



# 2019 Budget

Final Budget

Adopted December 13, 2018 and  
Amended December 20, 2018

**Metropolitan Water Reclamation District of Greater Chicago**



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Metropolitan Water Reclamation District of Chicago  
Illinois**

For the Fiscal Year Beginning

**January 1, 2018**

*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, 2018. 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

# 2019 Budget

## Final Budget

Adopted December 13, 2018  
and Amended December 20, 2018

### Officers

**Brian A. Perkovich**

Executive Director

**Mary Ann Boyle**

Treasurer

**Allison Fore**

Public & Intergovernmental Affairs Officer

**Darlene A. LoCascio**

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**Susan T. Morakalis**

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Director of Monitoring & Research

**Beverly K. Sanders**

Director of Human Resources

**John H. Sudduth**

Director of Information Technology

**Jacqueline Torres**

Clerk/Director of Finance

For additional copies of this document, contact:

Shellie A. Riedle, Budget Officer

100 East Erie Street, Chicago, IL 60611-3154

[www.mwrdd.org](http://www.mwrdd.org)

### Board of Commissioners



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**Cameron Davis**

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**Barbara J. McGowan**

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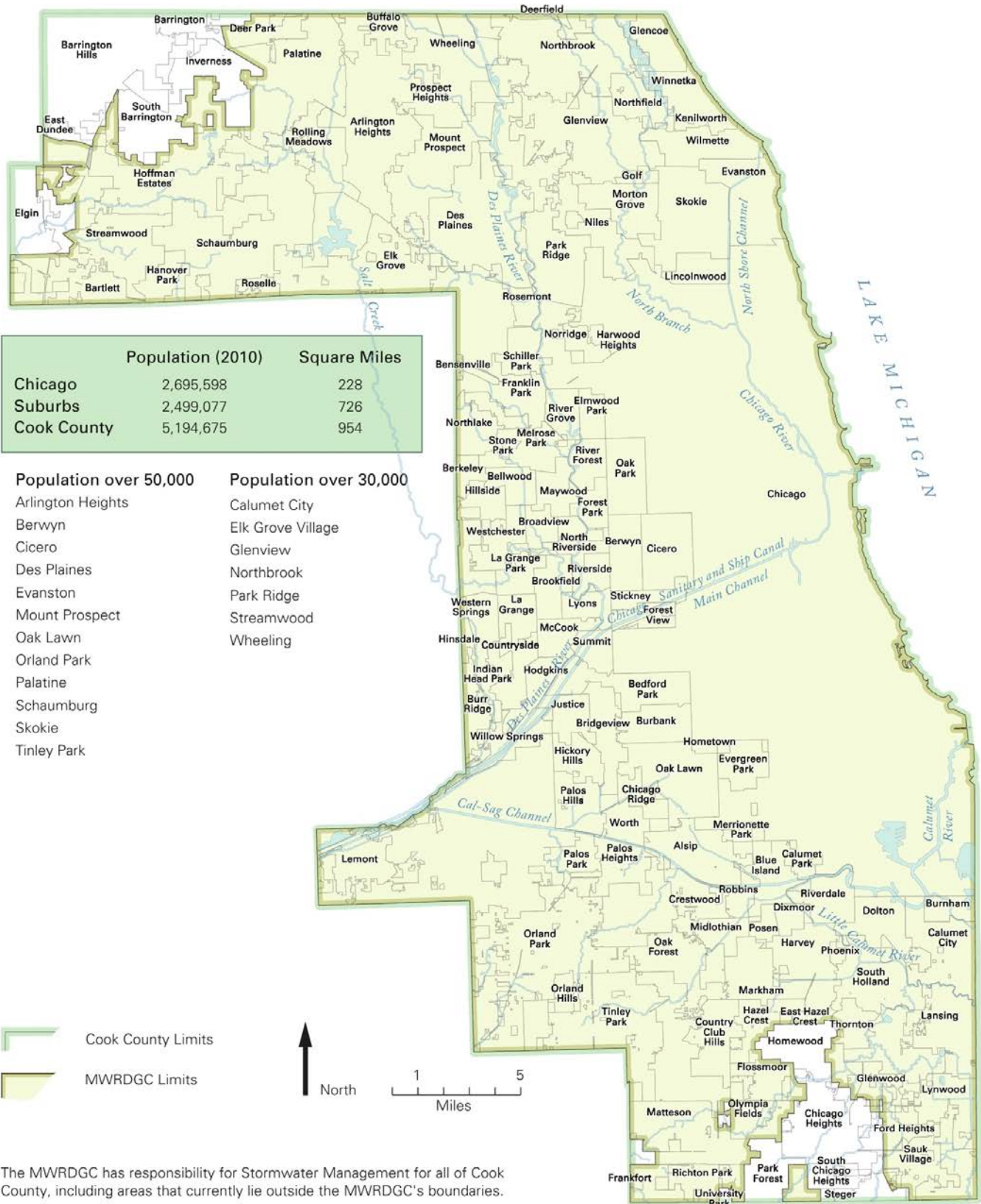
**Kimberly Du Buclet**

Commissioner

**Frank Avila**

Chairman of Finance

# Cook County and Metropolitan Water Reclamation District of Greater Chicago



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

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

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### **Origin and History**

The Metropolitan Water Reclamation District of Greater Chicago (District) is an independent government and taxing body encompassing approximately 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, eight 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**

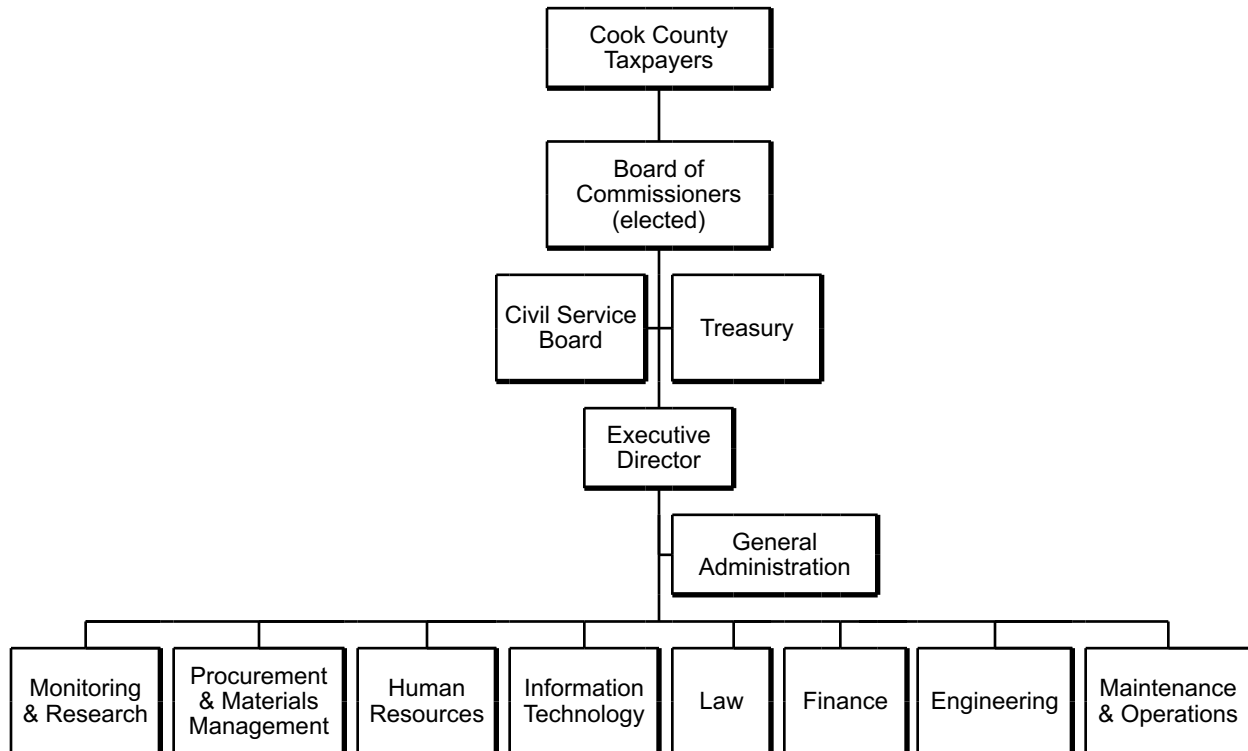
The District is governed by a nine-member Board of Commissioners (Board). Commissioners are elected at large and serve on a salaried basis. Three Commissioners are elected every two years for six-year terms. Biannually, the Board elects from its membership a President, Vice President, and Chairman of 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 begins on page 39 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 2019.
- 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 below 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		
2017	2018	2019
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.

