding of all aspects of contract development and execution. Further efforts will be made in 2018 to expand this program to more staff members.

- **Leading Partnerships**

Efforts are underway to work with local municipalities and engage local industries to explore the use of effluent water for commercial and industrial purposes that require clean, but not necessarily potable water. Developing these partnerships will help reduce the local industry's dependence on water from Lake Michigan, provide economic development incentives for local municipalities, and further the District's goal of recovering water as a precious resource. As previously mentioned, the Engineering Department has pursued several partnerships with local and national business enterprises, including Koppers, Inc. and Intren, LLC, and will continue to seek and expand the District's plant effluent water reuse opportunities.

- **Technology**

An electronic project management system, e-Builder, has been implemented to manage all of the District's Capital Improvement Plan projects and report on the \$250 million in expenditures, as well as the various metrics used in the department. These include tracking project design and construction schedules, forecasting award dates, cash flow projections for budgeting, and all construction contractor submittals and documentation. Use of this system will improve work flow and efficiency and allow for more accurate predictions of our project expenditures.

Capital Improvements Bond Fund Program

<u>Awards in 2018</u>			Est. Construc- tion Cost	Dura- tion (days)	Est. Award Date
#	Project Name	Project Number			
1	North Side Sludge Pipeline Replacement - Section 1, NSA	07-027-3S	\$ 14,327	820	Jan-18
2	Organic Waste Receiving Facility and Digester Gas Flare Upgrade, CWRP	11-240-3P	8,500	545	Jan-18
3	Summit Conduit Rehabilitation, SSA	16-126-3S	1,700	520	Jan-18
4	Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	17-606-31	645	355	Jan-18
5	Elevator Improvements, Mainstream Pumping Station, SSA	17-903-41	245	325	Jan-18
6	Enhancements to the Laboratory Information Management System (LIMS), SSA	17-RFP-15	299	356	Jan-18
7	Furnish, Deliver, and Install Disc Filters, EWRP	18-702-31	3,200	1,065	Jan-18
8	Emerson Ovation Distributed Control System, NSA	18-704-31	1,802	364	Jan-18
9	Conversion of Primary Tanks to High Strength Waste Receiving and Distribution, CWRP	16-272-3P	3,500	515	Feb-18
10	Heavy Equipment Storage Building Site Improvements, Bulk Storage Building, CWRP and OWRP	17-845-3P	1,560	304	Feb-18
11	Pump Rehabilitation and Diverter Gate Installation, EWRP	16-412-3M	400	91	Mar-18
12	Fischer Farms Horticultural Center, HPWRP	16-538-3V	3,500	396	Mar-18
13	Pilot Study for Investigating Technology to Address Basement Backups, CSA	16-IGA-20	400	670	Mar-18
14	Structural Repairs and Roofing Replacement at the 95th Street Pumping Station, CSA	17-276-3D	1,866	670	Mar-18
15	Plant Information Management System, Various Locations	17-RFP-36	300	304	Mar-18
16	Pavement Rehabilitation, Various Locations	18-605-31	1,100	656	Mar-18
17	Guaranteed Energy Performance, Various Locations	18-706-31	3,500	245	Mar-18
18	Switchgear and Motor Control Center Replacement, OWRP	17-080-3E	2,200	760	Apr-18
19	Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP	17-134-3M	15,000	700	May-18
20	Stickney Effluent Reuse Line, SSA	14-107-3S	800	486	Jun-18
21	Drop Shaft 5 Inspection and Rehabilitation, NSA	14-372-3S	2,700	425	Jun-18
22	Rehabilitation of North Branch Pumping Station, NSA	16-079-3D	3,000	618	Jun-18
23	Furnish, Deliver, and Configure a Fence Line Odor Monitoring System, SWRP	18-RFP-XX	300	182	Jun-18
24	Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP	15-069-3D	10,000	822	Sep-18
25	39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS	24,700	770	Oct-18
26	Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment, CWRP	15-830-3D	10,000	761	Oct-18
27	Modifications to TARP Structures, CSA and SSA	17-842-3H	2,500	453	Nov-18
28	Furnish, Deliver, and Install Odor Control Systems, KWRP, HPWRP, and CWRP	17-844-3P	3,000	425	Nov-18
29	Railroad Locomotive Terminal Restoration, SWRP	18-904-31	1,440	457	Nov-18
30	Digester Rehabilitation and Gas Piping Replacement, SWRP	17-140-3P	15,000	761	Dec-18
31	Furnish and Install Odor Control System at the Thornton Reservoir, CSA	17-273-3P	1,200	395	Dec-18
Total 2018 Awards			\$ 138,684		

Projects Under Development

#	Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
32	North Shore 1 Rehabilitation, NSA	10-047-3S	\$ 22,750	920	Jan-19
33	Dewatering System, CWRP	17-2XX-3P	10,000	1,094	Jan-19
34	Energy Neutrality Improvements, EWRP	17-413-3P	20,000	720	Jan-19
35	Energy Neutrality Improvements, HPWRP	17-539-3P	15,000	720	Jan-19
36	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S	5,500	720	Feb-19
37	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, KWRP	06-360-3S	6,700	360	Mar-19
38	Decommissioning of the Thornton Transitional Reservoir, CSA	15-266-4H	3,500	660	Mar-19
39	Phosphorus Recovery System, CWRP	12-245-3P	31,000	1,095	Jun-19
40	Screens and Conveyor Improvements at the 125th Street Pumping Station, CSA	09-230-3M	3,825	720	Jul-19
41	Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-128-3D	2,000	370	Aug-19
42	A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	16-127-3D	17,000	1,095	Oct-19
43	Digester Gas Utilization Facilities, SWRP	11-189-3P	17,000	1,095	Jan-20
44	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S	5,500	720	Sep-20
45	Palos Hills Pumping Station Force Main, CSA	11-242-3S	6,700	620	Feb-21
46	Roof Replacement of the Lue-Hing M&R Complex, SWRP	17-135-3V	6,500	730	Mar-21
47	Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-129-3D	2,000	370	Aug-21
48	Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-130-3D	2,000	370	Aug-21
49	Deammonification System, SWRP	13-101-3P	30,000	820	Sep-21
50	Organic Waste Receiving Station, SWRP	14-117-3P	30,000	530	Sep-21
51	McCook Reservoir Expanded Stage 2 Rock Wall Stabilization, SWRP	17-131-4F	5,000	1,278	Feb-22
Total Future Awards			\$ 241,975		
Cumulative 2018 and Future Awards			\$ 380,659		

*This project is funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.

Bold type indicates projects to be financed by "Unlimited Tax Bonds."

	Method of Financing		
	State	General	Total
	Revolving <u>Fund Loans</u>	Obligation <u>Bonds</u>	
Tunnel and Reservoir Plan	\$ -	\$ -	\$ -
Water Reclamation Plant	-	85,459	85,459
Expansion and Improvements	-	-	-
Solids Management	-	84,767	84,767
Collection Facilities	30,200	53,392	83,592
Replacement of Facilities	49,025	77,416	126,441
Other	-	400	400
	\$ 79,225	\$ 301,434	\$ 380,659

Projects Under Construction

Projects Under Construction in the Capital Improvements Bond Fund were appropriated in prior years using the full encumbrance (obligation) method of budgetary accounting. The construction contract award amount and the anticipated completion date are provided in this table.

#	Project Name	Project Number	Est. Construction Cost	Award Date	Est. Completion Date
1	Calumet TARP Pumping Station Improvements, CWRP	06-212-3M	\$ 35,746	May-13	May-18
2	Phosphorus Recovery System, SWRP	11-195-AP	31,914	Aug-14	Feb-18
3	West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP	04-128-3P	231,964	Dec-14	Apr-18
4	Calumet TARP Screens, CWRP	13-246-3M	12,754	Feb-15	Mar-19
5	TARP Pump #8 Rehabilitation, MSPS	02-111-3M	4,533	Apr-15	Jan-18
6	Salt Creek Intercepting Sewer 2 Rehabilitation, SSA	06-155-3S	44,041	Dec-15	Nov-18
7	D799 Switchgear Replacement, SWRP	09-182-3E	12,752	Dec-15	Nov-19
8	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	04-132-3D	20,615	May-16	May-19
9	Conversion of Old GCTs to the WASSTRIP® Process, SWRP	15-120-3P	5,223	May-16	Feb-18
10	Calumet Intercepting Sewer 19F Rehabilitation, CSA	11-239-3S	12,396	Jun-16	Mar-18
11	McCook Reservoir Des Plaines Inflow Tunnel	13-106-4F	107,662	Jun-16	Jan-20
12	Albany Park Stormwater Diversion Tunnel, NSA	14-IGA-07	25,920	Jun-16	May-18
13	Safety Railing around Tanks, SWRP	15-123-3D	5,239	Jul-16	Jan-18
14	Rehabilitation of Bridges, NSA	14-824-3D	2,093	Sep-16	Jan-18
15	Safety Railing around Tanks, OWRP	15-072-3D	1,400	Sep-16	Jan-18
16	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP	15-122-3P	6,654	Oct-16	Oct-18
17	Main Sewage Pump Seal Water System Modification, MSPS	15-118-3M	1,121	Jan-17	Jul-18
18	McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA	16-125-4F	7,339	Apr-17	Apr-18
19	Painting of Final Tanks at Various Locations	17-601-31	1,574	Jul-17	Dec-19
20	Devon IAS Switchgear Replacement and Wilmette PS Conduit Replacement, NSA	16-077-3E	600	Aug-17	Oct-18
21	Furnish, Deliver and Install an Upgraded Sludge Concentration Conveyor at the Calumet WRP	16-802-31	220	Aug-17	Jun-18
22	North Branch Dam Removal and River Riparian Connectivity	16-IGA-22	2,500	Aug-17	Sep-20
23	Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP	15-124-3P	4,095	Sep-17	May-19
24	Furnish, Deliver and Install Boiler Controls at the Stickney, WRP	16-901-31	1,224	Sep-17	Oct-18
25	Installation of Disc Filters at the Hanover Park WRP	17-708-31	1,313	Sep-17	Feb-19
26	Installation of Baffle Plates in Final Settling Tanks, OWRP	15-074-3D	1,600	Nov-17	Dec-18
27	Installation of Shaftless Screw Conveyors for Aerated Grit Tanks at the Stickney WRP	17-902-31	2,595	Dec-17	Jun-20
Total Projects Under Construction			\$ 585,087		

Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.

Bold type indicates projects to be financed by "Unlimited Tax Bonds."

Capital Improvements Bond Fund Program Impacts

#	Project Name	Project Number	Justification				Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical
Awards in 2018									
1	North Side Sludge Pipeline Replacement - Section 1, NSA	07-027-3S			x		=	++	=
2	Organic Waste Receiving Facility and Digester Gas Flare Upgrade, CWRP	11-240-3P			x		=	=	=
3	Summit Conduit Rehabilitation, SSA	16-126-3S		x	x		=	=	=
4	Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	17-606-31	x		x	x	=	+	=
5	Elevator Improvements, Mainstream Pumping Station, SSA	17-903-41		x		x	=	=	=
6	Enhancements to the Laboratory Information Management System (LIMS), SSA	17-RFP-15			x		=	=	=
7	Furnish, Deliver, and Install Disc Filters, EWRP	18-702-31		x			=	=	=
8	Emerson Ovation Distributed Control System, NSA	18-704-31		x			=	+	=
9	Conversion of Primary Tanks to High Strength Waste Receiving and Distribution, CWRP	16-272-3P	x			x	-	-	=
10	Heavy Equipment Storage Building Site Improvements, Bulk Storage Building, CWRP and OWRP	17-845-3P				x	=	=	=
11	Pump Rehabilitation and Diverter Gate Installation, EWRP	16-412-3M		x			=	=	=
12	Fischer Farms Horticultural Center, HPWRP	16-538-3V		x			=	=	=
13	Pilot Study for Investigating Technology to Address Basement Backups, CSA	16-IGA-20				x	=	=	=
14	Structural Repairs and Roofing Replacement at the 95th Street Pumping Station, CSA	17-276-3D		x			=	=	=
15	Plant Information Management System, Various Locations	17-RFP-36				x	+	=	=
16	Pavement Rehabilitation, Various Locations	18-605-31			x		=	+	=
17	Guaranteed Energy Performance, Various Locations	18-706-31		x		x	=	=	=
18	Switchgear and Motor Control Center Replacement, OWRP	17-080-3E		x		x	=	=	=
19	Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP	17-134-3M				x	-	-	=
20	Stickney Effluent Reuse Line, SSA	14-107-3S				x	=	=	=
21	Drop Shaft 5 Inspection and Rehabilitation, NSA	14-372-3S		x			=	=	=
22	Rehabilitation of North Branch Pumping Station, NSA	16-079-3D	x	x			=	=	=
23	Furnish, Deliver, and Configure a Fence Line Odor Monitoring System, SWRP	18-RFP-XX				x	=	=	-

Capital Improvements Bond Fund Operating Impacts for Awards in 2018 (continued)			Justification				Impact		
			Capacity Needs	Useful Life	Economic Benefit	Safety/Regulatory	Manpower	Energy	Chemical
#	Project Name	Project Number							
24	Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP	15-069-3D	x	x			=	=	=
25	39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS				x	=	=	=
26	Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment, CWRP	15-830-3D		x			=	=	=
27	Modifications to TARP Structures, CSA and SSA	17-842-3H	x				=	=	=
28	Furnish, Deliver, and Install Odor Control Systems, KWRP, HPWRP, and CWRP	17-844-3P		x	x		+	-	-
29	Railroad Locomotive Terminal Restoration, SWRP	18-904-31		x			+	=	=
30	Digester Rehabilitation and Gas Piping Replacement, SWRP	17-140-3P		x			=	=	=
31	Furnish and Install Odor Control System at the Thornton Reservoir, CSA	17-273-3P				x	=	=	=
Projects Under Development									
32	North Shore 1 Rehabilitation, NSA	10-047-3S		x			=	=	=
33	Dewatering System, CWRP	17-2XX-3P			x		=	=	=
34	Energy Neutrality Improvements, EWRP	17-413-3P			x		=	++	=
35	Energy Neutrality Improvements, HPWRP	17-539-3P			x		=	++	=
36	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S		x			=	=	=
37	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, KWRP	06-360-3S		x			=	=	=
38	Decommissioning of the Thornton Transitional Reservoir, CSA	15-266-4H		x			=	=	=
39	Phosphorus Recovery System, CWRP	12-245-3P				x	-	-	-
40	Screens and Conveyor Improvements at the 125th Street Pumping Station, CSA	09-230-3M		x			=	++	=
41	Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-128-3D		x			=	=	=
42	A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	16-127-3D		x			=	=	=
43	Digester Gas Utilization Facilities, SWRP	11-189-3P			x		-	++	=
44	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S		x	x		=	=	=
45	Palos Hills Pumping Station Force Main, CSA	11-242-3S		x			=	=	=
46	Roof Replacement of the Lue-Hing M&R Complex, SWRP	17-135-3V		x		x	=	=	=
47	Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-129-3D		x			=	=	=
48	Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-130-3D		x			=	=	=
49	Deammonification System, SWRP	13-101-3P	x				=	-	=
50	Organic Waste Receiving Station, SWRP	14-117-3P			x		-	++	=

Capital Improvements Bond Fund Operating Impacts for Projects Under Development (continued)			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							
51	McCook Reservoir Expanded Stage 2 Rock Wall Stabilization, SWRP	17-131-4F			x		+	+	=
Projects Under Construction									
1	Calumet TARP Pumping Station Improvements, CWRP	06-212-3M	x				-	+	=
2	Phosphorus Recovery System, SWRP	11-195-AP				x	-	-	-
3	West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP	04-128-3P	x	x			++	++	++
4	Calumet TARP Screens, CWRP	13-246-3M				x	+	=	=
5	TARP Pump #8 Rehabilitation, MSPS	02-111-3M		x			+	+	=
6	Salt Creek Intercepting Sewer 2 Rehabilitation, SSA	06-155-3S		x			=	+	=
7	D799 Switchgear Replacement, SWRP	09-182-3E		x			=	=	=
8	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	04-132-3D		x			=	=	=
9	Conversion of Old GCTs to the WASSTRIP® Process, SWRP	15-120-3P			x		=	=	=
10	Calumet Intercepting Sewer 19F Rehabilitation, CSA	11-239-3S		x			=	=	=
11	McCook Reservoir Des Plaines Inflow Tunnel	13-106-4F	x		x		=	=	=
12	Albany Park Stormwater Diversion Tunnel, NSA	14-IGA-07				x	=	=	=
13	Safety Railing around Tanks, SWRP	15-123-3D				x	=	=	=
14	Rehabilitation of Bridges, NSA	14-824-3D		x			=	=	=
15	Safety Railing around Tanks, OWRP	15-072-3D				x	=	=	=
16	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP	15-122-3P				x	=	=	=
17	Main Sewage Pump Seal Water System Modification, MSPS	15-118-3M				x	-	-	=
18	McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA	16-125-4F			x		=	=	=
19	Painting of Final Tanks at Various Locations	17-601-31		x			=	=	=
20	Devon IAS Switchgear Replacement and Wilmette PS Conduit Replacement, NSA	16-077-3E		x			=	=	=
21	Furnish, Deliver and Install an Upgraded Sludge Concentration Conveyor at the Calumet WRP	16-802-31	x		x	x	=	=	=
22	North Branch Dam Removal and River Riparian Connectivity	16-IGA-22				x	=	=	=
23	Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP	15-124-3P				x	=	-	=
24	Furnish, Deliver and Install Boiler Controls at the Stickney, WRP	16-901-31		x			=	=	=
25	Installation of Disc Filters at the Hanover Park WRP	17-708-31	x				=	+	=
26	Installation of Baffle Plates in Final Settling Tanks, OWRP	15-074-3D				x	=	=	=

<u>Capital Improvements Bond Fund</u> <u>Operating Impacts for Projects</u> <u>Under Construction (continued)</u>			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							
27	Installation of Shaftless Screw Conveyors for Aerated Grit Tanks at the Stickney WRP	17-902-31			x		+	=	=

LEGEND

Under "**Justification**," the marked columns note the categories of benefits expected from each project.

Manpower

+ 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.

Energy

+ 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.

Chemical

+ 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.

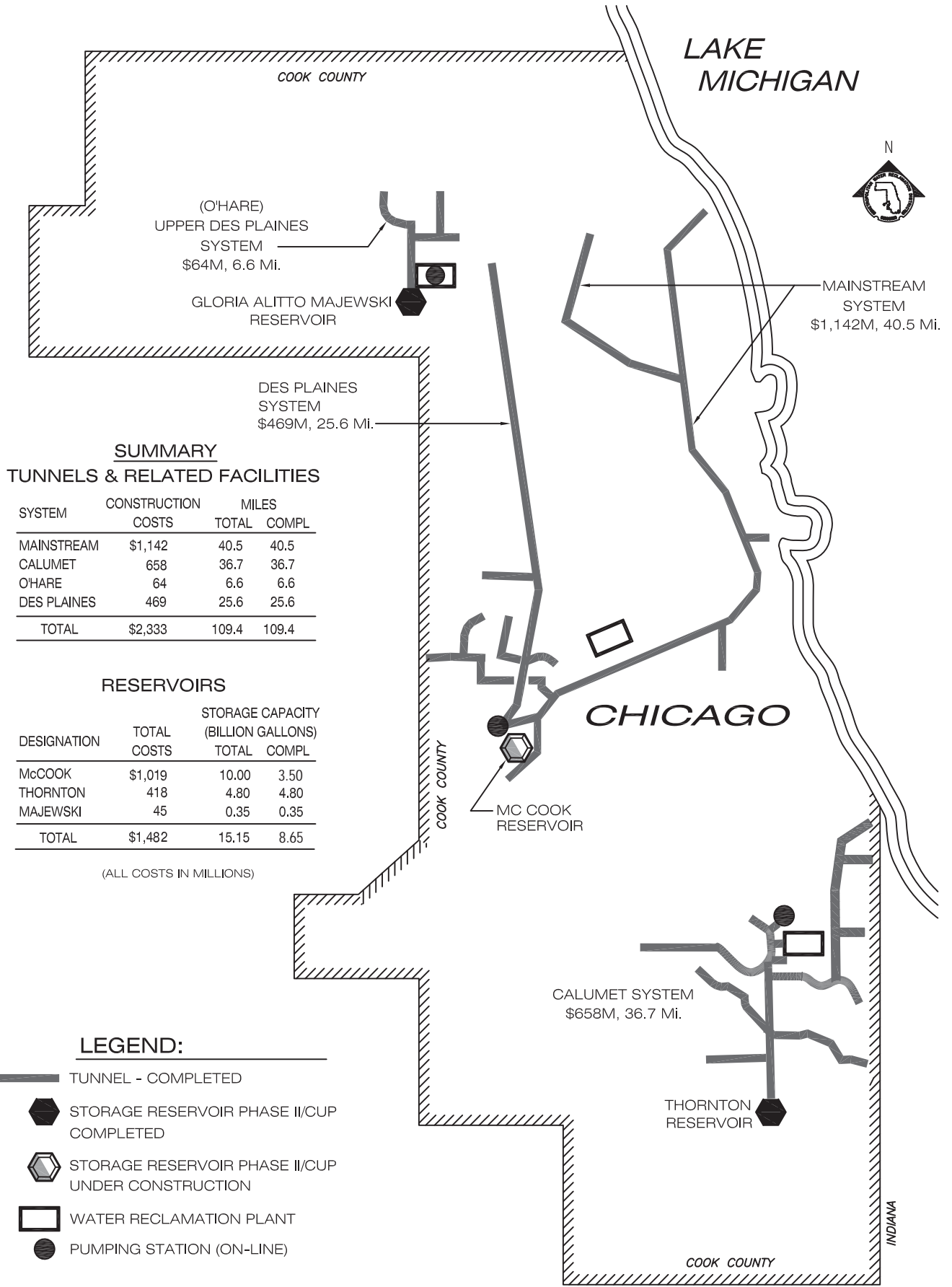
TARP PHASE II PROJECT COSTS

Phase I of TARP was completed in 2016 and two of the Phase II reservoirs, Majewski and Thornton, are now operational. Stage 1 of the McCook Reservoir became operational in December 2017 and Stage 2 will continue to be mined with completion scheduled for 2029. Though only partially complete, TARP has already been effective in reducing pollution and flooding. The Phase II Reservoir project costs are shown in the table below.

Project Name	Project Number	Design/Construction Status	Project Costs (4)	Funded by Army Corps of Engineers
Majewski Reservoir				
I - Army Corps of Engineers Contracts	73-315-2S	Construction completed in 1998	\$40,818,858	75%
II - Betterments (1)	93-339-2F	Construction completed in 1998	\$3,991,694	No
Thornton Reservoir				
I - Vincennes Avenue Relocation	77-235-AF	Construction completed in 2001	\$4,398,000	See Note (3)
II - Transitional Reservoir GW Monitoring Wells	77-235-CF	Construction completed in 2002	\$529,000	
III - Transitional Reservoir (2)	77-235-BF	Construction completed in 2003	\$54,707,000	
IV - Mining, Land, and Corps Costs	77-235-2F	Mining completed in 2013	\$65,210,000	
V - Tollway Dam and Grout Curtain	04-201-4F	Construction completed in 2015	\$80,750,000	
VI - TARP Inlet/Outlet Tunnels and Gates	04-202-4F	Construction completed in 2015	\$147,000,000	
VII - Final Reservoir Preparation	04-203-4F	Construction completed in 2015	\$63,479,000	
VIII - Surface Aeration	04-203-AF	Construction completed in 2017	\$1,921,000	
McCook Reservoir				
I - Stages 1 and 2 - Army Corps of Engineers Contracts	73-161-2H	Reservoir to be constructed under several contracts	\$664,000,000	75%
II - Site Preparation, Lagoons 1-10	73-161-BH	Construction completed in 2000	\$889,000	\$307,000 Credited
III - 73rd Street Tunnel Relocation	97-156-2H	Construction completed in 2002	\$15,132,000	Credited
IV - Willow Springs Berm	96-249-2P	Construction completed in 2002	\$3,593,000	No
V - Vulcan Primary Crusher Furnish and Deliver	PO3030920	Crusher purchased in 2005	\$1,626,000	No
VI - Conveyance Tunnel	73-161-AH	Construction completed in 2006	\$5,428,000	No
VII - Vulcan Mining Trucks and Loaders	73-161-HH	Vehicles delivered in 2007	\$11,105,000	No
VIII - Vulcan Miscellaneous Mining Vehicles	73-161-GH	Vehicles delivered in 2007 and 2008	\$4,989,000	No
IX - Conveyance System and Maintenance Facilities	73-161-FH	Construction completed in 2008	\$32,381,000	\$1.84M Credited
X - LASMA Overburden Removal	73-161-CH	Construction completed in 2010	\$66,316,000	No
XI - Vulcan Rock Mining Hard Costs Less Royalty	73-161-EH	Mining underway	\$61,695,000	No
XII - Stage 2 Miscellaneous Overburden Removal	73-161-JH	Construction completed in 2012	\$6,510,000	No
XIII - Expanded Stage 2 Overburden Removal	73-161-DH	Construction completed in 2016	\$18,743,000	No
XIV - Des Plaines Inflow Tunnel	13-106-4F	Construction underway in 2016	\$112,237,000	No
XV - Expanded Stage 2 Slope Stabilization	16-125-4F	Construction underway in 2017	\$7,338,000	No
XVI - Expanded Stage 2 Rock Wall Stabilization	17-131-4F	Future	\$5,000,000	No
XVII - Expanded Stage 2 Aeration and Floor Features	17-132-4F	Future	\$2,000,000	No
Total Project Cost			\$1,481,787,000	

Notes:

- (1) Betterment includes a control building, reservoir outflow control gates, and monitoring system.
- (2) Cost shown is total cost of Transitional Reservoir. Facilities that will be re-used for the Thornton Composite Reservoir account for \$30,337,000 of the cost.
- (3) The District designed and constructed the Thornton Composite Reservoir in anticipation of receiving reimbursement or credits from the Army Corps of Engineers.
- (4) Includes land, engineering, and construction costs.



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
TOTAL	\$2,333	109.4	109.4

RESERVOIRS

DESIGNATION	TOTAL COSTS	STORAGE CAPACITY (BILLION GALLONS)	
		TOTAL	COMPL
McCOOK	\$1,019	10.00	3.50
THORNTON	418	4.80	4.80
MAJEWSKI	45	0.35	0.35
TOTAL	\$1,482	15.15	8.65

(ALL COSTS IN MILLIONS)

TUNNEL and RESERVOIR PLAN PROJECT STATUS

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 2018 award, or under development.

Bold type indicates projects to be financed by "Unlimited Tax Bonds."

STICKNEY SERVICE AREA (SSA)



Stickney Water Reclamation Plant (SWRP)

Projects Under Construction (with estimated completion dates)		Estimated Construction Cost
02-111-3M	TARP Pump #8 Rehabilitation, MSPS (1/2018)	\$ 4,533,000
04-128-3P	West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP (4/2018)	231,964,000
04-132-3D	A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP (5/2019)	20,615,000
06-155-3S	Salt Creek Intercepting Sewer 2 Rehabilitation, SSA (11/2018)	44,041,000
09-182-3E	D799 Switchgear Replacement, SWRP (11/2019)	12,752,000
11-195-AP	Phosphorus Recovery System, SWRP (2/2018)	31,914,000
13-106-4F	McCook Reservoir Des Plaines Inflow Tunnel (1/2020)	107,662,000
15-118-3M	Main Sewage Pump Seal Water System Modification, MSPS (7/2018)	1,121,000
15-120-3P	Conversion of Old GCTs to the WASSTRIP® Process, SWRP (2/2018)	5,223,000
15-122-3P	Aeration Tanks Air Valves Automation in Batteries A, B, C, and D, SWRP (10/2018)	6,654,000
15-123-3D	Safety Railing around Tanks, SWRP (1/2018)	5,239,000
15-124-3P	Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP (5/2019)	4,095,000
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, Des Plaines, SSA (4/2018)	950,000
15-IGA-20^*	Installation of Green Infrastructure at Chicago Public Schools, Various Locations (10/2020) [Capital Improvements Bond Fund = \$2,955,000; Stormwater Management Fund = \$13,045,000]	2,955,000
16-125-4F	McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA (4/2018)	7,339,000
16-901-31	Furnish, Deliver and Install Boiler Controls at the Stickney, WRP (10/2018)	1,224,000
16-IGA-06^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property located along the Des Plaines River, Riverside Lawn, SSA (6/2018)	8,000,000

Stickney Water Reclamation Plant (SWRP)

Projects Under Construction (with estimated completion dates) (continued)		Estimated Construction Cost
16-IGA-11^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Des Plaines, SSA (12/2019)	\$ 3,625,000
16-IGA-14^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Northlake, SSA (11/2018)	1,184,000
17-902-31	Installation of Shaftless Screw Conveyors for Aerated Grit Tanks at the Stickney WRP (6/2020)	2,595,000
Total		\$ 503,685,000

Projects for 2018 Award

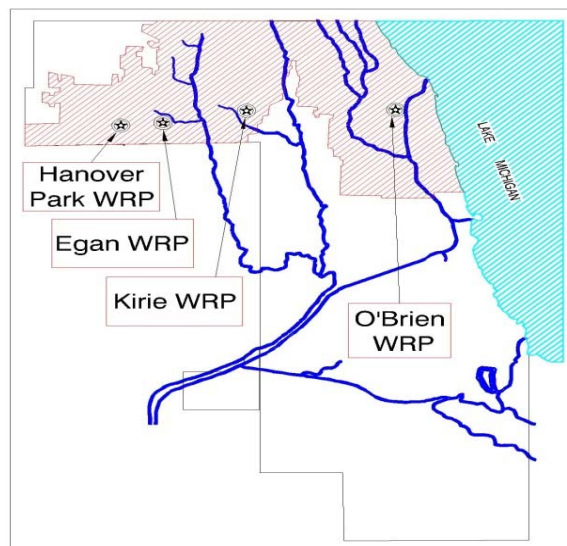
01-103-AS	39th Street Conduit Rehabilitation - Phase II, SSA	\$ 24,700,000
11-186-3F^	Addison Creek Reservoir, SSA	95,155,000
11-186-AF^	Demolition at Addison Creek Reservoir and Thornton Reservoir, SSA, CSA	1,050,000
14-107-3S	Stickney Effluent Reuse Line, SSA	800,000
16-126-3S	Summit Conduit Rehabilitation, SSA	1,700,000
16-IGA-13^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA	4,681,000
16-IGA-15^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Stone Park, SSA	2,700,000
17-134-3M	Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP	15,000,000
17-606-31	Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	645,000
17-140-3P	Digester Rehabilitation and Gas Piping Replacement, SWRP	15,000,000
17-842-3H	Modifications to TARP Structures, CSA and SSA	2,500,000
17-903-41	Elevator Improvements, Mainstream Pumping Station	245,000
17-RFP-15	Enhancements to the Laboratory Information System (LIMS), SSA	299,000
17-RFP-36	Plant Information Management System, Various Locations	300,000
18-904-31	Railroad Locomotive Terminal Restoration, SWRP	1,440,000
18-RFP-XX	Furnish, Deliver, and Configure a Fence Line Odor Monitoring System, SWRP	300,000
Total		\$ 166,515,000

Projects Under Development

11-187-3F^	Addison Creek Channel Improvements, SWRP	\$ 44,512,000
11-189-3P	Digester Gas Utilization Facilities, SWRP	17,000,000
13-101-3P	Deammonification System, SWRP	30,000,000
14-117-3P	Organic Waste Receiving Station, SWRP	30,000,000
16-127-3D	A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	17,000,000
16-128-3D	Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	2,000,000
16-129-3D	Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	2,000,000
16-130-3D	Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	2,000,000
17-131-4F	McCook Reservoir Expanded Stage 2 Rock Wall Stabilization, SWRP	5,000,000
17-135-3V	Roof Replacement of the Lue-Hing M&R Complex, SWRP	6,500,000

Total	\$ 156,012,000
Stickney Service Area Grand Total	\$ 826,212,000

NORTH SERVICE AREA (NSA)



Terrence J. O'Brien Water Reclamation Plant (OWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
14-IGA-07	Albany Park Stormwater Diversion Tunnel, NSA (5/2018)	\$ 25,920,000
14-824-3D	Rehabilitation of Bridges, NSA (1/2018)	2,093,000
15-072-3D	Safety Railing around Tanks, OWRP (1/2018)	1,400,000
15-074-3D	Installation of Baffle Plates in Final Settling Tanks, OWRP (12/2018)	1,600,000
16-077-3E	Devon IAS Switchgear Replacement and Wilmette PS Conduit Replacement, NSA (10/2018)	600,000
16-IGA-22	North Branch Dam Removal and River Riparian Connectivity (9/2020)	2,500,000
17-601-31	Painting of Final Tanks at Various Locations (12/2019)	1,574,000
Total		\$ 35,687,000

Projects for 2018 Award

07-027-3S	North Side Sludge Pipeline Replacement - Section 1, NSA	\$ 14,327,000
15-069-3D	Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP	10,000,000
16-079-3D	Rehabilitation of North Branch Pumping Station, NSA	3,000,000
17-080-3E	Switchgear and Motor Control Center Replacement, OWRP	2,200,000
18-605-31	Pavement Rehabilitation, Various Locations	1,100,000
18-704-31	Emerson Ovation Distributed Control System, NSA	1,802,000
18-706-31	Guaranteed Energy Performance, Various Locations	3,500,000
Total		\$ 35,929,000

Projects Under Development

10-047-3S	North Shore 1 Rehabilitation, NSA	\$ 22,750,000
Total		\$ 22,750,000

John E. Egan Water Reclamation Plant (EWRP)

Projects for 2018 Award

16-412-3M	Pump Rehabilitation and Diverter Gate Installation, EWRP	\$ 400,000
18-702-31	Furnish, Deliver, and Install Disc Filters, EWRP	3,200,000
Total		\$ 3,600,000

Project Under Development

11-404-3S	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	\$ 5,500,000
17-413-3P	Energy Neutrality Improvements, EWRP	20,000,000
Total		\$ 25,500,000

James C. Kirie Water Reclamation Plant (KWRP)

Projects for 2018 Award

		Estimated Construction Cost
13-370-3F*^	Buffalo Creek Reservoir Expansion, NSA [Capital Improvements Bond Fund = \$19,300,00; Stormwater Management Fund = \$1,831,000]	\$ 19,300,000
14-372-3S	Drop Shaft 5 Inspection and Rehabilitation, NSA	<u>2,700,000</u>
	Total	\$ 22,000,000

Projects Under Development

06-360-3S	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, KWRP	\$ 6,700,000
12-369-3S	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	<u>5,500,000</u>
	Total	\$ 12,200,000

Hanover Park Water Reclamation Plant (HPWRP)

Projects Under Construction (with estimated completion dates)

17-708-31	Installation of Disc Filters at the Hanover Park WRP (2/2019)	<u>\$ 1,313,000</u>
		1,313,000

Project for 2018 Award

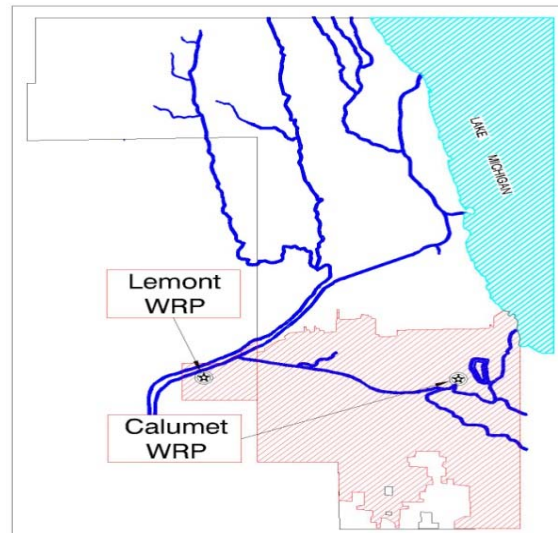
16-538-3V	Fischer Farms Horticultural Center, HPWRP	<u>\$ 3,500,000</u>
	Total	\$ 3,500,000

Projects Under Development

17-539-3P	Energy Neutrality Improvements, HPWRP	<u>\$ 15,000,000</u>
	Total	\$ 15,000,000

North Service Area Grand Total	\$ 177,479,000
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CALUMET SERVICE AREA (CSA)



Calumet Water Reclamation Plant (CWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
06-212-3M	Calumet TARP Pumping Station Improvements, CWRP (5/2018)	\$ 35,746,000
10-237-3F ^	Streambank Stabilization Project on Oak Lawn Creek, CSA (9/2018)	3,035,000
10-883-CF*^	Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA (3/2021) [Capital Improvements Bond Fund = \$2,590,000; Stormwater Management Fund = \$715,000]	2,590,000
11-239-3S	Calumet Intercepting Sewer 19F Rehabilitation, CSA (3/2018)	12,396,000
13-246-3M	Calumet TARP Screens, CWRP (3/2019)	12,754,000
14-263-3F^	Melvina Ditch Reservoir Improvements, CSA (3/2020)	14,245,000
15-IGA-14*^	Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA (10/2019) [Capital Improvements Bond Fund = \$3,483,000; Stormwater Management Fund = \$387,000]	3,483,000
16-802-31	Furnish, Deliver and Install an Upgraded Sludge Concentration Conveyor at the Calumet WRP (6/2018)	220,000
	Total	\$ 84,469,000

Projects for 2018 Award

10-882-AF^	Streambank Stabilization Project on Tinley Creek, CSA	\$ 3,806,000
10-882-CF^	Streambank Stabilization Project along Midlothian Creek, Tinley Park, CSA	392,000
11-240-3P	Organic Receiving Facility and Digester Gas Flare Upgrade, CWRP	8,500,000
13-248-3F^	Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA	8,800,000
15-830-3D	Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment, CWRP	10,000,000
16-272-3P	Conversion of Primary Tanks to High Strength Waste Receiving and Distribution, CWRP	3,500,000
16-IGA-12^	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Butterfield Creek, Flossmoor, CSA	638,000
16-IGA-20	Pilot Study for Investigating Technology to Address Basement Backups, CSA	400,000
17-273-3P	Furnish and Install Odor Control System at Thornton Reservoir, CSA	1,200,000
17-276-3D	Structural Repairs and Roofing Replacement at the 95th Street Pumping Station, CSA	1,866,000
17-844-3P	Furnish, Deliver, and Install Odor Control Systems, KWRP, HPWRP, and CWRP	3,000,000
17-845-3P	Heavy Equipment Storage Building Site Improvements, Bulk Storage Building, CWRP and OWRP	\$ 1,560,000
	Total	\$ 43,662,000

Calumet Water Reclamation Plant (CWRP)

Projects Under Development		Estimated Construction Cost
09-230-3M	Screens and Conveyor Improvements at the 125th Street Pumping Station, CSA	\$ 3,825,000
11-242-3S	Palos Hills Pumping Station Force Main, CSA	6,700,000
12-245-3P	Phosphorus Recovery System, CWRP	31,000,000
15-266-4H	Decommissioning of the Thornton Transitional Reservoir, CSA	3,500,000
17-2XX-3P	Dewatering System, CWRP	10,000,000
	Total	\$ 55,025,000
	Calumet Service Area Grand Total	\$ 183,156,000
	Capital Projects Grand Total - All Service Areas	\$ 1,186,847,000

^ These projects are part of the Stormwater Management Program. Detailed information about this fund and these projects appears in Section VI of this budget document.

* These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

39th Street Conduit Rehabilitation - Phase II, SSA

Project Number: 01-103-AS

Service Area: Stickney

Location: Chicago, Illinois

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$24,700,000

Contract Award Date: October 2018*

Substantial Completion Date: November 2020*



Project Description: The purpose of this project is to rehabilitate over 100-year-old conduit lying under 39th Street (Pershing Road), stretching from a former pumping station near Lake Michigan to its discharge at the Racine Avenue Pumping Station. The project includes rehabilitation of approximately 15,440 feet of 20-foot diameter brick-lined intercepting sewer and associated manholes and sewer connections.

Project Justification: The 39th Street conduit is approximately 110 years old. The conduit receives combined sewage from a service area of approximately nine square miles, on the southeast side of Chicago. Video inspection of this conduit indicates severe deterioration, including loss of bricks, infiltrating joints, and mineral deposits at a number of places, which could eventually lead to a collapse. Under Phase I of the project, a bypass tunnel was constructed to allow for the rehabilitation of the 39th Street conduit. Rehabilitation of the conduit will ensure long term drainage for over 145,000 people in its service area.

Project Status: The project is being designed.

*Information shown is estimated.

TARP Pump #8 Rehabilitation, MSPS

Project Number: 02-111-3M

Service Area: Stickney

Location: Mainstream Pumping Station

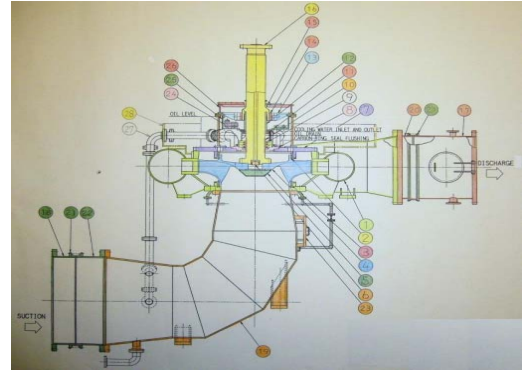
Engineering Consultant: In-house design

General Contractor: Broadway Electric, Inc.

Estimated Construction Cost: \$4,533,000

Contract Award Date: April 2015

Substantial Completion Date: January 2018*



Project Description: The purpose of this project is to completely overhaul the pump and motor of main sewage pump #8 in the north pump house of the Mainstream Pumping Station. Also, the new inflatable seal design utilized on pumps #2 and #6 will be installed on pump #8. This contract will serve as the model for the overhaul of the other five original installations.

Project Justification: The complete overhaul of the pump and motor involves the installation of new parts and current technology components, which will reduce the maintenance labor required for both pieces of equipment and improve reliability. The new inflatable seal design will increase the life of the mechanical seal and decrease leakage. The pump and motor will operate more efficiently by pumping more liquid in less time, leading to reduced electricity usage. The overhaul will extend the useful life of the pump and motor which have been in service since May 1985.

Project Status: This project is under construction.

*Information shown is estimated.

West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP

Project Number: 04-128-3P

Service Area: Stickney

Location: Stickney WRP

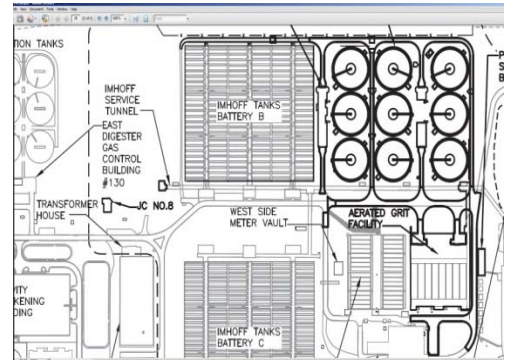
Engineering Consultant: Greeley and Hansen

General Contractor: IHC Construction Companies, LLC and F.H. Paschen, S.N. Nielsen Joint Venture

Estimated Construction Cost: \$231,964,000

Contract Award Date: December 2014

Substantial Completion Date: April 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 Water Reclamation Plant 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.

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: IHC Construction Companies, LLC and F.H. Paschen, S.N. Nielsen Joint Venture

Estimated Construction Cost: \$20,615,000

Contract Award Date: May 2016

Substantial Completion Date: May 2019*



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 70 to 80 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: The project is under construction.

*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: \$44,041,000

Contract Award Date: December 2015

Substantial Completion Date: November 2018*



Project Description: This project consists of rehabilitating approximately 32,800 feet of intercepting sewer with sizes ranging from 10" diameter to 7' x 7' 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 and two junction chambers 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 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: \$35,746,000

Contract Award Date: May 2013

Substantial Completion Date: May 2018*



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 kilovolt 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 pumps, along with new motors and four 4.6 kilovolt 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 million gallons per day 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.

North Side Sludge Pipeline Replacement - Section 1, NSA

Project Number: 07-027-3S

Service Area: North

Location: Village of Skokie, Village of Lincolnwood, and City of Chicago

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$14,327,000

Contract Award Date: January 2018*

Substantial Completion Date: April 2020*



Project Description: The purpose of this project is to replace Section 1 of the existing Northside Sludge Pipeline and rehabilitate 42 existing structures located in the Village of Skokie, the Village of Lincolnwood, and the City of Chicago.