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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 2019 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 2019 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 12 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 2019 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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*Protecting Our Water Environment*

**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312.751.5600

**BOARD OF COMMISSIONERS**

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*President*
- Barbara J. McGowan  
*Vice President*
- Frank Avila  
*Chairman of Finance*
- Cameron Davis
- Kimberly Neely du Buclet
- Marcelino Garcia
- Josina Morita
- Debra Shore
- Kari K. Steele

January 2, 2019

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

The Board of Commissioners (Board) and staff are pleased to present the 2019 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 16, 2018. A hearing on these recommendations was conducted on November 1, 2018, when the Executive Director and his Executive Team presented 2018 accomplishments and initiatives included in the 2019 Budget. The Executive Director presented a financial summary of the 2019 Budget. The District has a stable Corporate Fund, a sustainable capital program, and remains committed to funding the Other Postemployment Benefits fund. The Retirement Fund has a funded ratio of 58.3 percent. The District continues to expand Stormwater Management efforts that will implement flood control projects and support local stormwater issues.

**Celebrating 130 Years**

The District will celebrate its 130th anniversary during 2019 and our mission to protect public health remains largely the same since our inception as the Sanitary District of Chicago in 1889. While the District's first assignments of reversing the flow of the Chicago River and constructing a vast network of waterways to protect the quality of Lake Michigan were clear, the District continues to evolve and implement new technologies that further our commitment to environmental protection.

The District operates seven water reclamation plants that treat an average of 1.3 billion gallons of wastewater each day, controls 76.1 miles of navigable waterways, and owns and operates 34 stormwater detention reservoirs to provide regional flood protection.



*The Main Channel of the Sanitary and Ship Canal Extension, including the Lockport Powerhouse and Lock, were completed in 1907. The opening of the Lock connected the Great Lakes to the Mississippi River system. In the photo to the left, officials tour the Lockport Powerhouse and Lock on August 4, 1907.*

Beginning in 1972, the District began working on the Tunnel and Reservoir Plan (TARP) to meet water quality standards in the 375 square mile combined sewer service area. The tunnel system, which consists of 109.4 miles of tunnels ranging from eight feet to 33 feet in diameter with a storage capacity of 2.3 billion gallons, was completed in 2006. The second phase of TARP is a series of reservoirs that are primarily intended for flood control for the combined sewer area, and enhance pollution control benefits of the tunnel system. In 2018, Stage 1 of the final reservoir in the system, the McCook Reservoir, became operational while construction on Stage 2 is scheduled to be completed in 2029.

Reducing the number of combined sewer overflows, improving stormwater management, and developing new technologies at the water reclamation plants have led to cleaner area waterways. The number of fish species in the Chicago Area Waterways System (CAWS) has drastically increased since the 1970s when monitoring of the fish population began. From 10 known species in 1974, the number has increased to 76. In 2018, the District teamed with the Army Corps of Engineers and the Chicago Park District to demolish a century old dam along the North Branch of the Chicago River to allow fish migration and improve navigation for recreational paddlers.

The District's 2015-2020 Strategic Business Plan, *Recovering Resources, Transforming Water*, encompasses the District's mission and provides a framework for evaluating new projects, ensuring sustainability, and providing clean water resources for generations to come.

The 2019 Budget represents a comprehensive plan to meet the Strategic Business Plan's goals in a fiscally responsible manner. The Corporate Fund budget reflects modest growth of 2.0 percent over the 2018 appropriation and prioritizes the maintenance and operations of our seven water reclamation plants. Our Capital Improvement Program provides great value for taxpayers by utilizing a combination of funding options including low-interest State Revolving Fund loans, bonds, and pay-as-you-go funding to invest in Cook County infrastructure.

### Improving Infrastructure

Large-scale public works infrastructure projects have been a hallmark of the District's identity from our inception. From the opening of the Chicago Sanitary and Ship Canal in 1900 that successfully reversed the flow of the Chicago River, to construction of TARP tunnels and reservoirs, the District excels at implementing large capital projects.

The District's \$727.5 million 2019 Capital Improvement Program uses a combination of funding options to meet the District's capital needs in a fiscally sound manner. The 2019 Capital Improvement Program includes construction of 27 new pay-as-you-go projects funded through the Construction Fund, 28 new projects funded with State Revolving Fund loans and General Obligation bonds, and six large stormwater projects funded with Alternate Revenue bonds or Stormwater State Revolving Fund loans.



*Stage 1 of the McCook Reservoir began taking water for the first time during an unusually warm January 11, 2018.*

On January 11, 2018, the McCook Reservoir, Stage 1 began taking on water for the first time, protecting against combined sewer overflows, as well as alleviating flooding for 37 suburban communities. The Stage 1 reservoir has a 3.5 billion gallon storage capacity. Construction is ongoing for the Stage 2 reservoir, which will have an additional 6.5 billion gallon capacity and is scheduled to be operational in 2029.

In 2019, the District will begin construction on several projects to modernize our aging infrastructure at the seven water reclamation plants that will allow the District to optimize processes, chemical usage, and energy consumption. In 2018, the District completed a \$232.0 million project to improve the operations at the Stickney Water Reclamation Plant (WRP). Nine new 160-foot diameter primary settling tanks will reduce methane gas emissions by replacing Imhoff tanks that have been in service since 1929. In 2019, construction will begin on a \$15.0 million project to rehabilitate the anaerobic digesters at the Stickney WRP, as well as replace a section of gas piping that will ensure proper gas conveyance from the new primary settling tanks.

### Operational Excellence

The District continues a tradition of operational excellence from the opening of the Calumet WRP in 1922 through today. The District serves 128 communities in nearly all of Cook County, treating an average of 1.3 billion gallons of water each day, with a total treatment capacity of 2.0 billion gallons per day. In 2017, five of seven water reclamation plants received National Association of Clean Water Agencies Platinum Peak Performance Awards for maintaining 100 percent compliance with National Pollutant Discharge Elimination Permits. The remaining two plants received a Gold Award and a Silver Award. All seven plants have earned

99.7 percent or higher compliance since 2007 and similar results are anticipated for 2018. 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.



*Workers with a hoist cage at the bottom of a drop shaft during sewer construction on December 21, 1927.*

In addition to investing in technologies at the seven water reclamation plants to eliminate nitrogen and phosphorus from wastewater, the District is working to protect the CAWS from non-point source pollution. In conjunction with the Illinois Environmental Protection Agency (IEPA), the District coordinates stakeholders to address chloride levels in area waterways. In 2018, the District hosted municipal representatives, Illinois Department of Transportation (IDOT) representatives, and representatives from the private sector to share best management practices for applying road salt. The District and the University of Illinois were awarded a \$350,000 grant to study agricultural drainage to minimize nitrogen and phosphorus in agricultural runoff.

### Stormwater Management

In 2004, the Illinois General Assembly granted authority to the District to manage stormwater for Cook County, expanding the mission of the agency to mitigate flooding and improve water quality throughout the region. Changing weather patterns and intense bursts of precipitation quickly overwhelm systems throughout Cook County. The 2019 Budget highlights the District's commitment to reduce flooding. The Stormwater Management Fund budget is increasing by \$25.8 million over the 2018 appropriation to further our investment in flood control projects and continue to support local stormwater issues. During 2019, construction will begin on both channel improvements on Addison Creek and the Addison Creek Reservoir. Together these large-scale projects will reduce overbank flooding for over 2,000 structures.