Project Justification: Due to external corrosion and damage caused by construction activities of others in the area, the pipeline developed a number of holes over the years resulting in sludge overflowing into the North Shore Channel. In order to increase the reliability of sludge conveyance the pipeline needs to be rehabilitated and/or replaced. The structures were inspected by the Maintenance & Operations Department in January 2008 with a closed-circuit television inspection system and by physical inspection. The video inspection shows that the piping and valves inside the structures have corroded. Due to the importance of the North Side Sludge Pipeline, the piping and valves in the 42 structures shall be removed and replaced. New automatic air release valves shall be installed in the remaining existing structures to preserve the useful life of those structures.

Project Status: The project is being designed.

*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: \$12,752,000

Contract Award Date: December 2015

Substantial Completion Date: November 2019*



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 will 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 will be replaced to avoid a catastrophic failure.

Project Status: The 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: February 2018*



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 and Proviso Township

Engineering Consultant: In-house design

General Contractor: Insituform Technologies USA, LLC

Estimated Construction Cost: \$12,396,000

Contract Award Date: June 2016

Substantial Completion Date: March 2018*



Project Description: The project consists of rehabilitating approximately 14,051 linear feet of 60-inch sewer pipe, 252 feet of 20-inch circular sewer, 23 drop manholes, and one junction structure, removing an existing 48-inch cast-in-place structure, and abandoning of a 10-inch diameter pipe.

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: The project is under construction.

*Information shown is estimated.

Organic Waste Receiving Facility and Digester Gas Flare Upgrade, CWRP

Project Number: 11-240-3P

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$8,500,000

Contract Award Date: January 2018*

Substantial Completion Date: June 2019*



Project Description: The overall scope includes repurposing a decommissioned sludge screening building into an organic waste receiving and processing facility. Construction includes a receiving station for unloading two tanker trucks simultaneously, a receiving pit for high strength liquid waste and fats, oils, and greases, screens, transfer pumps, transfer piping, odor control, and site work for handling truck traffic. Due to the increase in digester gas production, two new digester gas flares must be added, and the existing flares in the flare house will be rebuilt.

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. 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 permit the increase in biogas production by approximately 70 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. Liquid organic waste will be supplied by a single supply chain manager to provide consistency and certainty of volume. Organic wastes will include high strength liquid waste from industrial sources such as food processing plants, and fats, oils, and greases from grease traps and commercial waste. The liquid organics supply chain manager will be selected under a separate request for proposal process. The receiving station constructed under this project will handle up to 200,000 gallons of liquid organic wastes per day.

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

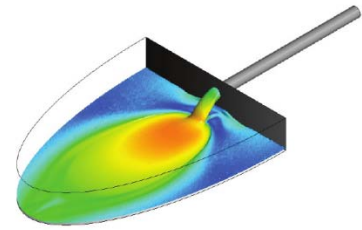
Engineering Consultant: Black & Veatch Corporation, Inc.

General Contractor: Walsh Construction Company II, LLC

Estimated Construction Cost: \$107,662,000

Contract Award Date: June 2016

Substantial Completion Date: January 2020*



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 and includes 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. The tunnel is required to provide adequate conveyance of combined sewer overflows from the Des Plaines tunnel to the reservoir. The tunnel will improve upon the conveyance plan formulated by the Army Corps of Engineers, which includes undesirable flow restrictions.

Project Status: This project is under construction.

*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: March 2019*



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, CWRP.

Project Justification: This project will restore the dependability of the equipment at the Calumet TARP pumping station. 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: The project is under construction.

*Information shown is estimated.

Stickney Effluent Reuse Line, SSA

Project Number: 14-107-3S

Service Area: Stickney

Location: Stickney Township

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$800,000

Contract Award Date: June 2018*

Substantial Completion Date: September 2019*



Project Description: This project consists of the installation of 2,000 linear feet of six-inch diameter pressure pipe by directional drilling and the installation of air relief, blow-off, and clean-out 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: The project is being designed.

*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/Black & Veatch, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$2,700,000

Contract Award Date: June 2018*

Substantial Completion Date: July 2019*



Project Description: The project consists of the following work at Drop Shaft No. 5: Drop shaft by means of slip lining, 100 feet of 108-inch pipe by the cured-in-place pipe lining process, 100 feet of the drop shaft exit conduit by spray-on lining, and replacement of deteriorated appurtenances. Additionally, Drop Shaft No. 8 will have louvers and grating installed and Control Structure 10 will have Gate 11 removed and Gate 13 replaced along with the installation of a new actuator. The work also includes the installation of radar level measurement devices at three shafts on the Calumet tunnel system and the replacement of gates and stop logs on Drop Shaft DS-P1, which is part of the 39th Street Conduit.

Project Justification: Drop Shaft No. 5 was inspected visually by the Maintenance & Operations and Engineering Departments. The results of the visual inspection show concrete and metal deterioration due to hydrogen sulfide. In order to restore the structural integrity of the drop shaft and sewer, they need to be rehabilitated.

Drop Shaft No. 8 experiences large air displacement during Tunnel and Reservoir Plan fill events causing potential damage to the structure. Increasing the venting area will help in reducing this issue.

The gates within Control Structure 10 are non-operational. The Maintenance & Operations Department has requested the rehabilitation of one of the gates for diversion purposes and the removal of the other.

A bubbler instrumentation system was installed to measure and monitor water levels in the Tunnel and Reservoir Plan system. The District has found that the bubbler systems at these locations are unreliable, provide inaccurate data, and need to be replaced.

During storm events in 2014, the stop logs at DS-P1 dislodged and passed through the dual flap gate bulkhead. As a result, the bottom flap gates were severely damaged in a manner that prevents proper operation.

Project Status: The design phase for the project is 60 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: IHC Construction Companies, LLC

Estimated Construction Cost: \$2,093,000

Contract Award Date: September 2016

Substantial Completion Date: January 2018*



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 under construction.

*Information shown is estimated.

Albany Park Stormwater Diversion Tunnel, NSA

Project Number: 14-IGA-07

Service Area: North

Location: Chicago, Illinois

Engineering Consultant: MWH Americas, Inc. under contract with the Chicago Department of Transportation

General Contractor: Kenney Construction Company under contract with the Chicago Department of Transportation

Estimated Construction Cost: \$25,920,000 (District cost share amount)

Contract Award Date: June 2016

Substantial Completion Date: May 2018*



Project Description: Flood control project along the North Branch of the Chicago River to install a stormwater diversion tunnel to alleviate overland flooding in the Albany Park neighborhood in Chicago. The Chicago Department of Transportation 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 North 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. This project is designed and built by the City of Chicago. The District is sharing the cost.

Project Status: Construction contract awarded. Notice to Proceed was issued April 25, 2016. This project is under construction.

*Information shown is estimated.

Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP

Project Number: 15-069-3D

Service Area: North

Location: O'Brien WRP

Engineering Consultant: RME, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$10,000,000

Contract Award Date: September 2018*

Substantial Completion Date: December 2020*



Project Description: Besides protecting, repairing, and structurally strengthening steel frame beams and columns embedded in the masonry wall, the scope of work includes localized roof deck repair including roof slope remediation, full roofing membrane and insulation replacement, full masonry and flashing repairs at roof parapet walls, localized windows and exterior doors repairs, localized tuckpointing, and other repairs associated or incidental to the facade and roof rehabilitation project. The Structural/Architectural Section will be working with RME, Inc., a Chicago-based consulting company. District staff will manage the repair design process, review and approve all submitted repair documents, administer the contract, and oversee the repair construction. The project goal is to rehabilitate pump and blower house roof and facade and to extend the building life span for another 50 to 90 years.

Project Justification: The pump and blower house building has not undergone major structural repair since it was built in 1926. For 90 years of service, the building experienced maintenance repairs (re-roofing, window repair, and tuckpointing). During south parapet wall repair in 2013, it was observed that several steel spandrel beams that frame the upper roof and support the pump and blower house south parapet walls were severely corroded. The roof steel beams that are part of the building vertical (gravity) and lateral (wind/seismic) loads resisting system appeared compromised. Corrosion of the steel can result in severe deterioration of the masonry and water infiltration. The parapet wall distress, which collapsed in May 2013 during the repair, was directly related to the severely corroded steel beams supporting the wall.

The building is in need of comprehensive structural rehabilitation that includes localized strengthening of steel frame beams. The objective is not only to provide protection to the embedded structural steel and masonry components but also extend life span of the building.

Project Status: The evaluation report for the project is 98 percent complete and includes preliminary repair design.

*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: Fence Masters, Inc.

Estimated Construction Cost: \$1,400,000

Contract Award Date: September 2016

Substantial Completion Date: January 2018*



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 under construction.

*Information shown is estimated.

Installation of Baffle Plates in Final Settling Tanks, OWRP

Project Number: 15-074-3D

Service Area: North

Location: O'Brien WRP

Engineering Consultant: In-house design

General Contractor: IHC Construction Companies, LLC

Estimated Construction Cost: \$1,600,000

Contract Award Date: November 2017

Substantial Completion Date: December 2018*



Project Description: The project will remove an existing steel and wood baffle plate in Final Settling Tank B-1. The contractor will also furnish and install circular, fiber reinforced plastic baffle plates and support framing under the bottoms of the influent wells in each of the converted final settling tanks.

Project Justification: A test baffle plate was installed in Final Settling Tank B-1 to see if the addition would improve the settling of solids in the tank. The test proved successful; therefore, installation of permanent baffle plates in the final settling tanks will improve the solids settling and removal process, which helps the District comply with its National Pollutant Discharge Elimination System limits.

Project Status: Authority to add this project to the Capital Improvement Program was approved by the Board in July 2017. This project is under construction.

*Information shown is estimated.

Main Sewage Pump Seal Water System Modification, MSPS

Project Number: 15-118-3M

Service Area: Stickney

Location: Mainstream Pumping Station

Engineering Consultant: In-house design

General Contractor: Independent Mechanical Industries, Inc.

Estimated Construction Cost: \$1,121,000

Contract Award Date: January 2017

Substantial Completion Date: July 2018*



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 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 will update the city water system to the latest Illinois plumbing code.

Project Status: The project is under construction.

*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: Morrison Construction Company, Inc.

Estimated Construction Cost: \$5,223,000

Contract Award Date: May 2016

Substantial Completion Date: February 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 under construction.

*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: Independent Mechanical Industries, Inc.

Estimated Construction Cost: \$6,654,000

Contract Award Date: October 2016

Substantial Completion Date: October 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 under construction.

*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: IHC Construction Companies, LLC and F.H. Paschen, S.N. Nielsen & Associates LLC Joint Venture

Estimated Construction Cost: \$5,239,000

Contract Award Date: July 2016

Substantial Completion Date: January 2018*



Project Description: Install safety railings at batteries A, B, and C aeration tanks along both sides of the 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 under construction.

*Information shown is estimated.

Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP

Project Number: 15-124-3P

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: Independent Mechanical Industries, Inc.

Estimated Construction Cost: \$4,095,000

Contract Award Date: September 2017

Substantial Completion Date: May 2019*



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. Additional work was added to rehabilitated hydrogen sulfide removal system and chiller units for conditioning the digester gas.

Project Justification: The District is pursuing Enhanced Biological Phosphorus Removal 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 which will be fed directly in secondary treatment. The additional volatile fatty acids will be utilized in the Enhanced Biological Phosphorus Removal 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. Digester gas will be utilized in the operation of the gas turbine. Conditioning of this gas is necessary to ensure reliable operation of the turbine.

Project Status: The project is under construction.

*Information shown is estimated.

Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment, CWRP

Project Number: 15-830-3D

Service Area: Calumet

Location: Lockport Power House

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$10,000,000

Contract Award Date: October 2018*

Substantial Completion Date: October 2020*



Project Description: Design, fabricate, and install tailrace stop logs for Bays 1 and 2. Replace headrace gates, tailrace stop logs, and associated hoist systems.

Project Justification: Headrace gates in Bays 1 and 2 are not properly functioning. Tailrace stop logs are rusted and are not functional. The tailrace hoist system is not operational. Consequently, the chambers of Bays 1 and 2 cannot be drained, and turbines cannot be inspected and maintained. These issues have delayed maintenance for several years. Ideally, turbines and other accessories require annual inspection and maintenance to prolong their life span.

Project Status: The project is in the preliminary design stage.

*Information shown is estimated.

Devon IAS Switchgear Replacement and Wilmette PS Conduit Replacement, NSA

Project Number: 16-077-3E

Service Area: North

Location: Devon Instream Aeration Station and Wilmette Pumping Station

Engineering Consultant: In-house design

General Contractor: M.G. Electric Service Company

Estimated Construction Cost: \$600,000

Contract Award Date: August 2017

Substantial Completion Date: October 2018*



Project Description: Replace electrical switchgear and motor control center at the Devon Instream Aeration Station. Replace conduit at the Wilmette Pumping Station.

Project Justification: For the Devon Instream Aeration Station: The electrical equipment is over 30 years old and is in poor condition. In order to avoid failure and to ensure the appropriate level of service, the equipment must be replaced. For the Wilmette Pumping Station: Due to flooding, the wires-to-gate actuators have been subjected to freezing/thawing conditions and therefore have become damaged. The underground conduit and wire will be replaced with above ground conduit and wire.

Project Status: The project is under construction.

*Information shown is estimated.

Rehabilitation of North Branch Pumping Station, NSA

Project Number: 16-079-3D

Service Area: North

Location: North Branch Pumping Station

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$3,000,000

Contract Award Date: June 2018*

Substantial Completion Date: February 2020*



Project Description: Provide grouted fiberglass fiber reinforced plastic jackets around the existing concrete columns to protect columns from erosion. Repair underwater deteriorated concrete of the east wall and under the deck wall. Repair deteriorated concrete stairs and concrete deck. Restore balustrade and deck lighting.

Project Justification: This pumping station has five 300 cubic feet per second discharge pumps that discharge excess storm water into the river. The pipe outlets are a few feet below river water facing downward. The high velocity discharged water has caused severe erosion around the columns at the river bottom. As a result, concrete column cross sections have eroded more than 20 percent and, in some cases, up to 50 percent of the original size. Restoration of concrete columns is essential for the safe serviceability of the building. Also, concrete deck and stairs have spalled areas that need to be repaired.

Project Status: The project is in the preliminary design stage.

*Information shown is estimated.

McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA

Project Number: 16-125-4F

Service Area: Stickney

Location: Lawndale Avenue Solids Management Area

Engineering Consultant: In-house design

General Contractor: Schwartz Excavating, Inc.

Estimated Construction Cost: \$7,339,000

Contract Award Date: April 2017

Substantial Completion Date: April 2018*



Project Description: The scope of work consists of constructing approximately 2,000 linear feet of a soil nail retaining wall along the western and southern sides as well as slope stabilization work around the entire perimeter of Expanded Stage 2 of the McCook Reservoir.

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. The retaining walls with correlating stabilization of the side slopes are required to provide sufficient mining reserves to achieve the intended capacity of 10 billion gallons.

Project Status: This project is under construction.

*Information shown is estimated.

Summit Conduit Rehabilitation, SSA

Project Number: 16-126-3S

Service Area: Stickney

Location: Lyons Township

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,700,000

Contract Award Date: January 2018*

Substantial Completion Date: June 2019*



Project Description: This project consists of the rehabilitation of 810 feet of 6'x7' semi-elliptic cast-in-place concrete sewer and inlet/outlet structures. The Summit Conduit begins on the northwest side of the Des Plaines River and extends southeast under the Des Plaines River and the Stevenson Expressway to the northwest side of the Chicago Sanitary and Ship Canal.

Project Justification: The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video shows infiltration and concrete and metal deterioration due to hydrogen sulfide. In order to restore the hydraulic and structural integrity of the sewers, they need to be rehabilitated. The inlet/outlet structures show similar signs of deterioration and need to be rehabilitated.

Project Status: The contract advertise date was October 25, 2017. The design phase for the project is 98 percent complete.

*Information shown is estimated.

Conversion of Primary Tanks to High Strength Waste Receiving and Distribution, CWRP

Project Number: 16-272-3P

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: Black & Veatch, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$3,500,000

Contract Award Date: February 2018*

Substantial Completion Date: July 2019*



Project Description: The project will construct a receiving station for high strength waste to assist in enhanced biological phosphorus removal (EBPR) at the Calumet WRP. Two of the old primary tanks will be repurposed and utilized, including repair of the tanks, coating of the tanks, covers, odor control, mixers, pumps, and piping with the ability to feed either batteries A, B, and C and/or batteries E1 and E2.

Project Justification: The District has volunteered a 1.0 milligram per liter total phosphorus limit for the Calumet WRP's effluent permit. EBPR is a sustainable approach to removing phosphorus; contrary to chemical phosphorus removal, there is not an increase in sludge produced and it allows for the phosphorus captured in the biosolids to be recovered and reused. However, influent characteristics need to be favorable to encourage the microorganisms to uptake phosphorus, including sufficient usable carbon. At the Calumet WRP, studies have shown that there is not enough carbon in the wastewater to support EBPR. In order to supplement the carbon loading to the plant, the District is pursuing the addition of high strength wastes to the aeration tanks. The conversion of the primary tanks through this project allows for the receiving, storage, and distribution of the high strength waste.

Project Status: The project is in the design stage.

*Information shown is estimated.

Pump Rehabilitation and Diverter Gate Installation, EWRP

Project Number: 16-412-3M

Service Area: North

Location: Egan WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$400,000

Contract Award Date: March 2018*

Substantial Completion Date: May 2018*



Project Description: The purpose of this project is to rehabilitate Raw Sewage Pumps 1 and 2 at the Egan WRP. The work includes the replacement of the pump and motor bearings, seals, and related parts to restore the equipment to like-new condition. Also, two old-style centrifuge diverter gates will be replaced with slide gates furnished by the Maintenance & Operations Department. Hopper modifications will be made, as necessary, to allow for the installation of the diverter gates.

A centrate valve will be electrically actuated to allow controlled diversion and increased operational control.

Project Justification: This project is being performed to restore the raw sewage pumps to full capacity and increase the operational flexibility of the plant. The slide gates are being replaced to improve control over the sludge loading process.

Project Status: The project is in the 98 percent design stage.

*Information shown is estimated.

Fischer Farms Horticultural Center, HPWRP

Project Number: 16-538-3V

Service Area: North

Location: Hanover Park WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$3,500,000

Contract Award Date: March 2018*

Substantial Completion Date: April 2019*



Project Description: Establish Fischer Farm, a native prairie landscape and tree farm nursery at the Hanover Park WRP, that will use the District's biosolids-based compost as a growing media. The plants and trees cultivated at the nursery will be used at District facilities and other properties in the area. As production matures, the beneficiaries of the program will expand to local communities and other government agencies. The facility will also be used for educating communities about the beneficial use of biosolids, a byproduct of the wastewater treatment process.

Project Justification: The metropolitan Chicago region's tree population has been decimated by the emerald ash borer beetle and other pests and diseases. This project will not only demonstrate the usefulness of biosolids-based compost as a growing media but will also increase public awareness of the need to restore the tree canopy in the region.

Under this project, volunteers will be recruited from the community to take an active role in growing the trees and shrubs from seed, as well as providing educational programs for adults and children. The nursery will serve as a model for other communities in demonstrating the value and viability of biosolids, a common wastewater treatment product.

The District is committed to sustainable practices encompassing the use of biosolids as a resource rather than a waste product. The use of biosolids as a fertilizer will save landfills and will benefit society as a whole.

Project Status: The project is being designed.

*Information shown is estimated.

Furnish, Deliver, and Install an Upgraded Sludge Concentration Conveyor at the Calumet WRP

Project Number: 16-802-31

Service Area: Calumet

Location: Calumet WRP

Engineering Consultant: In-house design

General Contractor: A.H.C. Mechanical Services, LLC

Estimated Construction Cost: \$220,000

Contract Award Date: August 2017

Substantial Completion Date: June 2018*



Project Description: Demolish and remove existing sludge conveyor and furnish, deliver, and install an upgraded sludge concentration conveyor and washer compactor.

Project Justification: The current system does not dewater properly. The inability to dewater properly causes operational difficulties, hazards to surrounding equipment, and safety issues. The current system has excessive water carryover from the screenings, which fills the belt compartments and is transported to the dumpster box. The additional weight of the water causes premature wear to the rollers and drive system components. Excess water in the dumpster requires the dumpster to be emptied more frequently due to the excessive weight and the possibility of spillage. The spillage frequently clogs floor drains and is a slipping hazard.

Upgrading the sludge concentration conveyor will decrease future maintenance costs, ensure efficient debris removal, and alleviate safety hazards by removing the excess water from screenings.

Project Status: The project is under construction.

*Information shown is estimated.

Furnish, Deliver, and Install Boiler Controls at the Stickney WRP

Project Number: 16-901-31

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: M.G. Electric Service Company

Estimated Construction Cost: \$1,224,000

Contract Award Date: September 2017

Substantial Completion Date: October 2018*



Project Description: The project will furnish, deliver, and install controls, programming, and other required appurtenances to provide a co-fire implementation of Boilers 3, 4, 5, and 7 using natural gas and digester gas through existing gas trains. Use of co-fire logic and technology shall enable full utilization of available digester gas produced at the plant. Controls for Boilers 1 and 2 will be also be upgraded.

Project Justification: The existing control system is obsolete, and parts are no longer available from the manufacturer.

Project Status: The project is under construction.

*Information shown is estimated.

Pilot Study for Investigating Technology to Address Basement Backups, CSA

Project Number: 16-IGA-20

Service Area: Calumet

Location: Chicago, Illinois

Engineering Consultant: Chicago Department of Transportation with the Center for Neighborhood Technology

General Contractor: To be determined

Estimated Construction Cost: \$400,000 (District cost share amount)

Contract Award Date: March 2018*

Substantial Completion Date: December 2019*



Project Description: The District and the City of Chicago, through its Departments of Water Management and Transportation, are partnering to conduct a pilot study to evaluate potential runoff reduction and flood protection alternatives. The City will draft the Intergovernmental Agreement.

Project Justification: Economic Benefit and Flood Control. The results of the pilot study will provide valuable information for consideration in future efforts to address flooding in the region.

Project Status: An Intergovernmental Agreement with the City of Chicago is being negotiated, and the pilot study is anticipated to commence in early 2018.

*Information shown is estimated.

North Branch Dam Removal and River Riparian Connectivity

Project Number: 16-IGA-22

Service Area: North

Location: North Branch Chicago River

Engineering Consultant: Army Corps of Engineers

General Contractor: Industria, Inc.

Estimated Construction Cost: \$2,500,000

Contract Award Date: August 2017

Substantial Completion Date: September 2020*



Project Description: Riparian connectivity for the North Branch Chicago River will be restored by removing the North Branch Dam and providing a riffled stream bed to allow for passage by fishes, mussels, and canoes. The concrete dam and the concrete stream bed to Albany Avenue will be removed, and concrete will be used to fill the scour hole downstream of the dam. The stream bed will be filled in with more natural materials, and riffles and pools will be constructed with boulders. The project also calls for bank stabilization and habitat restoration from Lawrence Avenue to Peterson Avenue. The Army Corps of Engineers (ACE) will design and construct the project with participation from the District and the Chicago Park District. The total project cost is expected to be \$14,539,000.

Project Justification: Removal of the North Branch Dam will allow for a more natural stream environment and encourage aquatic movement and habitat. Streambank stabilization on District property leased by the Chicago Park District will improve usage opportunities at the parks and promote safety.

Project Status: A Project Participation Agreement between ACE, the Chicago Park District, and the District has been concluded, and a separate Intergovernmental Agreement between the Chicago Park District and the District is being negotiated. ACE has issued a notice to proceed with the base contract for dam removal and associated work, as well as limited habitat restoration. Other phases require additional federal funding approval.

*Information shown is estimated.

Switchgear and Motor Control Center Replacement, OWRP

Project Number: 17-080-3E

Service Area: North

Location: O'Brien WRP

Engineering Consultant: In-house design

General Contractor: To be Determined

Estimated Construction Cost: \$2,200,000

Contract Award Date: April 2018*

Substantial Completion Date: April 2020*



Project Description: The purpose of this project is to replace the Process Control Building 480-volt switchgear, Aerated Grit Motor Control Center (MCC), Scum Concentration MCC, Battery D MCC, and Process Control MCC 19A & 19B. Building additions are required for relocation of Aerated Grit MCC and Scum Concentration MCC.

Project Justification: The risk evaluation performed for certain electrical equipment providing power to various process, mechanical, and electrical loads at the O'Brien WRP indicated replacement is needed to address deteriorating conditions and ongoing maintenance, operation, and safety issues. Any catastrophic failure of this electrical equipment will negatively affect the water treatment operation at the O'Brien WRP.

Project Status: The project is being designed.

*Information shown is estimated.

Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP

Project Number: 17-134-3M

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: May 2018*

Substantial Completion Date: March 2020*



Project Description: Three biofilter facilities will be constructed, one for sludge concentration and overhead weir, one for the southwest coarse screen, and one for the post-centrifuge building. The facilities will include new biofilters, Heating, Ventilation, and Air Conditioning equipment, ductwork, and other ancillary equipment.

Project Justification: This project will reduce the odor emissions that affect the District's neighbors and staff. The plant is located near a residential neighborhood.

Project Status: The project is being designed.

*Information shown is estimated.

Digester Rehabilitation and Gas Piping Replacement, SWRP

Project Number: 17-140-3P

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: December 2018*

Substantial Completion Date: December 2020*



Project Description: The work will remove all inorganic heavy solids which have accumulated and are not removable through the sludge draw-off system. The work will include rehabilitation of the digester covers and tank walls. Digester gas piping will be rehabilitated or replaced as required and the mixing system components will be rehabilitated to a working condition in Digesters 1 through 12. Also, the digester gas waste gas burners will be rehabilitated.

Project Justification: Anaerobic digesters accumulate dense inorganic solids through the years of operation which reduces the usable volume of the digester and requires periodic draining and cleaning. Recent work by the Maintenance & Operations Department uncovered extensive fouling of the existing digester gas piping. Remediation is required to ensure the proper conveyance of the additional digester gas expended from the conversion of the Imhoff Tanks to primary settling tanks.

Project Status: The project is being designed.

*Information shown is estimated.

Furnish and Install Odor Control System at Thorton Reservoir, CSA

Project Number: 17-273-3P

Service Area: Calumet

Location: Thorton Reservoir

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,200,000

Contract Award Date: December 2018*

Substantial Completion Date: December 2019*



Project Description: The work will install an odor control system to treat exhaust from two drop shafts located northeast of the Thornton Reservoir at Indiana Avenue and State Street.

Project Justification: This project will reduce the odor emissions that affect the District's neighbors and staff.

Project Status: The project is being designed.

*Information shown is estimated.

Structural Repairs and Roofing Replacement at the 95th Street Pumping Station, CSA

Project Number: 17-276-3D

Service Area: Calumet

Location: 95th Street Pumping Station

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,866,000

Contract Award Date: March 2018*

Substantial Completion Date: December 2019*



Project Description: Furnish labor, material, and equipment required to replace water-damaged gypsum roof panels and repair or reinforce corroded structural steel members at the upper and lower roof levels. Replace the roof membrane and perform miscellaneous tuckpointing and masonry work to eliminate water infiltration.

Project Justification: Roofing and roof drain pipes embedded in the masonry walls leak, and defects in the exterior masonry walls have permitted water to collect in the masonry walls and pond between the roof membrane and the gypsum roof planks. This has softened the gypsum roof panels in multiple locations and promoted corrosion of some structural steel members supporting the upper and lower roofs. Thus far, one roof panel has completely collapsed and three additional areas were temporarily shored by staff in the Maintenance & Operations Department following structural inspections. Work under the proposed contract will eliminate the sources of leakage and restore the lost structural capacities of corroded steel members.

Project Status: The project is being designed.

*Information shown is estimated.

Painting of Final Tanks at Various Locations

Project Number: 17-601-31

Service Area: North, Calumet, and Stickney

Location: Calumet, O'Brien, and Stickney WRPs

Engineering Consultant: In-house design

General Contractor: CL Coatings, LLC

Estimated Construction Cost: \$1,574,000

Contract Award Date: July 2017

Substantial Completion Date: December 2019*



Project Description: Paint final tanks, including rake arms and walkways, at the Calumet, O'Brien, and Stickney Water Reclamation Plants.

Project Justification: The paint is peeling, leaving the bare metal exposed, which leads to rust and deterioration. Repairing deteriorated pipes would be more costly than painting.

Project Status: The project is under construction.

*Information shown is estimated.

Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations

Project Number: 17-606-31

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$645,000

Contract Award Date: January 2018*

Substantial Completion Date: December 2018*



Project Description: Furnish, deliver, and install replacement communications equipment and services for the existing copper phone lines that provide visibility and control of various District remote sites from their respective supervisory plants. The equipment selected will provide secure, bidirectional, periodic commands and readings over cellular radio link to the telecommunications provider's network, as well as the ability to retrieve diagnostic data of the networking equipment itself. The contractor will provide turnkey installation from the Supervisory Control and Data Acquisition (SCADA) interface to the complete field installation.

Project Justification: Existing point-to-point copper telemetry lines have been labelled as obsolete by AT&T, which is the District's current service provider. Although the District has entered into a two-year contract with AT&T that includes these copper services, continued telemetry service beyond the end of the current contract is not guaranteed. AT&T has been reluctant to continue long-term contractual relationships for these point-to-point services. Additionally, it is expected that the operating costs for a new communications system will realize actual savings of more than 30 percent.

Project Status: This project is in the design phase.

*Information shown is estimated.

Installation of Disc Filters at the Hanover Park WRP

Project Number: 17-708-31

Service Area: North

Location: Hanover Park WRP

Engineering Consultant: In-house design

General Contractor: Independent Mechanical Industries, Inc.

Estimated Construction Cost: \$1,313,000

Contract Award Date: September 2017

Substantial Completion Date: February 2019*



Project Description: Furnish, deliver, and install disc filters at the Hanover Park WRP.

Project Justification: The designed maximum capacity of the secondary treatment is 22 million gallons per day (MGD). The maximum tertiary capacity is 17 MGD. Filter Beds 5 and 6 have a current capacity of 2.6 MGD, combined with a design capacity of 2.5 MGD each. The disc filters have a combined capacity of 12 MGD. The traveling bridge filters need to have their media replaced. The disc filters will reduce the filter backwash from 8 percent to less than 5 percent. The enclosed disc filters will reduce the insects in the filter building.

Project Status: The project is under construction.

*Information shown is estimated.

Modifications to TARP Structures, CSA and SSA

Project Number: 17-842-3H

Service Area: Calumet and Stickney

Location: Racine Avenue Pumping Station and South Holland

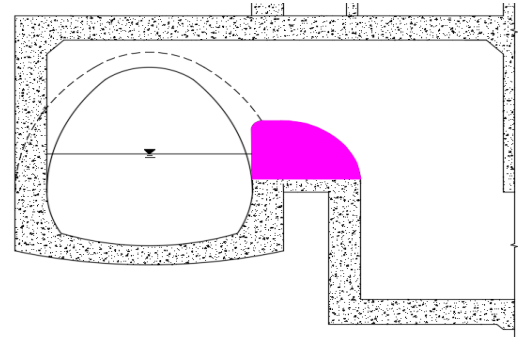
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$2,500,000

Contract Award Date: November 2018*

Substantial Completion Date: January 2020*



Project Description: The project consists of weir wall modifications for control structures DS-M27, DS-M28, and DS-M29 located at the Racine Avenue Pumping Station. Primary work for these control structures consists of the demolition of existing weir walls, concrete placement, and temporary bypass for flow going into the Racine Avenue Pumping Station at these control structures. Work at control structures CDS-C1 and CDS-45 consists of new permanent dry weather diversion bypass sewers and minor demolition and concrete work for removal of existing flumes.

Project Justification: Modifications at control structures DS-M27, DS-M28, and DS-M29 are necessary to allow more flexibility of operations at the pumping station while diverting more flow into TARP during rain events, thereby reducing the potential for combined sewer overflows into the waterway. Modifications at control structures CDS-C1 and CDS-45 are necessary in order to prevent the occurrences of combined sewer overflows at these sensitive outfalls.

Project Status: The design phase for the project is 60 percent complete.

*Information shown is estimated.

Furnish, Deliver, and Install Odor Control Systems, KWRP, HPWRP and CWRP

Project Number: 17-844-3P

Service Area: North and Calumet

Location: Kirie, Hanover Park, and Calumet WRPs

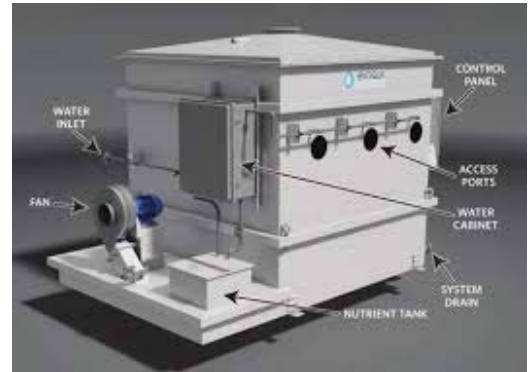
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$3,000,000

Contract Award Date: November 2018*

Substantial Completion Date: December 2019*



Project Description: The work at the Kirie WRP will install an odor control unit to treat the north and south pump house exhaust. The project has the potential to reduce influent chlorination costs. The work at the Hanover Park WRP will install odor control units to treat the pretreatment building (including grit tanks), course screen exhaust, and gravity thickening belt exhaust. The work at the Calumet WRP will replace the odor control unit at the high level influent pump station to more effectively treat the exhaust from the junction chamber. The existing unit could not effectively address the odor concentrations. The new odor control unit will reduce labor required to change media by 80 hours per year and will reduce the cost of media by \$20,000 annually.

Project Justification: This project will reduce the odor emissions that affect the District's neighbors and staff.

Project Status: The project is being designed.

*Information shown is estimated.

Heavy Equipment Storage Building Site Improvements, Bulk Storage Building, CWRP and OWRP

Project Number: 17-845-3P

Service Area: North and Calumet

Location: Calumet and O'Brien WRPs

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,560,000

Contract Award Date: February 2018*

Substantial Completion Date: December 2018*



Project Description: The work proposed under this project consists of constructing a new concrete pavement area surrounding the heavy equipment storage building at the Calumet WRP, which is designed for vehicles entering and leaving the building and providing parking spaces for vehicle operators. Also included is the construction of a new bulk material storage building at the O'Brien WRP.

Project Justification: The Calumet WRP heavy equipment storage building is used to store snow removal equipment, tracked vehicles, and semi-trucks. Presently, the roof drains into the gravel surface, resulting in low spots. In addition, the gravel surface is not sufficient to support heavy vehicle use areas. There will be a designated parking area for vehicle operators. The site around the building will be engineered for equipment and heavy vehicle use, drainage, and storm water management. At the O'Brien WRP, the prior bulk storage building was removed due to the construction of the ultraviolet disinfection facility. The new bulk storage building will provide space for salt and deicing equipment storage.

Project Status: This project is being designed.

*Information shown is estimated.

Installation of Shaftless Screw Conveyors for Aerated Grit Tanks at the Stickney WRP

Project Number: 17-902-31

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: IHC Construction Companies, LLC

Estimated Construction Cost: \$2,595,000

Contract Award Date: December 2017

Substantial Completion Date: June 2020*



Project Description: Furnish, deliver, and install grit screw conveyors at the Stickney WRP.

Project Justification: The existing chain and flight collector system needs to be rebuilt every four to five years. The screw conveyor installed in the east end of Aerated Grit Tank #4 was initially converted in 1998 and replaced in 2008. The average annual maintenance cost for the chain and flight tanks since 1998 is \$30,530. By comparison, the average annual cost for the screw conveyor tank is estimated at \$22,800.

Project Status: The project is under construction.

*Information shown is estimated.

Elevator Improvements, Mainstream Pumping Station

Project Number: 17-903-41

Service Area: Stickney

Location: Mainstream Pumping Station

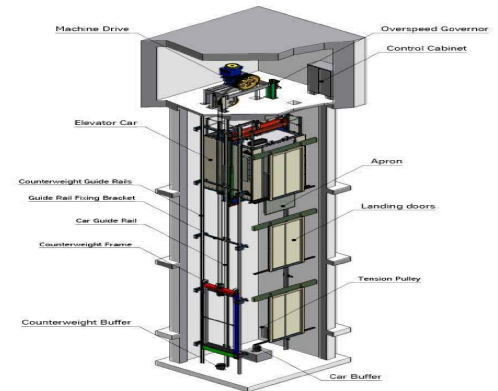
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$245,000

Contract Award Date: January 2018*

Substantial Completion Date: November 2018*



Project Description: Provide labor, supervision, material, tools, and equipment to make improvements to two Otis elevators at the Mainstream Pumping Station.

Project Justification: The South Vent and North Vent elevators failed the 2017 inspections. The deficiencies found are extensive, with work requirements beyond the scope of existing or planned maintenance contracts.

Project Status: This project is pending award.

*Information shown is estimated.

Enhancements to the Laboratory Information Management System (LIMS)

Project Number: 17-RFP-15

Service Area: North, Calumet, and Stickney

Location: District-wide

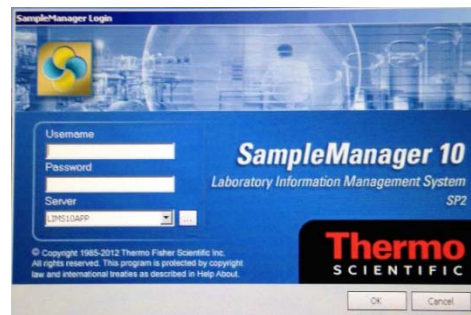
Engineering Consultant: To be determined

General Contractor: Not applicable

Estimated Construction Cost: \$299,000

Contract Award Date: January 2018*

Substantial Completion Date: December 2018*



Project Description: Upgrade current Laboratory Information Management System (LIMS) version SM 10.2 to SM 12.0 and implement LIMS enhancements. Integrate the Organic Compound Analytical Laboratory fully into LIMS.

Project Justification: LIMS is currently heavily customized and we seek to greatly reduce this customization. LIMS version SM 12.0 has several functionalities out of the box that will replace significant portions of custom code, such as aliquoting and labels. This should also help to reduce the Monitoring & Research Department's reliance on the Information Technology Department, reduce the potential for transcription errors by having data automatically transfer between LIMS and instruments, and reduce chemist/technician/support specialist time as they will not have to manually enter data into reports or manually calculate quality control limits. The National Environmental Laboratory Accreditation Conference rules for laboratory accreditation can be followed using the reagent, standard, and training tracking functionalities in LIMS. This would reduce the need to manually maintain and monitor additional tracking spreadsheets. Other departments can then also pull organic compounds data from LIMS for reporting purposes. Organic compounds are analyzed for National Pollution Discharge Elimination System permits, water quality, biosolids permits, and for industrial waste ordinances.

Project Status: The project is in the design phase.

*Information shown is estimated.

Plant Information Management System

Project Number: 17-RFP-36

Service Area: North, Calumet, and Stickney

Location: District-wide

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$300,000

Contract Award Date: March 2018*

Substantial Completion Date: December 2018*



Project Description: Furnish, deliver, and install a commercial, off-the-shelf data management system designed for the wastewater industry.

Project Justification: The software will integrate and store the information generated by the District's existing systems related to supervisory control and data acquisition, laboratory information management, and maintenance management, as well as the data captured in daily logs and operating reports for all seven of the District's Water Reclamation Plants. In short, the software will provide a District-wide repository for critical plant information and allow users to collect, organize, store, retrieve, and create reports from the archived data.

Project Status: This project is in the design phase.

*Information shown is estimated.

Pavement Rehabilitation, Various Locations

Project Number: 18-605-31

Service Area: North, Calumet, and Stickney

Location: Stickney, Calumet, Kirie, O'Brien, and Egan WRPs, LASMA, and CALSMA

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,100,000

Contract Award Date: March 2018*

Substantial Completion Date: December 2019*



Project Description: Portland Cement Concrete pavement removal and replacement, Illinois Department of Transportation type B patch, curb and gutter removal and replacement, asphalt pavement resurfacing, and repair of collapsed inlets in the North, Stickney, and Calumet Service Areas.

Project Justification: Roadway and parking lot pavements as old as 35 years show signs of deterioration at the North, Stickney, and Calumet Service Areas. Cracks are as wide as six inches, and potholes are noted at numerous locations in various facilities. Asphalt cold patch has been applied every year in the past but will not last. Collapsed inlets are noted at each plant as well. The poor condition of 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: The project is under review.

*Information shown is estimated.

Furnish, Deliver, and Install Disc Filters, EWRP

Project Number: 18-702-31

Service Area: North

Location: Egan WRP

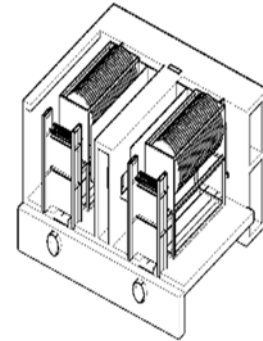
Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$3,200,000

Contract Award Date: January 2018*

Substantial Completion Date: December 2020*



Project Description: Replace three pairs of tertiary filter beds with six disc filters.

Project Justification: The designed maximum capacity of the secondary treatment is 60 million gallons per day (MGD). The maximum tertiary capacity is 44 MGD. During a backwash cycle the total tertiary capacity would drop to 34 MGD. The Egan WRP has six pairs of filter beds. Installing disc filters in Filter Beds 1, 2, and 6 can increase filtering capacity from 34 to 60 MGD with no loss in capacity during backwash cycle. The disc filters will reduce the filter back wash from eight percent to less than five percent. The enclosed disc filters will reduce the midge flies in the filter building.

Project Status: The project is under review.

*Information shown is estimated.

Emerson Ovation Distributed Control System, NSA

Project Number: 18-704-31

Service Area: North

Location: Kirie, Egan, and Hanover Park WRPs

Engineering Consultant: In-house design

General Contractor: Emerson Process Management

Estimated Construction Cost: \$1,802,000

Contract Award Date: January 2018*

Substantial Completion Date: December 2018*



Project Description: Upgrade the Emerson Ovation Distributed Control System (DCS) at the Kirie, Egan, and Hanover Park WRPs.

Project Justification: Upgrade the DCS controls at the Kirie, Egan, and Hanover Park WRPs with an up-to-date technology that will provide the operators with information while incurring lower maintenance costs. The DCS provides controls and status of each plant's processes. The existing DCS controls have obsolete Ovation OCR161 controllers, Windows 2003 servers, Windows XP workstations, Cisco 2950 switches, power supplies, Ovation 3.0.4 software, and media converters. The upgraded system will utilize the existing wiring to reduce the installation cost and time by the District.

Project Status: The project is being developed.

*Information shown is estimated.

Guaranteed Energy Performance, Various Locations

Project Number: 18-706-31

Service Area: North

Location: O'Brien, Kirie, Egan, and Hanover Park WRPs

Engineering Consultant: Public Building Commission of Chicago

General Contractor: Noresco, LLC

Estimated Construction Cost: \$3,500,000

Contract Award Date: March 2018*

Substantial Completion Date: November 2018*



Project Description: Perform energy conservation measures identified in the Noresco Investment Grade Audit for all North Service Area facilities. Scope of work will include replacing lighting with light emitting diodes, installing steam blanket, and retrocommissioning Heating, Ventilation, and Air Conditioning equipment.

Project Justification: This project will remedy deficiencies identified in the Energy Efficiency Program Investment Grade Audit conducted by the Public Building Commission and Noresco, LLC.

Project Status: This project is in design phase.

*Information shown is estimated.

Railroad Locomotive Terminal Restoration, SWRP

Project Number: 18-904-31

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,440,000

Contract Award Date: November 2018*

Substantial Completion Date: February 2020*



Project Description: Restore the building envelope on an 80-year-old essential building. Scope of work to include grind and repoint the entire exterior wall and interior wall where necessary, replace brick, if necessary, rebuild 10 course high section, grind and recaulk all capping stones, and reset or replace capstone, if necessary. Check all lintels and soldier course, replace lintels, if necessary, and seal around all doors and windows.

Project Justification: Missing grout and caulk noted at numerous areas allows moisture to penetrate and rust the steel components of the building. Rusting steel has caused masonry to be dislodged. Although localized repairs were done in the previous years, an extensive restoration is needed. Further delay will compromise the integrity of the building, which in turn, loses its function to protect the equipment and personnel in the building.