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 are designed to capture water and allow it to infiltrate into the ground before it enters the traditional conveyance system.



*The District partners with local municipalities and other governmental organizations to fund Green Infrastructure projects that capture, store, and infiltrate stormwater by mimicking the natural water cycle. Funding is provided for construction projects that are in flood-prone areas and provide educational opportunities for residents on the benefits of Green Infrastructure. The 2019 Budget includes \$10.7 million for cost sharing on local Green Infrastructure projects.*

The District is actively partnering with local governments or has recently completed projects including the following:

- The District partnered with the City of Chicago to complete the Albany Park Stormwater Diversion Tunnel in 2018. The tunnel will convey water overflowing at the North Branch of the Chicago River and convey it more than a mile east to the North Shore Channel. The Albany Park neighborhood experienced major flooding that impacted hundreds of homes in the past, and this project will help protect those homes against future flood damages.
- Permeable pavers are being installed throughout Cook County in partnership with the District. The Village of Arlington Heights is installing a permeable parking lot and a bioinfiltration basin at the Arlington Heights Police Station. Green alleys are being constructed in Chicago's 10th Ward, the City of Des Plaines, the Village of Forest Park, the Village of Harwood Heights, the Village of Maywood, the Village of Posen, and the Village of River Forest.
- The District partnered with the Village of Skokie and the Skokie Park District on two projects that allow for a combined 46,000 gallons of water to be retained at Devonshire Park and the Skokie Police Station Headquarters. The projects include rain gardens and a naturalized detention area.



**Financial Summary**

The District continues to maintain a AAA bond rating from 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. These accomplishments, in the midst of an uncertain Illinois financial environment, are outstanding achievements and speak to the thoughtful management of the agency.

The 2019 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 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 2019 Budget continues our conservative fiscal management and includes the policies, objectives, and resources to allow the District to remain true to our mission of protecting our water environment and the health of the residents of Cook County.

The District’s appropriation and tax levy for the 2019 Final Budget, compared to the 2018 Budget as Adjusted is:

	<u>2019</u>	<u>2018 Adjusted</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
Total Tax Levy	\$ 642,783,809	\$ 622,384,863	\$ 20,398,946	3.3%
Aggregate Levy	\$ 341,239,500	\$ 329,699,997	\$ 11,539,503	3.5%
Appropriation	\$ 1,222,943,041	\$ 1,151,051,387	\$ 71,891,654	6.2%

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 2019 aggregate levy is equal to the estimated CPI plus new property for 2019.

**Conclusion**

The 2019 Budget was prepared to incorporate the goals and strategies of the Strategic Business Plan, *Recovering Resources, Transforming Water*. The 2019 update to the plan is included in full on the following pages. We are committed as an agency to providing the excellent service expected of the District.



*The Nicholas J. Melas Centennial Fountain was built in 1989 to commemorate the District's 100th anniversary.*

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

### 2019 UPDATE TO THE 2015-2020 STRATEGIC BUSINESS PLAN

The District's Strategic Business Plan 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 it is replaced by a new Strategic Business Plan.

There have been significant achievements made during this Strategic Business Plan cycle. The 7.9 billion gallon Thornton Composite Reservoir came online in 2015, and the 3.5 billion gallon McCook Reservoir Stage 1 was placed in service in 2017. Together they provide 11.4 billion gallons of flood protection to residents and water quality improvements to the Chicago Area Waterway System. Also in 2015, the District received authority to recover resources from the treatment process and resell these assets to help offset treatment costs.

Becoming a sustainable partner in the region by recovering resources, lowering carbon emissions, creating new revenue streams, and promoting resiliency are current goals. The District has an excellent soil enhancer product, nutrients, clean water, and energy that can add benefit to our communities. The District's real estate resources are being used to add value to the communities we serve.

The District's Mission Statement and Values continue to guide the District's future.

## 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.

## 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.

## **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:** It is essential for the District to have a robust and formal Information Technology (IT) governance model as needs and desired investments in IT outpace the resources available.

## **GOALS AND STRATEGIES**

The Strategic Business Plan outlines six major goals aimed at achieving the vision of the District. Under each goal, strategies to accomplish the goal are described. Each strategy has performance measures. The measures are used to ensure efforts are achieving the desired results. During the annual strategic planning review, the measures are 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 research and demonstration.

**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.

- Modernize and update aging infrastructure;
- 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 a 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 opportunities to recover resources, return materials to the economy, and earn revenue or offset operational costs.

**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 Kirie, Calumet, and Stickney industrial corridors.

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

- Optimize the recovery process at the Stickney WRP;
- Evaluate recovery processes at the Calumet and Egan WRPs;
- Explore algae nutrient reduction processes as an additional recovery resource.

**Energy:** Reduce energy consumption and increase renewable energy production.

- Maximize use of digester gas;
- Market electrical capacity at Lockport to maximize return on investment;
- Optimize aeration processes and reduce energy consumption in aeration by 25 percent;
- Document the carbon footprint at each WRP.

**Biosolids:** Maximize the utilization of Class A Exceptional Quality (EQ) biosolids in our service area.

- Develop partnerships with state and local agencies to use EQ biosolids in construction projects;
- Identify, monitor, and evaluate beneficial use opportunities for biosolids;
- Increase local distribution points to reduce hauling costs.

**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 and distribute additional prevention education materials.

**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**

*It is essential for the District to have a robust and formal IT governance model as the needs and desired investments in IT outpace the resources available.* IT security, business continuity, and compliance requirements need sensible and enforceable policies. The IT Department will focus on providing the District an appropriate balance between maintaining a secure computing environment and providing readily accessible, easy to use applications.

- Implement a modern web content management system that provides a streamlined approach for storing and delivering web content (e.g., images, videos, department pages);
- Develop a framework for deploying web services and data integration technologies to streamline access to various hosted data systems and applications;
- Continue to improve upon customer service by being transparent via IT Service Management, including providing a service catalog and real-time insight into all service tickets;
- Provide a secure internet environment and implement measures to proactively prevent external infiltration and intrusion.

## 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 2019 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.** Managing stormwater includes not only building traditional flood control measures, but also incorporating Green Infrastructure into regional planning. In 2017, the District began accepting annual applications to help fund local government projects that utilize Green Infrastructure. In 2017, the District accepted 47 applications and selected 20 projects for funding in 2018. In 2018, the District accepted 48 applications and selections for funding in 2019 are ongoing. Green Infrastructure can reduce wet-weather flows to combined sewer systems, reducing combined sewer overflows to local waterways and protecting water quality in these vital waterways. Green Infrastructure also reduces runoff volumes and improves water quality in separate sewer service areas. Green Infrastructure also provides social benefits that enhance the livability of communities. The 2019 Budget includes \$34.5 million in the Stormwater Management Fund for Intergovernmental Agreements that include Green Infrastructure 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 155 different entities and has distributed more than 55,000 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. The District 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.

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. The District's 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.

## Budget Message / Highlights

Currently, non-corporate land holdings include approximately 4,900 acres in Cook County, 450 acres in DuPage County, and 670 acres in Will County. These non-corporate use properties are for the most part managed by the Real Estate/General Administration Division of the District's Law Department. These properties may be leased to other parties until required for corporate purposes in accordance with requirements set forth in state law (70 ILCS 2605/8-8c). State law provides, among other things, that a District lease to a private party/entity may be awarded only upon open and public competitive bidding to the highest responsible bidder. Additionally, state law provides that the District may issue permits or grant easements for others to use District land, provided such use would not interfere with the District's corporate purposes. Management of District land currently includes over 177 leases, 391 easements, and 78 permits.



*Centennial Hill, along the Centennial Trail in Willow Springs. The property is owned by the District and leased to the Forest Preserve District of Cook County.*

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 2019 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 through a statutorily authorized 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.

Since the Trust was established in 2007, the District adopted an 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 current funding policy includes a 100 percent target funding level, an advance funding period of 12 years, and a defined advance funding amount of \$5.0 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, 2017, \$127.4 million has been contributed by the District to the OPEB Trust. The advance funding contribution for 2018 was \$5.0 million and the 2019 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.