Project Status: The project is being initiated.

*Information shown is estimated.

Furnish, Deliver, and Configure a Fence Line Odor Monitoring System, SWRP

Project Number: 18-RFP-XX

Service Area: Stickney

Location: Stickney WRP

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$300,000

Contract Award Date: June 2018*

Substantial Completion Date: November 2018*



Project Description: Furnish, deliver, configure, calibrate and provide training for a fence line odor monitoring system at the Stickney WRP.

Project Justification: The Stickney WRP is located in a residential area with sensitive receptors to the north and west. Once operational, the odor monitoring system will help identify and reduce the odor impact the plant has on the surrounding community.

Project Status: This project is in the design phase.

*Information shown is estimated.

SEWER DESIGN PROJECT MAP 2018



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

NORTH SHORE 1
REHABILITATION, NSA
10-047-3S \$22,750,000

NORTHSIDE SLUDGE PIPELINE
REPLACEMENT, SECTION 1, NSA
07-027-3S \$14,237,000

39th STREET CONDUIT
REHABILITATION PHASE II, SSA
01-103-AS \$24,700,000

MODIFICATIONS TO TARP STRUCTURES
AT DS-M27, DS-M28, DS-M29, CDS-C1
AND CDS-45
17-842-3H \$2,500,000

DROP SHAFT 5 INSPECTION
AND REHABILITATION, NSA
14-372-3S \$2,700,000

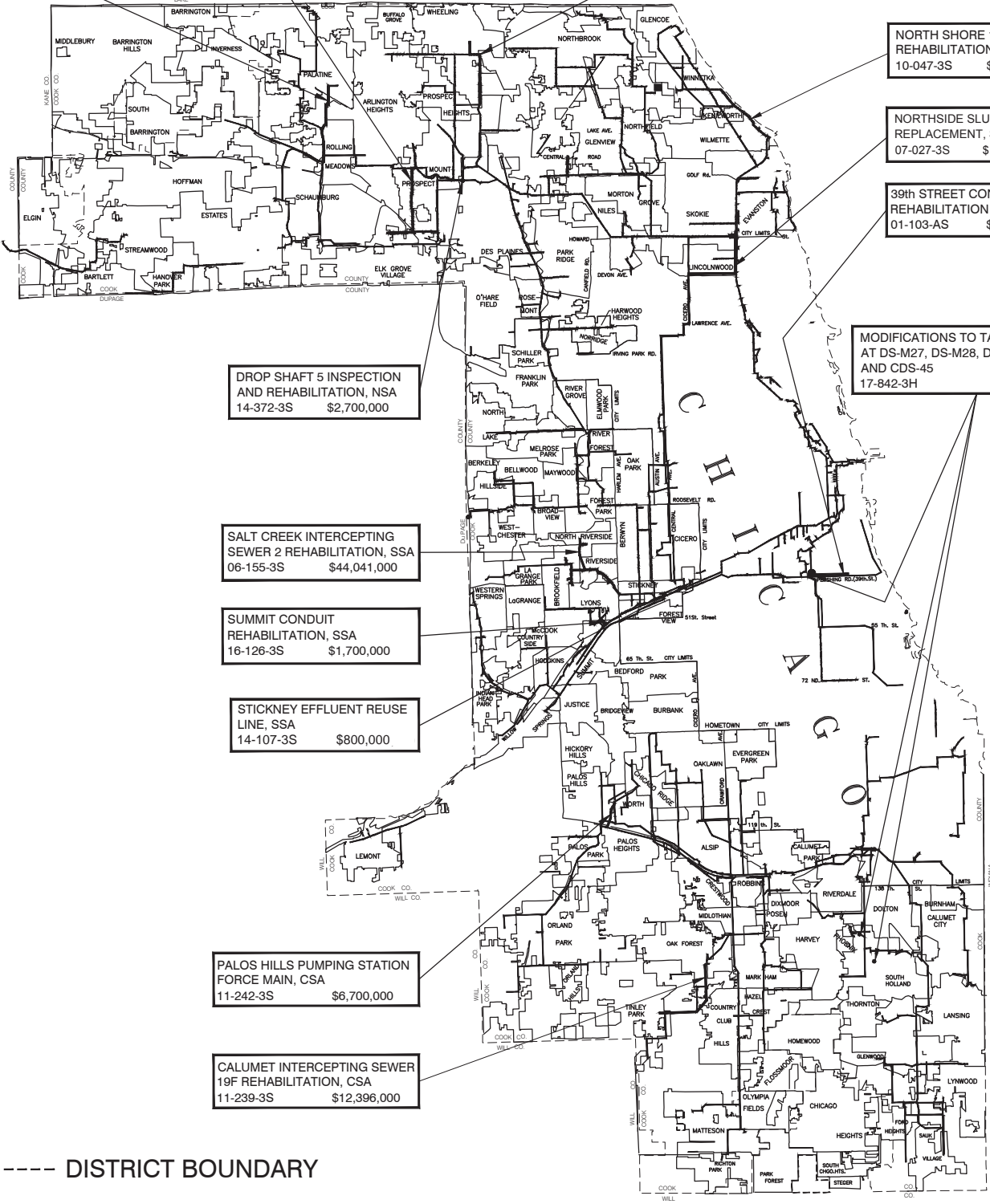
SALT CREEK INTERCEPTING
SEWER 2 REHABILITATION, SSA
06-155-3S \$44,041,000

SUMMIT CONDUIT
REHABILITATION, SSA
16-126-3S \$1,700,000

STICKNEY EFFLUENT REUSE
LINE, SSA
14-107-3S \$800,000

PALOS HILLS PUMPING STATION
FORCE MAIN, CSA
11-242-3S \$6,700,000

CALUMET INTERCEPTING SEWER
19F REHABILITATION, CSA
11-239-3S \$12,396,000



----- 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
 REHABILITATION OF:
 70 FEET OF 10-INCH DIAMETER PIPE
 300 FEET OF 12-INCH DIAMETER PIPE
 48 FEET OF 15-INCH DIAMETER PIPE
 1,330 FEET OF 18-INCH DIAMETER PIPE
 292 FEET OF 20-INCH DIAMETER PIPE
 278 FEET OF 21-INCH DIAMETER PIPE
 1,370 FEET OF 24-INCH DIAMETER PIPE
 634 FEET OF 27-INCH DIAMETER CLAY PIPE
 778 FEET OF 27-INCH DIAMETER CONCRETE PIPE
 7,857 FEET OF 3'6" x 5'0" SEMI-ELLIPTICAL PIPE
 12,442 FEET OF 5'9" x 5'9" SEMI-ELLIPTICAL PIPE
 7,400 FEET OF 7'0" x 7'0" SEMI-ELLIPTICAL PIPE
 REHABILITATION OF 81 MANHOLES
 REHABILITATION OF 2 JUNCTION CHAMBERS
 REBUILDING/RAISING OF 11 MANHOLES
 CONSTRUCTION OF 1 MANHOLE
 CONTROL STRUCTURE MODIFICATION
 COST: \$44,041,000



LEGEND:

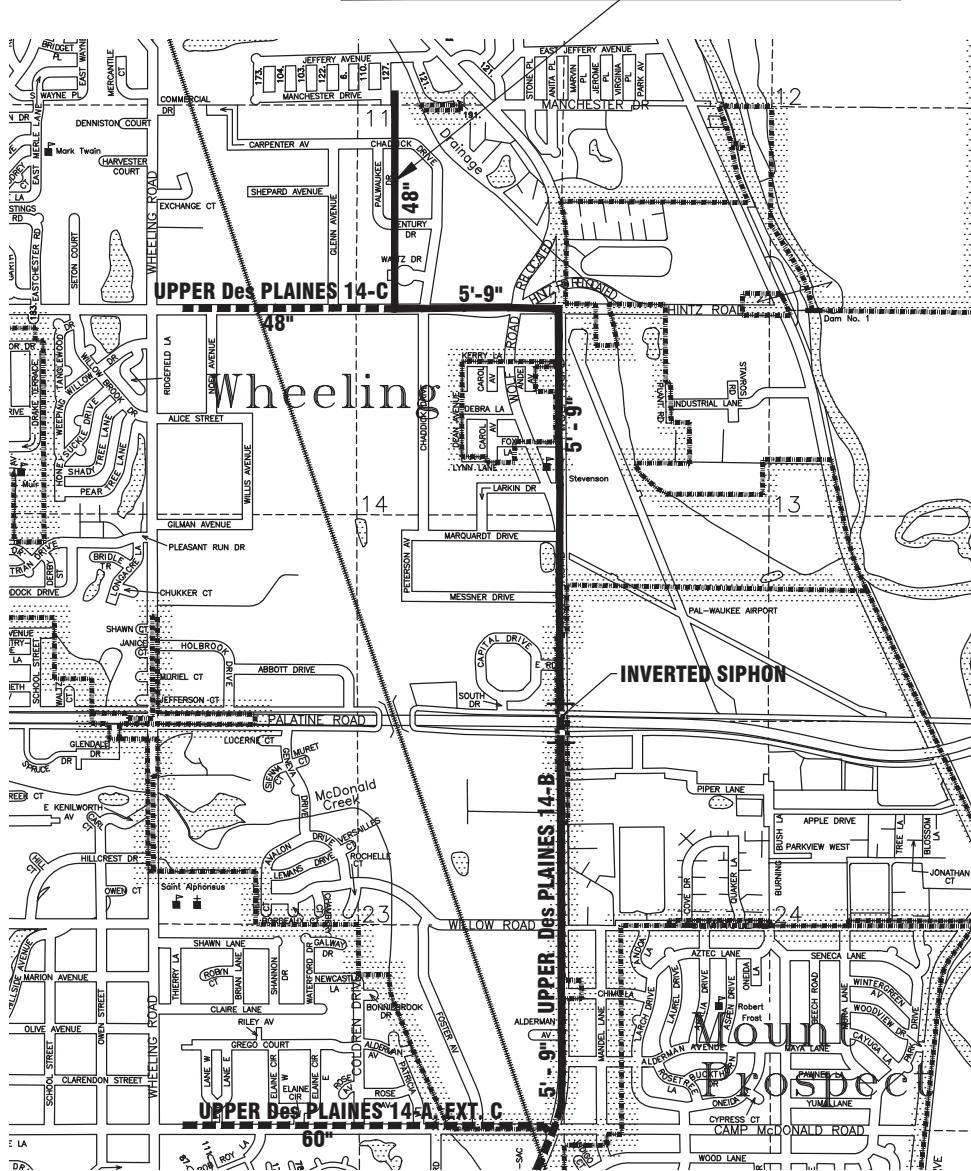
- = SEWER TO BE REHABILITATED
- = EXISTING SEWER

LOCATION MAP

**SALT CREEK INTERCEPTING SEWER 2 REHABILITATION, SSA
 CONTRACT 06-155-3S**



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

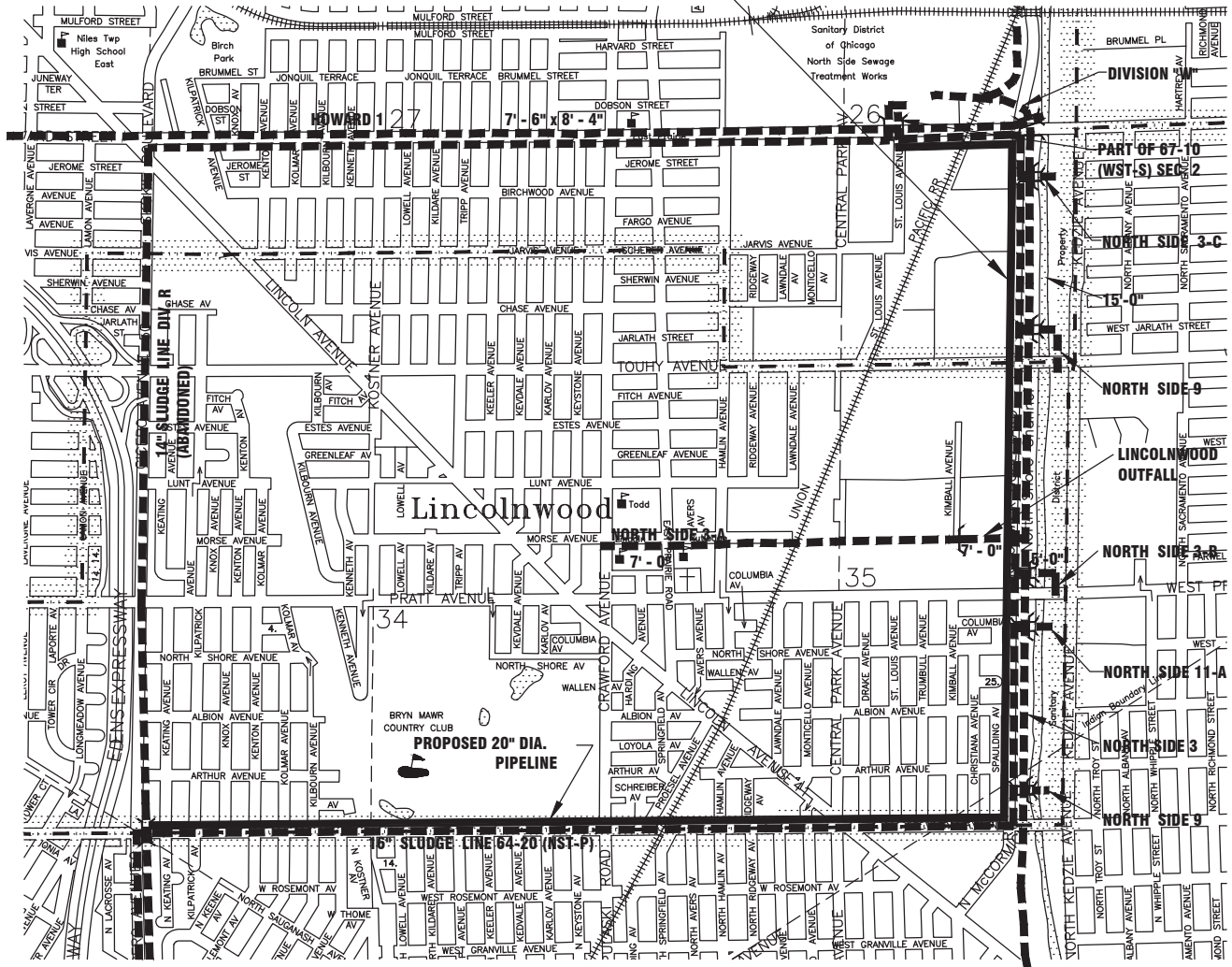
LOCATION MAP

**UPPER DES PLAINES INTERCEPTING SEWER 14B REHABILITATION, NSA
 CONTRACT 06-360-3S**



NORTHSIDE SLUDGE PIPELINE REPLACEMENT, SECTION 1, NSA
19,000 FEET OF 20-INCH DIAMETER FORCE MAIN
AIR RELIEF, BLOW OFF & CLEANOUT STRUCTURES
COST: \$14,327,000

NILES



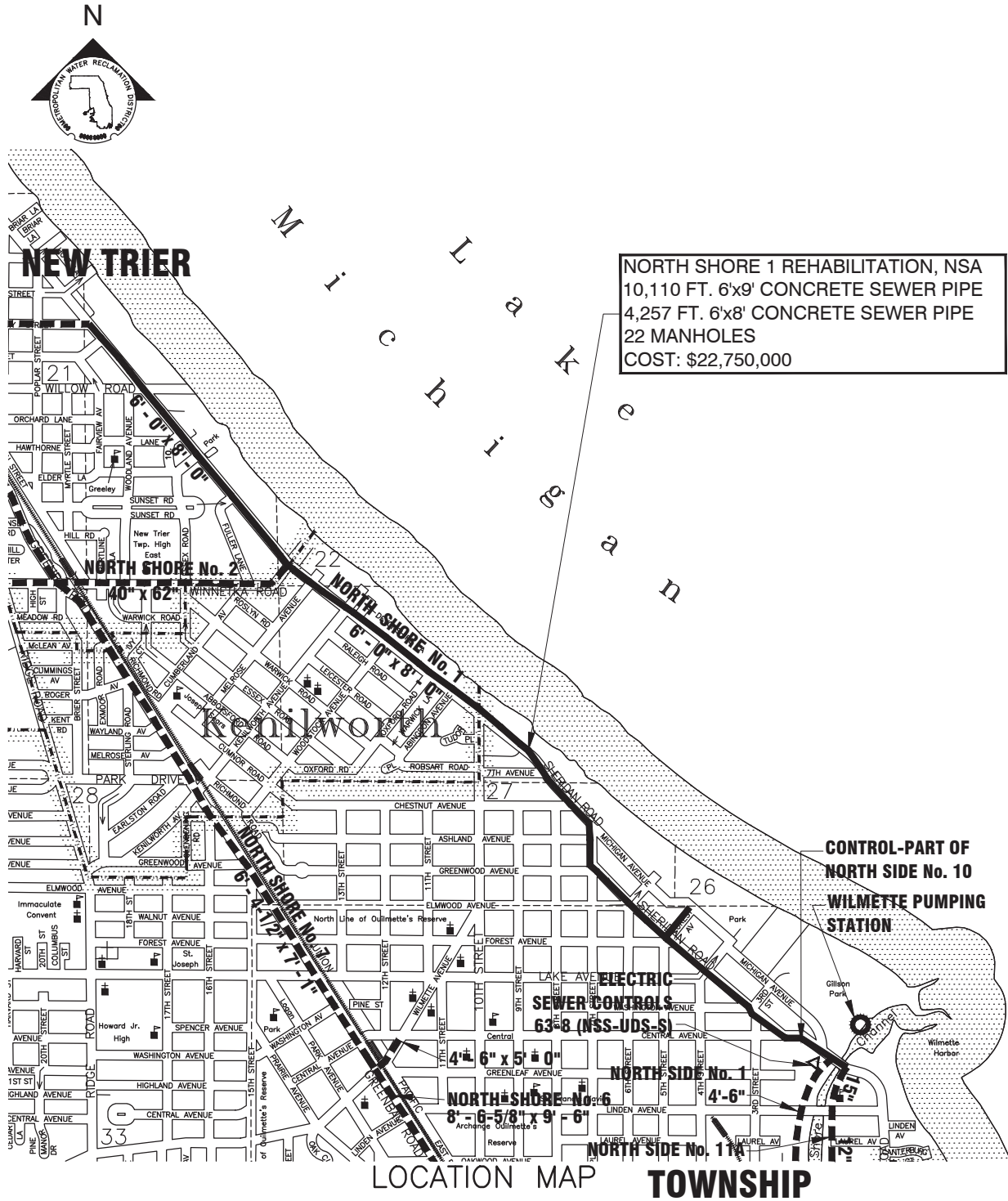
TOWNSHIP

LOCATION MAP

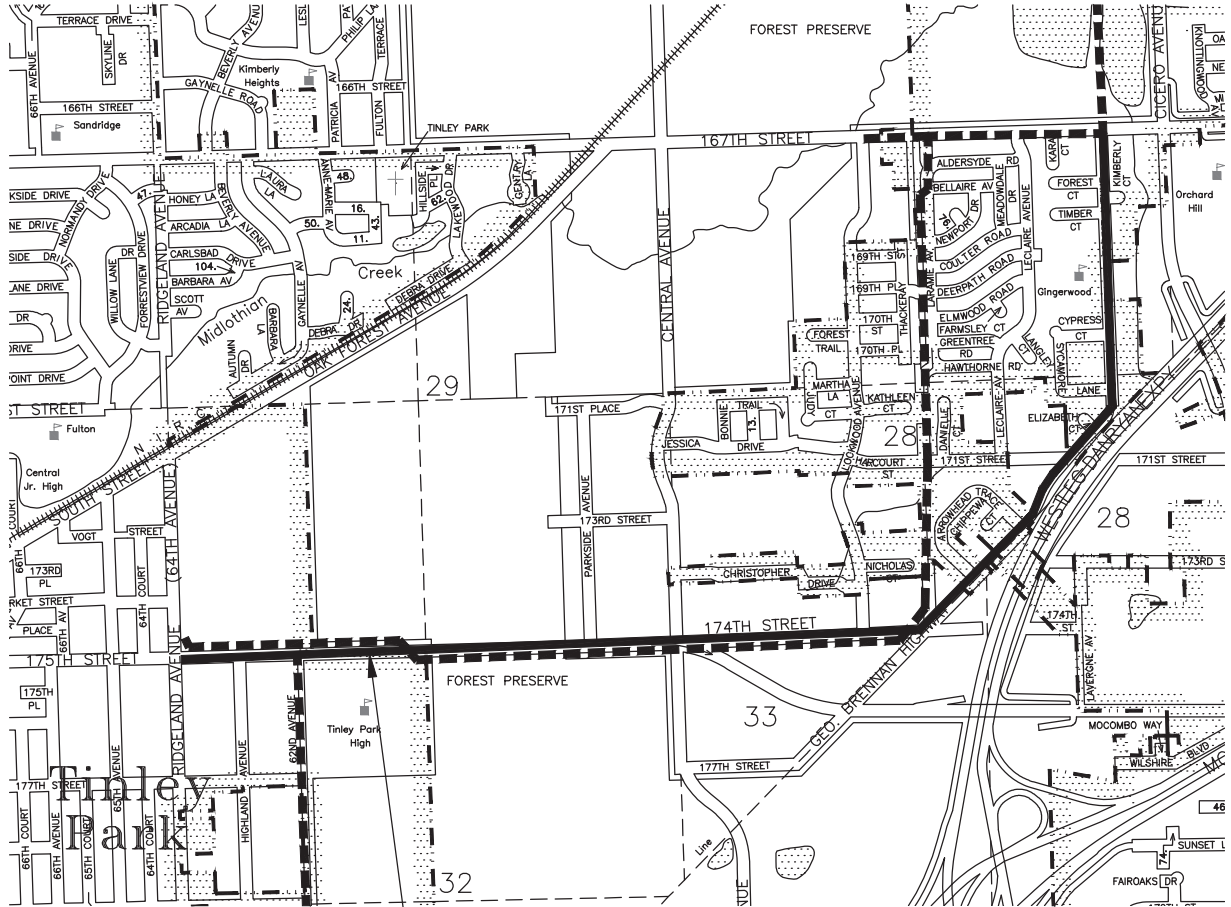
LEGEND:

-  = SEWER TO BE REHABILITATED
-  = EXISTING SEWER

NORTHSIDE SLUDGE PIPELINE REPLACEMENT, SECTION 1, NSA CONTRACT 07-027-3S



NORTH SHORE 1 REHABILITATION, NSA
CONTRACT 10-047-3S



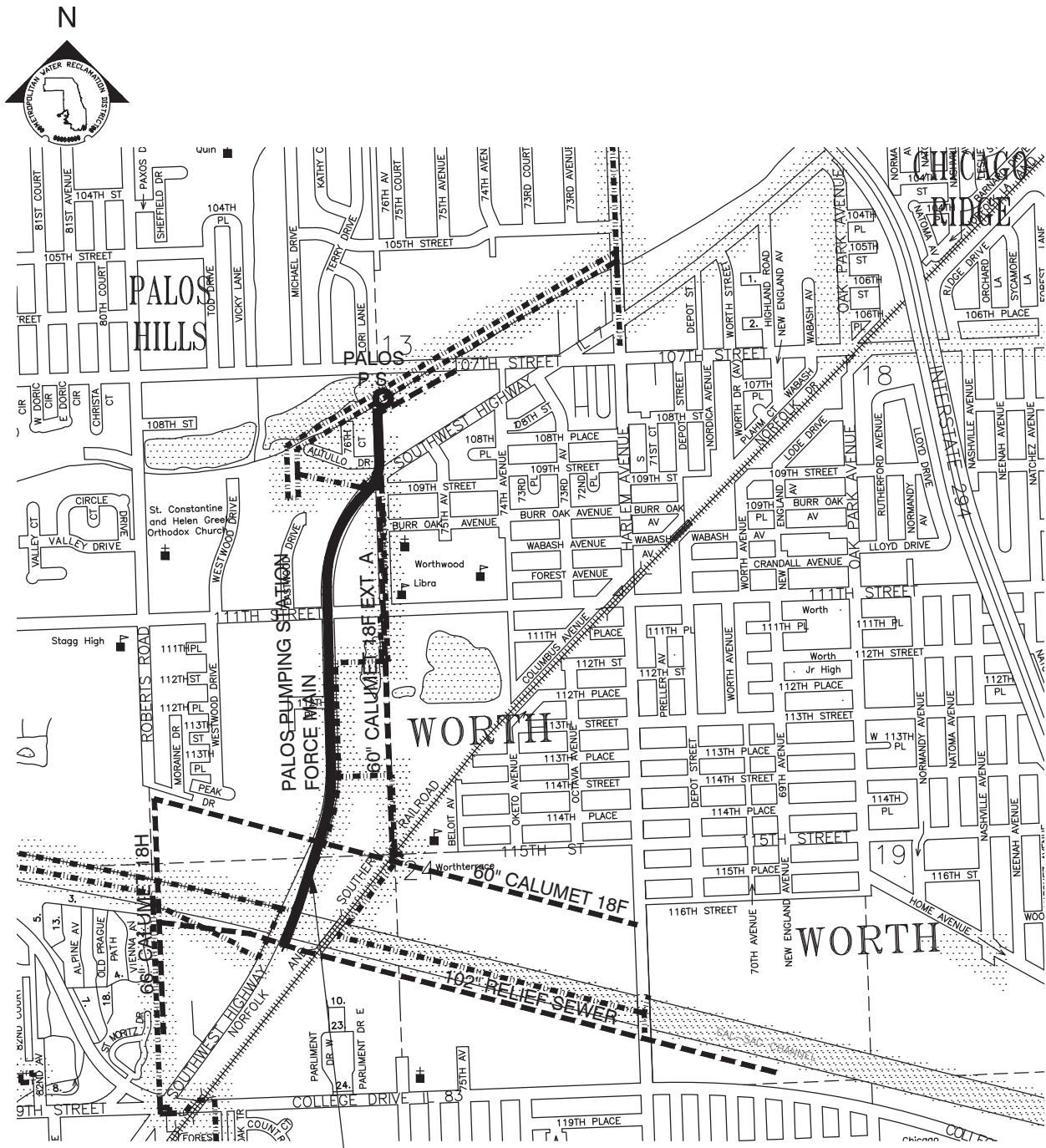
LOCATION MAP

CALUMET INTERCEPTING SEWER 19F
 REHABILITATION, CSA
 14,051 FEET OF 60-INCH DIAMETER
 SEWER
 23 MANHOLES AND 1 JUNCTION
 STRUCTURE
 COST: \$12,396,000

LEGEND:

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

**CALUMET INTERCEPTING SEWER 19F REHABILITATION, CSA
 CONTRACT 11-239-3S**



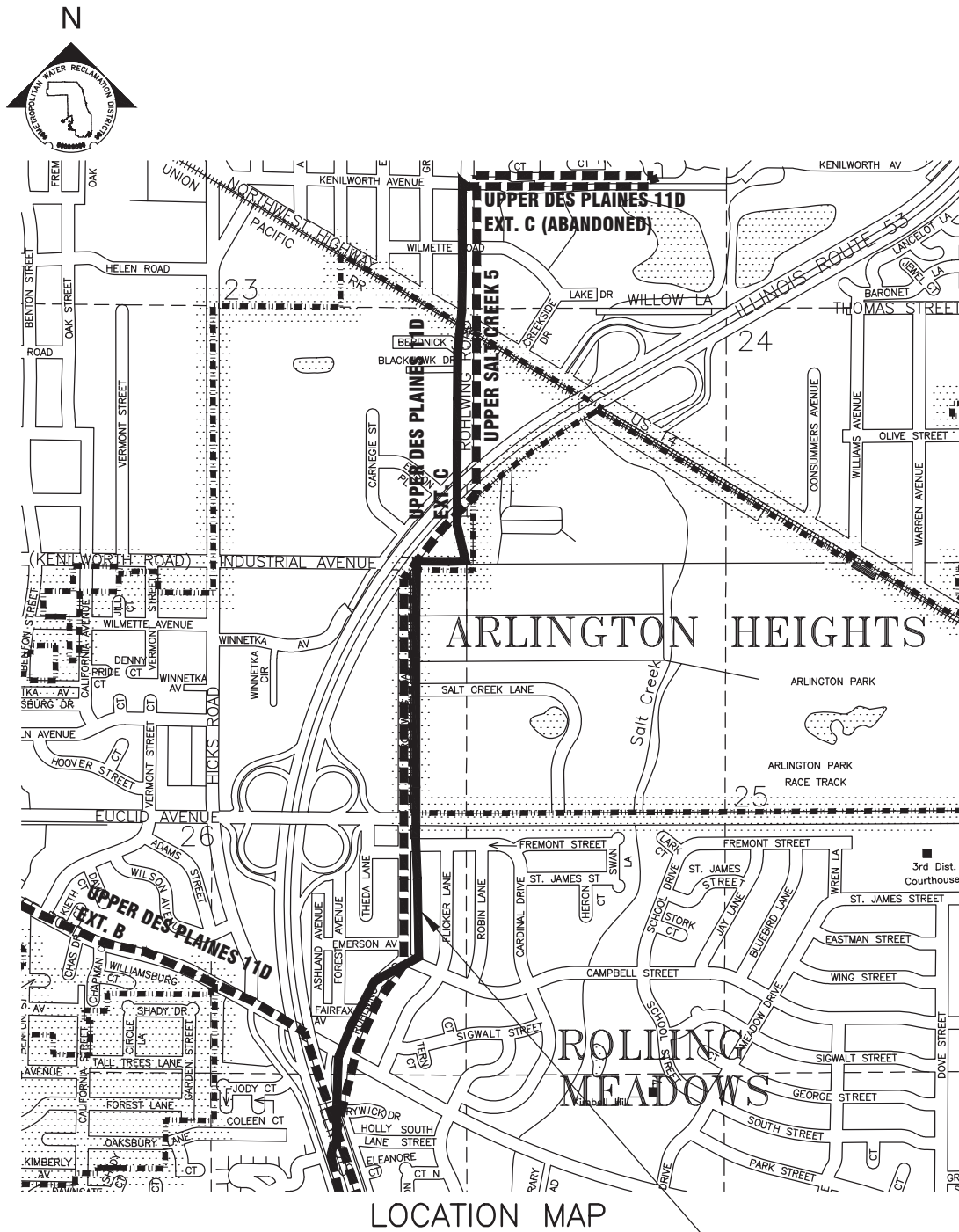
LOCATION MAP

PALOS HILLS PUMPING STATION FORCE MAIN, CSA
 6,500 FEET OF 24-INCH DIAMETER FORCE MAIN
 COST: \$6,700,000

LEGEND:

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

PALOS HILLS PUMPING STATION FORCE MAIN, CSA
CONTRACT 11-242-3S



LOCATION MAP

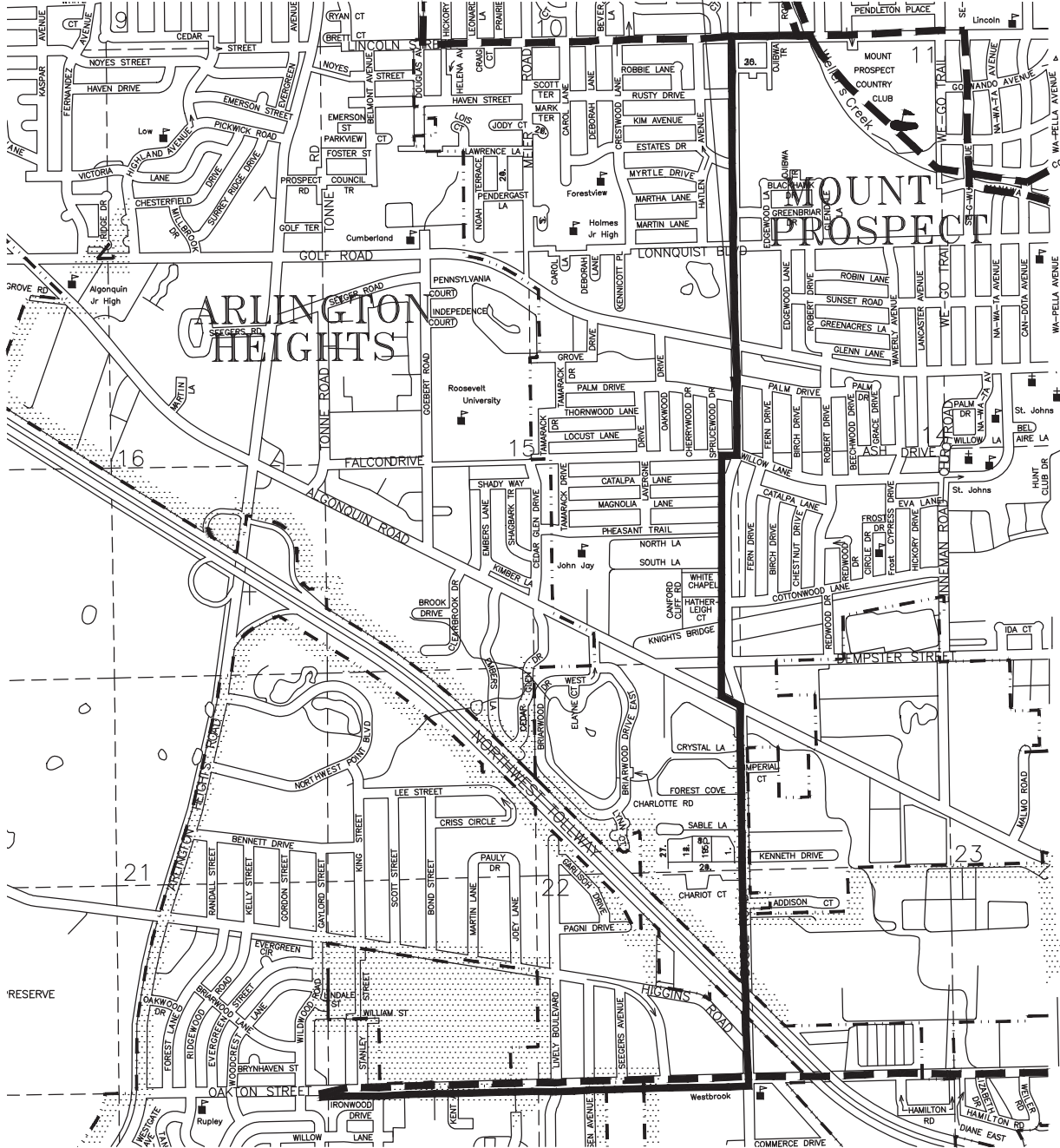
LEGEND:

- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

UPPER DES PLAINES INTERCEPTING SEWER 11D EXT. C REHABILITATION, NSA 10,828 FEET OF 36-INCH DIAMETER SEWER 24 MANHOLES AND ONE JUNCTION STRUCTURE
 COST: \$5,500,000

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:

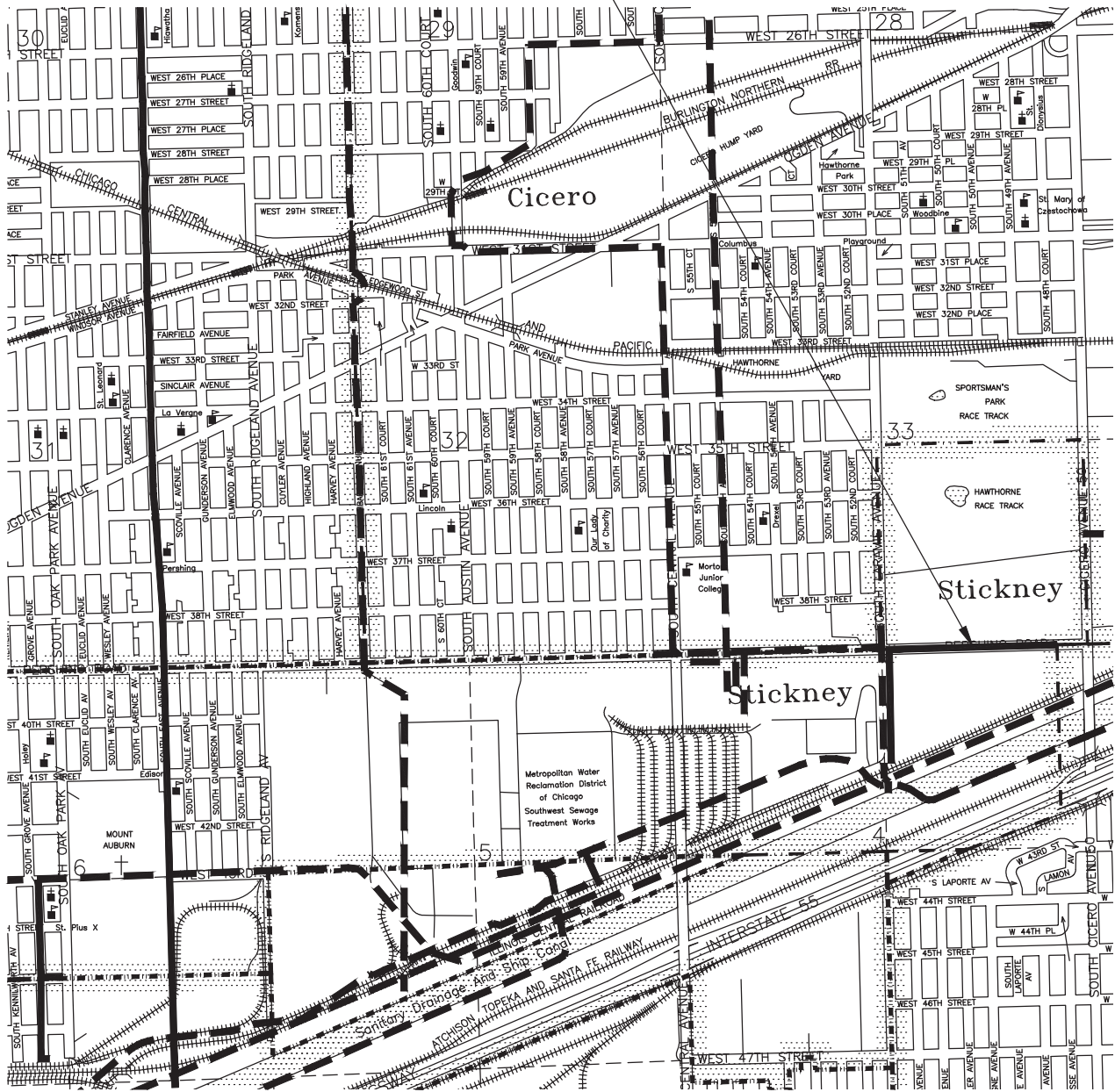
- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

LOCATION MAP

UPPER DES PLAINES INTERCEPTING SEWER 11D REHABILITATION, NSA CONTRACT 12-369-3S



STICKNEY EFFLUENT REUSE LINE, SSA
2,000 FEET OF 6-INCH DIAMETER FORCE MAIN
COST: \$800,000

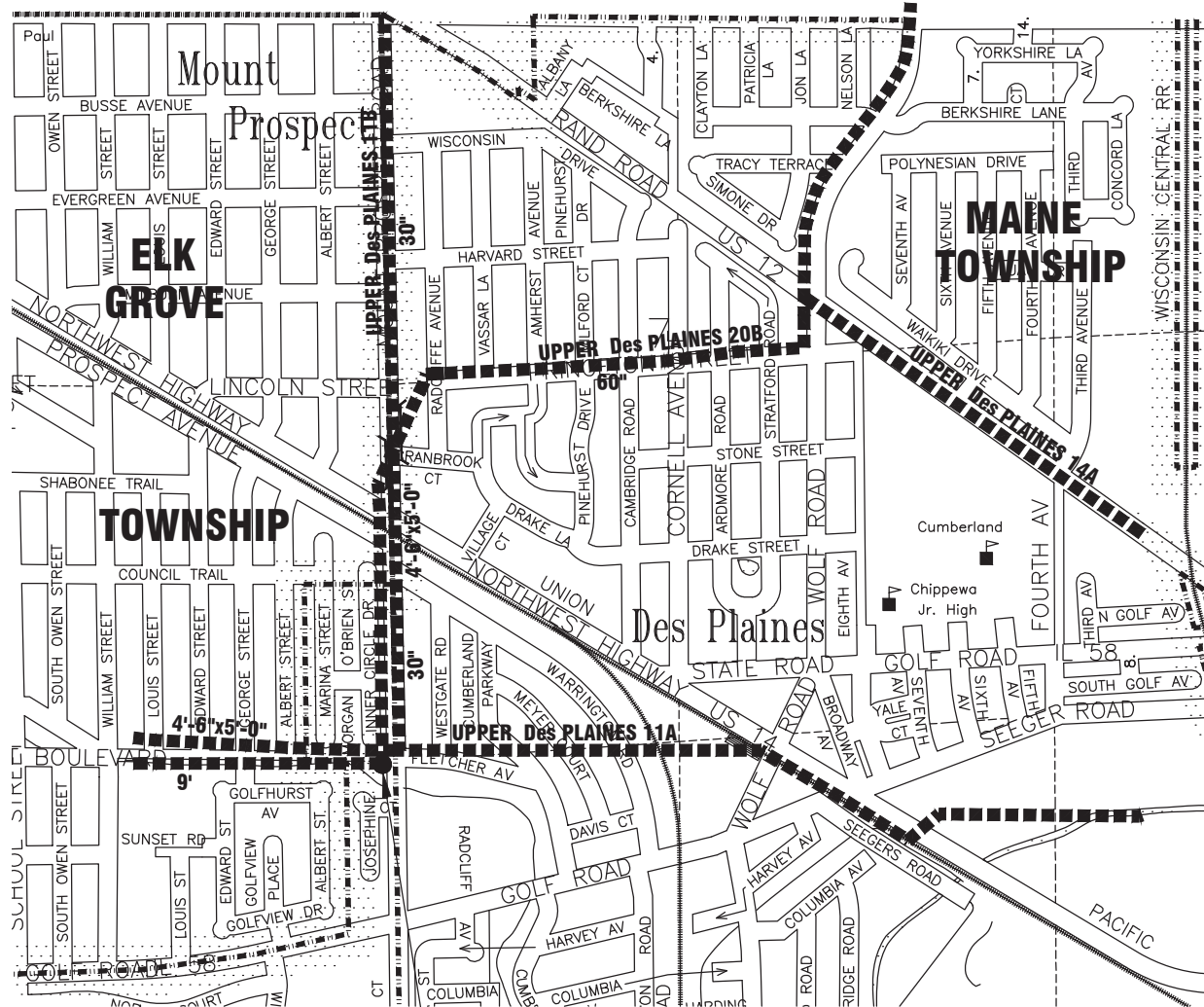


LOCATION MAP

LEGEND:

-  = SEWER TO BE REHABILITATED
-  = EXISTING SEWER

**STICKNEY EFFLUENT REUSE LINE, SSA
CONTRACT 14-107-3S**



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

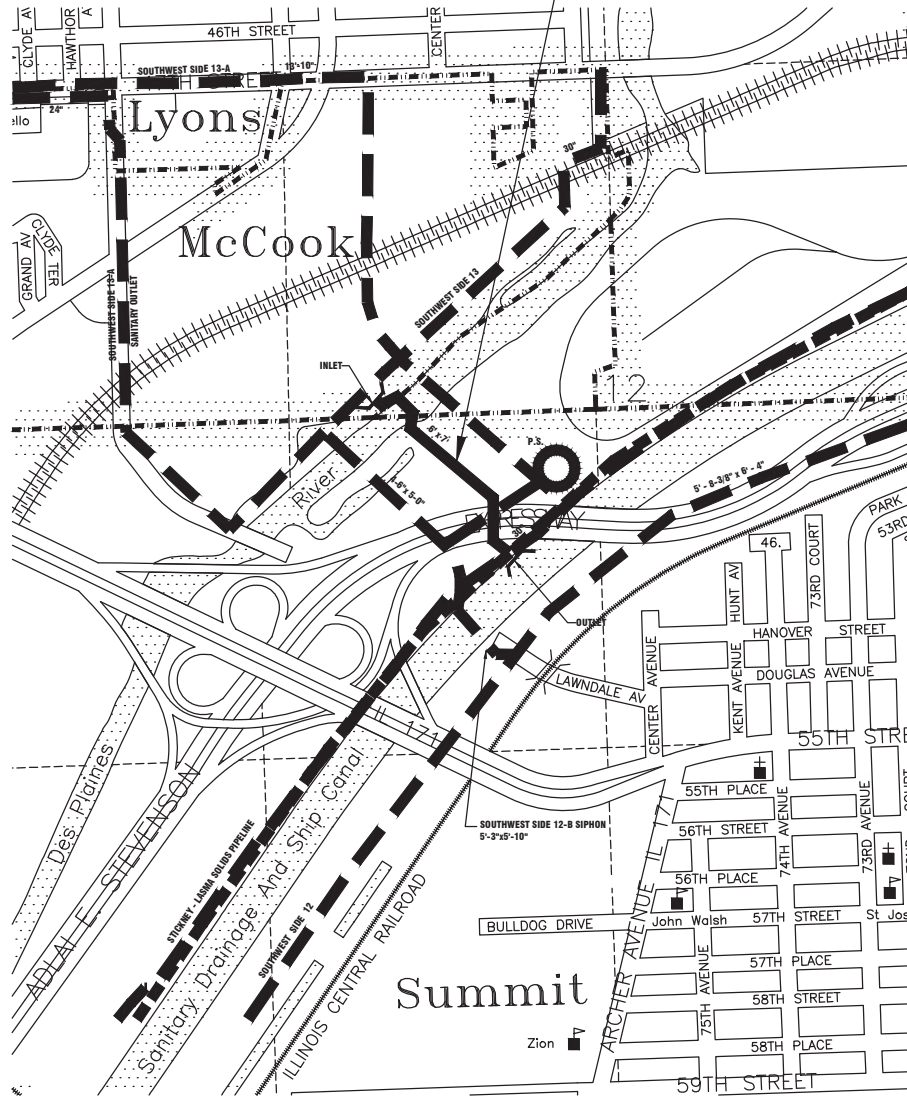
LEGEND:

- = MANHOLE TO BE REHABILITATED
- ▬▬▬▬ = EXISTING SEWER

**DROP SHAFT 5 INSPECTION AND REHABILITATION, NSA
 CONTRACT 14-372-3S**



SUMMIT CONDUIT REHABILITATION, SSA
 810 LINEAR FEET OF 6'x7' SEMI-ELLIPTICAL/OVOID SEWER
 INLET & OUTLET STRUCTURE REHABILITATION
 REPAIR OF PVC PIPE
 INJECTION GROUTING
 PVC LINEAR REMOVAL & REPAIR
 COST: \$1,700,000

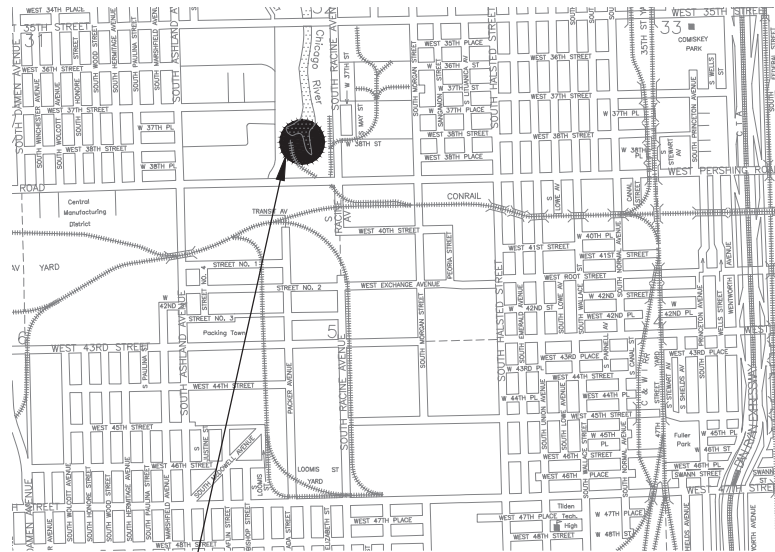


LOCATION MAP

LEGEND:

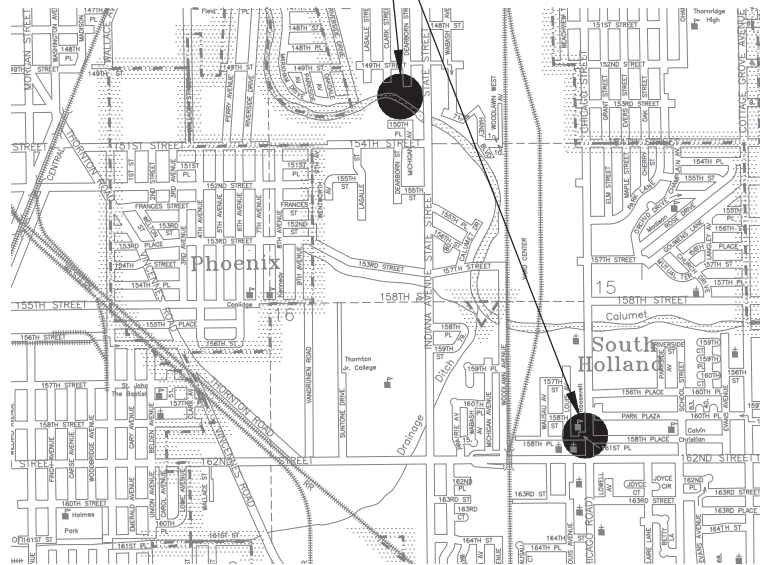
- = SEWER TO BE REHABILITATED
-** = EXISTING SEWER

**SUMMIT CONDUIT REHABILITATION, SSA
 CONTRACT 16-126-3S**



LOCATION MAP

WEIR WALL MODIFICATIONS WORK AT DS-M27, DS-M28 AND DS-M29. INSTALLATION OF DRY WEATHER DIVERSION BYPASS SEWERS AT CDS-C1 AND CDS-45
 COST: \$2,500,000



LOCATION MAP

LEGEND:

- = SEWER TO BE REHABILITATED
- = EXISTING SEWER

**MODIFICATIONS TO TARP STRUCTURES AT DS-M27, DS-M28, DS-M29, CDS-C1 AND CDS-45
 CONTRACT 17-842-3H**

Stormwater Management Capital Improvements Bond Fund Program

<u>Awards in 2018</u>		Project Number	Est. Construc- tion Cost	Dura- tion (days)	Est. Award Date
1	Streambank Stabilization Project on Tinley Creek, CSA	10-882-AF	\$ 3,806	577	Jan-18
2	Streambank Stabilization Project along Midlothian Creek, Tinley Park, CSA	10-882-CF	392	357	Jan-18
3	Demolition at Addison Creek Reservoir and Thornton Reservoir, SSA, CSA	11-186-AF	1,050	111	Jan-18
4	Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA	13-248-3F	8,800	730	Jan-18
5	* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	19,300	546	Jan-18
6	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Butterfield Creek, Flossmoor, CSA	16-IGA-12	638	121	Mar-18
7	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA	16-IGA-13	4,681	760	Mar-18
8	Addison Creek Reservoir, SSA	11-186-3F	95,155	731	Apr-18
9	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Stone Park, SSA	16-IGA-15	2,700	760	Jun-18
Total 2018 Awards			\$ 136,522		

Projects Under Development

#	Project Name	Project Number	Est. Construc- tion Cost	Dura- tion (days)	Est. Award Date
10	Addison Creek Channel Improvements, SWRP	11-187-3F	\$ 44,512	1,095	Nov-19
Total Future Awards			\$ 44,512		
Cumulative 2018 and Future Awards			\$ 181,034		

*This project is 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	Grants	Total
<u>Loans</u>	<u>Bonds</u>	<u>Grants</u>	<u>Total</u>
\$ 148,859	\$ 22,175	\$ 10,000	\$181,034

Projects Under Construction

Projects Under Construction in the Capital Improvements Bond Fund were appropriated in prior years using the full encumbrance (obligation) method of budgetary accounting. The construction contract award amount and the anticipated completion date are provided in this table.

#	Project Name	Project Number	Est. Construction Cost	Award Date	Est. Completion Date
1	* Installation of Green Infrastructure at Chicago Public Schools, Various	15-IGA-20	\$ 2,955	Oct-14	Oct-20
2	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Des Plaines, SSA	15-IGA-18	950	Sep-15	Apr-18
3	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Riverside Lawn, SSA	16-IGA-06	8,000	Jan-16	Jun-18
4	* Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA	15-IGA-14	3,483	Jan-16	Oct-19
5	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Northlake, SSA	16-IGA-14	1,184	Sep-16	Nov-18
6	Streambank Stabilization Project on Oak Lawn Creek, CSA	10-237-3F	3,035	Sep-16	Sep-18
7	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Des Plaines, SSA	16-IGA-11	3,625	Nov-16	Dec-19
8	* Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA	10-883-CF	2,590	Mar-17	Mar-21
9	Melvina Ditch Reservoir Improvements, CSA	14-263-3F	14,245	Nov-17	Mar-20
Total Projects Under Construction			\$ 40,067		

*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.

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
<u>Awards in 2018</u>										
1	Streambank Stabilization Project on Tinley Creek, CSA	10-882-AF				x	x	=	=	=
2	Streambank Stabilization Project along Midlothian Creek, Tinley Park, CSA	10-882-CF				x	x	=	=	=
3	Demolition at Addison Creek Reservoir and Thornton Reservoir, SSA, CSA	11-186-AF				x	x	=	=	=
4	Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA	13-248-3F	x		x	x	x	=	=	=
5	Buffalo Creek Reservoir Expansion, NSA	13-370-3F				x	x	=	=	=
6	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Butterfield Creek, Flossmoor, CSA	16-IGA-12					x	=	=	=
7	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA	16-IGA-13					x	=	=	=
8	Addison Creek Reservoir, SSA	11-186-3F				x	x	-	-	=
9	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Stone Park, SSA	16-IGA-15					x	=	=	=
<u>Projects Under Development</u>										
10	Addison Creek Channel Improvements, SWRP	11-187-3F				x	x	=	=	=
<u>Projects Under Construction</u>										
1	Installation of Green Infrastructure at Chicago Public Schools, Various	15-IGA-20				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, Des Plaines, SSA	15-IGA-18					x	=	=	=
3	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Riverside Lawn, SSA	16-IGA-06					x	=	=	=
4	Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA	15-IGA-14					x	=	=	=
5	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Northlake, SSA	16-IGA-14					x	=	=	=

Stormwater Management Capital Improvements Bond Fund Operating Impacts for Projects Under Construction (continued)		Justification					Impact			
		<i>Capacity Needs</i>	<i>Useful Life</i>	<i>Economic Benefit</i>	<i>Safety/Regulatory</i>	<i>Flood Control</i>	<i>Manpower</i>	<i>Energy</i>	<i>Chemical</i>	
#	Project Name	Project Number								
6	Streambank Stabilization Project on Oak Lawn Creek, CSA	10-237-3F				x	x	=	=	=
7	Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along the Des Plaines River, Des Plaines, SSA	16-IGA-11					x	=	=	=
8	Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA	10-883-CF				x	x	=	=	=
9	Melvina Ditch Reservoir Improvements, CSA	14-263-3F				x	x	=	=	=

LEGEND	
Under " Justification ," the marked columns note the categories of benefits expected from each project.	
Manpower	
+ 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.
Energy	
+ 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.
Chemical	
+ 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.

50000 CAPITAL IMPROVEMENTS BOND FUND

OBJECTIVES AND PROGRAM SUMMARY

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION FACILITIES: Award eleven construction projects: 39th Street Conduit Rehabilitation - Phase II, SSA, Rehabilitation of North Branch Pumping Station, NSA, and nine other projects.	\$ 41,058,000	13.1%
2. TREATMENT FACILITIES: Award eleven construction projects: One odor control systems project at the Kirie, Hanover Park, and Calumet WRPs, one odor control facilities project at the Stickney WRP, one Digester Rehabilitation and Gas Piping Replacement Project at the Stickney WRP and eight other projects.	\$ 54,698,000	17.5%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award five construction projects: North Side Sludge Pipeline Replacement - Section 1, NSA, Fischer Farms Horticultural Center, HPWRP, and three other projects.	\$ 31,267,000	10.0%
4. FLOOD AND POLLUTION CONTROL: Award 13 construction projects: Addison Creek Reservoir, Buffalo Creek Reservoir expansion, pilot study to address basement backups, three streambank stabilization projects, and seven other projects.	\$ 143,203,000	45.7%
5. LAND AND RIGHT-OF-WAY ACQUISITION COSTS: Acquisition of land for the expansion of reservoir projects and payments for land easements.	\$ 1,750,000	0.6%
6. PROJECT SUPPORT: Administration, design, and construction inspection for current and future contracts, funding support, and construction services, such as concrete and soil testing.	\$ 41,006,900	13.1%
Total	\$ 312,982,900	100.0%

MEASURABLE GOAL:

Award contracts for the continued implementation of the District's Capital Improvement Program.

	2016 Actual	2017 Estimated	2018 Proposed
Number of projects proposed	16	16	40
Number of contracts awarded	10	16	40

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.

50000 CAPITAL IMPROVEMENTS BOND FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
1700	Collection Design	\$ 84,553	2018 -	\$ -	\$ -	-	
			2017 -	\$ -	\$ -	-	
1800	Collection Construction	\$ 35,195,739	2018 -	\$ 44,496,300	\$ 34,801,300	359.0	a)
			2017 -	\$ 9,695,000			
2700	Treatment Design	\$ 992,901	2018 -	\$ -	\$ -	-	
			2017 -	\$ -	\$ -	-	
2800	Treatment Construction	\$ 102,400,169	2018 -	\$ 64,068,000	\$ 45,743,000	249.6	b)
			2017 -	\$ 18,325,000			
3700	Solids Processing Design	\$ 636,648	2018 -	\$ 3,000,000	\$ (1,000,000)	(25.0)	c)
			2017 -	\$ 4,000,000			
3800	Solids Processing Construction	\$ 13,815,745	2018 -	\$ 29,183,300	\$ (10,816,700)	(27.0)	d)
			2017 -	\$ 40,000,000			
4341	Flood Mitigation Projects Planning and Design	\$ 2,347,905	2018 -	\$ -	\$ (7,992,000)	(100.0)	e)
			2017 -	\$ 7,992,000			
4343	Flood Mitigation Projects Construction	\$ 1,707,828	2018 -	\$ 134,928,300	\$ (78,134,000)	(36.7)	f)
			2017 -	\$ 213,062,300			
4344	Flood Mitigation Projects Contracted with Other Governments	\$ 10,580,622	2018 -	\$ 400,000	\$ (7,500,000)	(94.9)	g)
			2017 -	\$ 7,900,000			
4345	Flood Mitigation Projects Land and Easements	\$ 12,440,061	2018 -	\$ 3,338,000	\$ (12,750,400)	(79.3)	h)
			2017 -	\$ 16,088,400			
4600	Monitoring	\$ -	2018 -	\$ 299,000	\$ (201,000)	(40.2)	i)
			2017 -	\$ 500,000			

- a) Increase is due to the expected award of 01-103-AS, 39th Street Conduit Rehabilitation - Phase II, SSA (\$25,935,000), 17-842-3H, Modifications to TARP Structures, CSA and SSA (\$2,625,000), 17-276-3D, Structural Repairs and Roofing Replacement at the 95th Street Pumping Station (\$1,959,300), 18-704-31, Emerson Ovation Distribution Control System, NSA (\$1,802,000), an increase to 16-079-3D, Rehabilitation of North Branch Pumping Station (\$1,500,000), and the expected award of 18-605-31, Pavement Rehabilitation, Various Locations (\$1,100,000).
- b) Increase is due to the expected award of 17-134-3M, Odor Control Facility at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP (\$15,750,000), 17-140-3P, Digester Rehabilitation and Gas Piping, SWRP (\$15,750,000), 15-069-3D, Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP (\$10,500,000), and 18-706-31, Guaranteed Energy Performance Projects, Various Locations (\$3,500,000).
- c) Decrease is due to the 2017 award of 16-272-3P, Conversion of Primary Tanks to High Strength Waste Receiving and Distribution, CWRP (\$1,000,000).
- d) Decrease is due to the 2017 award of 16-270-3P, Covered Composting System, CWRP (\$25,200,000), offset by the expected award of 07-027-3S, North Side Sludge Pipeline Replacement - Section 1, NSA (\$15,043,300).
- e) Decrease is due to the transfer of Stormwater Management design projects to the Stormwater Management Fund (\$7,992,000).
- f) Decrease is due to the transfer of Stormwater Management construction projects to the Stormwater Management Fund (\$45,509,900), the 2017 award of 14-263-3F, Melvina Ditch Reservoir Improvements (\$22,524,600), and a reduction in the anticipated award amount for 11-186-3F, Addison Creek Reservoir, SSA (\$15,106,700), offset by the expected awards of 10-882-AF, Streambank Stabilization on Tinley Creek, CSA (\$3,996,300) and 11-186-AF, Demolition at Addison Creek Reservoir and Thornton Reservoir, SSA, CSA (\$1,102,500).
- g) Decrease is due to the transfer of Stormwater Management Intergovernmental Agreement projects to the Stormwater Management Fund (\$7,500,000).
- h) Decrease is due to the transfer of flood-prone property acquisition projects to the Stormwater Management Fund (\$16,088,400), offset by the expected awards of 16-IGA-15, Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Stone Park, SSA (\$2,700,000) and 16-IGA-12, Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA (\$638,000).
- i) Decrease is due to the 2017 award of the internet-based Publicly owned treatment works Administration and Compliance System (\$200,000).

50000 CAPITAL IMPROVEMENTS BOND FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
4700	Flood and Pollution Control Design	\$ 1,058,580	2018	-	\$ 1,250,000	\$ -	-	
			2017	-	\$ 1,250,000			
4800	Flood and Pollution Control Construction	\$ 67,875,316	2018	-	\$ 25,595,000	\$ (3,327,000)	(11.5)	j)
			2017	-	\$ 28,922,000			
5800	Solids Disposal Construction	\$ 4,389,765	2018	-	\$ 4,675,000	\$ -	-	
			2017	-	\$ 4,675,000			
7740	Land and Easements	\$ 440,226	2018	-	\$ 1,750,000	\$ (465,900)	(21.0)	k)
			2017	-	\$ 2,215,900			
Totals		\$ 253,966,058	2018	-	\$ 312,982,900	\$ (41,642,700)	(11.7%)	
			2017	-	\$ 354,625,600			

j) Decrease is due to the 2017 awards of 16-125-4F, McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA (\$11,760,000) and the reduction in the change order allowance for waterway facilities projects (\$2,807,000), offset by the expected award of 15-830-3D, Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment, CWRP (\$10,500,000).

k) Decrease is due to the anticipated reduction in payments for licenses (\$1,965,900), offset by the acquisition of easement for 11-187-3F, Addison Creek Channel Improvements, SWRP (\$1,500,000).

401 50000	Fund: Capital Improvements Bond Department: Engineering	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original * Appropriation	Adjusted ** Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612090	Reprographic Services	\$ -	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ 10,000	\$ 10,000
612240	Testing and Inspection Services	106,873	-	330,960	200,000	-	-	-
612250	Court Reporting Services	-	25,000	43,583	-	25,000	25,000	25,000
612380	Soil and Rock Mechanics Investigation	124,743	-	-	-	-	-	-
612400	Intergovernmental Agreements	10,580,622	13,988,400	58,538,632	23,700,000	150,000	550,000	3,888,000
612430	Payments for Professional Services	522,087	1,700,000	3,541,033	1,145,000	750,000	750,000	1,199,000
612440	Preliminary Engineering Reports and Studies	274,256	250,000	645,112	401,300	250,000	250,000	250,000
612450	Professional Engineering Services for Construction Projects	4,069,896	12,992,000	24,567,270	8,744,000	4,000,000	4,000,000	4,000,000
612470	Personal Services for Post-Award Engineering for Construction Projects	5,225,751	-	13,446,367	3,200,000	-	-	-
612490	Contractual Services, N.O.C.	-	-	408,100	260,000	-	-	-
612780	Safety Repairs and Services	-	100,000	100,000	-	100,000	100,000	100,000
200	TOTAL CONTRACTUAL SERVICES	20,904,229	29,055,400	101,631,057	37,650,300	5,285,000	5,685,000	9,472,000
634600	Equipment for Collection Facilities	-	-	645,000	-	-	645,000	645,000
634650	Equipment for Process Facilities	-	-	600,000	579,900	-	-	-
634820	Computer Software	-	-	-	-	-	-	150,000
400	TOTAL MACHINERY AND EQUIPMENT	-	-	1,245,000	579,900	-	645,000	795,000
645600	Collection Facilities Structures	25,160,145	3,000,000	23,139,127	8,400,000	3,965,000	3,965,000	4,210,000
645620	Waterway Facilities Structures	26,345,644	204,977,300	225,213,461	8,401,700	125,177,400	125,177,400	127,539,900
645630	Army Corps of Engineers Services	23,264,764	18,740,000	115,377,064	47,000,000	7,500,000	7,500,000	7,500,000
645650	Process Facilities Structures	107,390,362	54,525,000	177,414,951	82,500,000	33,085,000	58,060,000	58,060,000
645680	Buildings	33,427	4,675,000	12,167,798	6,620,000	7,413,000	7,413,000	7,413,000
645690	Capital Projects, N.O.C.	-	1,000,000	1,000,000	-	5,302,000	5,602,000	5,302,000
645700	Preservation of Collection Facility Structures	26,646,085	5,120,000	48,182,804	22,500,000	31,555,000	31,555,000	31,555,000
645720	Preservation of Waterway Facility Structures	1,404,125	17,942,000	23,105,925	3,400,700	25,148,400	25,148,400	25,148,400
645750	Preservation of Process Facility Structures	5,429,709	500,000	20,320,828	8,500,000	13,972,600	14,392,600	15,963,300
645780	Preservation of Buildings	-	2,575,000	12,153,700	-	17,974,300	17,275,000	17,974,300
500	TOTAL CAPITAL PROJECTS	215,674,259	313,054,300	658,075,657	187,322,400	271,092,700	296,088,400	300,665,900

401 50000		Fund: Capital Improvements Bond Department: Engineering		LINE ITEM ANALYSIS				
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original * Appropriation	Adjusted ** Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
656010	Land	12,440,061	10,300,000	10,300,000	1,500,000	300,000	300,000	300,000
600	TOTAL LAND	12,440,061	10,300,000	10,300,000	1,500,000	300,000	300,000	300,000
667340	Payments for Easements	275,100	2,215,900	2,215,900	62,100	1,750,000	1,750,000	1,750,000
727102	Principal Expense - Capital Lease	2,357,787	-	42,667,938	2,100,000	-	-	-
727112	Interest Expense - Capital Lease	2,031,977	-	14,305,801	1,606,100	-	-	-
767300	Bond Issuance Costs	282,645	-	-	-	-	-	-
700	TOTAL FIXED AND OTHER CHARGES	4,947,509	2,215,900	59,189,638	3,768,200	1,750,000	1,750,000	1,750,000
TOTAL CAPITAL IMPROVEMENTS BOND		\$253,966,058	\$354,625,600	\$830,441,352	\$230,820,800	\$278,427,700	\$304,468,400	\$312,982,900

* 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.

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 93-1049 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 six 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 the activities of the watershed planning councils.

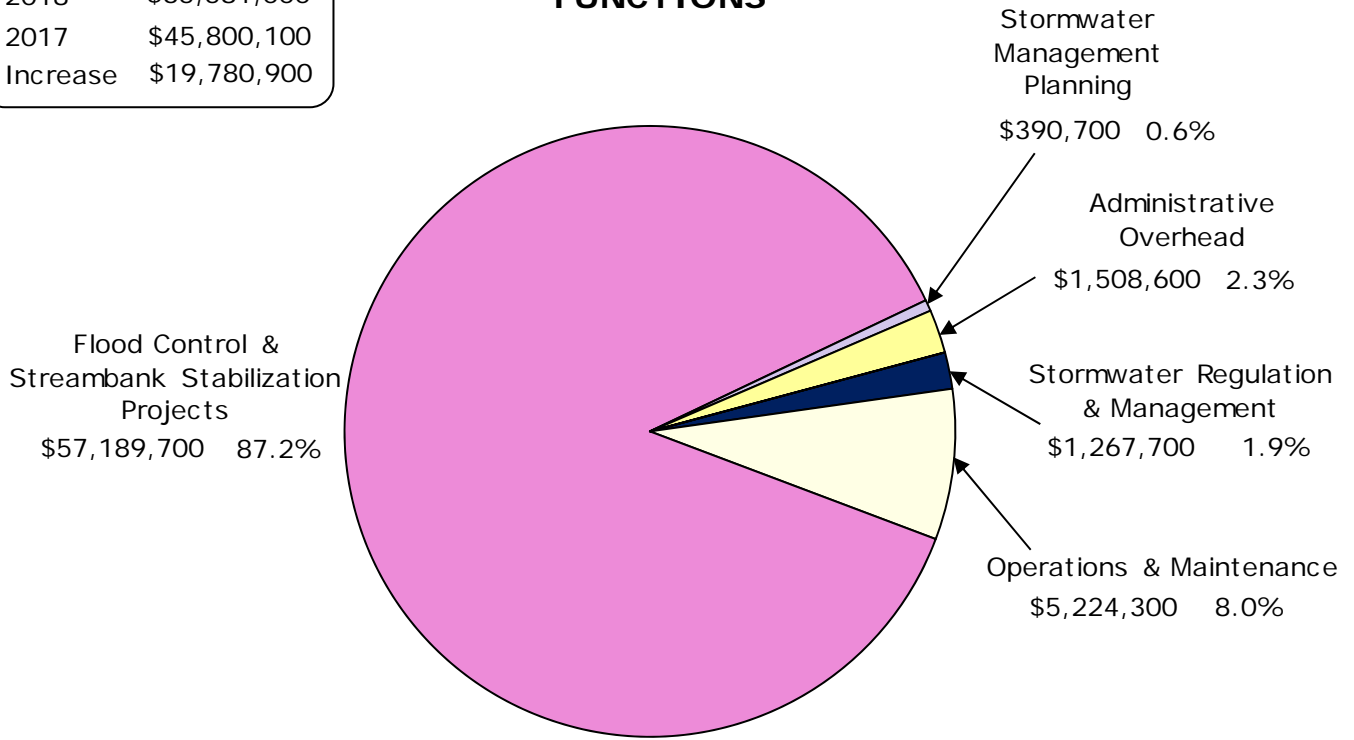
Stormwater Management Fund:	
Appropriations, Expenditures, & Budgeted FTE Positions, 2009 – 2018	517
Organization Chart	518
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Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

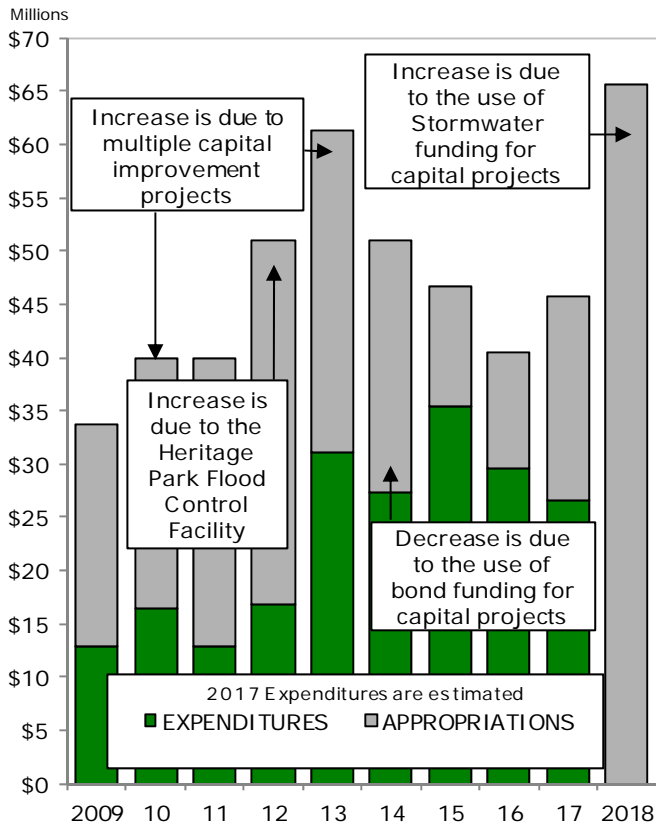
STORMWATER MANAGEMENT

2018	\$65,581,000
2017	\$45,800,100
Increase	\$19,780,900

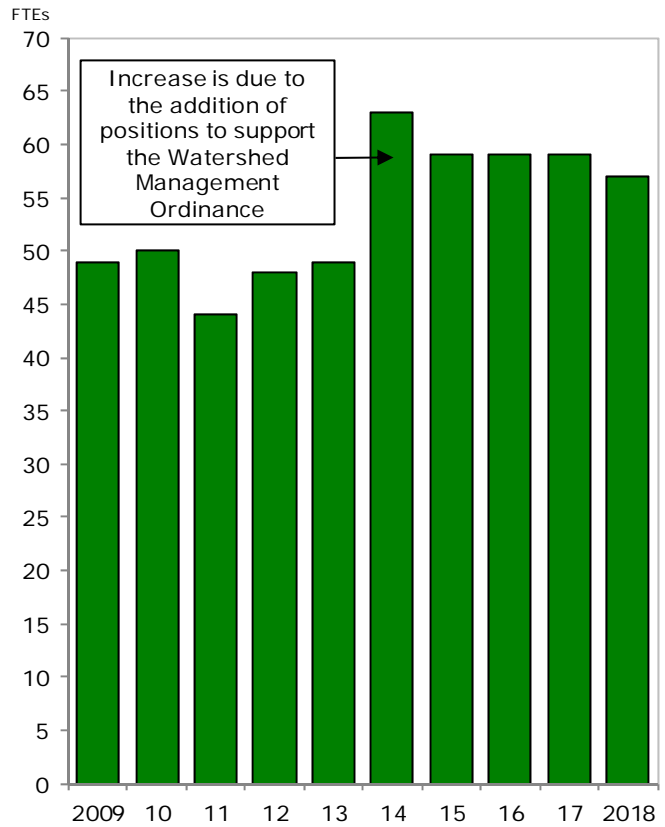
FUNCTIONS



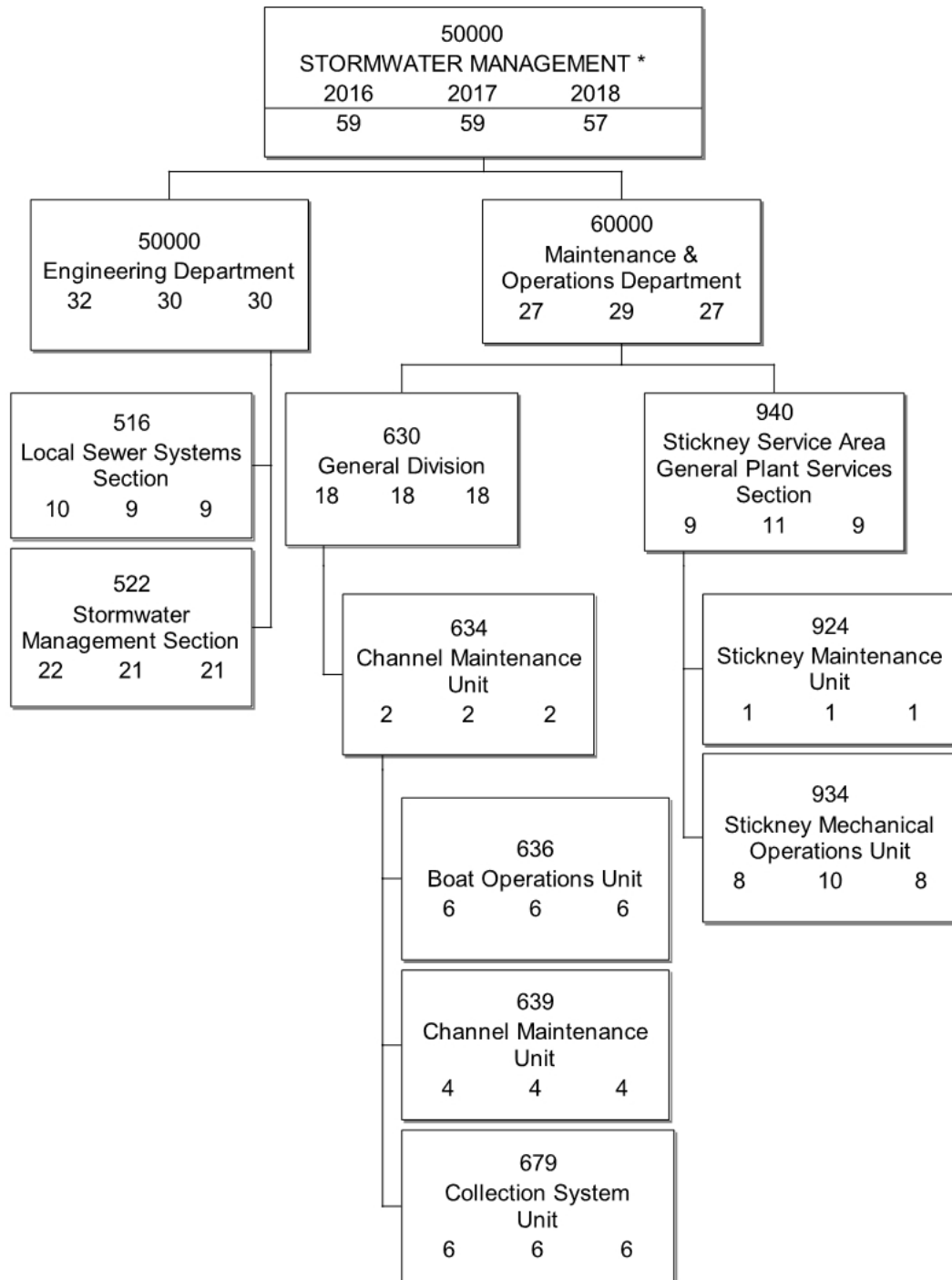
APPROPRIATIONS & EXPENDITURES



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 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.mwrd.org.

Summary of 2017 Accomplishments

- Completed construction of one streambank stabilization and three flood control projects originally identified in the DWPs;
- Awarded five flood control and streambank stabilization projects;
- Continued design of Phase I regional projects recommended from the DWPs, including streambank stabilization projects on reaches of three waterways and flood control projects on reaches of six waterways;
- Continued design of Phase II conceptual flood control projects identified by local municipalities, townships, and agencies, including the Cities of Blue Island and Palos Heights, the Villages of Crestwood, Midlothian, Robbins, and Worth, the Town of Cicero, Bremen Township, the Illinois Department of Transportation, and the Cook County Department of Transportation and Highways;
- Entered into Intergovernmental Agreements (IGAs) for acquisition of flood-prone properties with the Villages of Flossmoor, Franklin Park, and Stone Park;
- Continued the SSMP with the objective of removing debris and blockages from 532 miles of small streams and rivers;
- Solicited applications for Green Infrastructure projects from local communities and agencies and identified partnership opportunities to assist in constructing local improvements to address flooding issues through green solutions;
- Solicited applications for Phase II local drainage issues and flood-prone property acquisition projects to be prioritized for selection in 2018.

Budget Highlights

The 2018 Stormwater Management Fund appropriation is \$65,581,000, an increase of \$19,780,900, or 43.2 percent, from 2017. The staffing level has decreased from 59 to 57 positions. Two Maintenance Laborers Class A Shift #1 were dropped upon vacancy and a Senior Civil Engineer was dropped, offset by the transfer in of a Principal Engineer from the North Service Area of the Maintenance & Operations Department.

Significant features of the 2018 Budget are:

- Prioritize new infrastructure projects, buyouts, and Phase II projects from 2017 solicitations;
- Continue engineering design for Phase I and Phase II projects and begin construction of projects that have completed final design and have been approved by the Board of Commissioners;
- Complete a pilot study with the City of Chicago to explore the effectiveness of various technologies aimed at reducing basement backup at private sites;
- Award the Addison Creek Reservoir project in Bellwood, Illinois;
- Identify partnership opportunities to assist in implementing local drainage improvements and acquisition of flood-prone properties;
- Continue the SSMP to reduce flooding in urbanized areas;
- Continue to 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.

2018 Initiatives in Support of the Strategic Business Plan Include the Following:**• Add Value**

The Stormwater Management Capital Improvement Program utilizes benefit-to-cost analysis developed for the recommended alternatives in the DWPs as the primary basis for prioritizing individual projects.

• Excellence

The Engineering Department recently completed five stormwater master plan pilot studies to identify solutions to flooding of structures experienced in storms up to and including the 100-year design event. The findings of these studies revealed that exorbitant investments by the District and the local communities would be necessary to protect structures from flooding up through the 100-year storm through traditional gray or blended green and gray infrastructure. As the District moves forward with its stormwater master planning effort for the entire county, the lessons learned in the pilot studies will be applied, and an adaptive approach will be utilized to find ways to address community issues that considers local communities' capacity and identifies potential partnership opportunities to help fund multi-objective solutions centered on stormwater management. The District intends to enlist the services of two engineering consultant firms to provide program management services for additional stormwater master planning efforts, one for the combined sewer areas and another for separate sewer areas. After an assessment and review of community planning needs across Cook County is completed, additional stormwater master planning studies will be pursued in order to create an overall plan for Cook County.

• Resource Recovery

Through a variety of engineered solutions, both green and gray, and flood-prone property acquisitions, the District's stormwater program addresses both regional and local flooding problems throughout Cook County. The District has made significant investments in developing over 100 capital stormwater projects since it assumed the authority for stormwater management in 2004. The implementation of these projects, which range in both size and scope, provide flood protection for thousands of homes, businesses, and critical infrastructure. Wherever practical, stormwater recovery and reuse will be included in the project.

• Develop Employees

Stormwater staff include 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 partnered with the Village of Robbins to develop a plan for stormwater improvements to address flooding along Midlothian Creek impacting approximately 140 acres and over 100 homes. Since flooding issues were identified as a significant barrier to economic opportunities in the Village of Robbins, a holistic approach to stormwater management has been developed to serve as a catalyst for positive socioeconomic change. The District and the Village of Robbins have enlisted numerous partners to realize this bold vision, including Cook County's Economic Development and Transportation agencies, the Chicago Metropolitan Agency for Planning, the Cook County and South Suburban Land Banks, the Regional Transportation Authority, and Metra. The District, the Village of Robbins, and other partner agencies are working together to plan, design, and identify funding for implementing the holistic plan which not only promotes resiliency, but also promotes the economic growth, health, and well-being of a community.

The District has initiated a Green Infrastructure Program that facilitates the planning, design, and construction of multiple Green Infrastructure projects throughout Cook County, in partnership with a variety of stakeholders. In the second quarter of 2017, the District solicited Green Infrastructure partnership opportunities through a call for projects from local municipalities and agencies in Cook County. 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 32 Chicago Public School campuses. The District has partnered with other local municipalities to design and construct 82 regional and local stormwater management projects.

In 2017, projects under construction in partnership with municipalities included the construction of the Albany Park Tunnel, Addison Creek Streambank Stabilization, Berkeley Detention and Storm Sewer Improvements, Brookfield Pumping Station Improvements, Berwyn Green Alleys, Niles Bioswale and Permeable Parking Lot, and the Skokie Rain Garden and Naturalized Detention.

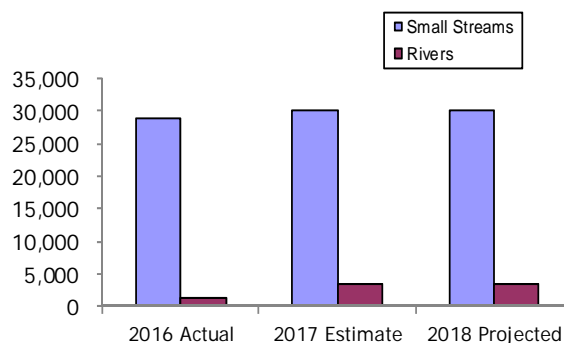
• Technology

The District continues to expand the online content related to the Chicago Area Waterway System and the SSMP to keep the public informed and allow access to related information.

SMALL STREAMS MAINTENANCE PROGRAM

Through the management of the SSMP, the Maintenance & Operations 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 Capital Improvement Program 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 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 and Flood Control Projects

A map of streambank stabilization project locations is provided on page 571, while maps of flood control projects including reservoirs, capital improvement projects, and Green Infrastructure and other projects the District is implementing with local municipalities can be found on pages 572 – 574.

FLOOD-PRONE PROPERTY ACQUISITION PROGRAM

The District's statutory authority for Stormwater Management in Cook County (70 ILCS 2605/7h) was amended in 2014 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.

Acquisition Projects

- In the third quarter of 2017, the District solicited applications from municipalities and townships for assistance with the acquisition of flood-prone structures located throughout Cook County;
- Entered into IGAs to partner with the Villages of Flossmoor, Franklin Park, and Stone Park to acquire 68 flood-prone residential structures. These acquisitions will be completed in 2019. As a result of the 2017 applications, additional IGAs will be negotiated to assist local communities with flood-prone property acquisitions in the future.

Stormwater Management Fund Program

<u>Projects Under Construction</u>			Est.	MWRD		Est.
#	Project Name	Project Number	Constr- uction Cost	2018 Appro- piation	Award Date	Comple- tion Date
1	Construction of Alternative ADCR-7B, Northlake, SSA	15-IGA-13	\$ 1,000	\$ 500	Jul-13	Jul-18
2	* Installation of Green Infrastructure at Chicago Public Schools, Various Locations	15-IGA-20	13,045	7,075	Oct-14	Oct-20
3	Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, CSA	10-883-AF	7,583	239	Sep-15	Oct-19
4	Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills, CSA	10-882-DF	664	68	Apr-16	Mar-20
5	McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA	16-IGA-04	2,696	2,696	Jun-16	Nov-18
6	Village of Niles Bioswale and Permeable Parking Lot, NSA	16-IGA-09	200	100	Jun-16	Apr-18
7	Village of Skokie Rain Garden in Devonshire Park near Kenneth Terrance and a Detention Area near the Skokie Police Headquarters, NSA	16-IGA-10	200	25	Dec-16	Apr-18
8	City of Berwyn Green Alleys, SSA	16-IGA-07	667	667	Dec-16	Jul-18
9	* Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA	10-883-CF	715	266	Mar-17	Mar-21
10	Land Acquisition for a Flood Control Project on Midlothian Creek in Robbins, CSA	17-IGA-02	200	200	Jul-17	Dec-18
Total Projects Under Construction			\$ 26,970	\$ 11,836		

<u>Awards in 2018</u>			Est.	MWRD		Est.
#	Project Name	Project Number	Constr- uction Cost	2018 Appro- piation	Dura- tion (days)	Award Date
1	Flood Control Project at Arrowhead Lake, Palos Heights, CSA	10-883-BF	\$ 1,200	\$ 1,200	387	Jan-18
2	Flood Control Project on Farmers and Prairie Creeks, NSA	12-056-5F	14,100	3,333	660	Jan-18
3	* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	1,831	1,458	576	Jan-18
4	Rainwater Harvesting System at Dearborn Homes, Chicago, SSA	14-113-5F	900	900	264	Jan-18
5	Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	14-252-5F	7,806	3,000	752	Jan-18
6	** Flood Control Project on Midlothian Creek in Robbins, IL, CSA	14-253-5F	11,000	2,000	568	Jan-18
7	Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue, Oak Lawn, CSA	15-IGA-22	3,000	1,500	607	Jan-18
8	Railroad Drainage Area Outlet, Riverside, SSA	16-IGA-03	90	90	303	Jan-18
9	Flood Control Project for Deer Creek, CSA	10-884-BF	3,440	1,720	693	Feb-18
10	** Flood Control Project for the Washington Street Area in Blue Island, IL, CSA	14-260-5F	5,700	1,000	667	Feb-18
11	Streambank Stabilization Projects for Addison Creek, SSA	14-108-3F	1,000	517	425	Apr-18
12	Flood Control Project at 61st Avenue and 36th Street, Cicero, SSA	16-IGA-21	2,500	500	639	Apr-18
13	Lyons Levee Flood Control Improvements, SSA	13-199-3F	3,500	1,750	662	Aug-18

<u>Stormwater Management Program Awards in 2018 (continued)</u>			Est.	MWRD		Est.
#	Project Name	Project Number	Constr- uction Cost	2018 Appro- piation	Dura- tion (days)	Award Date
14	Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA	10-882-BF	1,568	1,029	1112	Dec-18
15	La Grange Storm Sewer Improvements, SSA	16-IGA-02	3,000	1,500	395	Dec-18
Total 2018 Awards			\$ 60,635	\$ 21,497		

<u>Projects Under Development</u>			Est.		Est.
#	Project Name	Project Number	Constr- uction Cost	Duration (days)	Award Date
16	Flood Control Project in the Worth Woods Subdivision in Worth, Illinois, CSA	14-256-5F	\$ 2,500	371	Mar-19
17	Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA	14-111-5F	2,500	540	Apr-19
18	Flood Control Project on Central Road from the Des Plaines River to Greenwood Road, NSA	14-065-5F	12,000	700	Jun-19
19	Flood Control Project along Plainfield Road from Willow Springs Road to East Avenue, SSA	14-112-5F	17,000	730	Jun-19
20	Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, Illinois, CSA	14-257-5F	3,600	366	Nov-19
21	Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, Illinois, CSA	14-258-5F	9,300	366	Nov-19
22	Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA	16-IGA-18	6,600	460	Feb-20
23	Green Infrastructure Intergovernmental Agreements	Various	21,100	Various	TBD
24	Flood-Prone Property Acquisition Intergovernmental Agreements	Various	24,600	Various	TBD
Total Future Awards			\$ 99,200		
Cumulative Projects Under Construction, 2018 Awards, and Future Awards			\$ 186,805		

* 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.