*Workers pose on a dipper dredge bucket on October 16, 1899 during construction of a bypass channel on the South Branch of the Chicago River.*

## *Budget Message / Highlights*

The accumulated unfunded OPEB obligation is \$113.5 million as of December 31, 2017, 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 to conduct an Investment Grade Energy Audit of the District's facilities in 2014. The Investment Grade Energy Audit was completed by NORESKO, an energy service company. 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, heating, ventilation, and air condition control upgrades, and interior lighting upgrades to LED fixtures in various locations. In 2018, the District completed work at the Calumet WRP and the Stickney WRP Storeroom. Estimated annual savings resulting from these projects are \$270,000 with a simple payback of 15.6 years. In addition, the District received rebates of \$129,500 for natural gas and \$270,000 for electrical energy from the Illinois Department of Commerce and Economic Opportunity. The District plans to perform similar projects in the North Service Area and various remote locations for the remainder of 2018. Annual costs savings and payback are \$204,000 and 17.7 years respectively. Projects planned for 2019 include lighting upgrades at the Stickney WRP and the Mainstream Pumping Station. These projects will result in annual costs savings of \$223,000 and a payback in 21.2 years. The District anticipates planned projects will result in rebates from Nicor Gas and ComEd in amounts similar to natural gas and electrical energy rebates mentioned above.

**Modernize and update aging infrastructure.** The District continually works to maintain and improve its infrastructure. One example is the installation of primary settling tanks under a project in the Capital Improvements Bond Fund. The elimination of the current Imhoff process and replacement with more modern and effective treatment equipment will nearly double digester gas production. Digester gas is utilized in process and space heating throughout the Stickney Water Reclamation Plant, and is considered a renewable resource. Increased gas production will result in reduced demand for natural gas. Electrical energy demands will also decrease, with the elimination of the necessity of pumping up to 100 million gallons per day of recycle flow from the old grit removal process and the low-pressure compressors necessary for the removal of sludge from the aging Imhoff tanks.

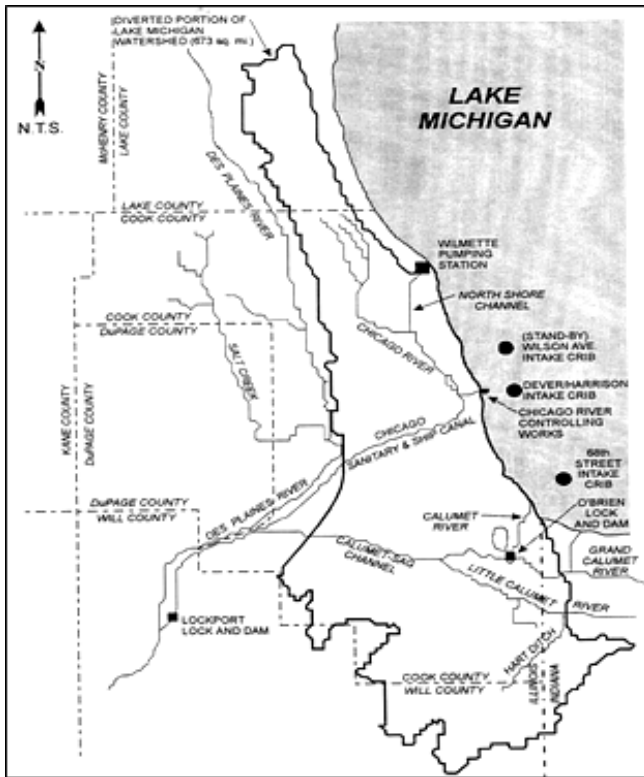
To ensure the accuracy of sewer mapping, the District has developed an innovative partnership with local communities in its service area throughout Cook County as part of the Infiltration/Inflow Control Program. The District lends Global Positioning System (GPS) units to local sewer system owners that discharge directly or indirectly to the District's facilities. The GPS units map the collection systems using Geographic Information System (GIS) software.



*Through GIS mapping technologies and GPS units, sewer system owners can pinpoint manholes, inlets, catch basins, cleanouts, lift stations, outfalls, gravity mains, lateral lines, and other items.*



*Budget Message / Highlights*



*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.*

**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 and public recreation:** The District operates instream and sidestream elevated pool aeration stations to maintain sufficient dissolved oxygen in key sections of the Chicago Area Waterway System (CAWS) to protect aquatic life. The District conducts chemical and biological monitoring of district service area waterways 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 2018, the District continued to implement an operational optimization plan for Lake Michigan discretionary diversion and aeration stations to utilize these resources most efficiently, while improving water quality in the CAWS. Since 2016, the District has implemented disinfection technologies and microbiological monitoring of effluents at the O'Brien and Calumet WRPs to protect water quality in the CAWS to ensure safety for public recreation.

**Provide flood protection and improved water quality to residents under the Tunnel and Reservoir Plan (TARP):** TARP Phase I was fully completed in 2006 and 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. TARP Phase II includes three storage reservoirs built at the end of the tunnels to provide an additional 15.0 billion gallons of capacity. These reservoirs are described below and additional information for the TARP system projects status is on page 389.

**Majewski Reservoir:** This 350 million gallon reservoir was completed in 1998 and has prevented over 6.3 billion gallons of combined sewer overflow from entering the waterways and mitigated over \$460.0 million in flood damage.

**Thornton Composite Reservoir:** In November 2015, the Thornton Composite Reservoir became operational. Through July of 2018, approximately 20.0 billion gallons of polluted water have been captured.

**McCook Reservoir:** The McCook Reservoir, the last component of the TARP system, will serve 3.1 million people in 37 communities, including most of Chicago, 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, but is still being mined and is expected to be completed in 2029. The McCook Reservoir is projected to bring more than \$140.0 million annually in flood reduction benefits to residents in its service area.

A new 20-foot diameter inflow tunnel and gate shaft, scheduled to be completed in 2020, 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.

*Budget Message / Highlights*

<b>Collection, Treatment, and Solids Utilization for the Maintenance &amp; Operations Department</b>	<b>Budgeted 2019</b>	<b>Budgeted 2018</b>	<b>2017 Actual</b>	<b>% Change 2018-2019</b>
Total cost of collection (millions)	\$52.4	\$51.6	\$45.1	1.6%
Total cost of treatment (millions)	\$69.9	\$70.1	\$65.6	(0.3)%
Total cost of solids utilization (millions)	\$24.4	\$21.5	\$22.5	13.5%
Number of full time equivalent employees:				
Collection	246	244	237	0.8%
Treatment	386	378	381	2.1%
Solids Utilization	42	38	42	10.5%
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	
<b>Outputs:</b>	<b>Budgeted 2019</b>	<b>Budgeted 2018</b>	<b>2017 Actual</b>	<b>% Change 2018-2019</b>
Amount of wastewater collected and treated by plant:				
Stickney WRP (million gallons)	276,000	284,000	247,598	(2.8)%
Calumet WRP (million gallons)	101,000	100,000	93,816	1.0 %
O'Brien WRP (million gallons)	85,000	89,000	84,714	(4.5)%
Kirie WRP (million gallons)	14,500	14,000	15,298	3.6 %
Egan WRP (million gallons)	10,200	10,200	8,725	— %
Hanover Park WRP (million gallons)	3,700	3,500	3,951	5.7 %
Fox River Water Reclamation District (contract agreement)	2,150	2,000	2,069	7.5 %
Lemont WRP (million gallons)	1,000	1,000	933	— %
<b>Outputs:</b>	<b>Budgeted 2019</b>	<b>Budgeted 2018</b>	<b>2017 Actual</b>	<b>% Change 2018-2019</b>
Dry tons of biosolids utilized by area:				
North Service Area	800	1,000	698	(20.0)%
Calumet Service Area	29,000	29,000	17,077	— %
Stickney Service Area	70,000	70,000	57,600	— %
<b>Outcomes:</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Achievement of water reclamation plant pollution permit requirements by plant:				
Stickney WRP	99.94%	99.77%	100.00%	99.94%
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%	100.00%
Hanover Park WRP	100.00%	100.00%	100.00%	100.00%
Lemont WRP	100.00%	100.00%	100.00%	100.00%

## Budget Message / Highlights

**Provide sewage collection and treatment and maintain award-winning plants.** In 2019, the District expects to collect and treat approximately 493 billion gallons of wastewater at our seven WRPs. These services will be performed in compliance with discharge permits issued by the United States 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 99.99 percent overall compliance with the National Pollutant Discharge Elimination System (NPDES) requirements in 2017. This compliance resulted in one Silver, one Gold and five Platinum Peak Performance Awards from the National Association of Clean Water Agencies. Operating performance in 2018 is expected to achieve higher performance levels. See page 13 for Collection, Treatment, and Solids Utilization data.

In 2017, the District successfully renewed their NPDES permits for the Calumet, O'Brien, and Stickney WRPs. The District is currently awaiting responses from the Illinois Environmental Protection Agency for the following renewal applications: Stickney WRP Clean Air Act Permit Program Title V permit, Kirie WRP NPDES, Hanover Park WRP NPDES, Lemont WRP NPDES, Egan WRP NPDES, Lockport Powerhouse and General Stormwater NPDES.

### 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.

**Increase local distribution of biosolids.** Due to changes in Illinois law in 2015, Exceptional Quality (EQ) biosolids and EQ biosolids blend products are now recognized as soil amendment in Illinois. The District can sell its EQ Compost, produced by composting biosolids with wood chips, and EQ air-dried biosolids, and distribute them more widely, to the general public.

**Increase the production of renewable energy from biogas.** Four of the District's water reclamation plants produce digester gas, also known as "biogas," as a byproduct of the anaerobic digestion process. The biogas is used as a fuel source in boilers at the four plants to produce steam or hot water which is used to heat the digesters and plant buildings. However, not all of the biogas is fully utilized throughout the year. The District will evaluate technologies and opportunities for utilizing 100 percent of the biogas production at each of the water reclamation plants to increase the quality of resources recovered, reduce dependence on purchased energy, and reduce the District's carbon footprint. The district will also investigate pre-digestion treatment technologies and processes which may increase biogas production. Analysis of options will include a review of financial return on investment, carbon offsets, and market risks.



*The District demonstrated stormwater management tips and Exceptional Quality biosolids at the Chicago Flower and Garden Show at Navy Pier, March 14-18, 2018.*

### Goal 4 - Develop Employees

**Develop a culture that recognizes the value of every employee.** The District's female and minority workforce rates are 25 and 42 percent, respectively, as of September 30, 2018. The rates are calculated based on published data from the 2010 census.

The District continues to look for opportunities to eliminate layers within the organization and consolidate job classifications where possible to provide flexibility in the use of staff. 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

## *Budget Message / Highlights*

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 1,967 positions are budgeted for 2019, an increase of one budgeted position from 2018. 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 54 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.

**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 579.

In 2018, the District along with the University of Illinois Urbana-Champaign was awarded a \$350,000 research partnership grant by the Illinois Nutrient and Education Council. The study will evaluate drainage water recycling as an effective management strategy to reduce nutrients from escaping into local waterways while facilitating the reduction of fertilizer applied to cropland. Runoff from fertilizer is a major source of nutrients impairing the quality of water downstream.

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

The District is a member of the Lower Des Plaines Watershed Group, a non-profit organization formed in 2017 to cost effectively improve the health of the Lower Des Plaines River and its tributaries. The District participates on the organization's Executive Board and is collaborating with other member agencies to implement intensive monitoring in the watershed and address aquatic life stressors.



*Drainage demonstration projects in Fulton County, Illinois. Recycling runoff water for irrigation generated comparable yields with 50 percent fertilizer rates.*

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## *Budget Message / Highlights*

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### **Goal 6 - Technology**

**Develop a framework for deploying web services and data integration technologies to streamline access to various hosted data systems and applications.** The Information Technology Department continues to balance the technology needs of the District with available resources while focusing on security and service delivery and maintaining transparency. The District plays a vital role in the overall upkeep of critical infrastructure throughout Cook County and keeping the District's information technology systems secure is crucial to maintaining service delivery to the community. To ensure that these systems remain secure from outside attacks, security training is being expanded and new tools are being implemented to enhance the security of the District's systems.

As technology advances, new tools and systems are being developed that help further the District's mission. The role of the Information Technology Department is to assist departments in developing and executing these advancements to help keep costs in line and service levels high. Access to online applications and mobile technology is being expanded and internal applications are being deployed to provide departments with the tools they need to maintain and enhance service delivery to the community.

**Implement a modern web content management system that provides a streamlined approach for storing and delivering web content.** Communication internally and externally is important to ensure operations run smoothly and the public is informed about District services and initiatives. Web content and services are being upgraded to provide transparency in services delivered to District departments and information to District constituents.

**Budget Message / Highlights**

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

The overall 2019 tax levy required to finance the 2019 Budget is \$642.8 million, an increase of \$20.4 million, or 3.3 percent, from the 2018 Adjusted Budget. This overall increase is driven by a 10.7 percent increase in the Stormwater Management Fund, supporting the District’s efforts to address flooding issues throughout Cook County, a 1.5 percent increase in the Bond Redemption & Interest Fund, and an aggregate 3.5 percent increase in the Corporate, Construction, Retirement, and Reserve Claim Funds. Among the funds subject to the Property Tax Extension Limitation law, the Corporate Fund levy has an increase of \$14.1 million, or 5.9 percent, while the Reserve Claim Fund levy is increasing by \$1.5 million, or 25.0 percent. These increases are offset by a decrease of \$4.1 million, or 35.0 percent, in the Construction Fund. The Retirement Fund levy remains flat from 2018 to 2019 at \$71.6 million.

The overall tax rate for 2019, based on the most recent Equalized Assessed Valuation (EAV), totals 40.97 cents, a 0.14 cent increase from the 2018 Adjusted Tax Rate. The allowance for loss in collection of property taxes is budgeted at 3.5 percent, the same as 2018. The budgeted loss will be maintained at this level, based on trends in the required refunds of prior property tax payments.

Overall appropriations for 2019 total \$1,222.9 million, an increase of \$71.9 million, or 6.2 percent, from the 2018 Adjusted Budget. The increase is driven by an increase of \$65.2 million in the Capital Improvements Bond Fund, which is appropriated on an obligation basis and based on project schedules. A decrease in the Bond Redemption & Interest Fund of \$17.9 million is attributable to an advance payment in 2018 of \$28.4 million. Additionally, decreases in the Construction Fund of \$7.7 million and the Retirement Fund of \$2.3 million are offset by an increase of \$25.8 million in the Stormwater Management Fund, a \$7.4 million increase in the Corporate Fund, and a \$1.5 million increase in the Reserve Claim Fund. Explanations of these changes are provided in the following detailed Fund summaries.