** The District's actual contribution will be determined based upon grants and other partner funding commitments.

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
<u>Projects Under Construction</u>										
1	Construction of Alternative ADCR-7B, Northlake, SSA	15-IGA-13				x	x	=	=	=
2	Installation of Green Infrastructure at Chicago Public Schools, Various Locations	15-IGA-20				x	x	=	=	=
3	Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, CSA	10-883-AF				x	x	=	=	=
4	Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills, CSA	10-882-DF				x	x	=	=	=
5	McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA	16-IGA-04				x	x	=	=	=
6	Village of Niles Bioswale and Permeable Parking Lot, NSA	16-IGA-09				x	x	=	=	=
7	Village of Skokie Rain Garden in Devonshire Park near Kenneth Terrace and a Detention Area near the Skokie Police Headquarters, NSA	16-IGA-10				x	x	=	=	=
8	City of Berwyn Green Alleys, SSA	16-IGA-07				x	x	=	=	=
9	Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA	10-883-CF				x	x	=	=	=
10	Land Acquisition for a Flood Control Project on Midlothian Creek in Robbins, CSA	17-IGA-02					x	=	=	=
<u>Awards in 2018</u>										
1	Flood Control Project at Arrowhead Lake, Palos Heights, CSA	10-883-BF				x	x	=	=	=
2	Flood Control Project on Farmers and Prairie Creeks, NSA	12-056-5F				x	x	=	=	=
3	Buffalo Creek Reservoir Expansion, NSA	13-370-3F				x	x	=	=	=
4	Rainwater Harvesting System at Dearborn Homes, Chicago, SSA	14-113-5F				x	x	=	=	=
5	Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	14-252-5F				x	x	=	=	=
6	Flood Control Project on Midlothian Creek in Robbins, IL, CSA	14-253-5F	x	x	x	x	x	=	=	=
7	Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue, Oak Lawn, CSA	15-IGA-22				x	x	=	=	=
8	Railroad Drainage Area Outlet, Riverside, SSA	16-IGA-03					x	=	=	=

Stormwater Management Fund Operating Impacts for Awards in 2018 (continued)			Justification					Impact		
			<i>Capacity Needs</i>	<i>Useful Life</i>	<i>Economic Benefit</i>	<i>Safety/Regulatory</i>	<i>Flood Control</i>	<i>Manpower</i>	<i>Energy</i>	<i>Chemical</i>
#	Project Name	Project Number								
9	Flood Control Project for Deer Creek, CSA	10-884-BF				x	x	=	=	=
10	Flood Control Project for the Washington Street Area in Blue Island, IL, CSA	14-260-5F	x	x	x	x	x	=	=	=
11	Streambank Stabilization Projects for Addison Creek, SSA	14-108-3F				x	x	=	=	=
12	Flood Control Project at 61st Avenue and 36th Street, Cicero, SSA	16-IGA-21			x		x	=	=	=
13	Lyons Levee Flood Control Improvements, SSA	13-199-3F				x	x	=	=	=
14	Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA	10-882-BF				x	x	=	=	=
15	La Grange Storm Sewer Improvements, SSA	16-IGA-02	x	x	x	x	x	=	=	=
Projects Under Development										
16	Flood Control Project in the Worth Woods Subdivision in Worth, Illinois, CSA	14-256-5F	x				x	=	=	=
17	Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA	14-111-5F	x		x	x	x	=	=	=
18	Flood Control Project on Central Road from the Des Plaines River to Greenwood Road, NSA	14-065-5F	x		x		x	+	=	=
19	Flood Control Project along Plainfield Road from Willow Springs Road to East Avenue, SSA	14-112-5F	x		x		x	+	=	+
20	Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, Illinois, CSA	14-257-5F	x		x	x	x	=	=	=
21	Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, Illinois, CSA	14-258-5F	x	x	x	x	x	=	=	=
22	Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA	16-IGA-18					x	=	=	=
23	Green Infrastructure Intergovernmental Agreements	Various			x	x	x	=	=	=
24	Flood-Prone Property Acquisition Intergovernmental Agreements	Various			x	x	x	=	=	=

See legend on following page.

LEGEND

Under "**Justification**," the marked columns note the categories of benefits expected from each project.

	Manpower
+ 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 "Description of Capital Projects" section.
	Energy
+ 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 in "Description of Capital Projects" section.
	Chemical
+ 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 "Description of Capital Projects" section.
= No budgetary impact expected.	

CAPITAL PROJECTS LISTED BY SERVICE AREA - STORMWATER MANAGEMENT FUND

The following is a list of stormwater, pay-as-you-go 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 2018 award, or under development.

**STICKNEY
SERVICE
AREA (SSA)**



Stickney Water Reclamation Plant (SWRP)

Projects Under Construction (with estimated completion dates)

	Estimated Construction Cost
15-IGA-13 Construction of Alternative ADCR-7B, Northlake, SSA (7/2018)	\$ 1,000,000
15-IGA-20* Installation of Green Infrastructure at Chicago Public Schools, Various Locations (10/2020) [Capital Improvements Bond Fund = \$2,955,000; Stormwater Management Fund = \$13,045,000]	13,045,000
16-IGA-04 McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA (11/2018)	2,696,000
16-IGA-07 City of Berwyn Green Alleys, SSA (7/2018)	667,000
Total	\$ 17,408,000

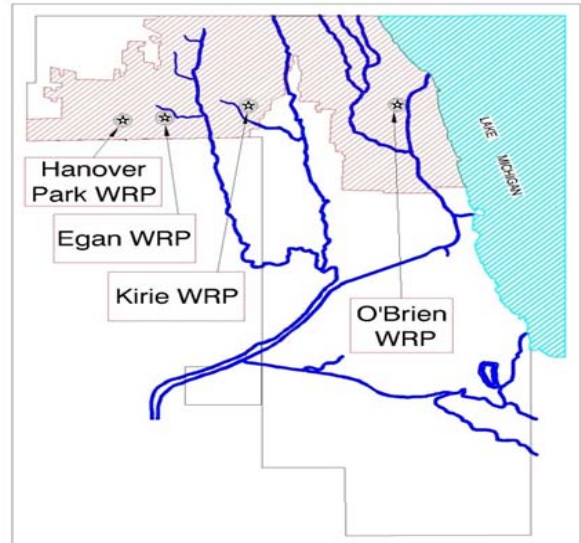
Projects for 2018 Award

13-199-3F Lyons Levee Flood Control Improvements, SSA	\$ 3,500,000
14-108-3F Streambank Stabilization Projects for Addison Creek, SSA	1,000,000
14-113-5F Rainwater Harvesting System at Dearborn Homes, Chicago, SSA	900,000
16-IGA-02 La Grange Storm Sewer Improvements, SSA	3,000,000
16-IGA-03 Railroad Drainage Area Outlet, Riverside, SSA	90,000
16-IGA-21 Flood Control Project at 61st Avenue and 36th Street, Cicero, SSA	2,500,000
Total	\$ 10,990,000

Projects Under Development

14-111-5F Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA	\$ 2,500,000
14-112-5F Flood Control Project along Plainfield Road from Willow Springs Road to East Avenue, SSA	17,000,000
Various Green Infrastructure Intergovernmental Agreements, Various	21,100,000
Various Flood-Prone Property Acquisition Intergovernmental Agreements, Various	24,600,000
Total	\$ 65,200,000
Stickney Service Area Grand Total	\$ 93,598,000

NORTH SERVICE AREA (NSA)



Terrence J. O'Brien Water Reclamation Plant (OWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
16-IGA-09	Village of Niles Bioswale and Permeable Parking Lot, NSA (4/2018)	\$ 200,000
16-IGA-10	Village of Skokie Rain Garden in Devonshire Park near Kenneth Terrace and a Detention Area near the Skokie Police Headquarters, NSA (4/2018)	200,000
Total		\$ 400,000

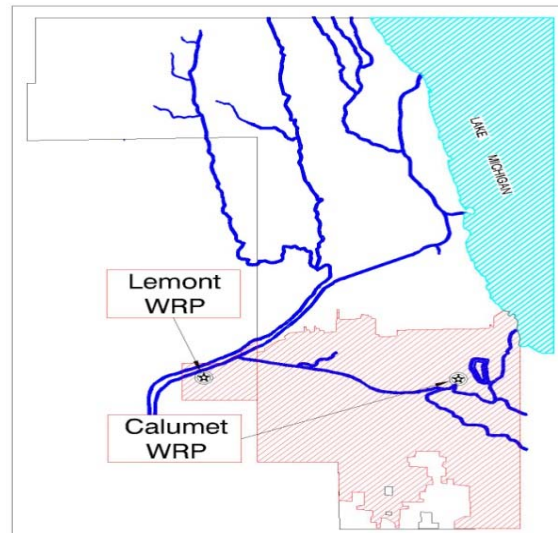
Projects for 2018 Award

12-056-5F	Flood Control Project on Farmers and Prairie Creeks, NSA	\$ 14,100,000
13-370-3F*	Buffalo Creek Reservoir Expansion, NSA [Capital Improvements Bond Fund = \$19,300,000; Stormwater Management Fund = \$1,831,000]	1,831,000
Total		\$ 15,931,000

Projects Under Development

14-065-5F	Flood Control Project on Central Road from the Des Plaines River to Greenwood Road, NSA	\$ 12,000,000
16-IGA-18	Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA	6,600,000
Total		\$ 18,600,000
North Service Area Grand Total		\$ 34,931,000

CALUMET SERVICE AREA (CSA)



Calumet Water Reclamation Plant (CWRP)

Projects Under Construction (with estimated completion dates)

		Estimated Construction Cost
10-883-AF	Flood Control/Streambank Stabilization Project on Tinley Creek, CSA (10/2019)	\$ 7,583,000
10-883-CF*	Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA (3/2021) [Capital Improvements Bond Fund = \$2,590,000; Stormwater Management Fund = \$715,000]	715,000
10-882-DF	Streambank Stabilization/Flood Control Project on Tinley Creek, CSA (3/2020)	664,000
17-IGA-02	Land Acquisition for a Flood Control Project on Midlothian Creek in Robbins, IL, CSA (12/2018)	200,000
Total		\$ 9,162,000

Projects for 2018 Award

10-882-BF	Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA	\$ 1,568,000
10-883-BF	Flood Control Project at Arrowhead Lake, Palos Heights, CSA	1,200,000
10-884-BF	Flood Control Project for Deer Creek, CSA	3,440,000
14-252-5F	Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	7,806,000
14-253-5F**	Flood Control Project on Midlothian Creek in Robbins, IL, CSA	11,000,000
14-260-5F**	Flood Control Project for the Washington Street Area in Blue Island, IL, CSA	5,700,000
15-IGA-22	Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue, Oak Lawn, CSA	3,000,000
Total		\$ 33,714,000

Projects Under Development

14-256-5F	Flood Control Project in the Worth Woods Subdivision in Worth, Illinois, CSA	\$ 2,500,000
14-257-5F	Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, Illinois, CSA	3,600,000
14-258-5F	Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, Illinois, CSA	9,300,000
Total		\$ 15,400,000

Calumet Service Area Grand Total \$ **58,276,000**

Capital Projects Grand Total - All Service Areas \$ **186,805,000**

* These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

** The District's actual contribution will be determined based upon grants and other partner funding commitments.

Streambank Stabilization Project on Oak Lawn Creek, CSA

Project Number: 10-237-3F

Service Area: Calumet

Location: Oak Lawn, IL

Engineering Consultant: MWH Americas, Inc.

General Contractor: Judlau Contracting, Inc.

Estimated Construction Cost: \$3,035,000

Contract Award Date: September 2016

Substantial Completion Date: September 2018*



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 and Flood Control. 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: The 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.

Streambank Stabilization Project on Tinley Creek, CSA

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: January 2018*

Substantial Completion Date: August 2019*



Project Description: This project will stabilize approximately 2,200 linear feet of Tinley Creek between 86th Avenue and Crystal Creek Drive and 2,800 linear feet between 151st Street and Oriole Court, at two locations in the Village of Orland Park.

Project Justification: Safety/Regulatory and Flood Control. 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. The District is finalizing an Intergovernmental Agreement with the Village of Orland Park. The District and the Village of Orland Park are 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 Calumet Union Drainage Ditch, CSA

Project Number: 10-882-BF

Service Area: Calumet

Location: Markham, IL

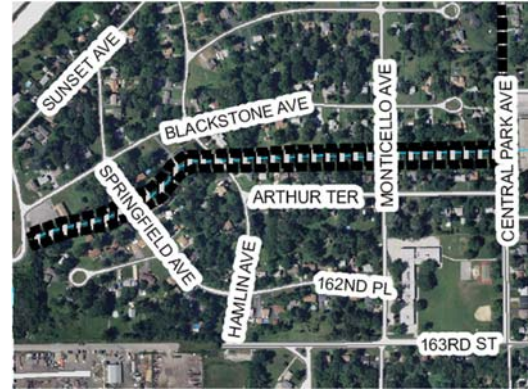
Engineering Consultant: Michael Baker, Jr., Inc.

General Contractor: To be determined

Estimated Construction Cost: \$1,568,000

Contract Award Date: December 2018*

Substantial Completion Date: December 2021*



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. The project requires one year of monitoring and maintenance following substantial completion.

Project Justification: Safety/Regulatory and Flood Control. This project will protect 42 residential 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 and the permits have been obtained. The District is procuring easements from affected property owners.

*Information shown is estimated.

Streambank Stabilization Project along Midlothian Creek, Tinley Park, CSA

Project Number: 10-882-CF

Service Area: Calumet

Location: Tinley Park, IL

Engineering Consultant: Michael Baker, Jr., Inc.

General Contractor: To be determined

Estimated Construction Cost: \$392,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2019*



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 and Flood Control. This project will protect structures and infrastructure in imminent danger of failure from active streambank erosion and flooding.

Project Status: The final plans and specifications are being prepared. The permits and easements have been obtained. An Intergovernmental Agreement is being finalized with the Village of Tinley Park. The project received approval for funding from the Illinois Environmental Protection Agency's State Revolving Fund loan program in late November 2016.

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 in Orland Hills, CSA

Project Number: 10-882-DF

Service Area: Calumet

Location: Orland Hills, IL

Engineering Consultant: CH2M HILL Engineers, Inc.

General Contractor: Cardno, Inc.

Estimated Construction Cost: \$664,000

Contract Award Date: April 2016

Substantial Completion Date: March 2020*



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 and Flood Control. 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 is under construction.

*Information shown is estimated.

Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, CSA

Project Number: 10-883-AF

Service Area: Calumet

Location: Crestwood, IL

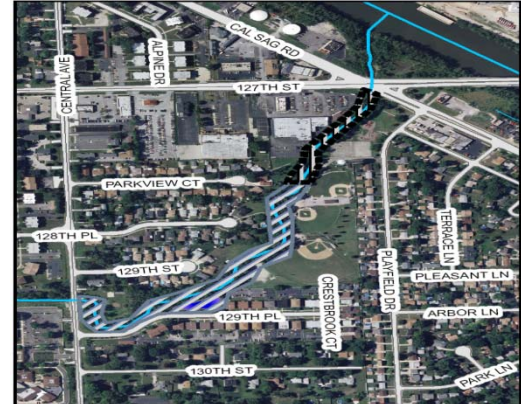
Engineering Consultant: CH2M Hill Engineers, Inc. and Infrastructure Engineering, Inc.

General Contractor: Industria Inc.

Estimated Construction Cost: \$7,583,000

Contract Award Date: September 2015

Substantial Completion Date: October 2019*



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 and Flood Control. 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: The project is under construction.

*Information shown is estimated.

Flood Control Project at Arrowhead Lake, Palos Heights, CSA

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: \$1,200,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2019*



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 and Flood Control. This project will remove approximately 70 structures from the Federal Emergency Management Agency Zone A floodplain.

Project Status: The District is finalizing an Intergovernmental Agreement with the Forest Preserve District of Cook County and the City of Palos Heights. The District is also working to obtain a dam permit from the Illinois Department of Natural Resources. Contract documents are being prepared for advertisement.

*Information shown is estimated.

Flood Control Project on the East Branch of Cherry Creek, Flossmoor, CSA

Project Number: 10-883-CF

Service Area: Calumet

Location: Flossmoor, IL

Engineering Consultant: CH2M HILL Engineers, Inc.

General Contractor: IHC Construction Companies, LLC

Estimated Construction Cost: \$3,305,000

Contract Award Date: March 2017

Substantial Completion Date: March 2021*



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 and Flood Control. This project will remove 16 structures from the regulatory floodplain.

Project Status: The project is under construction.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [Capital Improvements Bond Fund = \$2,590,000; Stormwater Management Fund = \$715,000].

*Information shown is estimated.

Flood Control Project for Deer Creek, CSA

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: February 2018*

Substantial Completion Date: December 2019*



Project Description: This project will reduce flood damage by improving channel conveyance and raising a berm at 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 and Flood Control. 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 Army Corps of Engineers and the Illinois Department of Natural Resources.

*Information shown is estimated.

Addison Creek Reservoir, SSA

Project Number: 11-186-3F

Service Area: Stickney

Location: Bellwood, IL

Engineering Consultant: Christopher B. Burke Engineering, Ltd.

General Contractor: To be determined

Estimated Construction Cost: \$95,155,000

Contract Award Date: April 2018*

Substantial Completion Date: April 2020*



Project Description: This project will create an approximately 600 acre-foot flood control reservoir in Bellwood just north of Washington Boulevard and east of Addison Creek. This project includes reservoir excavation and installation of necessary appurtenances for operation of the facility, such as control structure, inlet structure, spillway, piping, and a pumping station.

Project Justification: Safety/Regulatory and Flood Control. This project, along with Addison Creek Channel Improvements project, will help alleviate public health and safety concerns by reducing overbank flooding to approximately 2,200 structures along Addison Creek from Northlake to Broadview. In addition to providing flood control benefits, this reservoir will serve as compensatory storage for the channel improvement project.

Project Status: The project is in the final design phase.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

*Information shown is estimated.

Demolition at Addison Creek Reservoir and Thornton Reservoir, SSA and CSA

Project Number: 11-186-AF

Service Area: Calumet and Stickney

Location: South Holland and Bellwood, IL

Engineering Consultant: In-house design

General Contractor: To be determined

Estimated Construction Cost: \$1,050,000

Contract Award Date: January 2018*

Substantial Completion Date: April 2018*



Project Description: Demolition of the three buildings and a tank at the Addison Creek Reservoir site in Bellwood, Illinois. Demolition of the three buildings and two sheds at the Thornton Reservoir site in South Holland, Illinois.

Project Justification: Safety/Regulatory and Flood Control. The purpose of the contract is to demolish old buildings no longer needed by the District. The demolition of these buildings will eliminate safety concerns. The Addison Creek Reservoir site at 2795 Washington Boulevard in Bellwood, Illinois requires the demolition of three buildings and a tank. The Thornton Reservoir site at 17001 State Street in South Holland, Illinois, requires the the demolition of three buildings and two sheds.

Project Status: The project is currently in the final design phase.

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, NSA

Project Number: 12-056-5F

Service Area: North

Location: Des Plaines, Park Ridge, and Maine Township

Engineering Consultant: HNTB Corporation

General Contractor: To be determined

Estimated Construction Cost: \$14,100,000

Contract Award Date: January 2018*

Substantial Completion Date: October 2019*



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 and Flood Control. 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. In February 2016, 98 percent documents were issued.

*Information shown is estimated.

Lyons Levee Flood Control Improvements, SSA

Project Number: 13-199-3F

Service Area: Stickney

Location: Lyons, IL

Engineering Consultant: MC Consulting, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$3,500,000

Contract Award Date: August 2018*

Substantial Completion Date: May 2020*



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 and Flood Control. 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.

*Information shown is estimated.

Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA

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: \$8,800,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2020*



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: Capacity Needs, Economic Benefit, Safety/Regulatory, and Flood Control. The banks have deteriorated due to hydraulic erosion and slope failures, potentially compromising roadways and structures that are in the vicinity.

Project Status: Easements and permits are being finalized. The District is currently seeking funding from the Illinois Environmental Protection Agency's 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.

Buffalo Creek Reservoir Expansion, NSA

Project Number: 13-370-3F

Service Area: North

Location: Buffalo Grove, IL

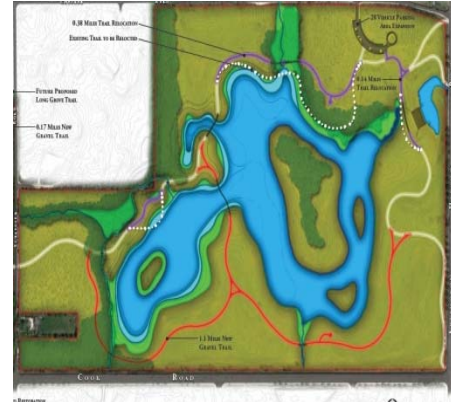
Engineering Consultant: Hey & Associates, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$21,131,000

Contract Award Date: January 2018*

Substantial Completion Date: July 2019*



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 10-year storm event.

Project Justification: Safety/Regulatory and Flood Control. Approximately 104 structures will receive flood protection from the expansion.

Project Status: The District is finalizing an intergovernmental agreement for construction of the project with the Lake County Forest Preserve District and the Village of Buffalo Grove. The District is also working to obtain necessary permits, which requires an intergovernmental agreement with the Lake County Forest Preserve District for wetland mitigation.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [Capital Improvements Bond Fund = \$19,300,000; Stormwater Management Fund = \$1,831,000].

*Information shown is estimated.

Streambank Stabilization Projects for Addison Creek, SSA

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: \$1,000,000

Contract Award Date: April 2018*

Substantial Completion Date: May 2019*



Project Description: The scope of this project involves stabilization of approximately 750 feet of Addison Creek adjacent to Fullerton Avenue in the City of 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 and Flood Control.

Project Status: This project has completed the design phase. The District is preparing bid documents.

*Information shown is estimated.

Rainwater Harvesting System at Dearborn Homes, Chicago, SSA

Project Number: 14-113-5F

Service Area: Stickney

Location: Chicago, IL

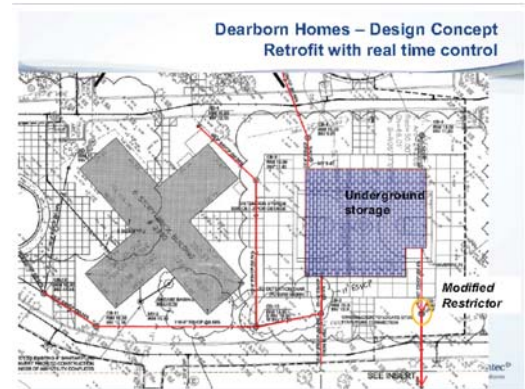
Engineering Consultant: Geosyntec Consultants

General Contractor: To be determined

Estimated Construction Cost: \$900,000

Contract Award Date: January 2018*

Substantial Completion Date: September 2018*



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 six buildings within the housing complex.

Project Justification: Safety/Regulatory and Flood Control. This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

Project Status: The design stage for this project is almost complete. The project is anticipated for award in early 2018. The project should start and complete in 2018.

*Information shown is estimated.

Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA

Project Number: 14-252-5F

Service Area: Calumet

Location: Oak Forest and Midlothian, IL

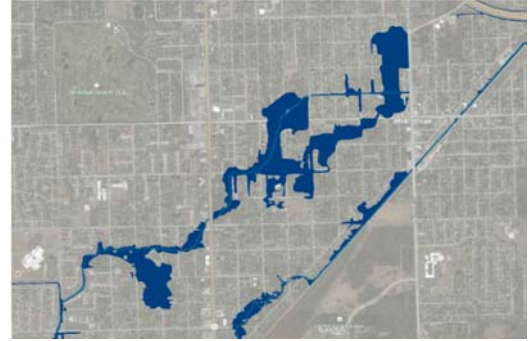
Engineering Consultant: Burns & McDonnell Engineering Company, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$7,806,000

Contract Award Date: January 2018*

Substantial Completion Date: January 2020*



Project Description: The scope of this project is to install flood control measures for an estimated 15,800 linear feet along Natalie Creek from 157th and Central Park in Oak Forest to 146th and Pulaski in Midlothian. Flood control measures involve the upsizing of restrictive culverts, improving the channel at several locations, and the installation of a stormwater detention basin. The project will reduce flood damages for over 230 structures. This project is in the Little Calumet River Watershed.

Project Justification: Safety/Regulatory and Flood Control.

Project Status: The project is in the final design stage.

*Information shown is estimated.

Flood Control Project on Midlothian Creek in Robbins, IL, CSA

Project Number: 14-253-5F

Service Area: Calumet

Location: Robbins, IL

Engineering Consultant: Donohue & Associates

General Contractor: To be determined

Estimated Construction Cost: \$11,000,000

Contract Award Date: January 2018*

Substantial Completion Date: July 2019*



Project Description: The Flood Control Project on Midlothian Creek in Robbins will include the creation of a naturalized wetland detention area along with channel improvements to resemble a park setting. The project will reduce flood damages for over 92 structures and provide opportunity for economic development in Robbins. The actual District cost share will be determined based upon funding being sought from various local and regional agencies as well as grants. This project is in the Little Calumet River Watershed.

Project Justification: Capacity Needs, Useful Life, Economic Benefit, Safety/Regulatory, and Flood Control.

Project Status: The project is in the final design stage.

*Information shown is estimated.

Flood Control Project for the Washington Street Area in Blue Island, IL, CSA

Project Number: 14-260-5F

Service Area: Calumet

Location: Blue Island, IL

Engineering Consultant: Environmental Design International (EDI)

General Contractor: To be determined

Estimated Construction Cost: \$5,700,000

Contract Award Date: February 2018*

Substantial Completion Date: November 2019*



Project Description: The Flood Control Project for the Washington Street Area in Blue Island will include stormwater storage and conveyance improvements to address flooding of approximately 45 structures. The actual District cost share will be determined based upon funding being sought from various local and regional agencies as well as grants. This project is in the Calumet Sag Channel Watershed.

Project Justification: Capacity Needs, Useful Life, Economic Benefit, Safety/Regulatory, and Flood Control.

Project Status: The preliminary design phase for the project is being finalized.

*Information shown is estimated.

Melvina Ditch Reservoir Improvements, CSA

Project Number: 14-263-3F

Service Area: Calumet

Location: Burbank, IL

Engineering Consultant: V3 Companies of Illinois, Ltd.

General Contractor: F.H. Paschen, S.N. Nielsen, & Associates, LLC

Estimated Construction Cost: \$14,245,000

Contract Award Date: November 2017

Substantial Completion Date: March 2020*



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 a 118 percent increase), modifying the pumping 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 on District property and includes additional private properties around the perimeter of the reservoir. Local stakeholders gave feedback, and a reservoir expansion configuration was selected. Additional work includes the installation of an emergency overflow/high water bypass structure and three flap gates and the replacement of the existing elliptical culverts at the outlet of the Melvina Ditch Reservoir Pumping Station with dual box culverts and a stormwater chamber. Construction limits that are immediately adjacent to the pumping station and in the 87th Street right-of-way are needed to install the culverts and to replace any disturbed utilities in conflict with the installation. Storm pumps will be removed and serviced and the impellers will be lengthened.

Project Justification: Safety/Regulatory and Flood Control. 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 30 months. A portion of this project will be funded through a grant from the State of Illinois through its Build Illinois Bond Fund.

This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

*Information shown is estimated.

Construction of Alternative ADCR-7B, Northlake, SSA

Project Number: 15-IGA-13

Service Area: Stickney

Location: Northlake, IL

Engineering Consultant: Christopher B. Burke Engineering, Ltd. under contract with the City of Northlake

General Contractor: To be determined

Estimated Construction Cost: \$1,000,000 (District cost share amount)

Contract Award Date: July 2013 (Board authority to enter agreement)

Substantial Completion Date: July 2018*



Project Description: This is a cost sharing agreement with the City of Northlake. This project will stabilize Addison Creek between Wolf Road and Palmer Avenue in the City of Northlake.

Project Justification: Safety/Regulatory and Flood Control. This project will alleviate public safety risks by protecting infrastructure from the danger of failure due to active streambank erosion.

Project Status: This project is in the design stage. The Board of Commissioners granted authority to enter into an Intergovernmental Agreement with the City of Northlake in July 2013, and the Intergovernmental Agreement was executed on March 10, 2014. The City of Northlake is currently working to obtain remaining funding required to pay for construction of the project.

*Information shown is estimated.

Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA

Project Number: 15-IGA-14

Service Area: Calumet

Location: Glenwood, IL

Engineering Consultant: K-Plus Engineering, LLC under contract with the Village of Glenwood

General Contractor: To be determined

Estimated Construction Cost: \$3,870,000 (District cost share amount)

Contract Award Date: January 2016 (Board authority to enter agreement)

Substantial Completion Date: October 2019*



Project Description: This project will provide a levee at Arquilla Park to protect residential structures from overbank flooding. This is a cost sharing agreement with the Village of Glenwood.

Project Justification: Flood Control. This project will protect approximately 31 residential structures from overbank flooding along Thorn Creek.

Project Status: The Board of Commissioners granted authority to enter into an Intergovernmental Agreement with the Village of Glenwood in January 2016, and the Intergovernmental Agreement was executed June 14, 2016. This project is currently in the design stage. Payment from the Stormwater Management Fund was made in 2016 for design. Payment from the Capital Improvements Bond Fund will occur when construction begins.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [Capital Improvements Bond Fund = \$3,483,000; Stormwater Management Fund = \$387,000].

*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, Des Plaines, SSA

Project Number: 15-IGA-18

Service Area: Stickney

Location: Des Plaines, IL

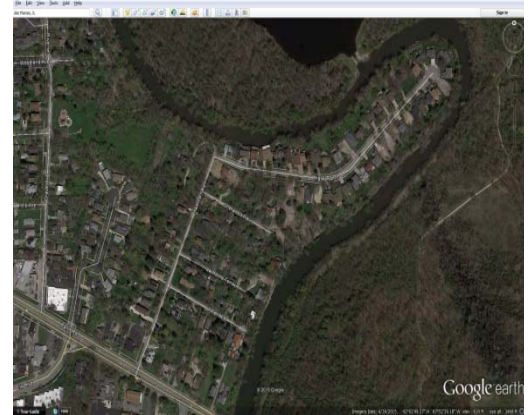
Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$950,000 (District cost share amount)

Contract Award Date: September 2015 (Board authority to enter agreement)

Substantial Completion Date: April 2018*



Project Description: Purchase 13 flood-prone homes along the Des Plaines River. This is a cost sharing agreement with the City of Des Plaines.

Project Justification: Flood Control. The purchase of these flood-prone homes will reduce the flood hazard risk in Des Plaines.

Project Status: The acquisitions of flood-prone homes under this project have started.

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, Various Locations

Project Number: 15-IGA-20

Service Area: North, Calumet, and Stickney

Location: All Service Areas

Engineering Consultant: Multiple/To be determined

General Contractor: Multiple/To be determined

Estimated Construction Cost: \$16,000,000 (District cost share amount)

Contract Award Date: October 2014 (Board authority to enter agreement)

Substantial Completion Date: October 2020*



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.

Project Justification: Safety/Regulatory and Flood Control. This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

Project Status: Four playgrounds were transformed in 2014 as a pilot program under a different Intergovernmental Agreement. The current Intergovernmental Agreement has called for 30 more school playgrounds to be designed and constructed during the period of 2015 through 2019. Six schools were designed in 2015. Two of these schools, Willer Cather Elementary and Orozco Elementary Academy of Fine Arts and Sciences, were completed in 2015. The construction of three more school playgrounds (Daniel J. Corkery Elementary, Frank W. Gunsaulus Elementary Scholastic Academy, and James Wadsworth Elementary School) started in August 2016, and are anticipated to be completed by the end of 2016. It is anticipated that ten more schools will be designed in 2016-2017. The District plans to fund the ten designs, with the anticipation that the Chicago Department of Water Management and Chicago Public Schools will fund the design of the remaining schools. An amendment to the current Intergovernmental Agreement to allow us to fund these designs is being drafted by the Law Department.

This project is partially funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information [Capital Improvements Bond Fund = \$2,955,000; Stormwater Management Fund = \$13,045,000].

*Information shown is estimated.

Flood Control Project on 103rd Street from Cicero Avenue to Central Avenue, Oak Lawn, CSA

Project Number: 15-IGA-22

Service Area: Calumet

Location: Oak Lawn, IL

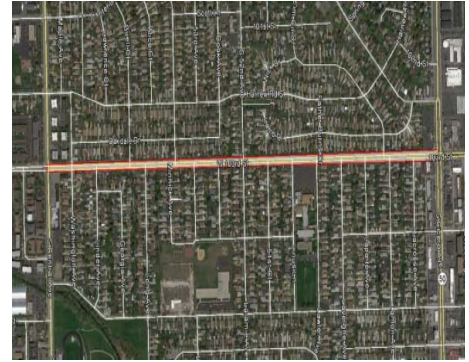
Engineering Consultant: Village of Oak Lawn

General Contractor: To be determined

Estimated Construction Cost: \$3,000,000 (District cost share amount)

Contract Award Date: January 2018* (Board Authority to enter agreement)

Substantial Completion Date: August 2019*



Project Description: This is a cost sharing agreement with the Village of Oak Lawn to install precast box culverts under 103rd Street and a back flow preventer with a pump at Stony Creek to provide underground stormwater detention storage.

Project Justification: Safety/Regulatory and Flood Control. This project will reduce flooding to residents of Oak Lawn. It will also reduce flooding downstream by preventing flow backup into the Oak Lawn sewer system.

Project Status: The project is being designed.

*Information shown is estimated.

La Grange Storm Sewer Improvements, SSA

Project Number: 16-IGA-02

Service Area: Stickney

Location: Village of La Grange, IL

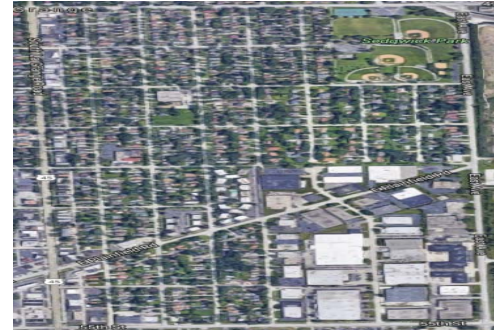
Engineering Consultant: To be determined

General Contractor: To be determined

Estimated Construction Cost: \$3,000,000 (District cost share amount)

Contract Award Date: December 2018* (Board Authority to enter agreement)

Substantial Completion Date: December 2019*



Project Description: The drainage basin south of 47th Street in the Village of La Grange has been subject to overland flooding and sewer backup. A new trunk sewer is scheduled for construction along 50th Street to provide a main drain for the area. The Village of La Grange, in partnership with the District, is proposing to construct lateral sewers in this basin to the future trunk line to drain the depressional areas.

Project Justification: Capacity Needs, Useful Life, Economic Benefit, Safety/Regulatory, and Flood Control.

Project Status: The project is under consideration.

*Information shown is estimated.

Railroad Drainage Area Outlet, Riverside, SSA

Project Number: 16-IGA-03

Service Area: Stickney

Location: Riverside, IL

Engineering Consultant: Christopher B. Burke Engineering, Ltd.

General Contractor: To be determined

Estimated Construction Cost: \$90,000 (District cost share amount)

Contract Award Date: January 2018* (Board Authority to enter agreement)

Substantial Completion Date: October 2018*



Project Description: Construct a 24-inch storm sewer outlet to the Des Plaines River and block or restrict flow from the storm sewers of the railroad drainage area to the existing combined sewer in the Village of Riverside, which is responsible for design, construction, operations, and maintenance of the project, which is located in the Lower Des Plaines River watershed.

Project Justification: Flood Control. This project will reduce flooding for 190 residential structures in the Village of Riverside.

Project Status: The project is being designed.

*Information shown is estimated.

McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA

Project Number: 16-IGA-04

Service Area: Stickney

Location: Village of Berkeley, IL

Engineering Consultant: Shovel Ready (Civiltech Engineering, Inc. hired by the Village of Berkeley)

General Contractor: To be determined

Estimated Construction Cost: \$2,696,000 (District cost share amount)

Contract Award Date: June 2016 (Board authority to enter agreement)

Substantial Completion Date: November 2018*



Project Description: Construct two new storm sewers along McDermott Drive and Morris Avenue, expand the existing detention basin, and construct a stormwater pumping facility at the southwest corner of the existing detention basin to adequately convey a 100-year storm event. This is a cost sharing agreement with the Village of Berkeley.

Project Justification: Safety/Regulatory and Flood Control. This project will reduce flooding for nearly 800 residential structures in the Village of Berkeley.

Project Status: The project is under construction.

*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, Riverside Lawn, SSA

Project Number: 16-IGA-06

Service Area: Stickney

Location: Riverside Lawn, IL

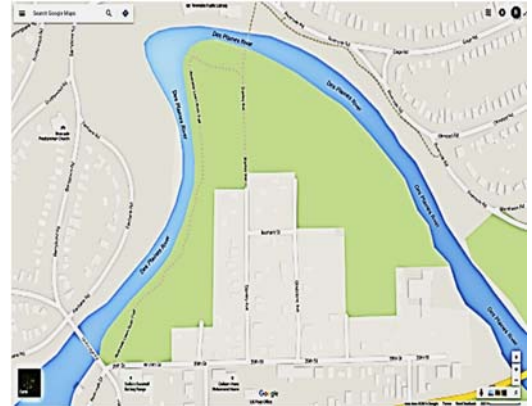
Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$8,000,000 (District cost share amount)

Contract Award Date: January 2016 (Board authority to enter agreement)

Substantial Completion Date: June 2018*



Project Description: Purchase 39 flood-prone homes along the Des Plaines River. This is a cost sharing agreement with the Cook County Land Bank Authority for the acquisition of flood-prone properties in unincorporated Riverside Lawn.

Project Justification: Flood Control. Purchase of these homes will reduce the flood hazard risk in the Riverside Lawn area.

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.

City of Berwyn Green Alleys, SSA

Project Number: 16-IGA-07

Service Area: Stickney

Location: Berwyn, IL

Engineering Consultant: Frank Novotny & Associates, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$667,000 (District cost share amount)

Contract Award Date: December 2016 (Board authority to enter agreement)

Substantial Completion Date: July 2018*



Project Description: The City of Berwyn will be replacing ten alleys with permeable pavements throughout the city to reduce the current load to the combined sewer system and to help alleviate flooding within the project area. The District will be funding approximately 27.5 percent of the total \$2,428,557.20 construction cost.

Project Justification: Safety/Regulatory and Flood Control. This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

Project Status: The project is under construction.

*Information shown is estimated.

Village of Niles Bioswale and Permeable Parking Lot, NSA

Project Number: 16-IGA-09

Service Area: North

Location: Niles, IL

Engineering Consultant: Hey & Associates, Inc.

General Contractor: To be determined

Estimated Construction Cost: \$200,000 (District cost share amount)

Contract Award Date: June 2016 (Board Authority to enter agreement)

Substantial Completion Date: April 2018*



Project Description: The Village of Niles will be constructing a bioswale and a permeable pavement parking lot adjacent to Oak Park with the goals to increase groundwater infiltration, capture stormwater, reduce combined sewer overflow events, and offer volunteer opportunities. The District will be funding approximately half of the \$400,000 estimated project cost.

Project Justification: Safety/Regulatory and Flood Control. This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

Project Status: The project is under construction.

*Information shown is estimated.

Village of Skokie Rain Garden in Devonshire Park near Kenneth Terrace and a Detention Area near the Skokie Police Headquarters, NSA

Project Number: 16-IGA-10

Service Area: North

Location: Skokie, IL

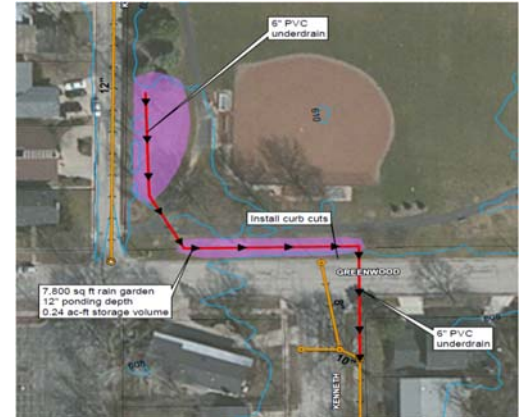
Engineering Consultant: Baxter & Woodman

General Contractor: To be determined

Estimated Construction Cost: \$200,000 (District cost share amount)

Contract Award Date: December 2016 (Board Authority to enter agreement)

Substantial Completion Date: April 2018*



Project Description: The Village of Skokie is proposing to construct a rain garden to be located at Devonshire Park to address localized flooding at the intersection of Greenwood Street and Kenneth Terrace. The Village is also proposing to construct a naturalized stormwater detention basin at the Police Station Headquarters located at 7300 Niles Center Road.

Project Justification: Safety/Regulatory and Flood Control. This project will assist in fulfilling requirements in the Green Infrastructure Section of the Combined Sewer Overflow Consent Decree.

Project Status: The project is under construction.

*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, Des Plaines, SSA

Project Number: 16-IGA-11

Service Area: Stickney

Location: Des Plaines, IL

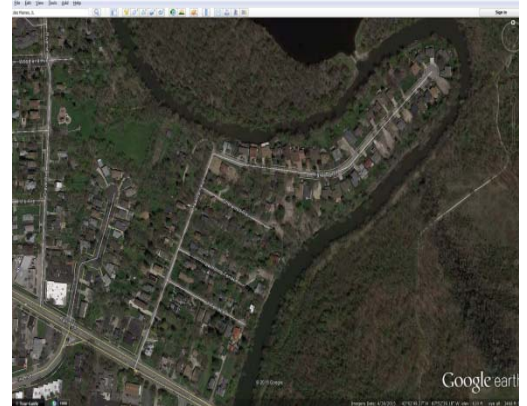
Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$3,625,000 (District cost share amount)

Contract Award Date: November 2016 (Board authority to enter agreement)

Substantial Completion Date: December 2019*



Project Description: Purchase 49 flood-prone homes along the Des Plaines River. This is a cost sharing agreement with the City of Des Plaines.

Project Justification: Flood Control. 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.

Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Butterfield Creek, Flossmoor, CSA

Project Number: 16-IGA-12

Service Area: Calumet

Location: Flossmoor, IL

Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$638,000 (District cost share amount)

Contract Award Date: March 2018*

Substantial Completion Date: December 2018*



Project Description: Purchase two flood-prone homes along Butterfield Creek. This is a cost sharing agreement with the Village of Flossmoor.

Project Justification: Purchase of these homes will reduce the flood hazard risk in Flossmoor.

Project Status: The Board of Commissioners granted authority to enter into an Intergovernmental Agreement with the Village of Flossmoor in December 2016. 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.

Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA

Project Number: 16-IGA-13

Service Area: Stickney

Location: Franklin Park, IL

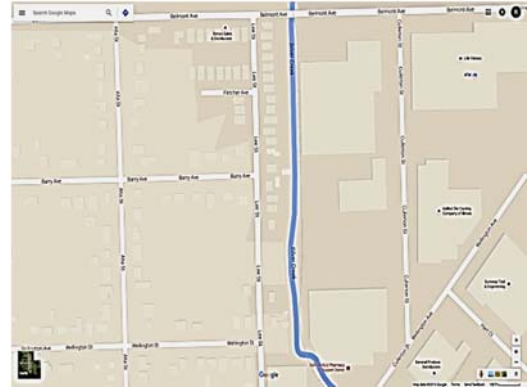
Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$4,681,000 (District cost share amount)

Contract Award Date: March 2018*

Substantial Completion Date: March 2020*



Project Description: Purchase 32 flood-prone homes along Silver Creek. This is a cost sharing agreement with the Village of Franklin Park.