<b>Levies</b>	<b>2019</b>	<b>2018 Adjusted</b>	<b>Increase (Decrease)</b>	<b>Percent Change</b>
Corporate Fund	\$ 254,574,100	\$ 240,465,800	\$ 14,108,300	5.9 %
Construction Fund	7,600,000	11,700,000	(4,100,000)	(35.0)%
Stormwater Management Fund	52,926,000	47,826,000	5,100,000	10.7 %
Retirement Fund	71,565,400	71,534,197	31,203	— %
Reserve Claim Fund	7,500,000	6,000,000	1,500,000	25.0 %
Bond Redemption & Interest Fund	248,618,309	244,858,866	3,759,443	1.5 %
<b>TOTAL</b>	<b>\$ 642,783,809</b>	<b>\$ 622,384,863</b>	<b>\$ 20,398,946</b>	<b>3.3 %</b>
<b>Appropriations</b>	<b>2019</b>	<b>2018 Adjusted</b>	<b>Increase (Decrease)</b>	<b>Percent Change</b>
Corporate Fund	\$ 377,612,500	\$ 370,209,200	\$ 7,403,300	2.0 %
Construction Fund	18,340,300	26,080,600	(7,740,300)	(29.7)%
Capital Improvements Bond Fund	378,173,800	312,982,900	65,190,900	20.8 %
Stormwater Management Fund	91,410,100	65,581,000	25,829,100	39.4 %
Retirement Fund	87,281,000	89,604,000	(2,323,000)	(2.6)%
Reserve Claim Fund	31,767,800	30,289,500	1,478,300	4.9 %
Bond Redemption & Interest Fund	238,357,541	256,304,187	(17,946,646)	(7.0)%
<b>TOTAL</b>	<b>\$ 1,222,943,041</b>	<b>\$ 1,151,051,387</b>	<b>\$ 71,891,654</b>	<b>6.2 %</b>

Comparisons of the estimated taxes paid by the owner of a home with a market value of \$100,000 for 2019 as budgeted, and 2018 as adjusted for the 2017 EAV, are as follows:

	<b>2019 Budgeted</b>	<b>2018 Adjusted</b>	<b>Increase</b>	<b>Percent Change</b>
Estimated taxes for \$100,000 home	\$121.38	\$120.97	\$0.41	0.34%

## *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.



*Three laborers posing next to a compressed air rock drill during the construction of the Chicago Sanitary and Ship canal. The estimated date is November 1896.*

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.

## *Budget Message / Highlights*

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

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

### **Corporate Fund**

The Corporate Fund is the District's general operating fund and includes appropriation requests for the day-to-day operational costs anticipated for 2019. The total appropriation for the Corporate Fund in 2019 is \$377.6 million, an increase of \$7.4 million, or 2.0 percent, from the 2018 Adjusted Budget. The 2019 tax levy for the Corporate Fund is \$254.6 million, an increase of \$14.1 million, or 5.9 percent, compared to the 2018 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.

In 2019, economically sensitive non-property tax revenues, such as interest income, are expected to show stronger growth than has been seen since 2008 based on forecasted local and national economic indicators, including three rate increases throughout 2019. 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 2019 is 16.22 cents, an increase of 0.44 cents from 2018 Adjusted Tax Rate. User charges, budgeted at \$46.0 million for 2019, 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. Starting in 2019, the administration of the District's Watershed Management Ordinance (WMO), a vital tool in helping ensure new development does not exacerbate existing flooding, will be fully integrated into the Stormwater Management Fund.



*The Buffalo Creek Reservoir Expansion Project in Buffalo Grove, Illinois that will protect 104 structures and provide in excess of \$25 million in flood relief benefits.*



## *Budget Message / Highlights*

One of the initial goals of the Stormwater Management Program was to develop detailed watershed plans 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 District, through its Phase II program, is also conducting Stormwater Master Plan studies to comprehensively address flooding by identifying potential projects within publicly and privately owned property. 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 initial pilot studies completed in 2016.



*Space to Grow partners unveil a transformed schoolyard today at Cook Academy in Chicago's Auburn Gresham neighborhood on September 5, 2018.*

In 2011, the District established a Green Infrastructure Program 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. There are currently 15 schools with construction completed, six of which opened in 2018. There are four additional that are planned for construction in 2019.

In addition, since 2017, the District initiated over 25 Green Infrastructure partnerships throughout Cook County for projects that provide flood reduction and other community benefits.

The WMO establishes uniform and minimum stormwater regulations throughout Cook County. The WMO went into effect on May 1, 2014, and the District's Board of Commissioners most recently amended the WMO on February 15, 2018. In 2019, the Stormwater Management Fund will include 27 positions from the Local Sewers Section shifted from the Corporate Fund to fully integrate the WMO.

The Stormwater Management Fund is used to fund operational costs directly related to the Stormwater Management Program and pay-as-you-go infrastructure projects. It is also used to leverage taxpayer dollars through partnerships with local agencies to fund local Green Infrastructure and stormwater projects. Finally, the Stormwater Management Fund is used to pay the principal and interest on Alternate Revenue Bonds and Stormwater State Revolving Fund loans for larger scale Stormwater projects such the Addison Creek Reservoir. The 2019 Appropriation for the Stormwater Management Fund is \$91.4 million, an increase of \$25.8 million, or 39.4 percent, over the 2018 Adjusted Budget. This planned growth in the appropriation supports the District's commitment to mitigate flooding issues throughout Cook County. 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 2019 is 3.37 cents, an increase of 0.23 cents from the 2018 Adjusted Tax Rate.

*Budget Message / Highlights*

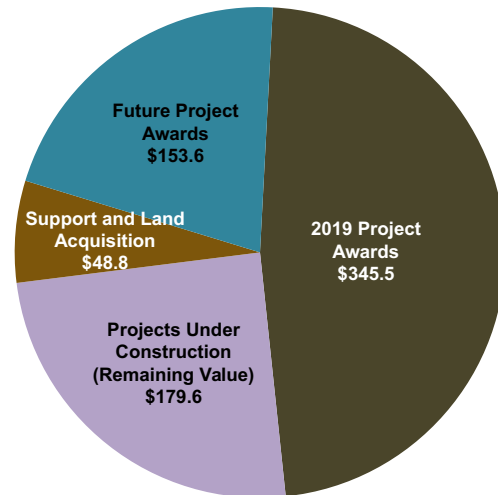
**Capital Improvement Program:**

**Construction Fund and Capital Improvements Bond Fund**

The District’s overall Capital Improvement Program (CIP) includes 2019 project awards, land acquisition, support, future projects, and the construction value remaining on projects currently under construction. The 2019 CIP has a total estimated cost of \$727.5 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.

**Overall Capital Improvement Program  
(millions \$)**



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 CIBF 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, which allows local governments with non-referendum authority to continue to issue non-referendum debt as long as the annual debt service levies do not exceed the limit. The debt service extension base is increased annually by the Consumer Price Index or five percent, whichever is less. However, an exemption for projects initiated before October 1, 1991 was granted to the District to enable completion of the TARP.

**Construction Fund**

The Construction Fund appropriation for 2019 totals \$18.3 million, a decrease of \$7.7 million, or 29.7 percent, from the 2018 Adjusted Budget.

Capital projects in the Construction Fund are primarily supported by property taxes. The 2019 tax levy planned for the Construction Fund is \$7.6 million, a decrease of \$4.1 million, or 35.0 percent, from the 2018 Adjusted Levy. A listing and description of proposed projects, projects under construction, and scheduled for 2019 award, can be found in the Capital Budget (Section V) of this budget document.

**Capital Improvements Bond Fund**

The 2019 appropriation for the Capital Improvements Bond Fund is \$378.2 million, an increase of \$65.2 million, or 20.8 percent, from the 2018 Budget. The appropriation is based on the scheduled award of \$333.4 million in construction costs on projects. The increase 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 \$44.7 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.

## *Budget Message / Highlights*

A comprehensive narrative and exhibits detailing the CIP is provided in the Capital Budget (Section V) of this budget document. A listing and description of proposed projects, projects under construction, and scheduled for 2019 award, can be found in the Capital Budget (Section V) of this budget document.



*Workers pause for a photo during construction of a portion of the Southwest Intercepting Sewer on November 21, 1935.*

### **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.

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 and caps the final average salary used to calculate an annuity.

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 2019 appropriation for the Retirement Fund is \$87.3 million, a decrease of \$2.3 million, or 2.6 percent, compared to the 2018 Adjusted Budget. The 2019 total tax support for the Retirement Fund is \$89.8 million, which is comprised of \$18.3 million from the District's Personal Property Replacement Tax allocation and a \$71.6 million property tax levy. The property tax levy of \$71.6 million is flat to the 2018 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 statutory amendment increased the tax levy calculation from a multiplier of 2.19 of employee contributions to a multiplier of 4.19. 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 \$74.0 million.