Project Justification: Flood Control. Purchase of these homes will reduce the flood hazard risk in Franklin Park.

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.

Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Northlake, SSA

Project Number: 16-IGA-14

Service Area: Stickney

Location: Northlake, IL

Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$1,184,000 (District cost share amount)

Contract Award Date: September 2016 (Board authority to enter agreement)

Substantial Completion Date: November 2018*



Project Description: Purchase eight flood-prone homes along Addison Creek. This is a cost sharing agreement with the City of Northlake.

Project Justification: Flood Control. Purchase of these homes will reduce the flood hazard risk in Northlake.

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.

Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Addison Creek, Stone Park

Project Number: 16-IGA-15

Service Area: Stickney

Location: Stone Park, IL

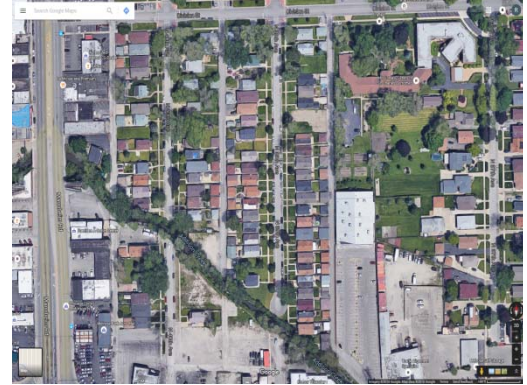
Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$2,700,000 (District cost share amount)

Contract Award Date: December 2016 (Board authority to enter agreement)

Substantial Completion Date: December 2019*



Project Description: Purchase 35 flood-prone homes along Addison Creek. This is a cost sharing agreement with the Village of Stone Park.

Project Justification: Flood Control. Purchase of these homes will reduce the flood hazard risk in Stone Park.

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.

Flood Control Project at 61st Avenue and 36th Street, Cicero, SSA

Project Number: 16-IGA-21

Service Area: Stickney

Location: Cicero, IL

Engineering Consultant: To be determined

General Contractor: To be determined

Estimated Construction Cost: \$2,500,000 (District cost share amount)

Contract Award Date: April 2018*

Substantial Completion Date: December 2019*



Project Description: New storm sewers will be constructed to collect stormwater tributary to the 61st Avenue and 36th Street intersection in the Town of Cicero and conveyed to Kolar Park, where it will be detained and released via a constricted outlet. A new split detention system will include a 5.5 acre-feet underground detention facility beneath Kolar Park, designed to attenuate a 25-year storm, and an additional 1.9 acre-feet of storage will be provided above ground by recessing Kolar Park to achieve a 50-year storm total level of protection. This is a cost sharing agreement with the Town of Cicero. The design, construction, operations, and maintenance will be the responsibility of the Town.

Project Justification: Economic Benefit and Flood Control. This project will protect approximately 34 residential structures, Lincoln Elementary School, and New Life Community Church from flooding.

Project Status: The preliminary design phase of this project was completed in February 2016. Final design is expected to be completed by the Town of Cicero as part of the Intergovernmental Agreement. The first draft of the Intergovernmental Agreement is currently in negotiation between the Town of Cicero and the District and is expected to be executed in April 2018.

*Information shown is estimated.

Land Acquisition for a Flood Control Project on Midlothian Creek in Robbins, CSA

Project Number: 17-IGA-02

Service Area: Calumet

Location: Robbins, IL

Engineering Consultant: Not applicable

General Contractor: Not applicable

Estimated Construction Cost: \$200,000

Contract Award Date: July 2017 (Board authority to enter agreement)

Substantial Completion Date: December 2018*



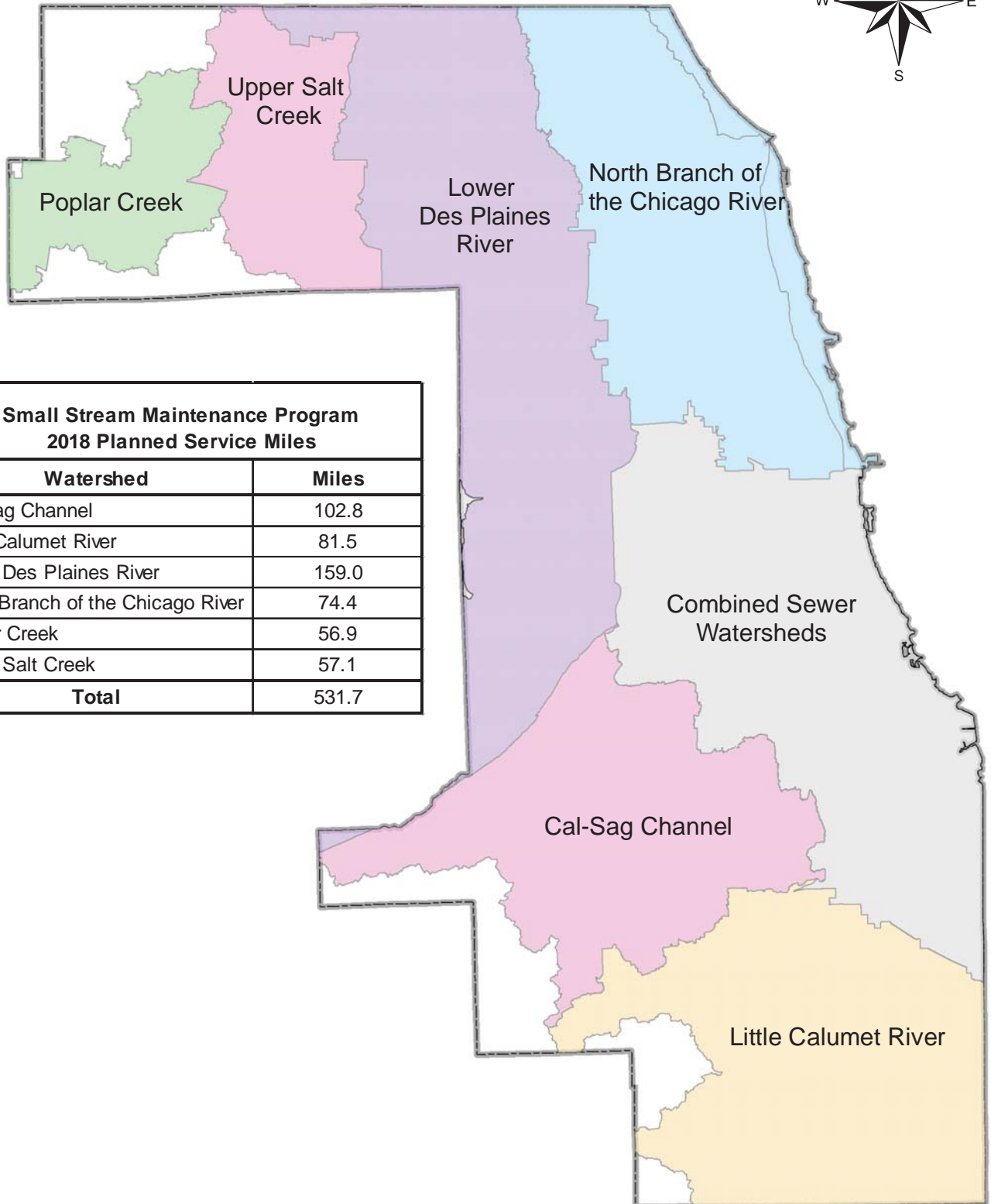
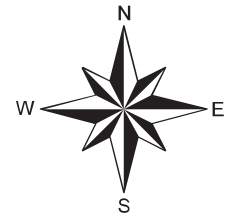
Project Description: The Village of Robbins will work with the Cook County Land Bank Authority and the South Suburban Land Bank Development Authority to assemble and acquire parcels that are required for a Flood Control Project on Midlothian Creek under Contract 14-253-3F. The District will assist the Village in acquiring the needed parcels.

Project Justification: Flood Control. The land acquisitions are necessary for a flood control project that will provide flood relief to over 140 acres and 100 homes.

Project Status: The Cook County Land Bank Authority has started the land acquisitions process.

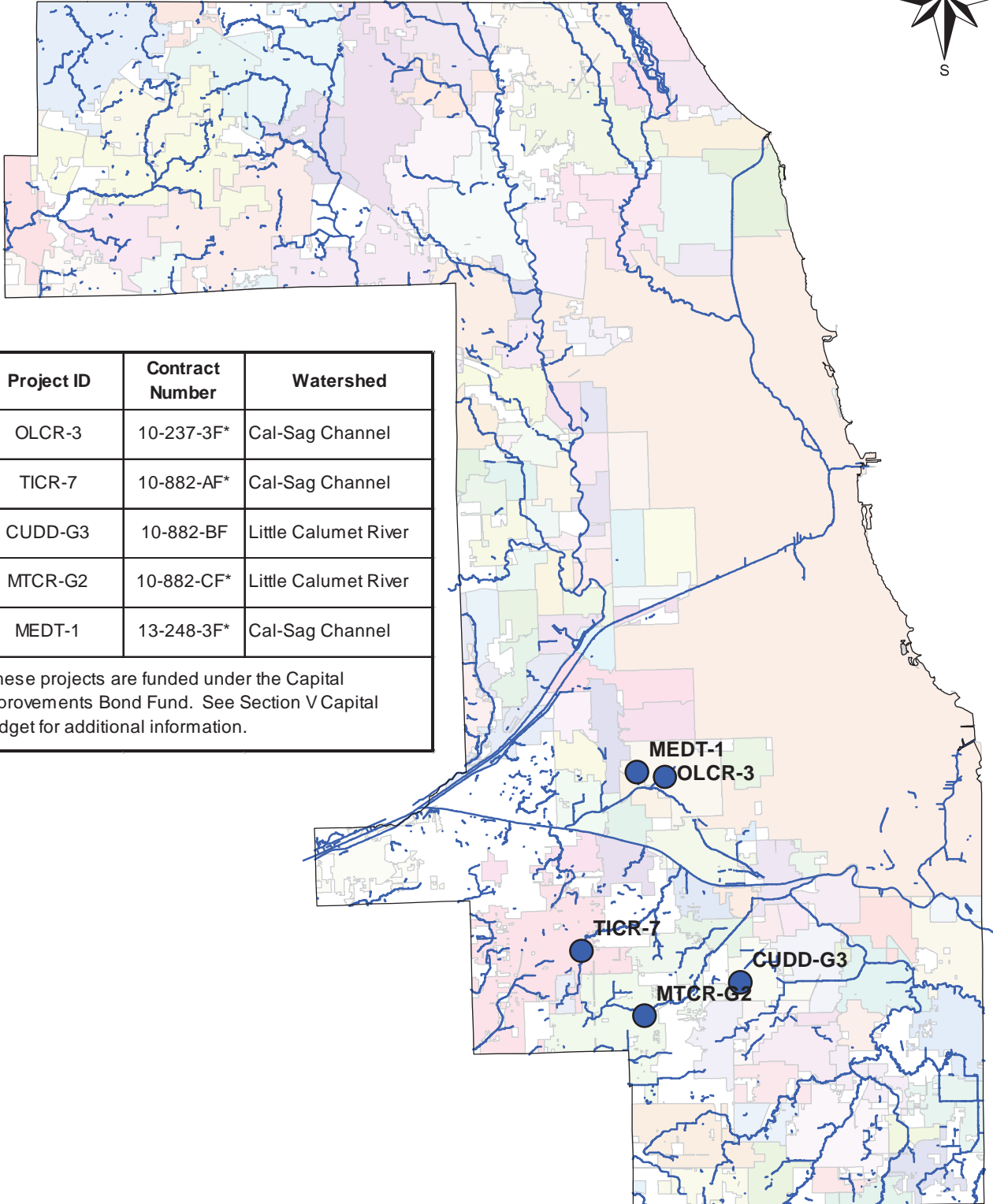
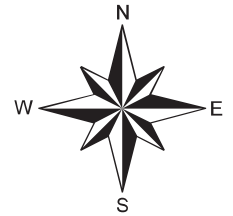
*Information shown is estimated.

STORMWATER MANAGEMENT WATERSHEDS



Small Stream Maintenance Program 2018 Planned Service Miles	
Watershed	Miles
Cal-Sag Channel	102.8
Little Calumet River	81.5
Lower Des Plaines River	159.0
North Branch of the Chicago River	74.4
Poplar Creek	56.9
Upper Salt Creek	57.1
Total	531.7

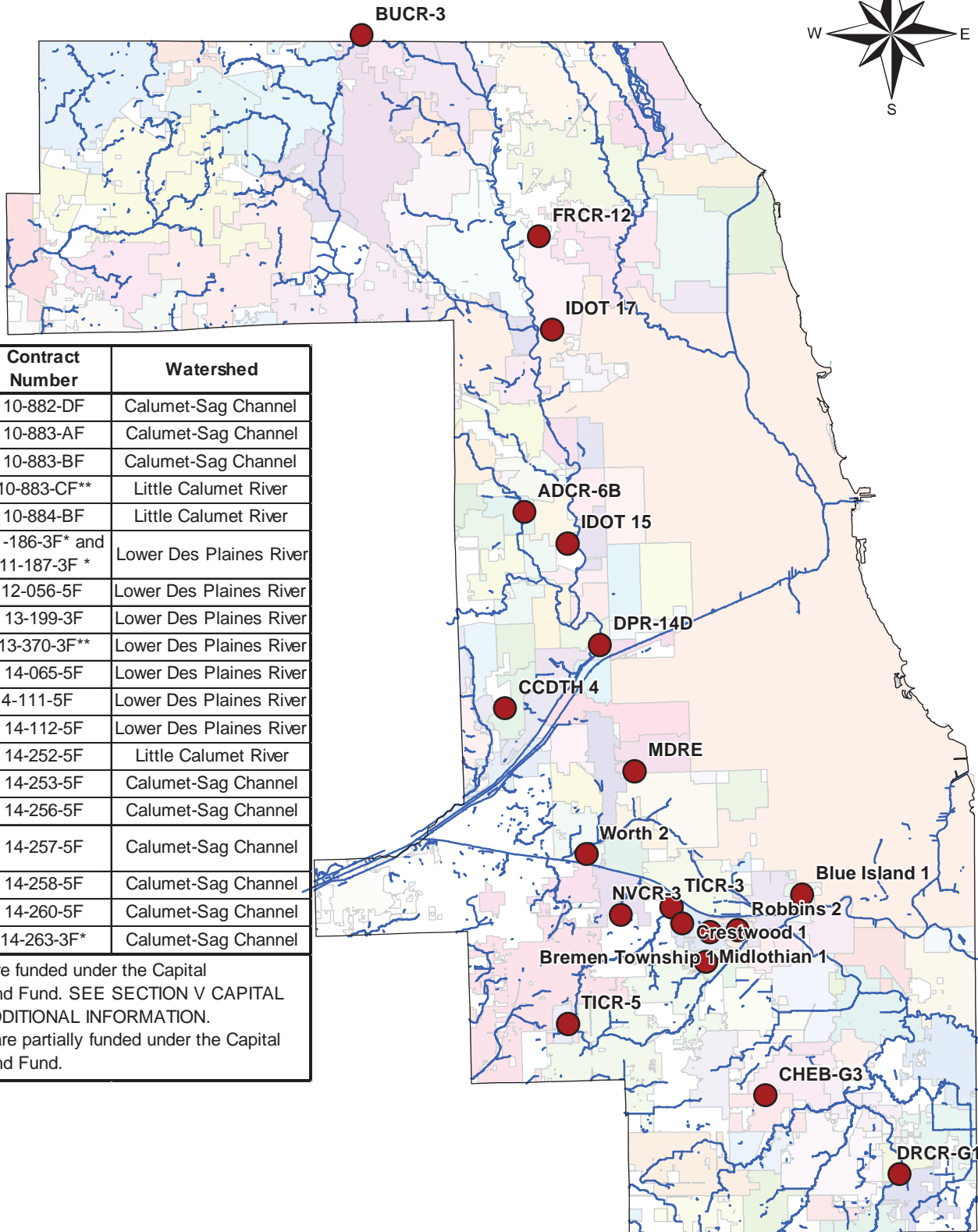
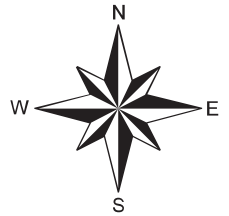
STORMWATER MANAGEMENT PROJECTS STREAMBANK STABILIZATION



Project ID	Contract Number	Watershed
OLCR-3	10-237-3F*	Cal-Sag Channel
TICR-7	10-882-AF*	Cal-Sag Channel
CUDD-G3	10-882-BF	Little Calumet River
MTCR-G2	10-882-CF*	Little Calumet River
MEDT-1	13-248-3F*	Cal-Sag Channel

*These projects are funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.

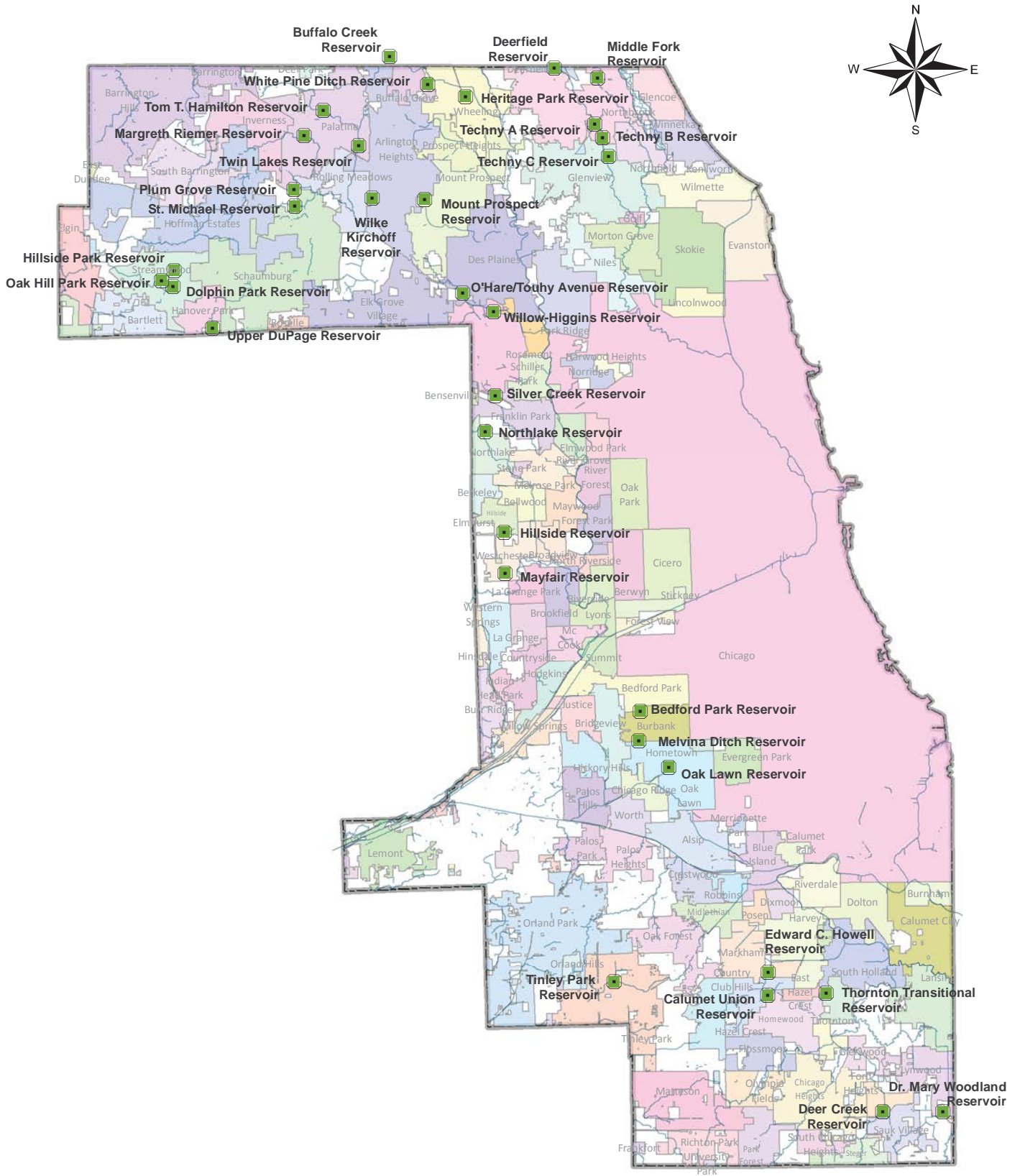
STORMWATER MANAGEMENT PROJECTS FLOOD CONTROL



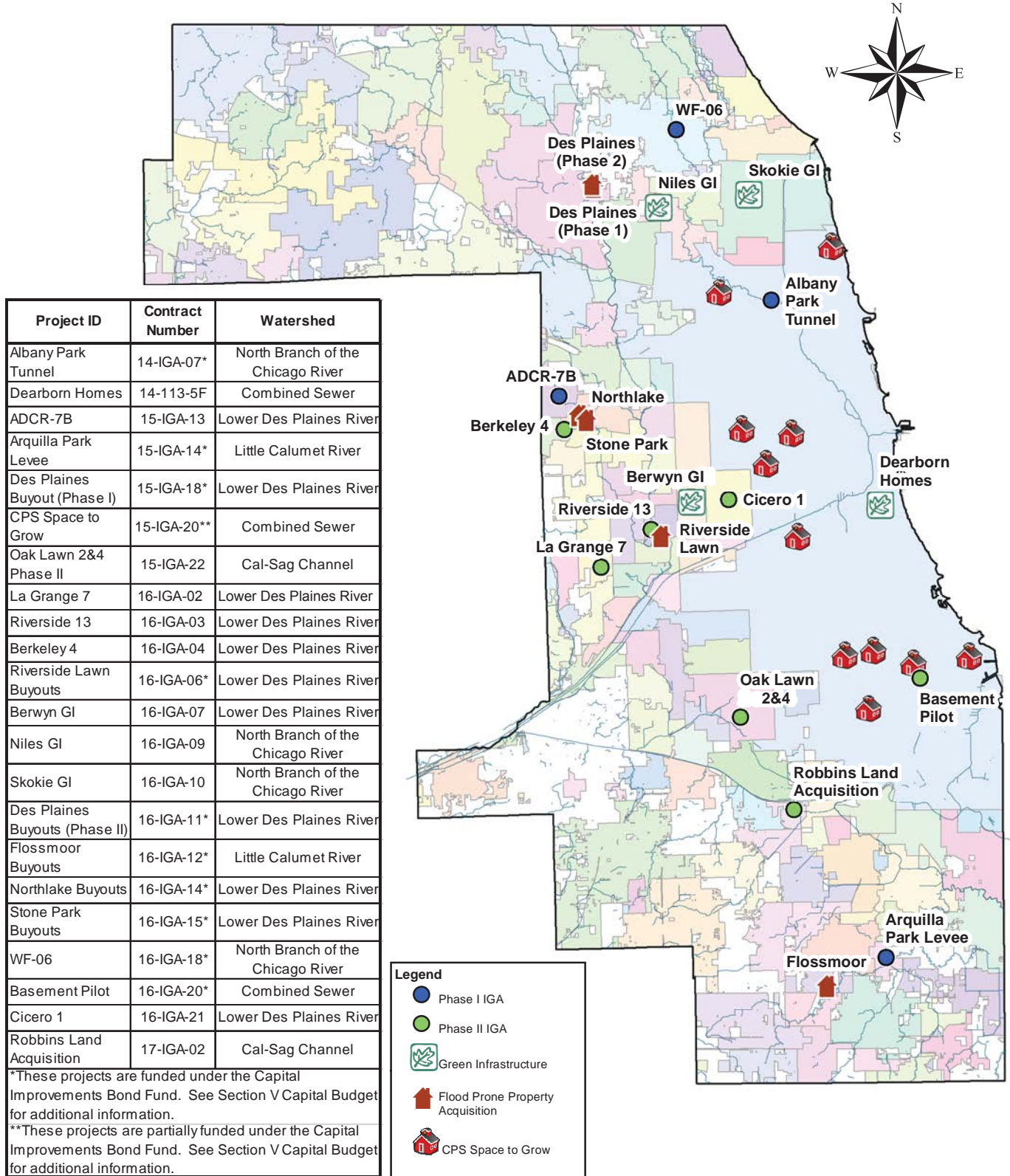
Project ID	Contract Number	Watershed
TICR-5	10-882-DF	Calumet-Sag Channel
TICR-3	10-883-AF	Calumet-Sag Channel
NVCR-3	10-883-BF	Calumet-Sag Channel
CHEB-G3	10-883-CF**	Little Calumet River
DRCR-G1	10-884-BF	Little Calumet River
ADCR-6B	11-186-3F* and 11-187-3F *	Lower Des Plaines River
FRCR-12	12-056-5F	Lower Des Plaines River
DPR-14D	13-199-3F	Lower Des Plaines River
BUCR-3	13-370-3F**	Lower Des Plaines River
IDOT 17	14-065-5F	Lower Des Plaines River
IDOT 15	14-111-5F	Lower Des Plaines River
CCDTH 4	14-112-5F	Lower Des Plaines River
Midlothian 1	14-252-5F	Little Calumet River
Robbins 2	14-253-5F	Calumet-Sag Channel
Worth 2	14-256-5F	Calumet-Sag Channel
Bremen Township 1	14-257-5F	Calumet-Sag Channel
Crestwood 1	14-258-5F	Calumet-Sag Channel
Blue Island 1	14-260-5F	Calumet-Sag Channel
MDRE	14-263-3F*	Calumet-Sag Channel

*These projects are funded under the Capital Improvements Bond Fund. SEE SECTION V CAPITAL BUDGET FOR ADDITIONAL INFORMATION.
 **These projects are partially funded under the Capital Improvements Bond Fund.

EXISTING MWRD SUPPORTED FLOOD CONTROL RESERVOIRS



STORMWATER MANAGEMENT PROJECTS GREEN INFRASTRUCTURE AND INTERGOVERNMENTAL AGREEMENTS



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.	\$ 3,164,500	4.8%
2. Planning, design, and construction of stormwater management projects by the District or outside agencies under agreement.	\$ 57,192,200	87.2%
3. Operation and maintenance of natural and manmade drainageways for the purpose of stormwater management.	\$ 5,224,300	8.0%
Total	\$ 65,581,000	100.0%

MEASURABLE GOALS:

	Unit of Measure	2016 Actual	2017 Estimated	2018 Proposed
1. Award contracts for the continued implementation of the Stormwater Management Capital Improvement Plan in the Stormwater Management and Capital Improvements Bond Funds.	No. of Contracts	3	3	24
2. Expenditures for the acquisition of flood-prone properties in the Capital Improvements Bond Fund.	Dollars	\$3,000,000	\$5,000,000	\$11,635,000
3. Expenditures for intergovernmental cost sharing agreements relating to Green Infrastructure and Stormwater Management Phase II projects in the Stormwater Management and Capital Improvements Bond Funds.	Dollars	\$12,935,605	\$34,400,000	\$16,448,200
4. Remove 33,500 cubic yards of debris from 532 miles of small streams and rivers.	Debris Cubic Yards Removed	30,253	33,500	33,500
Further details of Stormwater Management projects, intergovernmental cost sharing agreements, and land acquisitions are in the Stormwater Management Fund narrative.				

50000 STORMWATER MANAGEMENT FUND

OBJECTIVES AND PROGRAM SUMMARY

PROGRAMS BY PRIORITY:		2016 Actual	Budgeted		Change			
Number	Name		FTEs	Dollars	Dollars	Percent		
1500	Local Sewer Engineering Activity	\$ 908,607	2018	-	\$ -	\$ (940,100)	(100.0)	a)
			2017	9	\$ 940,100			
4310	Stormwater Management Planning	\$ 350,327	2018	-	\$ 390,700	\$ 51,000	15.0	b)
			2017	-	\$ 339,700			
4320	Stormwater Management Regulation	\$ 80,370	2018	10	\$ 1,267,700	\$ 1,129,200	815.3	c)
			2017	1	\$ 138,500			
4330	Operations and Maintenance	\$ 9,081,486	2018	25	\$ 5,140,900	\$ (1,175,300)	(18.6)	d)
			2017	28	\$ 6,316,200			
4340	Flood Mitigation Projects	\$ 18,315,051	2018	19	\$ 57,189,700	\$20,633,900	56.4	e)
			2017	19	\$ 36,555,800			
4350	Administrative Overhead	\$ 837,975	2018	3	\$ 1,508,600	\$ 79,900	5.6	
			2017	2	\$ 1,428,700			
7604	Social Security and Medicare Contributions	\$ 77,199	2018	-	\$ 83,400	\$ 2,300	2.8	
			2017	-	\$ 81,100			
Totals		\$ 29,651,015	2018	57	\$ 65,581,000	\$19,780,900	43.2%	
			2017	59	\$ 45,800,100			

- a) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$931,000).
- b) Increase is due to the carryforward of 16-838-5C, Watershed Specific Release Study - Phase II (\$48,600) and the reallocation of salaries to more accurately reflect current activities (\$2,100).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$938,600), the carryforward of 15-834-5F, Wetland Specialist Services (\$155,100), and the carryforward of 17-839-5C, Land and Hydrologic Analysis for Stormwater Management Facilities (\$15,900).
- d) Decrease is due to the termination of the free rain barrel program administered under 17-685-51, Furnishing, Delivering, and Administration of Rain Barrels (\$1,149,600).
- e) Increase is due to planned award of Green Infrastructure Intergovernmental Agreements (IGAs) (\$4,385,000), IGAs for Flood-Prone Property Acquisition (\$3,797,400), 12-056-5F, Flood Control Project (FCP) on Farmers and Prairie Creek, NSA (\$3,513,000), 14-252-5F, FCP on Natalie Creek in Oak Forest and Midlothian, CSA (\$3,150,000), 14-253-5F, FCP on Midlothian Creek in Robbins, IL, CSA (\$2,100,000), 10-884-BF, FCP for Deer Creek, CSA (\$1,806,000), and 13-199-3F, Lyons Levee Flood Control Improvements, SSA (\$1,750,000).

50000 STORMWATER MANAGEMENT FUND

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
1500	Local Sewer Engineering Activity					
1530	Local Sewer Permit Activity	Cost	\$ 594,251	\$ 608,300	\$ -	a)
1560	Local Sewer Public Service Coordination	Cost	\$ 268,208	\$ 262,800	\$ -	b)
1570	Local Sewer Rehabilitation	Cost	\$ 46,148	\$ 69,000	\$ -	c)
4310	Stormwater Management Planning					
4311	Watershed Councils	Cost	\$ 13,998	\$ 37,200	\$ 39,600	
4312	Mapping, Surveys, and Soil Testing	Cost	\$ 324,846	\$ 300,000	\$ 348,600	d)
4314	Publications and Public Information	Cost	\$ 11,483	\$ 2,500	\$ 2,500	
4320	Stormwater Management Regulation					
4321	Permits	Cost	\$ 40,868	\$ 127,300	\$ 963,100	e)
4322	Storm & Flood Ordinance Development	Cost	\$ 27,403	\$ -	\$ 238,000	f)
4323	Inspections	Cost	\$ 12,099	\$ 11,200	\$ 66,600	g)
4330	Operations & Maintenance					
4331	Stormwater Detention Reservoir Activity	Cost	\$ 1,137,531	\$ 1,192,400	\$ 1,188,700	
4332	Small Stream Maintenance	Cost	\$ 4,860,584	\$ 4,878,900	\$ 3,187,500	h)
	Debris Cubic Yards Removed		30,253	33,500	33,500	
	Cost per Cubic Yard		\$ 160.66	\$ 145.64	\$ 95.15	
4334	Operations & Maintenance Contracted with Other Governments	Cost	\$ 3,083,371	\$ 159,900	\$ 159,900	
4335	Waterways Debris Removal	Cost	\$ -	\$ 85,000	\$ 604,800	i)

- a) Decrease due to the reallocation of salaries to more accurately reflect current activities (\$606,000).
- b) Decrease due to the reallocation of salaries to more accurately reflect current activities (\$259,100).
- c) Decrease due to the reallocation of salaries to more accurately reflect current activities (\$65,900).
- d) Increase is due to the carryforward of 16-838-5C, Watershed Specific Release Study - Phase II (\$48,600).
- e) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$667,200) and the carryforward of 15-834-5F, Wetland Specialist Services (\$155,100).
- f) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$217,200) and the carryforward of 17-839-5C, Land and Hydrologic Analysis for Stormwater Management Facilities (\$15,900).
- g) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$54,300).
- h) Decrease is due to termination of the free rain barrel program (\$1,149,600) and the reallocation of salaries to more accurately reflect current activities (\$688,100), offset by the carryforward of 17-646-51, Waterways Maintenance (\$170,000).
- i) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$604,800), offset by the deferral of purchasing a replacement pontoon boat for waterways maintenance (\$85,000).

50000 STORMWATER MANAGEMENT FUND

PERFORMANCE DATA

Program Number	Measurable Activity		2016 Actual	2017 Budgeted	2018 Estimated	
4340	Flood Mitigation Projects					
4341	Planning/Design	Cost	\$ 4,597,079	\$ 9,389,700	\$ 9,026,300	j)
4342	Contract Administration	Cost	\$ 586,452	\$ 585,200	\$ 607,900	
4343	Construction	Cost	\$ 7,198,727	\$ 6,203,200	\$ 18,412,500	k)
4344	Flood Mitigation Projects Contracted with Other Governments	Cost	\$ 2,451,549	\$ 13,038,900	\$ 27,591,400	l)
4345	Land & Easements	Cost	\$ 208,594	\$ 1,569,500	\$ 1,551,600	
7601	Capital Financing Program and Other Related Costs	Cost	\$ 3,272,650	\$ 5,769,300	\$ -	m)
4350	Administrative Overhead	Cost	\$ 837,975	\$ 1,428,700	\$ 1,508,600	
7604	Social Security and Medicare Contributions	Cost	\$ 77,199	\$ 81,100	\$ 83,400	
Total			\$ 29,651,015	\$ 45,800,100	\$ 65,581,000	

- j) Decrease is due to a reduced number of projects scheduled in the final design phase during 2018 (\$3,700,000), offset by increases in Stormwater Master Plans (\$1,500,000), 11-186-3F, Addison Creek Reservoir, SSA (\$750,000), 14-112-5F, Flood Control Project (FCP) along Plainfield Road from Willow Springs to East Avenue, SSA (\$750,000), final design for 14-260-5F, Flood Control Project for the Washington Street Area in Blue Island, IL, CSA (\$270,000), and utility relocation for the Addison Creek Reservoir, SSA (\$200,000).
- k) Increase is due to the planned award of 12-056-5F, FCP on Farmers and Prairie Creeks, NSA (\$3,513,000), 14-252-3F, FCP on Natalie Creek in Oak Forest and Midlothian, CSA (\$3,150,000), 14-253-5F, FCP on Midlothian Creek in Robbins, IL, CSA (\$2,100,000), 10-884-BF, FCP for Deer Creek, CSA (\$1,806,000), and 13-199-3F, Lyons Levee Flood Control Improvements, SSA (\$1,750,000).
- l) Increase is due to the planned award of Green Infrastructure Intergovernmental Agreements (IGAs) (\$4,385,000), increases to Phase II IGAs (\$4,299,900), the planned award of Flood-Prone Property Acquisition IGAs (\$3,797,400), an increase to 15-IGA-20, Chicago Public Schools Green Infrastructure (\$2,575,000), the planned award of 14-260-5F, FCP for the Washington Street Area in Blue Island, IL (\$1,050,000), offset by the reduction of 16-IGA-21, FCP at 61st Avenue and 36th Street, Cicero, SSA (\$1,250,000), the reduction of 15-IGA-14, Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA (\$200,000), and the decrease for 13-370-3F, Buffalo Creek Reservoir, NSA (\$147,900).
- m) Decrease is due to elimination of the Equity Transfer to Bond and Interest Fund from the Stormwater Management Fund (\$5,769,300).

501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,379,283	\$ 5,634,800	\$ 5,634,800	\$ 5,375,000	\$ 5,719,000	\$ 5,719,000	\$ 5,810,900
601060	Compensation Plan Adjustments	154,309	193,000	193,000	115,000	183,300	183,300	192,200
601070	Social Security and Medicare Contributions	77,199	81,100	81,100	76,700	83,400	83,400	83,400
601080	Salaries of Nonbudgeted Employees	-	11,400	11,400	-	20,000	20,000	20,000
601100	Tuition and Training Payments	8,250	30,600	30,600	9,000	10,000	10,000	10,000
601250	Health and Life Insurance Premiums	471,312	580,300	580,300	495,000	567,000	567,000	567,000
100	TOTAL PERSONAL SERVICES	6,090,353	6,531,200	6,531,200	6,070,700	6,582,700	6,582,700	6,683,500
612010	Travel	1,995	2,300	2,300	1,300	2,000	2,000	2,000
612030	Meals and Lodging	4,032	5,100	5,100	4,900	4,000	4,000	4,000
612040	Postage, Freight, and Delivery Charges	1,500	2,500	2,500	1,600	2,500	2,500	2,500
612050	Compensation for Personally-Owned Automobiles	10,661	24,800	24,800	15,700	24,800	24,800	24,800
612080	Motor Vehicle Operating Services	58	800	800	200	800	800	800
612240	Testing and Inspection Services	-	29,500	29,500	3,000	10,000	10,000	10,000
612250	Court Reporting Services	8,191	12,000	12,000	11,000	12,000	12,000	12,000
612330	Rental Charges	873	2,500	2,500	800	2,500	2,500	2,500
612400	Intergovernmental Agreements	2,354,982	12,845,500	12,845,500	7,763,200	26,669,700	26,669,700	26,269,700
612430	Payments for Professional Services	66,567	775,000	775,000	258,700	1,091,000	1,091,000	1,059,000
612440	Preliminary Engineering Reports and Studies	3,566,430	4,800,000	4,800,000	3,100,000	3,726,000	3,726,000	3,724,900
612450	Professional Engineering Services for Construction Projects	447,140	3,843,900	3,693,900	144,000	4,086,000	4,086,000	4,147,300
612470	Personal Services for Post-Award Engineering for Construction Projects	5,298	-	-	-	-	-	-
612490	Contractual Services, N.O.C.	201,408	246,400	246,400	240,000	415,000	415,000	415,000
612520	Waste Material Disposal Charges	33,920	70,000	70,000	57,000	60,000	60,000	60,000
612620	Repairs to Waterway Facilities	2,180,414	2,415,000	2,415,000	2,400,000	2,585,000	2,585,000	2,585,000
612820	Computer Software Maintenance	-	-	150,000	150,000	145,000	145,000	145,000
612990	Repairs, N.O.C.	1,495	6,000	6,000	900	2,000	2,000	2,000
200	TOTAL CONTRACTUAL SERVICES	8,884,965	25,081,300	25,081,300	14,152,300	38,838,300	38,838,300	38,466,500
623130	Buildings, Grounds, Paving Materials, and Supplies	4,251	5,000	5,000	4,900	5,000	5,000	5,000

501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	6,582	11,500	11,500	4,000	11,500	11,500	11,500
623560	Processing Chemicals	4,929	5,000	5,000	-	5,000	5,000	5,000
623680	Tools and Supplies	5,807	11,000	11,000	8,400	11,000	11,000	11,000
623700	Wearing Apparel	558	2,000	2,000	-	2,000	2,000	2,000
623990	Materials and Supplies, N.O.C.	4,431,669	1,240,000	1,240,000	440,200	90,400	90,400	90,400
300	TOTAL MATERIALS AND SUPPLIES	4,453,797	1,274,500	1,274,500	457,500	124,900	124,900	124,900
634790	Marine Equipment	-	85,000	85,000	-	-	-	-
400	TOTAL MACHINERY AND EQUIPMENT	-	85,000	85,000	-	-	-	-
645620	Waterway Facilities Structures	6,811,100	3,169,800	3,169,800	2,552,900	16,203,800	16,203,800	16,175,600
645630	Army Corps of Engineers Services	-	-	-	-	1,750,000	1,750,000	1,750,000
645690	Capital Projects, N.O.C.	-	1,620,000	1,620,000	-	400,000	400,000	400,000
645720	Preservation of Waterway Facility Structures	136,440	1,459,000	1,459,000	-	1,180,500	1,180,500	1,180,500
500	TOTAL CAPITAL PROJECTS	6,947,540	6,248,800	6,248,800	2,552,900	19,534,300	19,534,300	19,506,100
656010	Land	-	410,000	410,000	-	400,000	400,000	400,000
600	TOTAL LAND	-	410,000	410,000	-	400,000	400,000	400,000
667020	Equity Transfer	3,272,650	5,769,300	5,769,300	3,269,300	-	-	-
667340	Payments for Easements	1,710	400,000	400,000	24,000	400,000	400,000	400,000
700	TOTAL FIXED AND OTHER CHARGES	3,274,360	6,169,300	6,169,300	3,293,300	400,000	400,000	400,000
TOTAL STORMWATER MANAGEMENT		\$ 29,651,015	\$ 45,800,100	\$ 45,800,100	\$ 26,526,700	\$ 65,880,200	\$ 65,880,200	\$ 65,581,000

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.

Fund: Stormwater Management		POSITION ANALYSIS				
		2016	2017		2018	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
50000	Engineering Department					
	516 Local Sewer Systems Section					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	2	2		2	
HP15	Associate Civil Engineer	3	3		3	
HP14	Assistant Civil Engineer	2	2		2	
HP12	Engineering Technician IV	2	1		1	
TOTAL	Local Sewer Systems Section	10	9	935,692.36	9	935,966.63
	522 Stormwater Management Section					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	
HP17	Senior Civil Engineer	7	7		7	
HP15	Associate Civil Engineer	6	6		6	
HP14	Assistant Civil Engineer	4	3		3	
HP11	Administrative Specialist	1	1		1	
TOTAL	Stormwater Management Section	22	21	2,293,585.58	21	2,407,764.85
TOTAL	Engineering Department	32	30	3,229,277.94	30	3,343,731.48
60000	Maintenance & Operations Department					
	630 General Division					
	634 Channel Maintenance Unit					
HP18	Principal Engineer	-	-		1	
HP17	Senior Civil Engineer	1	1		-	
HP15	Associate Civil Engineer	1	1		1	
TOTAL	Channel Maintenance Unit	2	2	228,316.27	2	245,892.92
	636 Boat Operations Unit					
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		POSITION ANALYSIS				
		2016	2017		2018	
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	549,363.49	6	557,106.67
639	Channel Maintenance Unit					
HP14	Engineering Technician V	1	1		1	
HP14	Engineering Technician V #4	1	1		1	
NR8650	Maintenance Laborer Class A Shift	2	2		2	
TOTAL	Channel Maintenance Unit	4	4	379,574.74	4	383,922.31
679	Collection System Unit					
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	488,342.40	6	488,342.40
TOTAL	General Division	18	18	1,645,596.90	18	1,675,264.30
940	Stickney Service Area General Plant Services Section					
924	Stickney Maintenance Unit					
PR7773	Pipefitter	1	1		1	
TOTAL	Stickney Maintenance Unit	1	1	98,800.00	1	98,800.00
934	Stickney Mechanical Operations Unit					
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8650	Maintenance Laborer Class A Shift #1	-	2		-	
NR6831	Operating Engineer I	4	4		4	
TOTAL	Stickney Mechanical Operations Unit	8	10	884,624.00	8	722,425.60
TOTAL	Stickney Service Area General Plant Services Section	9	11	983,424.00	9	821,225.60
TOTAL	Maintenance & Operations Department	27	29	2,629,020.90	27	2,496,489.90
TOTAL	Stormwater Management	59	59	5,858,298.84	57	5,840,221.38

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.

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 2018, are included in this section. A tax levy ordinance for the principal and interest due in 2019 and 2020 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 52-54.

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, Construction, and Stormwater Working Cash Funds, as authorized by Illinois Compiled Statutes, to make temporary loans to the Corporate, Construction, and Stormwater 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 to issue short-term financing. There will be no tax levies for the Corporate, Construction, or Stormwater Working Cash Funds in 2018.

Reserve Claim Fund:	
Description of Fund, Purpose, and Operation.....	583
Line Item Analysis.....	584
Bond Redemption & Interest Fund:	
Description of Fund, Purpose, and Operation.....	585
Appropriation for Payment of Outstanding Bonds, 2018	587
Retirement Fund:	
Description of Fund, Purpose, and Operation.....	589
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Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

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.

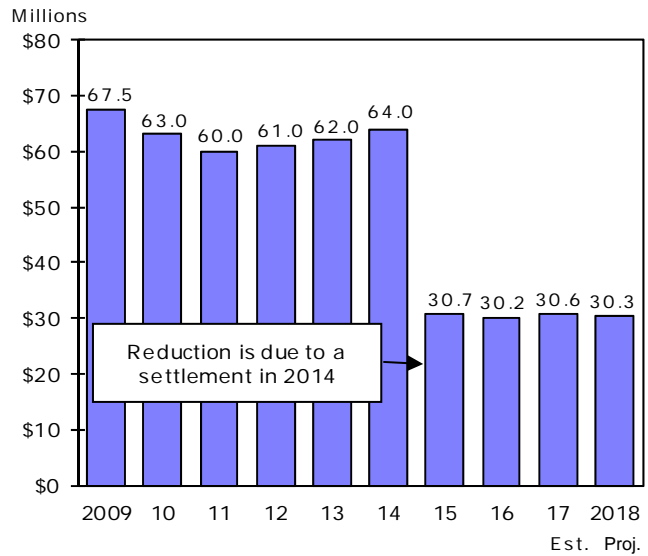
A property tax levy limited by law at 0.5 cents per \$100 of equalized assessed valuation (EAV) provides funds for this purpose. The accumulation of funds, per Illinois State Statute, is not to exceed .05 percent of the EAV, or approximately \$70.4 million. Resources are accumulated in this fund to the 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. This policy is similar in function to insurance company reserves. The estimated 2017 year-end fund balance is \$22.1 million and the projection for 2018 is \$24.3 million.

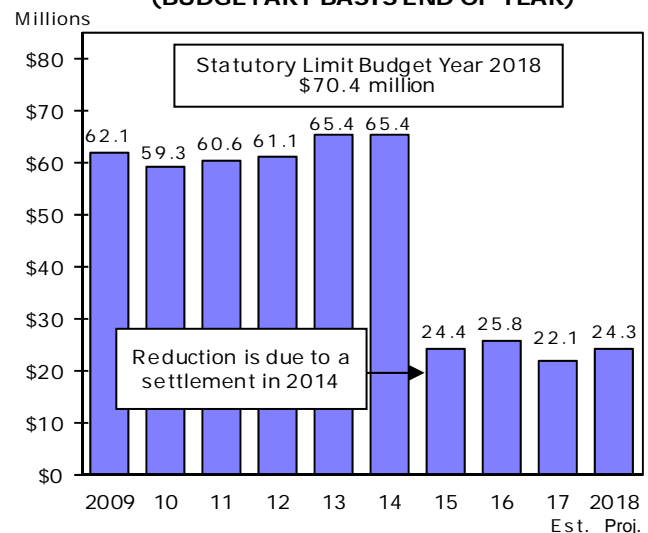
The appropriation for the Reserve Claim Fund is not designed to be spent during any one budget year. The available fund balance plus new revenue to be received must be appropriated each year to authorize the District to fund emergencies and to settle large claims or lawsuits. Designation is also provided for accounts payable and other contingent liabilities. For 2018, 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.

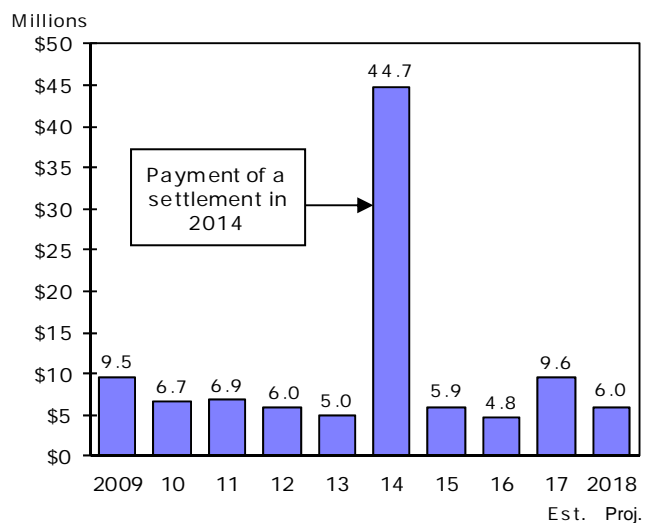
RESERVE CLAIM FUND APPROPRIATIONS



RESERVE CLAIM FUND BALANCE (BUDGETARY BASIS END OF YEAR)



RESERVE CLAIM FUND EXPENDITURES



901	Fund: Reserve Claim	LINE ITEM ANALYSIS						
		2016	2017			2018		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/17	Estimated Expenditure 12/31/17	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601090	Employee Claims	\$ 4,674,115	\$ 8,000,000	\$ 8,000,000	\$ 5,300,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
100	TOTAL PERSONAL SERVICES	4,674,115	8,000,000	8,000,000	5,300,000	10,000,000	10,000,000	10,000,000
667220	General Claims and Emergency Repair and Replacement Costs	112,255	22,617,100	22,617,100	4,326,300	20,289,500	20,289,500	20,289,500
700	TOTAL FIXED AND OTHER CHARGES	112,255	22,617,100	22,617,100	4,326,300	20,289,500	20,289,500	20,289,500
TOTAL RESERVE CLAIM FUND		\$ 4,786,370	\$ 30,617,100	\$ 30,617,100	\$ 9,626,300	\$ 30,289,500	\$ 30,289,500	\$ 30,289,500

NOTE: Amounts may not add up due to rounding.

BOND REDEMPTION & INTEREST FUND

Description of Fund, Purpose, and Operation

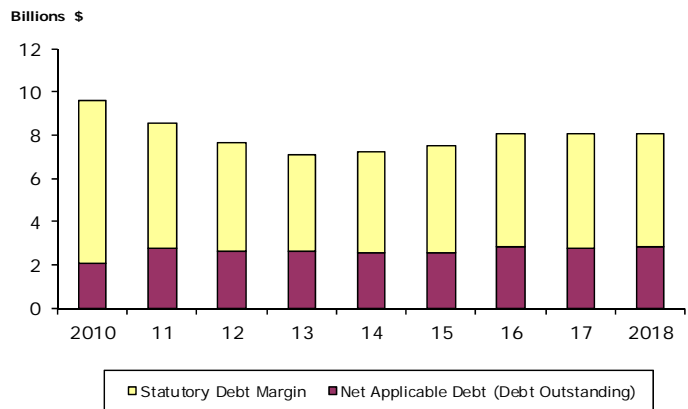
The District's Bond Redemption & Interest Fund is a debt service fund established to account for annual property tax levies and certain other revenues, principally interest on investments, which are used for the payment of interest and redemption of general obligation bond issues. Sub-funds are established for each debt issue.

Debt Limits, Margins, and Borrowing Authority

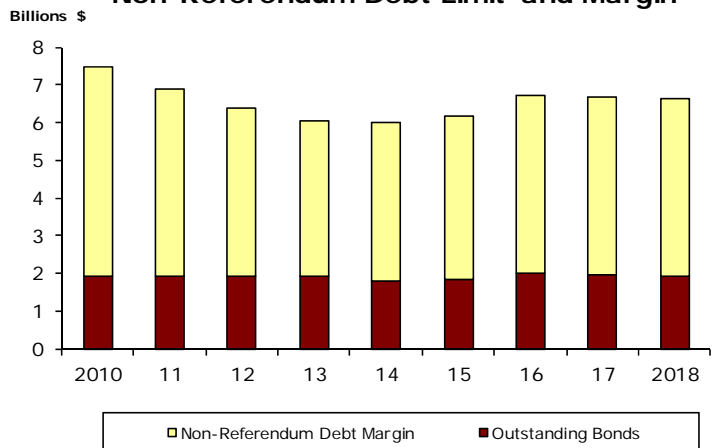
Applicable Illinois State Statutes establish the following limitations relative to the District:

- 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 (\$140.8 billion for 2016) within the District boundary. On December 31, 2017, the District's statutory debt limit is estimated at \$8.1 billion, with a net applicable debt of \$2.8 billion and an estimated statutory debt margin of \$5.3 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 boundary. On December 31, 2017, it is estimated that the District's outstanding capital improvement and refunding bonds will total \$1.9 billion with a non-referendum statutory debt limit of \$4.7 billion and a non-referendum bonded debt margin of \$2.8 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 Tunnel and Reservoir Plan 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 that 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 2017 tax year, is \$162.7 million.

Net Debt and Statutory Debt Margin



Non-Referendum Debt Limit and Margin



BOND REDEMPTION & INTEREST FUND

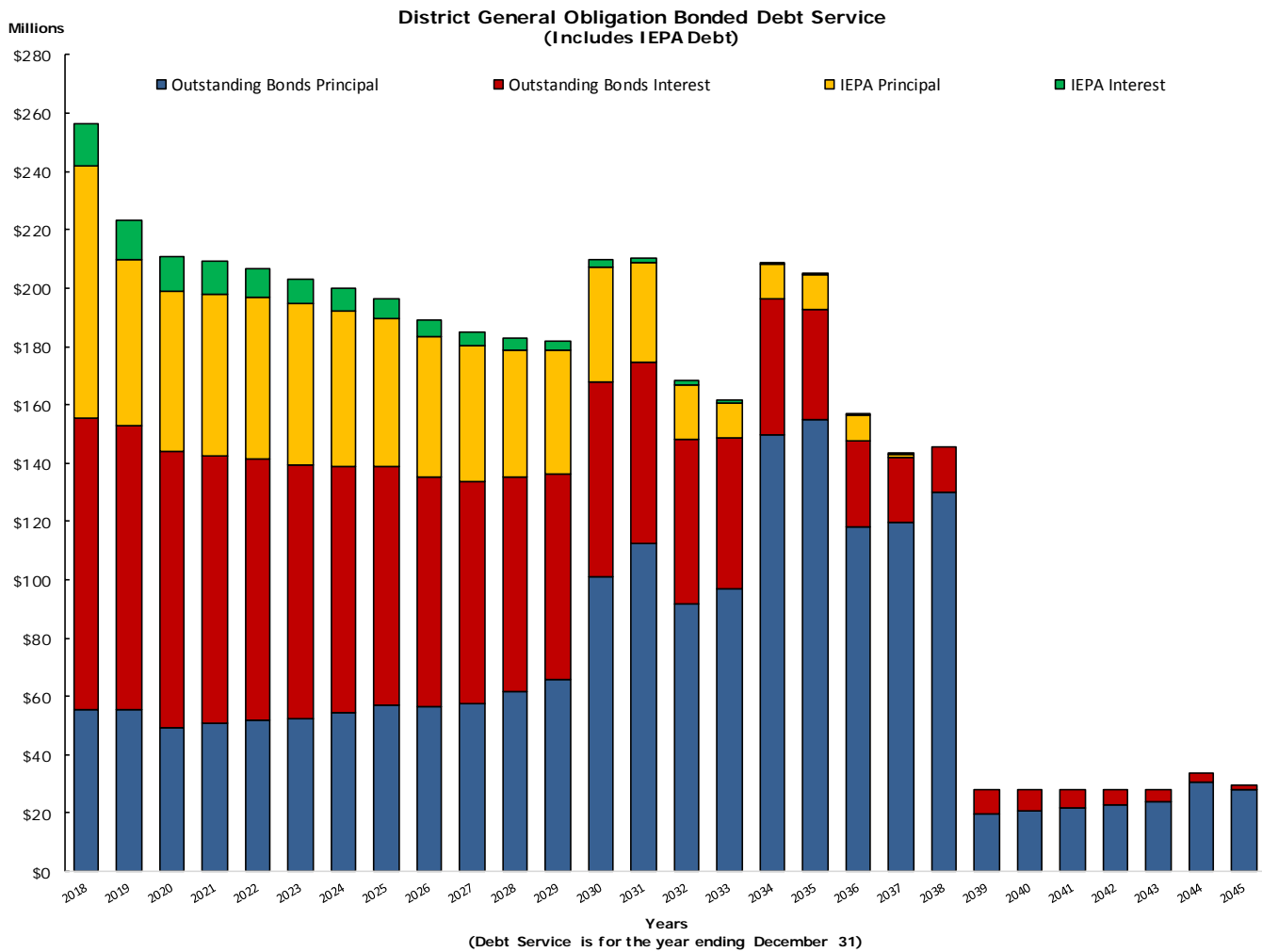
Description of Fund, Purpose, and Operation (continued)

- Additional legislation was passed in 1997 to expand the “limited bond” authority for the District. Public Act 90-485 excludes debt associated with the Tunnel and Reservoir Plan 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 Consumer Price Index 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 within the District boundary (\$140.8 billion for 2016) at the time the bonds are issued, plus 90 percent of the last-known entitlement of the Personal Property Replacement Tax.

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 \$6 to \$10 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 in Section II, Budget and Financial Summaries, Schedules, and Exhibits, of this budget document.



BOND REDEMPTION & INTEREST FUND**Appropriation for Payment of Outstanding Bonds During the Year 2018**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2018		JULY 1, 2018		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
Capital Improvements Bonds - Series:						
June 2016 QECB	5.0	80,000 (1)	-	80,000 (2)	- (2)	160,000
August 2009 Limited Tax Series	5.72	17,160,000 (1)	-	17,160,000 (2)	- (2)	34,320,000
July 2011 Limited Tax Series B	5.0	6,551,047 (1)	-	6,551,047 (2)	26,855,000 (2)	39,957,094
July 2011 Unlimited Tax Series C	3.0 to 5.0	1,101,266 (1)	-	1,101,266 (2)	1,640,000 (2)	3,842,532
2014 Limited Tax Series C	2.0 to 5.0	1,563,375 (1)	-	1,563,375 (2)	- (2)	3,126,750
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	1,157,775 (1)	-	1,157,775 (2)	955,000 (2)	3,270,550
2016 Alt Rev Tax Unltd Series E	5.0	1,250,000 (1)	-	1,250,000 (2)	- (2)	2,500,000
June 2016 Unlimited Tax Series C	5.0	750,000 (1)	-	750,000 (2)	(2)	1,500,000
June 2016 Limited Tax Series D	5.0	500,000 (1)	-	500,000 (2)	(2)	1,000,000
State Revolving Fund Bonds - Series:						
14B SRF L 175171	2.210	29,404	58,606	28,756	59,254	176,020
14C SRF L 174559	2.295	225,708	429,716	220,777	434,647	1,310,848
14H SRF L 175355	1.860	10,832	25,692	10,593	25,931	73,048
09D SRF L 174558	2.30	401,394	4,745,003	390,942	921,321	6,458,660
12A SRF L 174710	2.295	75,034	164,115	73,151	165,998	478,298
12B SRF L 174712	2.295	64,261	140,551	62,648	142,164	409,624
12C SRF L 174621	1.995	124,679	280,964	121,876	283,766	811,285
12D SRF L 174988	1.930	302,488	6,632,366	295,420	739,433	7,969,707
12E SRF L 174709	1.930	50,257	125,791	49,043	127,005	352,096
12F SRF L 174989	1.930	563,508	10,364,334	550,342	1,377,500	12,855,684
12H SRF L 174924	1.930	268,641	5,550,417	262,364	656,694	6,738,116
12L SRF L 175161	2.210	323,966	625,044	317,059	631,951	1,898,020
12J SRF L 175172	1.995	24,639	59,315	24,047	59,907	167,908
12K SRF L 174925	1.995	122,877	286,095	120,023	288,949	817,944
09A SRF L 173074	1.25	228,360	2,442,228	221,416	1,118,039	4,010,043
09B SRF L 173064	0.00	-	191,445	-	191,445	382,890
09C SRF L 173063	0.00	-	55,979	-	55,979	111,958
09I SRF L 174675	1.25	48,864	266,718	47,197	268,385	631,164
07A SRF L 172625	2.50	369,809	1,015,420	357,116	1,028,113	2,770,458
07B SRF L 172850	2.50	255,353	669,785	246,980	678,157	1,850,275
07C SRF L 172770	0.00	-	1,666,667	-	1,666,667	3,333,334
09G SRF L 173075	1.25	151,144	2,414,452	146,710	713,823	3,426,129
09H SRF L 173800	0.00	-	18,397	-	18,397	36,794
09E SRF L 173005	1.25	181,915	957,583	175,930	963,568	2,278,996
07D SRF L 172763	2.50	84,350	231,607	81,455	234,502	631,914
09F SRF L 174557	1.25	310,325	3,259,854	300,876	1,521,270	5,392,325
04G SRF L 172611	2.50	28,275	106,211	26,947	107,538	268,971
04H SRF L 172849	2.50	439,573	1,329,149	422,958	1,345,764	3,537,444
01A SRF L 172126	2.57	290,335	1,608,001	269,672	1,628,664	3,796,672
97DD SRF L 171152	2.905	82,554	436,971	76,207	443,318	1,039,050
01B SRF L 172127	2.50	327,701	1,599,874	307,703	1,619,872	3,855,150
01C SRF L 172128	2.50	323,093	1,374,052	305,917	1,391,228	3,394,290
04A SRF L 172485	2.50	173,674	615,781	165,976	623,478	1,578,909
04B SRF L 172488	2.50	202,884	719,352	193,893	728,344	1,844,473
04C SRF L 172493	2.50	18,150	68,176	17,297	69,028	172,651
04D SRF L 172494	2.50	17,405	65,379	16,588	66,197	165,569
04E SRF L 172495	2.50	59,390	199,252	56,899	201,742	517,283

(1) Interest Payable June 1, 2018.

(2) Interest and Principal Payable December 1, 2018.

BOND REDEMPTION & INTEREST FUND**Appropriation for Payment of Outstanding Bonds During the Year 2018 (continued)**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2018		JULY 1, 2018		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
State Revolving Fund Bonds - Series:						
04F SRF L 172496	0.00	-	99,368	-	99,368	198,736
12O SRF L 175166	1.995	43,942	102,311	42,922	103,331	292,506
12I SRF L 175222	2.210	50,300	97,047	49,228	98,119	294,694
12M SRF L175168	2.210	110,869	200,831	108,650	203,050	623,400
12N SRF L 175164	1.995	26,033	58,665	25,448	59,250	169,396
14J SRF L 175219	2.210	31,285	62,356	30,596	63,045	187,282
97BB SRF L 171151	2.535	23,846	303,764	19,996	307,614	655,220
14A SRF L 173076	2.210	862,703	1,664,458	844,311	1,682,851	5,054,323
97CC SRF L 172031	2.535	127,623	1,063,228	114,146	1,076,704	2,381,701
94V SRF L 171150	2.50	26,468	1,052,136	13,316	1,065,288	2,157,208
97AA SRF L 170822	2.506	79,292	1,552,599	59,837	1,572,053	3,263,781
Refunding Bonds - Series:						
2014 Limited Tax Series D	2.0 to 5.0	1,477,750 (1)	-	1,477,750 (2)	5,985,000 (2)	8,940,500
March 2007 Unlimited Tax Series A	4.0 to 5.0	2,783,500 (1)	-	2,783,500 (2)	20,015,000 (2)	25,582,000
March 2007 Unlimited Tax Series B	4.0 to 5.0	2,410,932 (1)	-	2,410,932 (2)	- (2)	4,821,864
March 2007 Limited Tax Series C	4.0 to 5.0	2,673,825 (1)	-	2,673,825 (2)	- (2)	5,347,650
June 2016 Unlimited Tax Series A	5.0	7,023,250 (1)	-	7,023,250 (2)	- (2)	14,046,500
June 2016 Limited Tax Series B	5.0	1,033,250 (1)	-	1,033,250 (2)	- (2)	2,066,500
TOTAL		57,579,173	57,057,104	57,289,198	84,378,711	256,304,186

(1) Interest Payable June 1, 2018.

(2) Interest and Principal Payable December 1, 2018.

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. The primary goal of the Fund is to provide continuity of benefits to the members while preserving the fiscal integrity and financial stability of the Fund.

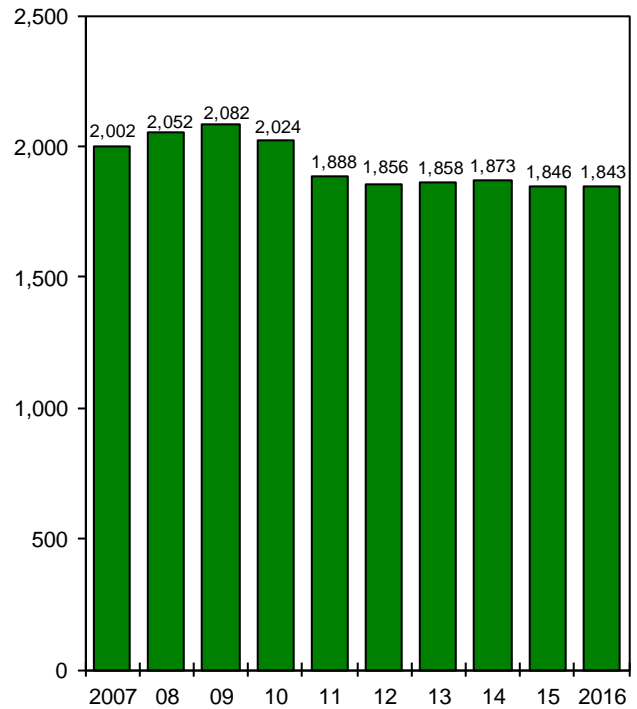
On August 3, 2012, the Governor signed Public Act 97-0894, which increased the nine percent required employee contributions one percent per year for three years beginning in 2013 to the current contribution of 12 percent for employees who first became a member of the Fund or certain reciprocal systems before January 1, 2011 (Tier I). The employee contribution rate will be reduced to nine percent when the funded ratio reaches 90 percent. The tax levy is 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, 2016, there were 1,843 active (contributing) participants in the Fund and 2,417 beneficiaries. Annuitants accounted for 2,394 of these beneficiaries, including 1,779 retired employees, 590 surviving spouses, and 25 children. Additionally, the Fund paid disability benefits to 23 District employees.

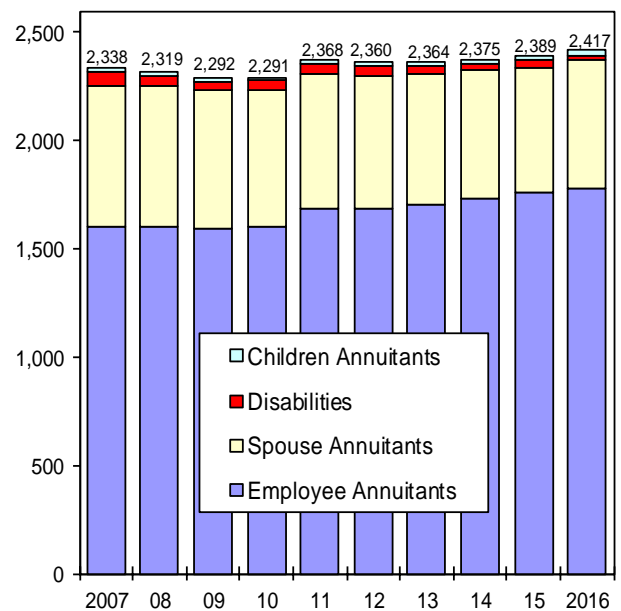
Gross income for the Fund is composed of the following items:

- **Employee contributions** – beginning in 2015, employees hired prior to January 1, 2011 (Tier I) contribute 12 percent of salary to the Fund. Employees hired on or after January 1, 2011 (Tier II) 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 2018, 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 2016 was \$219.4 million, which is a combination of employee and employer contributions of \$101.1 million, investment income of \$117.8 million, securities lending income of \$433,700, and other income of \$107,200; reflecting an income of \$122.8 million greater than in 2015. Total investment income in 2016 was higher than the prior year primarily due to greater returns in the U.S. and non-U.S. equity markets as well as fixed income markets during 2016.

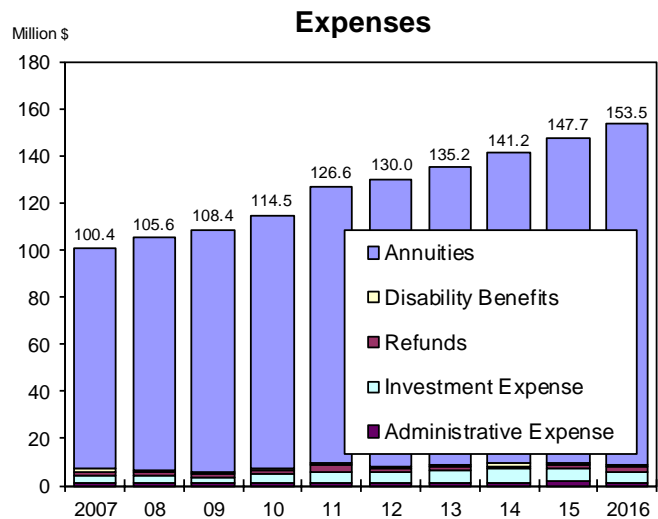
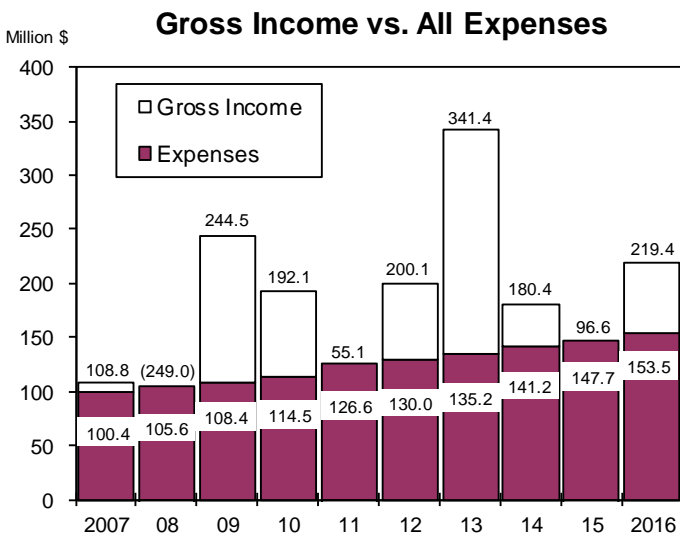
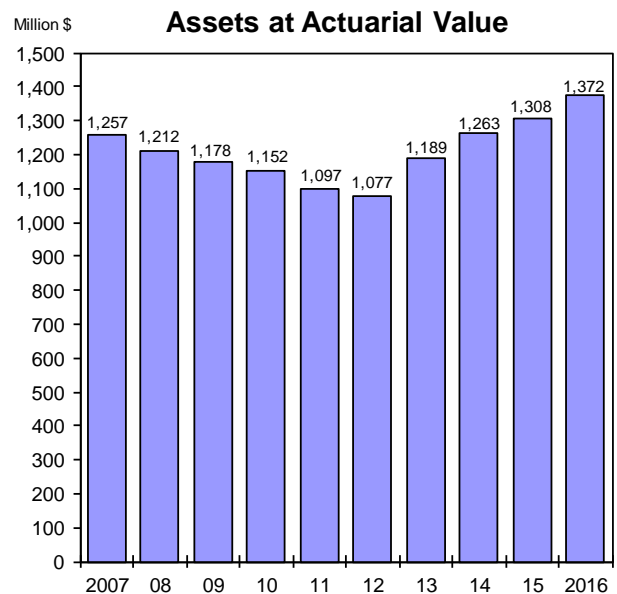
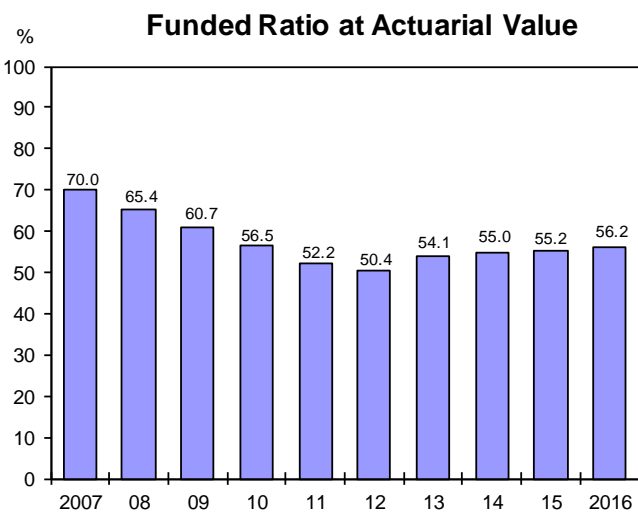
RETIREMENT FUND

Description of Fund, Purpose, and Operation (continued)

Expenses for 2016 include annuity and disability benefit payments of \$145.3 million, investment management expenses of \$4.6 million, administrative expenses of \$1.5 million, and refunds of \$2.0 million for a total of \$153.5 million.

As of December 31, 2016, the funded ratio of the Fund was 56.2 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 70.0 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 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 2018 Budget, the gross property tax levy totals \$71.5 million, a decrease of \$1.9 million, or 2.6 percent, below the 2017 adjusted levy. The 2018 Personal Property Replacement Tax allocation to the Retirement Fund is \$18.3 million. The 2018 appropriation is \$89.6 million, an increase of \$10.1 million, or 12.7 percent, above the 2017 Adjusted Budget.



APPROPRIATION ORDINANCE NUMBER O17-002A
(CONTINUED)

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 \$89,604,000.

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, 2018.

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 2018 levies.

This section includes 2018 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 2018 Tax Levy for Payment of Outstanding Bonds, can also be found in this section.

Retirement Fund and Corporate Fund	593
Construction Fund	594
Bond Redemption & Interest Fund:	
Tax Levy Ordinance for Outstanding Bonds	595
Tax Levy for Payment of Outstanding Bonds, 2018.....	597
Reserve Claim Fund	599
Stormwater Management Fund	600

Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

ORDINANCE NUMBER O17-003

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
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, 2018
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, 2018, for the fiscal year ending December 31, 2018, 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 \$71,534,197 which includes the sum of \$2,503,697 as a reserve for loss in collection of taxes, distributed as

Contributions for Service Retirement Allowances and Spouses' Allowances	\$13,134,611
Contributions for Ordinary Disability Benefits	461,243
Contributions for Duty Disability Benefits	214,301
Contributions for Expense of Administration	1,357,824
Contributions for Children's Annuities	125,803
Contributions for Current and Past Service Requirements.....	<u>56,240,415</u>
	<u>\$71,534,197</u>

For Corporate Purposes of the said Metropolitan Water Reclamation District of Greater Chicago "the sum of \$240,465,800 which includes the sum of \$8,416,303 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 2018 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, 2018, 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, 2018.

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 O17-004

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
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, 2018
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, 2018 for the fiscal year ending December 31, 2018, 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 \$11,700,000 which includes the sum of \$409,500 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 2018 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, 2018, 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.

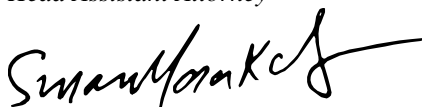
Section 3. That said County Clerk of Cook County, as tax extension officer for said District, is hereby directed to *reduce this levy of taxes* by the District for the year 2018 by the amount necessary to enable said District's aggregate tax levies to comply with the Property Tax Extension Limitation Law; that is, the entire reduction in the aggregate of all tax levies for said District for the year 2018 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, 2018.

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 O17-005

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
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, 2018, and all taxable property in townships or parts of townships disconnected from the Metropolitan Water Reclamation District of Greater Chicago prior to January 1, 2018, but after the issuance of any bonds, the amounts of money hereinafter stated:

Capital Improvement Bonds – Series:

August 2009 Limited Tax Series	08-26-09	35,564,767
July 2011 Limited Tax Series B	07-27-11	28,911,239
July 2011 Unlimited Tax Series C	07-27-11	4,184,800
Dec. 2014 Limited Tax Series C	01-06-15	6,763,472
Dec. 2014 Unlimited Tax Series A	01-06-15	5,181,348
Dec. 2014 Alt Rev Unltd Tax Series B	01-06-15	3,390,570
June 2016 Alt Rev Unltd Tax Series E	07-07-16	2,590,674
June 2016 Unlimited Tax Series C	07-07-16	1,554,405
June 2016 Limited Tax Series D	07-07-16	1,036,270
June 2016 Limited Tax QECB Series F	07-07-16	165,804

State Revolving Funds Bonds – Series:

14M SRF L175372	77,720
14N SRF L175371	82,902
14O SRF L175305	170,984
16A SRF L174555	8,077,720
14P SRF L175369	217,617
16D SRF L175460	409,326
14B SRF L175171	182,403
14C SRF L174559	2,033,580
14D SRF L175263	689,120
14E SRF L173062	2,424,871
14F SRF L175342	4,145,078
14G SRF L175152	1,134,716
14H SRF L175355	75,696
14K SRF L175366	290,156
14L SRF L175368	290,156
09D SRF L174558	2,719,713
12A SRF L174710	495,643
12B SRF L174712	424,480
12C SRF L174621	840,709
12D SRF L174988	2,144,773
12E SRF L174709	364,865
12F SRF L174989	3,995,526
12G SRF L174923	1,772,021
12H SRF L174924	1,904,782
12L SRF L175161	1,966,859
12J SRF L175172	173,996
12K SRF L174925	1,080,409
09A SRF L173074	2,776,070
09B SRF L173064	396,778
09C SRF L173063	116,018
09I SRF L174675	654,054
07A SRF L172625	2,870,940
07B SRF L172850	917,383
07C SRF L172770	1,381,693
09G SRF L173075	1,783,487
09H SRF L173800	38,127

ORDINANCE NUMBER O17-005

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
TO PAY THE INTEREST ON OUTSTANDING BONDS AND TO
DISCHARGE THE PRINCIPAL THEREOF (CONTINUED)**

State Revolving Funds Bonds – Series:

09E SRF L173005	2,361,654
07D SRF L172763	654,830
09F SRF L174557	3,776,466
04G SRF L172611	278,725
04H SRF L172849	3,665,744
01A SRF L172126	1,934,375
97DD SRF L171152	1,076,734
01B SRF L172127	3,994,973
01C SRF L172128	1,517,397
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	536,043
04F SRF L172496	205,943
12O SRF L175166	303,113
12I SRF L175222	305,381
12M SRF L175168	709,845
12N SRF L175164	175,537
14I SRF L175223	673,576
14J SRF 175219	194,074
97BB SRF L171151	678,984
14A SRF L173076	5,237,641
97CC SRF L172031	2,468,083
97AA SRF L170822	1,691,078

Refunding Bonds – Series:

March 2007 Unlimited Tax Series A	03-21-07	26,623,057
March 2007 Unlimited Tax Series B	03-21-07	4,996,749
March 2007 Limited Tax Series C	03-21-07	5,541,607
2014 Limited Tax Series D	01-06-15	15,130,830
June 2016 Unlimited Tax Series A	07-07-16	14,555,959
June 2016 Limited Tax Series B	07-07-16	<u>2,141,451</u>
		<u>\$243,791,597</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 2018 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, 2018, 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, 2018 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, 2018.

Approved as to Form and Legality:

Stelen S. Wright
Head Assistant Attorney

Susan Moran Kelly
General Counsel

Approved:

[Signature]
President, Board of Commissioners of the
Metropolitan Water Reclamation District
of Greater Chicago

BOND REDEMPTION AND INTEREST FUND

2018 Tax Levy for Payment of Outstanding Bonds

BOND ISSUE	ISSUE DATED	INTEREST PAYMENT DATES	INTEREST	PRINCIPAL	RESERVE FOR UNCOLLECTED TAX (A)	GROSS LEVY
Capital Improvement Bonds - Series:						
June 2016 QECCB	07-07-16	6/1/18- 12/1/18	\$ 160,000	\$ -	\$ 5,804	\$ 165,804
August 2009 Limited Tax Series	08-26-09	6/1/18- 12/1/18	34,320,000	-	1,244,767	35,564,767
July 2011 Limited Tax Series B	07-27-11	6/1/18- 12/1/18	11,759,346	16,140,000	1,011,893	28,911,239
July 2011 Unlim Tax Series C	07-27-11	6/1/18- 12/1/18	2,153,332	1,885,000	146,468	4,184,800
2014 Limited Tax Series C	01-06-15	6/1/18- 12/1/18	3,126,750	3,400,000	236,722	6,763,472
2014 Unlim Tax Series A	01-06-15	6/1/18- 12/1/18	5,000,001	-	181,347	5,181,348
2014 Alt Rev Unlim Tax Series B	01-06-15	6/1/18- 12/1/18	2,286,900	985,000	118,670	3,390,570
2016 Alt Rev Tax Unltd Series E	07-07-16	6/1/18- 12/1/18	2,500,000	-	90,674	2,590,674
June 2016 Unlimited Tax Series C	07-07-06	6/1/18- 12/1/18	1,500,001	-	54,404	1,554,405
June 2016 Limited Tax Series D	07-07-16	6/1/18- 12/1/18	1,000,001	-	36,269	1,036,270
State Revolving Funds Bonds - Series:						
14M SRF L175372	07-01-18	7/1/18- 1/1/19	75,000	-	2,720	77,720
14N SRF L175371	07-01-18	7/1/18- 1/1/19	80,000	-	2,902	82,902
16A SRF L174555	07-01-18	7/1/18- 1/1/19	7,795,000	-	282,720	8,077,720
14P SRF L175369	07-01-18	7/1/18- 1/1/19	210,000	-	7,617	217,617
14O SRF L175305	07-01-18	7/1/18- 1/1/19	165,000	-	5,984	170,984
16D SRF L175460	07-01-18	7/1/18- 1/1/19	395,000	-	14,326	409,326
14B SRF L175171	07-01-16	7/1/18- 1/1/19	54,209	121,810	6,384	182,403
14C SRF L174559	07-01-16	7/1/18- 1/1/19	1,067,944	894,461	71,175	2,033,580
14D SRF L175263	07-01-18	7/1/18- 1/1/19	665,000	-	24,120	689,120
14E SRF L173062	07-01-18	7/1/18- 1/1/19	2,340,000	-	84,871	2,424,871
14F SRF L175342	07-01-19	7/1/18- 1/1/19	4,000,000	-	145,078	4,145,078
14G SRF L175152	07-01-18	7/1/18- 1/1/19	1,095,000	-	39,716	1,134,716
14H SRF L175355	07-01-17	7/1/18- 1/1/19	19,970	53,077	2,649	75,696
14K SRF L175366	07-01-18	7/1/18- 1/1/19	280,000	-	10,156	290,156
14L SRF L175368	07-01-18	7/1/18- 1/1/19	280,000	-	10,156	290,156
09D SRF L174558	07-01-13	7/1/18- 1/1/19	728,535	1,895,988	95,190	2,719,713
12A SRF L174710	07-01-14	7/1/18- 1/1/19	136,689	341,607	17,347	495,643
12B SRF L174712	07-01-14	7/1/18- 1/1/19	117,063	292,560	14,857	424,480
12C SRF L174621	07-01-16	7/1/18- 1/1/19	229,486	581,798	29,425	840,709
12D SRF L174988	07-01-15	7/1/18- 1/1/19	554,886	1,514,820	75,067	2,144,773
12E SRF L174709	07-01-15	7/1/18- 1/1/19	91,910	260,185	12,770	364,865
12F SRF L174989	07-01-15	7/1/18- 1/1/19	1,033,704	2,821,978	139,844	3,995,526
12G SRF L174923	07-01-18	7/1/18- 1/1/19	1,710,000	-	62,021	1,772,021
12H SRF L174924	07-01-15	7/1/18- 1/1/19	492,797	1,345,318	66,667	1,904,782
12L SRF L175161	07-01-16	7/1/18- 1/1/19	598,893	1,299,126	68,840	1,966,859
12J SRF L175172	07-01-15	7/1/18- 1/1/19	45,081	122,825	6,090	173,996
12K SRF L174925	07-01-15	7/1/18- 1/1/19	450,170	592,424	37,815	1,080,409
09A SRF L173074	07-01-12	7/1/18- 1/1/19	407,717	2,271,190	97,163	2,776,070
09B SRF L173064	06-21-11	7/1/18- 1/1/19	-	382,890	13,888	396,778
09C SRF L173063	01-15-11	7/1/18- 1/1/19	-	111,957	4,061	116,018
09I SRF L174675	06-21-11	7/1/18- 1/1/19	85,964	545,198	22,892	654,054
07A SRF L172625	06-16-10	7/1/18- 1/1/19	649,330	2,121,127	100,483	2,870,940
07B SRF L172850	07-01-10	7/1/18- 1/1/19	201,150	684,124	32,109	917,383
07C SRF L172770	01-01-11	7/1/18- 1/1/19	-	1,333,333	48,360	1,381,693
09G SRF L173075	07-01-13	7/1/18- 1/1/19	271,000	1,450,064	62,423	1,783,487
09H SRF L173800	04-23-11	7/1/18- 1/1/19	-	36,793	1,334	38,127
09E SRF L173005	08-06-11	7/1/18- 1/1/19	321,598	1,957,398	82,658	2,361,654
07D SRF L172763	06-09-10	7/1/18- 1/1/19	148,105	483,806	22,919	654,830
09F SRF L174557	07-01-16	7/1/18- 1/1/19	553,974	3,090,316	132,176	3,776,466
04G SRF L172611	01-31-07	7/1/18- 1/1/19	47,105	221,865	9,755	278,725
04H SRF L172849	07-01-09	7/1/18- 1/1/19	760,962	2,776,481	128,301	3,665,744
01A SRF L172126	07-01-04	7/1/18- 1/1/19	211,623	1,655,048	67,704	1,934,375

BOND REDEMPTION AND INTEREST FUND**2018 Tax Levy for Payment of Outstanding Bonds (continued)**

BOND ISSUE	ISSUE DATED	INTEREST PAYMENT DATES	INTEREST	PRINCIPAL	RESERVE FOR UNCOLLECTED TAX (A)	GROSS LEVY
State Revolving Funds Bonds - Series:						
97DD SRF L171152	07-01-04	7/1/18- 1/1/19	119,841	919,208	37,685	1,076,734
01B SRF L172127	07-01-05	7/1/18- 1/1/19	513,147	3,342,001	139,825	3,994,973
01C SRF L172128	06-16-06	7/1/18- 1/1/19	229,009	1,235,279	53,109	1,517,397
04A SRF L172485	05-15-08	7/1/18- 1/1/19	292,594	1,286,314	57,266	1,636,174
04B SRF L172488	05-28-08	7/1/18- 1/1/19	341,806	1,502,666	66,898	1,911,370
04C SRF L172493	03-27-07	7/1/18- 1/1/19	30,236	142,414	6,262	178,912
04D SRF L172494	01-31-07	7/1/18- 1/1/19	28,996	136,571	6,005	171,572
04E SRF L172495	05-30-08	7/1/18- 1/1/19	101,062	416,219	18,762	536,043
04F SRF L172496	04-23-11	7/1/18- 1/1/19	-	198,735	7,208	205,943
12O SRF L175166	07-01-15	7/1/18- 1/1/19	80,647	211,857	10,609	303,113
12I SRF L175222	07-01-16	7/1/18- 1/1/19	92,986	201,707	10,688	305,381
12M SRF L175168	07-01-18	7/1/18- 1/1/19	685,000	-	24,845	709,845
12N SRF L175164	07-01-16	7/1/18- 1/1/19	47,916	121,477	6,144	175,537
14I SRF L175223	07-01-18	7/1/18- 1/1/19	650,000	-	23,576	673,576
14J SRF 175219	07-01-16	7/1/18- 1/1/19	57,677	129,604	6,793	194,074
97BB SRF L171151	07-01-04	7/1/18- 1/1/19	20,298	634,921	23,765	678,984
14A SRF L173076	07-01-16	7/1/18- 1/1/19	1,594,821	3,459,502	183,318	5,237,641
97CC SRF L172031	07-01-04	7/1/18- 1/1/19	159,362	2,222,338	86,383	2,468,083
97AA SRF L170822	01-01-01	7/1/18- 1/1/19	20,195	1,611,695	59,188	1,691,078
Refunding Bonds - Series:						
March 2007 Unlimited Tax Series	03-21-07	6/1/18- 12/1/18	4,566,250	21,125,000	931,807	26,623,057
March 2007 Unlimited Tax Series	03-21-07	6/1/18- 12/1/18	4,821,863	-	174,886	4,996,749
March 2007 Limited Tax Series C	03-21-07	6/1/18- 12/1/18	5,347,650	-	193,957	5,541,607
2014 Limited Tax Series D	01-06-15	6/1/18- 12/1/18	2,656,251	11,945,000	529,579	15,130,830
June 2016 Unlimited Tax Series A	07-07-16	6/1/18- 12/1/18	14,046,500	-	509,459	14,555,959
June 2016 Limited Tax Series B	07-07-16	6/1/18- 12/1/18	2,066,500	-	74,951	2,141,451
TOTAL			\$ 130,746,803	\$ 104,512,075	\$ 8,532,719	\$ 243,791,597

(A) Reserve at 3.5%

ORDINANCE NUMBER O17-006

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
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, 2018
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 \$6,000,000 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, 2018, for the fiscal year ending December 31, 2018, 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 2018 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, 2018, 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, 2018.