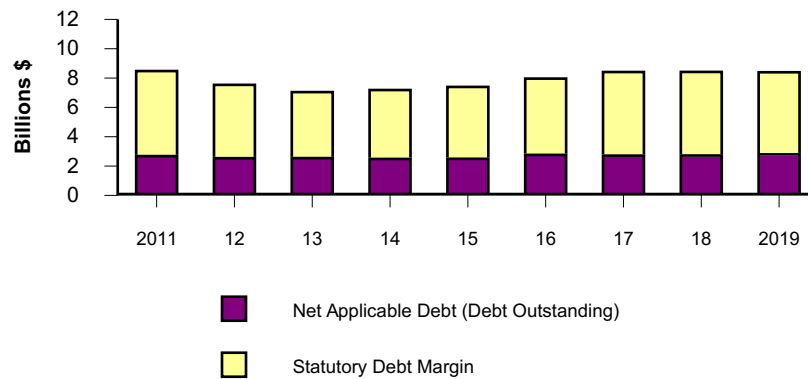
The 2019 appropriation of \$31.8 million is an increase of \$1.5 million, or 4.9 percent, from the 2018 Adjusted Budget. The practice is to fund toward the maximum fund balance allowable. This estimate is reviewed and adjusted annually. A historical profile of the resources available in the fund is provided in Section VII of this budget document. The levy increased \$1.5 million for this fund in 2019. The District is levying against the last known EAV at the maximum rate allowed by state statute in 2019. 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 2019 Budget, the last known EAV (\$147.9 billion) is for the 2017 levy year.

## *Budget Message / Highlights*

### **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.

**Net Debt and Statutory Debt Margin**



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 1.84 percent. The District has authorized approximately \$2.2 billion of SRF loans since the program’s inception. Several projects are currently financed through SRF loans.

The District expects to receive \$120.0 million in 2019 and approximately \$175.0 million annually from SRF loans for the next several years. 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 2019 appropriation for the Bond Redemption & Interest Fund totals \$238.4 million, a decrease of \$17.9 million, or 7.0 percent, compared to the 2018 Adjusted Budget. The 2018 appropriation included a \$28.4 million advance payment on seven State Revolving Loan Fund loans that resulted in \$9.6 million in interest savings. A debt service graph is found on page 54 that displays debt service from 2011 through 2023 and one on page 548 that displays debt service from 2019 through retirement. The 2019 tax levy for this fund is \$248.6 million, an increase of \$3.8 million, or 1.5 percent, from the 2018 Adjusted Levy.

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

The District's Capital Improvement Program (CIP) is financed primarily with State Revolving Fund loans, pay-as-you-go funding, and general obligation bond sale proceeds. The 1995 Tax Extension Limitation Law (Tax Cap), together with subsequent amendments to the statute, limit the District's ability to issue debt. The District has authority to issue bonds without seeking voter approval via referendum through the year 2024, effective January 1, 2011. The statutory debt limit is equal to 5.75 percent of the District’s EAV. The District's 2017 EAV is \$147.9 billion, setting the District's statutory debt limit at \$8.5 billion. Outstanding debt applicable to the debt limit as of December 31, 2018, totals \$2.9 billion. The debt margin is \$5.6 billion.

The 2019 debt service extension base limit is \$166.1 million. With the inclusion of the levies for the SRF series of bonds for non-TARP projects, Capital Improvement Bonds, and Refunding Bonds, there is approximately \$7.3 million annual debt service available under the statutory debt service limit related to the tax levy year 2018.

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.

*Budget Message / Highlights*

<b>History of Legislative Amendments Limiting Borrowing Authority</b>	
Public Act 89-0100	The initial Tax Cap legislation that limited non-referendum authority to projects that were initiated prior to October 1, 1991. Effective July 7, 1995
Public Act 89-0385	Provided the District with the authority to issue non-referendum “limited bonds” for capital projects initiated after October 1, 1991. Effective August 18, 1995
Public Act 90-0485	Provided a further modification by authorizing the exclusion of debt for TARP projects from this debt service limit. Effective August 17, 1997
Public Act 93-0279	Increased the dollar limit on bonds that may be issued during any one budget year to not exceed \$150 million, plus the amounts of any bonds authorized and unissued during the three preceding budget years. Effective July 22, 2003
Public Act 96-0501	Allows for an annual increase in the 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. Effective August 14, 2009

**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 and the Stormwater Management Fund, 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.

The CPI has averaged 1.6 percent growth over the last 10 years, while a 2.8 percent increase is anticipated for 2018. The CPI growth for 2019 is estimated at 3.0 percent. 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**

A portion of the projected net assets remained unappropriated to provide for a fiscally responsible fund balance. A Corporate Fund balance within \$44 to \$55 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.



*Working on the Oak Park sewer at the intersection of Chicago Avenue and Marion Street, looking east on February 7, 1922.*

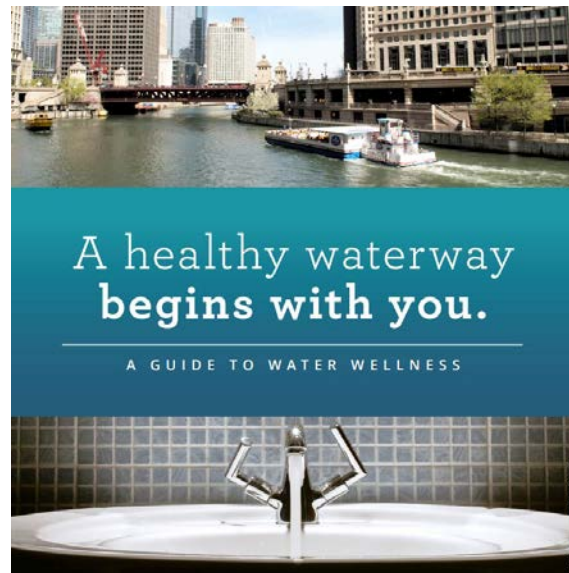
Investment interest income in 2019 is projected to be \$16.9 million, an increase of \$9.1 million from the 2018 Adjusted Budget. The actual revenue for 2017 was \$8.6 million. The Treasurer is statutorily limited to investments in U.S. Government direct and agency securities, and high quality, short-term 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

## *Budget Message / Highlights*

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 2019. 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 2019 is \$33.3 million, a decrease of \$4.8 million from the 2018 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 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. They typically parallel changes in operations and maintenance costs, as well as the rehabilitation of District facilities in the Construction Fund. The major categories of payers, include chemical manufacturing, food processing, and government services, and are generally expected to maintain their recent level of discharges. User charge revenue is estimated at \$46.0 million for 2019, unchanged from the 2018 Adjusted Budget.



*To educate the public on specific ways to protect the waterways, the District prepared a consumer guide that offers information on best practices. The guide offers suggestions for keeping contaminants out of the waterways and promotes simple lifestyle modifications that can improve water quality. This guide and more information are available at [www.mwr.org](http://www.mwr.org).*

## *Budget Message / Highlights*

### **Major Budget Amendments Impacting the 2019 Final Adopted and Amended Budget**

The 2019 Executive Director's Recommended Budget was presented to the Board of Commissioners on October 16, 2018. The Committee on Budget and Employment held departmental budget presentations on November 1, 2018 and a Public Hearing on the budget was held on December 6, 2018. 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 Board adopted the budget on December 13, 2018, and pursuant to State Statute (70 ILCS 2605), made final amendments on December 20, 2018.

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 \$143.3 million, or 13.3 percent, from the 2019 Executive Director's Recommendations of \$1.08 billion to \$1.22 billion, driven by changes in project schedules in the Capital Improvement Program.

The Retirement Fund, Reserve Claim Fund, Stormwater Management Fund, and Bond Redemption & Interest Fund were adopted without modification from the 2019 Executive Director's Recommendations.

### **Revenues**

The total tax levy increased by \$2.1 million, or 0.3 percent, from the 2019 Executive Director's Recommendations of \$640.7 million to \$642.8 million due to an increase to the Bond Redemption & Interest Fund levy for a new State Revolving Fund loan for the McCook Reservoir Des Plaines Inflow Tunnel project.