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 O17-007

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR
BEGINNING JANUARY 1, 2018 AND ENDING DECEMBER 31, 2018
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, 2018
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, 2018, for the fiscal year ending December 31, 2018, 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 \$47,826,000 which includes the sum of \$1,673,910 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 2018, 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, 2018, 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, 2018.

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

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 44 years.

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Note: Pages are linked. Click on heading or page number to link to the appropriate section of the book.

COMPENSATION PLAN NARRATIVE

In accordance with Illinois State Statute, Chapter 70, Section 2605/4.2, a Department of Human Resources for the District was 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) Employees.

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	\$9,134.48
EX02	\$2,692.31	EX10	\$9,134.48	EX18	\$5,138.17
EX03	\$6,928.13	EX11	\$10,276.29	EX19	\$9,134.48
EX04	\$2,527.61 to \$3,934.28	EX12	\$10,276.29	EX20	None
EX05	\$9,134.48	EX13	\$9,134.48	EX21	\$2,884.62
EX06	\$2,527.61 to \$3,934.28	EX14	\$10,276.29	EX22	\$3,076.92
EX07	\$11,418.15	EX15	\$10,276.29	EX23	\$3,651.91
EX08	\$9,134.48	EX16	\$673.08	EX24	\$3,651.91

Technical, Administrative, and Managerial (HP)

HP07	\$1,313.26 to \$1,912.67	HP14	\$2,717.76 to \$4,213.23	HP21	\$5,467.91 to \$8,204.33
HP08	\$1,429.29 to \$2,105.75	HP15	\$2,982.92 to \$4,544.11	HP22	\$6,035.71 to \$8,963.88
HP09	\$1,568.46 to \$2,337.57	HP16	\$3,310.42 to \$4,952.79	HP23	\$6,711.13 to \$9,762.46
HP10	\$1,754.10 to \$2,646.62	HP17	\$3,695.14 to \$5,432.87	TM01	\$1,040.00
HP11	\$1,970.73 to \$3,007.16	HP18	\$4,147.50 to \$5,997.25	TM02	\$1,400.00
HP12	\$2,233.70 to \$3,444.99	HP19	\$4,708.98 to \$6,697.86		
HP13	\$2,527.61 to \$3,934.28	HP20	\$4,986.72 to \$7,560.64		

Labor Trades (LT)

NR1541	\$3,140.20	NR6275	\$4,700.00	PR5153	\$3,708.00	PR5975	\$3,946.40	PR7579	\$4,084.80
NR1835	\$2,818.40	NR6441	\$3,392.00	PR5155	\$3,868.00	PR5989	\$4,066.40	PR7743	\$4,040.00
NR1853	\$3,181.60	NR6810	\$3,326.40	PR5159	\$3,908.00	PR6453	\$4,008.00	PR7773	\$3,800.00
NR1857	\$3,392.00	NR6831	\$3,904.00	PR5353	\$3,630.40	PR6459	\$4,328.00	PR7775	\$4,040.00
NR2483	\$3,181.60	NR6832	\$4,044.80	PR5553	\$3,644.00	PR6473	\$2,900.00	PR7779	\$4,200.00
NR3641	\$2,280.00	NR7393	\$4,266.40	PR5555	\$3,872.00	PR6479	\$3,160.00	PR1025	\$2,092.80 to \$3,424.00
NR3642	\$2,494.40	NR7394	\$5,074.40	PR5753	\$3,940.00	PR7343	\$3,792.00	TR3509	\$2,038.32
NR5369	\$3,197.60	NR7399	\$3,457.60	PR5755	\$4,176.00	PR7347	\$4,272.00		
NR6210	\$3,500.00	NR8331	\$3,392.00	PR5759	\$4,256.00	PR7349	\$4,032.00		
NR6232	\$3,675.20	NR8650	\$3,181.60	PR5933	\$3,740.00	PR7423	\$4,040.00		
NR6233	\$3,859.20	NR8651	\$3,028.80	PR5935	\$4,020.00	PR7424	\$4,440.00		
NR6251	\$4,477.60	NR8652	\$2,112.00	PR5953	\$3,480.00	PR7425	\$4,760.00		
NR6271	\$4,507.20	NR8660	\$1,863.40	PR5955	\$3,793.60	PR7573	\$3,804.80		
NR6272	\$4,266.40	NR8661	\$2,775.50	PR5973	\$3,786.40	PR7575	\$4,004.80		

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 681 of the General 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 \$4,147.50 to \$5,997.25 bi-weekly. By multiplying those rates by 26, it can be determined that the annual salary range for such positions is \$107,835.00 to \$155,928.50. 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.

DEVELOP EMPLOYEES

The District invests in employee growth through providing a tuition reimbursement program which helps employees develop skills and competencies that increases their promotional opportunities and trains future leaders. The support of their education also assists the District in maintaining a leadership role in wastewater through retaining best in class employees. The following is a list of 2016 and 2017 graduates that utilized the tuition reimbursement program.

EMPLOYEE NAME	COLLEGE/UNIVERSITY	MONTH/YEAR OF GRADUATION	FIELD OF STUDY
Janulis, Jerald	Elmhurst College	May 2017	Master of Arts in Industrial/Organizational Psychology
Kirk, Justin	Northwestern University	Dec 2016	Master of Science in Project Management
Knight, Terrence	DeVry University	Dec 2016	Bachelor of Science in Computer Information Systems
Maiellaro, Terence	University of Illinois	May 2016	Master of Business Administration
Mingmongkol, Chanawee	Boston University	May 2016	Master of Science
Podgorny, Robert	Illinois Institute of Technology	Dec 2016	Bachelor of Science in Civil Engineering
Pollard, Ouidie	Governors State University	May 2016	Master of Public Administration - Political and Justice Studies
Torres, Samantha	John Marshall Law School	Jun 2017	Juris Doctorate
Vega, Joel	Illinois Institute of Technology	May 2017	Master of Engineering in Environmental Engineering

USER CHARGE RATES

Year	Large Commercial/Industrial Users				O, M&R Factor	Tax-Exempt Users			Revenues in \$ millions
	Flow per million gallons	BOD ₅ per 1,000 pounds	SS per 1,000 pounds			Flow per million gallons	BOD ₅ per 1,000 pounds	SS per 1,000 pounds	
2018	\$ 264.28	\$ 223.03	\$ 136.48	30.1%	\$ 264.28	\$ 223.03	\$ 136.48	\$ 46.0	
2017	259.61	229.13	142.47	33.9%	259.61	229.13	142.47	47.0	
2016	255.02	234.95	148.33	34.4%	255.02	234.95	148.33	47.5	
2015	250.51	240.49	154.08	39.1%	250.51	240.49	154.08	48.5	
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	53.8	
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	

BOD₅ 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 BOD₅ 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

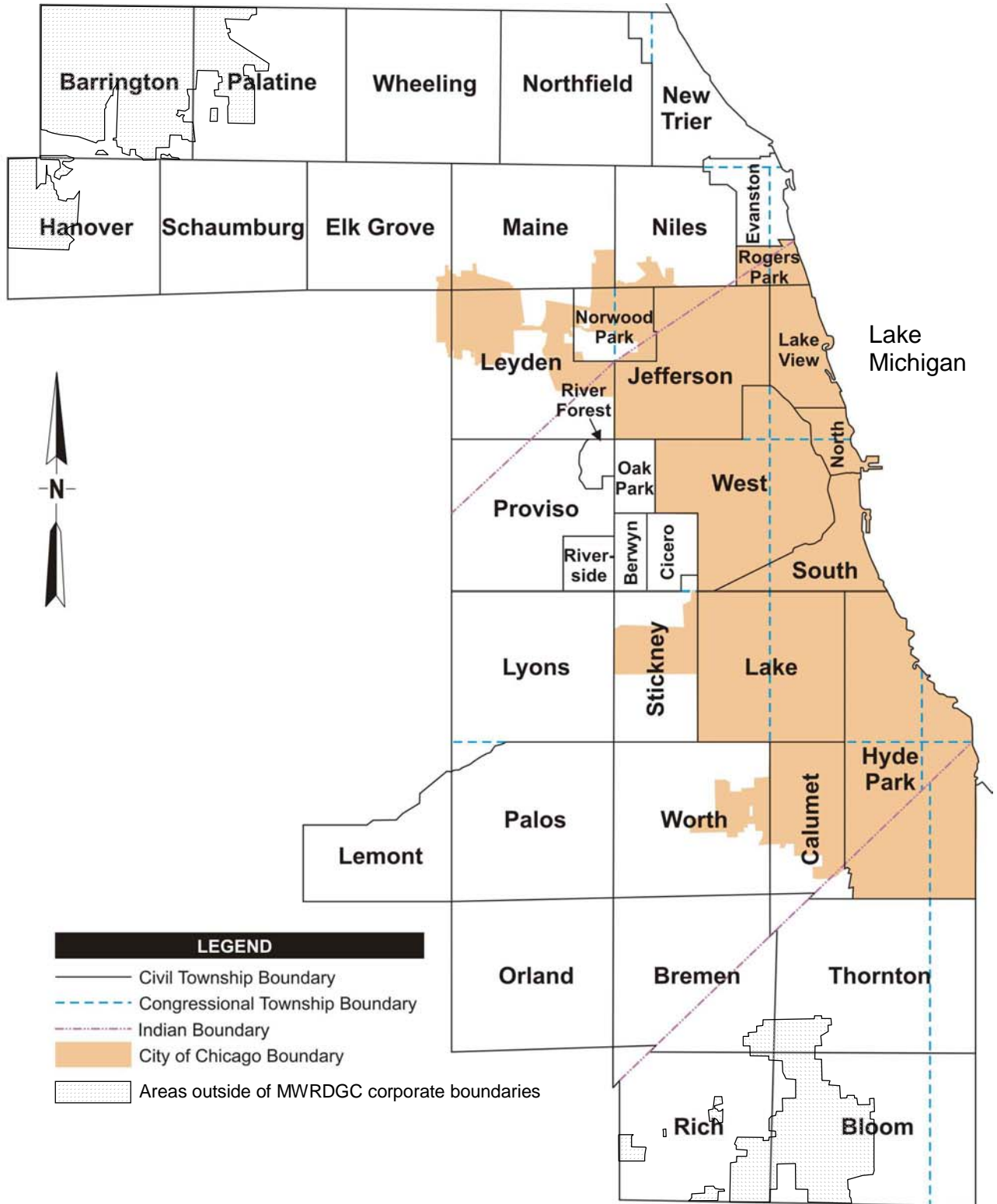
(in thousands of dollars)

Fiscal Year Ended Dec. 31	Taxes Levied for the Fiscal Year	Collected within the First Year		
		Amount	Percentage of Levy	Final Due Date
2016	\$ 571,583	-	-	08/01/17
2015	555,098	541,008	97.5	08/01/16
2014	540,250	523,203	96.8	08/01/15
2013	515,590	497,452	96.5	08/01/14
2012	493,673	476,881	96.6	08/01/13
2011	476,955	460,618	96.6	08/01/12
2010	457,356	435,009	95.1	10/01/11
2009	455,361	383,612	84.2	12/13/10
2008	428,645	400,048	93.3	12/01/09
2007	410,208	390,440	95.2	11/03/08

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, 2016.

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 2011 - 2016

(in \$ millions)

Township	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Average Annual Change</u>
Suburban							
Barrington	\$ 389	\$ 353	\$ 325	\$ 328	\$ 326	\$ 319	-5.66%
Berwyn	753	688	647	596	581	600	-6.85%
Bloom	551	503	474	450	440	456	-6.53%
Bremen	1,853	1,689	1,566	1,469	1,425	1,480	-6.23%
Calumet	202	184	176	177	176	179	-4.76%
Cicero	678	625	586	555	536	554	-7.54%
Elk Grove	3,996	3,652	3,128	3,184	3,103	3,516	-3.45%
Evanston	2,727	2,515	2,202	2,245	2,196	2,670	-1.53%
Hanover	1,808	1,647	1,406	1,426	1,379	1,608	-3.20%
Lemont	841	778	733	715	711	755	-4.34%
Lyden	2,891	2,655	2,331	2,332	2,409	2,753	-2.03%
Lyons	3,961	3,680	3,465	3,469	3,373	3,523	-4.93%
Maine	4,881	4,531	3,729	3,778	3,666	4,308	-2.96%
New Trier	4,947	4,595	4,151	4,201	4,075	4,987	-1.06%
Niles	4,696	4,333	3,810	3,886	3,818	4,461	-2.20%
Northfield	5,676	5,290	4,722	4,787	4,627	5,531	-1.74%
Norwood Park	929	859	726	745	727	839	-2.94%
Oak Park	1,597	1,470	1,369	1,383	1,334	1,387	-4.52%
Orland	3,366	3,098	2,921	2,829	2,753	2,890	-4.76%
Palatine	3,240	3,001	2,597	2,628	2,557	2,977	-2.48%
Palos	1,583	1,459	1,369	1,330	1,290	1,350	-5.63%
Proviso	3,130	2,893	2,723	2,652	2,573	2,679	-5.46%
Rich	1,241	1,138	1,044	988	962	1,007	-6.47%
River Forest	573	529	493	488	470	486	-5.75%
Riverside	592	541	505	489	474	495	-5.42%
Schaumburg	4,835	4,460	3,949	3,999	3,892	4,497	-2.53%
Stickney	1,139	1,049	972	935	914	956	-5.66%
Thornton	2,064	1,867	1,718	1,662	1,651	1,699	-6.44%
Wheeling	5,289	4,875	4,185	4,253	4,152	4,894	-2.29%
Worth	3,497	3,194	3,011	2,847	2,752	2,880	-5.80%
City of Chicago							
Hyde Park	4,453	3,748	3,576	3,648	3,890	4,077	-2.63%
Jefferson	13,317	11,060	10,529	10,741	11,311	11,735	-2.99%
Lake	8,122	6,488	6,227	6,364	6,684	6,970	-3.02%
Lake View	10,389	8,886	8,416	8,654	9,521	9,782	-2.60%
North Chicago	13,717	12,745	12,079	12,509	14,197	14,839	0.06%
Rogers Park	1,750	1,391	1,299	1,318	1,376	1,433	-4.81%
South Chicago	13,717	12,616	12,050	13,277	14,559	15,297	0.64%
West Chicago	9,658	8,317	8,188	8,398	9,427	9,883	-0.60%
Total EAV	149,048	133,398	123,400	125,736	130,305	140,752	-2.53%

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	2017	<i>Special Achievement Water Resources Award for the Wescott Park Stormwater Storage Facility Project in the Village of Northbrook</i>
	2010	<i>Special Achievement Award for the Calumet Isolation Chamber</i>
American Infrastructure Magazine	2016	<i>PUBBY Award for Water Project of the Year: Thornton Composite Reservoir</i>
American Public Works Association	2016	<i>Project of the Year (Environment, More than \$75 Million) for the Thornton Composite Reservoir</i>
	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>
	<i>Tunnel and Reservoir Plan Phase I, Member's Choice for "Most Significant 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 Public Works Association, Chicago Metro Chapter	2016	<i>Project of the Year (Environment, More than \$75 Million) for the Thornton Composite Reservoir</i>
		<i>Public Works Project Excellence Award for the Thornton Composite Reservoir</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	2016	<i>Project of the Year (Higher than \$25 Million) for Thornton Composite Reservoir</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

American Society of Civil Engineers - Illinois Section (continued)	2016	<i>Outstanding Civil Engineering Achievement Award, Under \$10 Million Category, for the Busse Reservoir South Dam Modification Project</i>
		<i>Outstanding Civil Engineering Achievement Award, Over \$25 Million Category, for the Thornton Composite Reservoir</i>
	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>
		1985 <i>Tunnel and Reservoir Plan Mainstream System, Phase I, 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	2006-2005	<i>Clean Water Award for Hanover Park Water Reclamation Plant</i>
	2002	<i>DuPage River Clean Water Award</i>
Construction Industry Service Corporation (CISCO)	2015	<i>Public Body of the Year</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

Construction Industry Service Corporation (CISCO) (continued)	2015	<i>Project of the Year - Infrastructure category for constructing the Wet Weather Treatment Facility and Reservoir at the Lemont 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	2016	<i>Outstanding Advocate Award</i>
	2012	<i>Outstanding Program of the Year Award for the MWRD Affirmative Action Program</i>
	2007	<i>Advocacy Award for Affirmative Action Program</i>
Friends of the Chicago River	2017	<i>Chicago River Blue Awards, Green Ribbon Award for the Wescott Park Stormwater Storage Facility Project in the Village of Northbrook</i>
	2016	<i>Chicago River Blue Awards, Green Ribbon Award for Disinfection at the Calumet Water Reclamation Plant and O'Brien Water Reclamation Plant and Thornton Reservoir</i>
	2014	<i>Chicago River Blue Awards, Silver Ribbon Award for Space to Grow: Greening Chicago Schoolyards</i>
Government Finance Officers Association of the United States and Canada	2017-1985	<i>Budget document recognized for Distinguished Budget Presentation</i>
	2016	<i>Budget document received Special Performance Measures recognition</i>
	2015	<i>Budget document received outstanding in the overall category of Communications Device</i>
	2016-2007	<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 2016</i>
	2016-1975	<i>Certificate of Achievement for Excellence in Financial Reporting - Comprehensive Annual Financial Report for Fiscal Years 1975 through 2016</i>
	2015-1993	<i>Certificate of Achievement for Excellence in Financial Reporting for the MWRD Retirement Fund - Comprehensive Annual Financial Report for Fiscal Years 1993 through 2015</i>
	1999, 1996-1993	<i>Outstanding Achievement in Popular Annual Financial Reporting</i>
	1998-1988	<i>Budget document recognized as "Especially Notable" or "Outstanding" in various categories</i>
Illinois Association for Floodplain and Stormwater Management	2017	<i>Flood Reduction Project Award for Floodway Buyouts in the Village of Glenview</i> <i>Innovation Project Award for Master Plan Pilot Study: Using Green Infrastructure to Solve Urban Flooding</i>
	2016	<i>Flood Reduction Project Award for Large Project for the Thornton Composite Reservoir</i>
	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 Department of Natural Resources	2017	<i>Illinois Mined Land Reclamation Award in the non-coal category for the McCook Reservoir</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

Illinois Department of Natural Resources (continued)	2016	<i>Illinois Mined Land Reclamation Award in the non-coal category for the Thornton Composite Reservoir</i>
Illinois Engineering Council	2006	<i>Outstanding Engineering Achievement Award for Tunnel and Reservoir Plan Phase I</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>
	1984	<i>Outstanding Engineering Accomplishment Award for Upper Salt Creek Watershed Floodwater Management Plan</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

Illinois Water Environment Association	2017	<i>Mariyana Spyropoulos, President, is the recipient of the 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>
	2016	<i>Best Presentation Award, "Biosolids Beneficial Reuse Programs: SWOT and PEST Evaluations to Ensure Sustainability"</i>
	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>
Interstate Mining Compact Commission	2017	<i>Kenes C. Bowling National Mine Reclamation Award for the McCook Reservoir</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 Sewerage Agencies	2016	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 25 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 20 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for 12 consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for 11 consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; and Platinum Award for nine 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 Water Reclamation Plant</i>
		<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for Stickney Water Reclamation Plant</i>
		<i>Utility of the Future Today Recognition</i>
	2015	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 24 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 19 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for 11 consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for ten consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; and Platinum Award for eight consecutive years of full compliance for Hanover Park Water Reclamation Plant</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	2015	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan and Stickney Water Reclamation Plants</i>
	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&R Dr. Cecil Lue-Hing and former General Superintendents Bart Lynam, Hugh McMillan, and Ben Sosewitz</i>
	2012	<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>
		<i>NACWA 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 (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	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>
	2007	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for Hanover Park Water Reclamation Plant</i></p>
		<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney, Calumet, and Lemont Water Reclamation Plants</i></p>
		<p><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></p>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	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>
		<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>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	2000	<i>Award for Full Compliance with National Pollutant 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 Pollutant 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 Pollutant 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 Pollutant Discharge System Permit Standards - Calumet and North Side Water Reclamation Plants</i> <i>Gold Award for 100% Compliance with National Pollutant Discharge System Permit Standards - James C. Kirie, Lemont, and Stickney Water Reclamation Plants</i> <i>Silver Award for 99.9% Compliance with National Pollutant 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 Flood and Stormwater Management Agencies (NAFSMA)	2016	<i>Green Infrastructure Award, First Place in the Large Agency Category for the Space to Grow Program</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 Association of State Land Reclamationists (NASLR)	2017	<i>Best Innovation Award in Mining Category for the McCook Reservoir Stage 2</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	2017-2003	<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>
	1973	<i>Outstanding Engineering Achievements in the United States for the Brookfield LaGrange Rock Tunnel</i>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

Risk & Insurance Magazine	2016	<i>Honorable Mention in the national Theodore Roosevelt Workers' Competition and Disability Management (TEDDY) Award competition for excellence in safety and workers' compensation risk management</i>
Rotary Club of Naperville	2016	<i>Paul Harris Award</i>
Storm Water Solutions Magazine	2017	<i>Top 10 Stormwater Project for Space to Grow</i>
	2016	<i>Top 10 Stormwater Project for the Blue Island Green Infrastructure Project</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	2017	<i>Honorable Mention of the Phosphorus Recovery System for Excellence and Innovation within the Clean Water State Revolving Fund Program</i>
	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>
United States Green Building Council	2015	<i>Best of Green Schools Award for Collaboration, Space to Grow Partnership</i>
	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>

AWARDS AND ACHIEVEMENTS RECOGNITION (continued)

Water and Wastes Digest	2016	<i>Thornton Composite Reservoir, one of the "Top Projects for 2016 Award"</i>
Water Environment Federation	2017	<i>Project Excellence Award for the Nutrient Recovery Facility at the Stickney Water Reclamation Plant</i>
		<i>Water Quality Improvement Award for the Calumet Tunnel and Reservoir Plan</i>
		<i>Schroepfer Innovative Facility Design Medal for the Calumet Tunnel and Reservoir Plan</i>
	1999-1989	<i>Award for Outstanding Achievement in Water Quality Improvement</i>
	1992	<i>Recognition for the Solids Dewatering Prototype at the Stickney Water Reclamation Plant</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>

LEADING PARTNERSHIPS

The District recognizes the importance of involvement in the world around us and encourages its employees to become actively involved in organizations, particularly in the water industry. We firmly believe that participation in professional organizations will enhance our awareness of current issues in our industry and help us make informed decisions. We also encourage our employees to take leadership roles in these organizations to further uphold the District as one of the top leaders in the water industry.

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
American Academy of Environmental Engineers and Scientists	Co-Chair, Environmental Microbiology group of the Environmental Life Sciences Committee Certification by Eminence Committee	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
American Contract Compliance Association	Board of Directors, Member	Berry, Regina D.	Diversity Administrator
The American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America	Soil Science Society of America Early Career Members Committee	Brose, Dr. Dominic	Associate Environmental Soil Scientist
	Incoming Chair, Soil and Environmental Quality Division Associate Editor, Agronomy Journal	Kumar, Dr. Kuldip	Senior Environmental Soil Scientist
	Student Contest Committee	Oladeji, Dr. Olawale	Associate Environmental Soil Scientist
Asian Carp Regional Coordinating Committee	Technical and Policy Workgroup Member	Minarik, Tom	Senior Aquatic Biologist
Calumet Bi-State Collaborative	Communications Committee	Fore, Allison	Public & Intergovernmental Affairs Officer
	Millennium Reserve Steering Committee	St. Pierre, David	Executive Director
Central States Water Environment Association	Vice Chair, Global Water Stewardship Committee	Durkin, Maureen	Managing Civil Engineer
Chicago Area Waterway System and Chloride Reduction Initiative	Data Acquisitions Committee and Water Quality Committee	Minarik, Tom	Senior Aquatic Biologist
	Chair, Water Quality Committee	Wasik, Jennifer	Supervising Aquatic Biologist
Chicago Region Trees Initiative	Executive Advisory Council	St. Pierre, David	Executive Director
	Work Group	Fore, Allison	Public & Intergovernmental Affairs Officer
Cook County Economic Advisory Committee	Development & Planning Subcommittee	St. Pierre, David	Executive Director
Current Water	Ex Officio Board Member	St. Pierre, David	Executive Director
Decalogue Society	Anti-Semitism Committee	Saindon, Pamela	Senior Attorney
Emerson Process Management's Ovation Group	Executive Board Member on the Ovation User's Group	Majka, Jeff	Senior Electrical Engineer
Envirotopica	Associate Editor	Guanglong, Dr. Tian	Supervising Environmental Soil Scientist
Governor's River Advisory Council	Member	St. Pierre, David	Executive Director

LEADING PARTNERSHIPS (continued)

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
Human Resources Round Table for the City of Chicago Sister Agencies	Member	Kosowski, Thaddeus J.	Assistant Director of Human Resources
Illinois Association of Wastewater Agencies	Committee Chair, Subcommittee on Biosolids	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	Member, Legislative Subcommittee and the Nutrients Workgroup	Perkovich, Brian	Assistant Director of Maintenance & Operations
	Nutrients and Total Maximum Daily Loads Committee	Szyszkza, Theodore	Senior Civil Engineer
	Committee Chair, Subcommittee on the Environmental Utility	Wasik, Jennifer	Supervising Aquatic Biologist
Illinois Environmental Protection Agency	Committee Member, Subcommittee on Water Quality; Subcommittee on Nutrients and Total Maximum Daily Loads; Subcommittee on Tiered Aquatic Life Use Development		
	Nutrient Reduction Strategy, Performance and Benchmarks Committee	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	Nutrient Reduction Strategy, Policy Working Group		
	Bacteria Stakeholders Workgroup	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
	Ammonia Workgroup Nutrient Reduction Strategy, Nutrient Monitoring Council	Vick, Justin	Associate Aquatic Biologist
Illinois Public Employer Labor Relations Association	Ammonia Implementation Committee	Wasik, Jennifer	Supervising Aquatic Biologist
	Board of Directors, Member and VP of Training Committee	Bonner, Roxanne J.	Human Resources Manager
	Membership and Marketing Committees	Kosowski, Thaddeus J.	Assistant Director of Human Resources
Illinois State Bar Association's Section on Environmental Law	Appointee to the Section Counsel	Mihalopoulos, Jorge	Senior Attorney
Illinois Water Environment Association	Lab Committee	Coolidge, Donna	Assistant Director of Monitoring & Research
	Biosolids and Resources Recovery Committee	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	Leaders Innovation Forum for Technology Committee	Cummings, Joseph	Managing Engineer
	Chairman of the Nutrient Removal and Recovery Committee	Garelli, Brett	Deputy Director of Maintenance & Operations
	Vice Chair of the Electrical Power, Energy, and Controls Committee	Gottardo, Glenn	Managing Electrical Engineer

LEADING PARTNERSHIPS (continued)

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
Illinois Water Environment Association (continued)	Plant Operations Committee	Kohlhaas, Lynn	Senior Civil Engineer
	Removal and Recovery Committee	Kozak, Dr. Joseph A.	Supervising Environmental Research Scientist
	Biosolids and Resources Recovery Committee	Kumar, Dr. Kuldip	Senior Environmental Soil Scientist
	Vice Chair - Leaders Innovation Forum for Technology Committee	Matias, Meagan	Associate Civil Engineer
	Social Networking Chair		
	Biosolids and Resources Recovery Committee	McGregor, Matthew	Principal Engineer
	Biosolids and Resources Recovery Committee	Oladeji, Dr. Olawale	Associate Environmental Soil Scientist
	Vice-Chair of the Lab Committee	Poole, Tiffany	Environmental Chemist
	Scholarship Committee	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
	Water Environment Federation Delegate	Rose, Rebecca	Senior Environmental Chemist
	Industrial Pretreatment Committee	Scapardine, Barbara	Environmental Specialist
	Treasurer Leaders Innovation Forum for Technology Committee	Storino, Louis	Principal Civil Engineer
	Scholarship and Charitable Giving Committee		
	Awards Committee		
	Scholarship and Charitable Giving Committee	Wawczak, Brian	Senior Civil Engineer
	Chairman of the Membership Committee	Wu, Fred	Senior Civil Engineer
	Scholarship and Charitable Giving Committee		
	Students and Young Professionals Committee		
Industrial Water, Waste, and Sewage Group	Treasurer	Scapardine, Barbara	Environmental Specialist
Institute of Electrical and Electronics Engineers, Power & Energy Society-Chicago	Vice Chair of the Executive Committee	Nator, Mohammed	Senior Electrical Engineer
Inter-Governmental Panel on Climate Change	Agricultural Soil CO2 Expert Committee	Guanglong, Dr. Tian	Supervising Environmental Soil Scientist
International Journal of Environmental Science and Technology	Associate Editor	Oskouie, Ali	Senior Environmental Research Scientist

LEADING PARTNERSHIPS (continued)

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
Local Governmental Law Consortium	Founding and Organizing Member	Goldberg, Lisa A.	Head Assistant Attorney
	Founding and Organizing Member	Saindon, Pamela	Senior Attorney
Midwest Water Analysts Association	Treasurer	Coolidge, Donna	Assistant Director of Monitoring & Research
	Secretary	Miller, Sarah	Senior Environmental Chemist
	Steering Committee	Poshyvanyk, Paul	Environmental Chemist
	Steering Committee	Rose, Rebecca	Senior Environmental Chemist
	President	Stefanich, Tricia	Supervising Environmental Chemist
The National Association of Clean Water Agencies	Utility and Resource Management Committee	Carmody, Steve	Engineer of Treatment Plant Operations I
	Communications and Public Affairs Committee	Fore, Allison	Public & Intergovernmental Affairs Officer
	Pretreatment Program Committee	Joseph, Mathew	Assistant Director of Monitoring & Research
	Biosolids Management Committee	McGregor, Matthew	Principal Engineer
	Legal Affairs Committee	Mihalopoulos, Jorge	Principal Attorney
	Pathogen Workgroup	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
	Vice President	St. Pierre, David	Executive Director
	Facility and Collection System Committee	Storino, Louis	Principal Civil Engineer
	Water Quality Committee Emerging Contaminants Committee	Vick, Justin	Associate Aquatic Biologist
	Water Quality Committee	Wasik, Jennifer	Supervising Aquatic Biologist
National Council of Examiners for Engineering and Surveying	Pretreatment Program Committee	Yarnik, Greg	Supervising Environmental Specialist
	Structural Committee	Geraminejad, Babak	Associate Structural Engineer
The National Environmental Laboratory Accreditation Conference	Contributing Member	Grunwald, Pawel	Environmental Chemist
The National Science Foundation	Ebola Advisory Committee	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
	Industrial Advisory Board of Water Equipment and Policy Committee	Zhang, Dr. Heng	Assistant Director of Monitoring and Research
Partnership for River Restoration in the Upper Midwest	Technical Committee	Vick, Justin	Associate Aquatic Biologist
Society for Ecological Restoration	Global Organization and the Midwest and Great Lakes Chapter	Vick, Justin	Associate Aquatic Biologist

LEADING PARTNERSHIPS (continued)

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
Suburban Cook County Local Emergency Planning Committee	Chairperson of the Chemical Liaison Committee	Wienberg, Kristine	Environmental Specialist
United States Department of Agriculture	W-3170 Workgroup	Guanglong, Dr. Tian	Supervising Environmental Soil Scientist
US Water Alliance	Value of Water Campaign Communications Committee	Fore, Allison	Public & Intergovernmental Affairs Officer
The World Academy of Sciences	Advisor	Guanglong, Dr. Tian	Supervising Environmental Soil Scientist
Water Environment Federation	Collection Systems Committee	Durkin, Maureen	Managing Civil Engineer
	Collection Systems Committee	Fitzpatrick, Kevin	Managing Civil Engineer
	Communications Committee	Fore, Allison	Public & Intergovernmental Affairs Officer
	Municipal Resource Recovery Design Committee	Kozak, Dr. Joseph	Supervising Environmental Research Scientist
	President-elect	Kunetz, Thomas	Assistant Director of Monitoring & Research
	Residuals and Biosolids Committee	Laban, Ahmad	Managing Civil Engineer
	Residuals and Biosolids Committee	McGregor, Matthew	Principal Engineer
	Utility Management Committee	Patel, Sanjay	Engineer of Treatment Plant Operations I
	Stormwater Institute Advisory Committee	Sheriff, William	Assistant Director of Engineering
	Collection Systems Committee and the Students and Young Professionals Committee	Storino, Louis	Principal Civil Engineer
	Water Environment Federation's Annual Technical Exhibition and Conference Advisory Committee		
	Stormwater Committee	Watson, John	Associate Civil Engineer
	Membership Committee	Wu, Fred	Senior Civil Engineer
Municipal Resource Recovery Design Committee - Standards and Metrics for Resource Recovery Facilities Task Group	Yang, Fenghua	Senior Environmental Research Scientist	
Intelligent Water Systems Focus Group			
Water Environment & Reuse Foundation	Leaders Innovation Forum for Technology Committee	Fitzpatrick, Kevin	Managing Civil Engineer
	Advancing the Oxygenic Photogranule Process for Energy Positive Wastewater Treatment Subcommittee	Kozak, Dr. Joseph A.	Supervising Environmental Research Scientist
	Stabilization of Main Plant Nitration/Denitritation Performance Subcommittee		

LEADING PARTNERSHIPS (continued)

PROFESSIONAL ORGANIZATION	MEMBERSHIP ROLE	EMPLOYEE NAME	JOB TITLE
Water Environment & Reuse Foundation (continued)	Trace Organics in Biosolids Research Challenge Committee	Kumar, Dr. Kuldip	Senior Environmental Soil Scientist
	Steering Committee, Leaders Innovation Forum for Technology	Kunetz, Thomas	Assistant Director of Monitoring & Research
	Design and Implementation of Peracetic Acid for Municipal Water and Wastewater Related Processes Subcommittee Sustainable Struvite Control Digester Gas Steering Committee	Patel, Kamlesh	Senior Environmental Research Scientist
	Unintended Consequences of Resource Recovery on Overall Plant Performance: Solving the Impacts on Dewaterability Properties Committee		
	Project Steering Committee and Ebola Advisory Committee	Rijal, Dr. Geeta K.	Supervising Environmental Microbiologist
	Leaders Innovation Forum for Technology Committee	Storino, Louis	Principal Civil Engineer
	Understanding the Impacts of Low- Energy and Low-Carbon Nitrogen Removal Technologies of Bio-P and Nutrient Recovery Processes Project Committee	Yang, Fenghua	Senior Environmental Research Scientist
	Issue Area Team on the Nutrient Challenge Program Committee	Zhang, Dr. Heng	Assistant Director of Monitoring and Research
Water Environment & Reuse Foundation Leaders Innovation Forum for Technology	Design and Implementation of Peracetic Acid for Municipal Water and Wastewater Related Processes Subcommittee	Patel, Kamlesh	Senior Environmental Research Scientist
	Vice Chairman of the Workgroup on Shortcut Nitrogen Removal	Zhang, Dr. Heng	Assistant Director of Monitoring and Research
	Workgroup on Digestion Enhancements Committee Workgroup on Energy from Wastewater Committee		

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 annually 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 timeframe 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 annual 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 (e.g., 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, e.g., 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, recordkeeping, 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.

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 (CO₂) 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.

Set Point: The desired or target value for an essential variable of a system.

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

ALD	Analytical Laboratories Division	IWD	Industrial Waste Division
AMS	Asset Management Section	kWh	kilowatt-hour
ASCE	American Society of Civil Engineers	KWRP	Kirie Water Reclamation Plant
BOD	Biochemical Oxygen Demand	LASMA	Lawndale Avenue Solids Management Area
BMP	Best Management Practices	LF	Linear Feet
CAFR	Comprehensive Annual Financial Report	LIMS	Laboratory Information Management System
CALSMA	Calumet Solids Management Area	LPH	Lockport Powerhouse
CAWS	Chicago Area Waterway System	LSSS	Local Sewer Systems Section
CBOD	Carbonaceous Biochemical Oxygen Demand	LWRP	Lemont Water Reclamation Plant
CIBF	Capital Improvements Bond Fund	mg/l	Milligrams per liter
CIP	Capital Improvement Program	M&O	Maintenance & Operations
CPI	Consumer Price Index	M&R	Monitoring & Research
CPR	Cardio-Pulmonary Resuscitation	MBE	Minority-owned Business Enterprise
CSA	Calumet Service Area	MGD	Millions of Gallons per Day
CSO	Combined Sewer Overflow	MMS	Maintenance Management System
CUP	Chicago Underflow Plan	MOB	Main Office Building – 100 E. Erie St., Chicago, Illinois
CWRP	Calumet Water Reclamation Plant	MOBA	Main Office Building McMillan Pavilion – 111 E. Erie St., Chicago, Illinois
CY	Cubic Yards	MOBC	Main Office Building Complex – MOB & MOBA
DCS	Distributed Control System	MOP	Manual of Procedures
DO	Dissolved Oxygen	MSC	Material Service Corporation
DSEB	Debt Service Extension Base	MSPS	Mainstream Pumping Station
DT	Dry Tons	MWRD	Metropolitan Water Reclamation District
DWP	Detailed Watershed Plan	NAA	Net Assets Applicable
EAP	Employee Assistance Program	NACWA	National Association of Clean Water Agencies
EAV	Equalized Assessed Valuation	NBP	National Biosolids Partnership
EBPR	Enhanced Biological Phosphorus Removal	NBPS	North Branch Pumping Station
EEO	Equal Employment Opportunity	NCBP	Non-Core Business Projects
EQ	Exceptional Quality	NPDES	National Pollutant Discharge Elimination System
EWRP	Egan Water Reclamation Plant	NSA	North Service Area
F&D	Furnish and Deliver	NSWRP	North Side Water Reclamation Plant (renamed OWRP)
FD&I	Furnish, Deliver, and Install	OM&R	Operations, Maintenance, & Replacement costs
FESOP	Federally Enforceable State Operating Permit	OPEB	Other Postemployment Benefits
FMLA	Family Medical Leave Act	OSHA	Occupational Safety and Health Administration
FOIA	Freedom of Information Act	OWRP	O'Brien Water Reclamation Plant (formerly known as NSWRP)
FTE	Full-Time Equivalent	PBF	Public Budget Formulation
GAAP	Generally Accepted Accounting Principles	PJM	Pennsylvania-New Jersey- Maryland Interconnection service provider for marketing electricity
GASB	Government Accounting Standards Board	P&MM	Procurement & Materials Management
GFOA	Government Finance Officers Association	PO	Purchase Order
GIP	Green Infrastructure Program	PPO	Participating Provider Option
GIS	Geographic Information System	PPRT	Personal Property Replacement Tax
GPS	Global Positioning System	PS	Pumping Station
HASMA	Harlem Avenue Solids Management Area	PST	Primary Settling Tank
HPWRP	Hanover Park Water Reclamation Plant	RAPS	Racine Avenue Pumping Station
HSOM	High Strength Organic Materials	RAS	Return Activated Sludge
HVAC	Heating, Ventilation, and Air Conditioning	RFP	Request for Proposal
I/I	Infiltration/Inflow		
IAS	Instream Aeration Station		
IEPA	Illinois Environmental Protection Agency		
IGA	Intergovernmental Agreement		
iPACS	The internet-based Publicly owned treatment works Administration and Compliance System		
IRS	Internal Revenue Service		
IT	Information Technology		
ITD	Information Technology Department		
IU	Industrial Users		

ACRONYMS (continued)

RMIS	Risk Management Information System
SAN	Storage Area Network
SAP	SAP is a German computer software firm
SBE	Small Business Enterprise
SBP	Strategic Business Plan
SEPA	Sidestream Elevated Pool Aeration stations
SIU	Significant Industrial User
SPO	Sewer Permit Ordinance
SRF	State Revolving Fund loan program
SS	Suspended Solids
SSA	Stickney Service Area
SSMP	Small Streams Maintenance Program
SWCO	Sewage and Waste Control Ordinance
SWRP	Stickney Water Reclamation Plant
TARP	Tunnel and Reservoir Plan
TGM	Technical Guidance Manual
TIF	Tax Increment Financing district
UCO	User Charge Ordinance
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
VFD	Variable Frequency Drive
WASSTRIP®	Waste Activated Sludge Stripping to Remove Internal Phosphorus
WBE	Women-owned Business Enterprise
WEFTEC	Water Environment Federation Technical Exhibition and Conference
WMO	Watershed Management Ordinance
WRP	Water Reclamation Plant

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; TARP Mainstream System, Phase I, received award for "Outstanding Civil Engineering Achievement" from the ASCE.
- 1986** TARP received awards for "Outstanding Civil Engineering Achievement" and "Outstanding Civil Engineering Achievement of Past 100 Years in Illinois"; 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 Transitional 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** North Side Water Reclamation Plant renamed Terrence J. O'Brien Water Reclamation Plant.
- 2013** Board adopted the Watershed Management Ordinance, establishing uniform and minimum stormwater regulations throughout Cook County.
- 2014** District celebrated its 125th anniversary.
- 2015** Disinfection facility at the Calumet Water Reclamation Plant placed into operation. Thornton Composite Reservoir placed into operation.
- 2016** Phosphorus recovery facility placed into operation at the Stickney Water Reclamation Plant; implemented an ultraviolet disinfection process at the O'Brien Water Reclamation Plant; Board adopted the Resource Recovery Ordinance, which provides legal framework for resource recovery initiatives.
- 2017** Phase I of the McCook Reservoir completed.

BUILDING A RESILIENT COOK COUNTY

Flooding continues to be a major issue in Cook County, and since 2011 the District's stormwater management program has been aggressively working to minimize flooding damage by helping communities with local flooding issues, acquiring flood-prone properties, and partnering with municipalities and other local governments on large capital and green infrastructure projects.

Heritage Park, Wheeling

Completed in 2015, the Heritage Park Flood Control Facility in Wheeling provides compensatory storage for the Army Corps of Engineers' Levee 37, which protects over 600 homes and businesses along the Des Plaines River. The facility also provides local stormwater detention and was completed in coordination with the Wheeling Park District's master plan for recreational improvements.



Green Infrastructure, Blue Island

In 2014 and 2015, the District designed and constructed green infrastructure improvements in Blue Island to address urban flooding. These improvements included the construction of six rain gardens and two permeable parking areas.

Wescott Park, Northbrook

The District funded a control system for a 7.5 million gallon underground detention vault constructed at Wescott Park by the Village of Northbrook. The control system enables the use of stored stormwater to irrigate the park instead of entering the local sewer system. The project was completed in 2016.



Streambank Stabilization, Crestwood

To increase the conveyance capacity and stabilize eroded streambanks of Tinley Creek in Crestwood, in 2017 the District completed construction of a flood control and streambank stabilization project which will protect 173 structures, an existing bike path, a commercial building, two pedestrian bridges, and a potable water structure.

Addison Creek Reservoir, Bellwood

To reduce overbank flooding that impacts thousands of structures along Addison Creek from Northlake to Broadview, the District is constructing a 600 acre-foot reservoir which will include control and inlet structures, a spillway, and pump station. This project will be completed in 2020.



Albany Park Tunnel, Chicago

A partnership with the City of Chicago, the Albany Park Tunnel project includes an inlet structure on the North Branch of the Chicago River, an 18 foot diameter rock tunnel, and an outlet on the North Shore Channel. This project, which will reduce overbank flooding that impacts 336 structures, will be completed in 2018.



**Metropolitan Water Reclamation District
of Greater Chicago**

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mwrdd.org

Front cover: James Wadsworth Elementary School's parking lot was transformed using green infrastructure elements through the Space to Grow partnership with the Chicago Public Schools, Chicago Department of Water Management, Healthy Schools Campaign, and Openlands.