	<b>Appropriations</b>	
	<b>2019 Executive Director's Recommendations</b>	<b>2019 Final Adopted and Amended Budget</b>
Corporate Fund	\$ 376,807,500	\$ 377,612,500
Construction Fund	17,602,300	18,340,300
Retirement Fund	87,281,000	87,281,000
Reserve Claim Fund	31,767,800	31,767,800
Capital Improvements Bond Fund	236,431,900	378,173,800
Stormwater Management Fund	91,410,100	91,410,100
Bond Redemption & Interest Fund	238,357,541	238,357,541
<b>Total Budget</b>	<b>\$ 1,079,658,141</b>	<b>\$ 1,222,943,041</b>

### **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 2019. The total appropriation request for the Corporate Fund increased by \$0.8 million, or 0.2 percent, from the 2019 Executive Director's Recommendations of \$376.8 million to \$377.6 million. The increase is primarily due to a general salary adjustment approved by the Board.

### **Construction Fund**

The Construction Fund, which finances smaller construction projects on a pay-as-you-go basis, increased by \$0.7 million, or 4.2 percent, from the 2019 Executive Director's Recommendations of \$17.6 million to \$18.3 million. The increase is primarily due to changes in the project schedules and cost estimates.

### **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 \$141.7 million, or 60.0 percent, from the 2019 Executive Director's Recommendations of \$236.4 million to \$378.2 million. The increase is primarily due to the changes in the project schedules for the Addison Creek Reservoir and odor control facilities at the Stickney WRP.

## *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



## *Financial Policies, Objectives, and Accomplishments*

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.

### 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 Fund 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 2019, 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 34th consecutive year, the GFOA of the United States and Canada has presented the Distinguished Budget Presentation for the District's 2018 Annual Budget. In 2016, the District received special recognition in the category of Performance Measures. The entire 2019 Budget is available at [www.mwr.org](http://www.mwr.org).

### **Investment and Cash Management Policy**

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

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

District funds can be invested in such securities as authorized by Illinois Public Act 235, the Public Funds Investment Act. The investments which the District may purchase are limited to the following: (1) securities, which are fully guaranteed by the U.S. Government as to principal and interest; (2) certain U.S. Government Agency securities; (3) certificates of deposit or time deposits of banks and savings and loan associations which are insured by a federal corporation; (4) short-term discount obligations of the Federal National Mortgage Association; (5) certain short-term obligations of corporations (commercial paper) rated in the highest

***Financial Policies,  
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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:

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	8,555,000	
2013	11,525,000	2018	13,494,000 (Estimated)	
		Total	\$ 93,427,000	

**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**

The District has maintained strong bond ratings despite the economic challenges facing the overlapping governments.

The primary reason for the recent downgrades in ratings 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 Standard & Poor’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. (See Bond Rating History on the following page.)

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**Bond Rating History**

Fitch Ratings		Standard & Poor's Corporation		Moody's Investor Services	
2001-present	AAA	2016-present	AA+	2015-present	Aa2
1999-2001	AA+	2006-2016	AAA	2013-2015	Aa1
1995-1999	AA	2001-2006	AA+	2002-2013	Aaa
		1969-2001	AA	1999-2002	Aa1
				1997-1999	Aa1
				1974-1997	Aa2
				1968-1974	Aa
				1944-1968	A1
				1938-1944	Baa

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)	—	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, 2017, and for the MWRD Retiree Health Care Trust for the year ended December 31, 2017. This is the 43rd consecutive year and 11th consecutive year that the District has received these prestigious awards, respectively. The CAFRs are available at [www.mwrd.org](http://www.mwrd.org). The external audit of the District's 2017 financial statements, completed on May 11, 2018, includes an unmodified opinion. In 2018, the Internal Audit Section completed 13 audits in addition to financial reviews of 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. 2019 is the fifth year of the current five-year plan, with the vision statement *Recovering Resources, Transforming Water*. The plan sets 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 2019-2023 Five-Year Financial Forecast has been updated to incorporate budgetary amendments approved by the Board of Commissioners in the 2019 Final Adopted and Amended Budget, December 20, 2018.

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.

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## *Policy Development and The Budget Process*

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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. 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.
3. When departmental estimates are approved and final decisions are made, a Budget Message is prepared and the proposals of the Executive Director become the initial budget document. After departmental requests are finalized, the Executive Director's Budget Recommendations are published within 15 days. The Executive Director's Budget Recommendations are published and presented to the Board in October. At all times, the Budget figures are balanced between revenues and expenditures.
4. The Board's Committee on Budget and Employment holds public meetings with the Executive Director and department heads regarding the Executive Director's proposals.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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 2019 BUDGET

Board of Commissioners Holds a Study Session on the Capital Improvement Program immediately following the Regular Board Meeting ..... Thursday, September 6, 2018

Executive Director's Budget Recommendations Submitted to Board of Commissioners ..... Tuesday, October 16, 2018

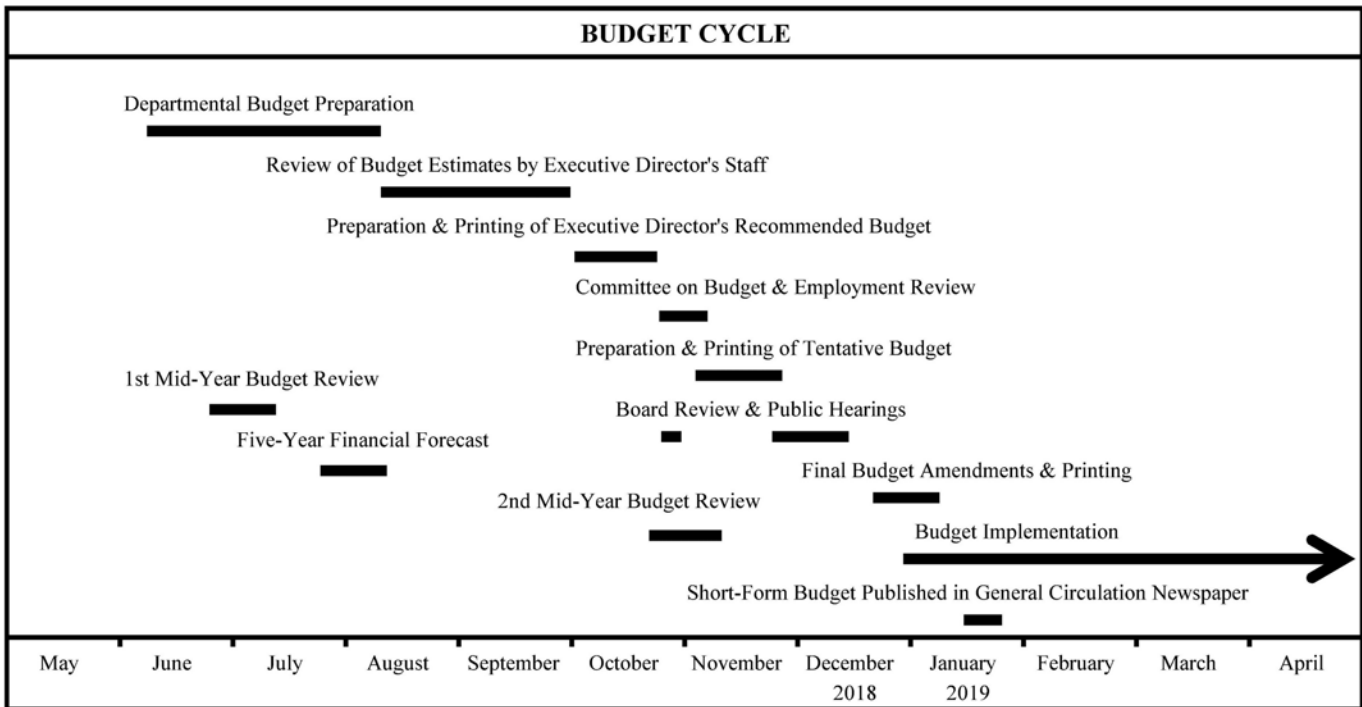
Committee on Budget & Employment Hearings at 1:00 P.M. .... Thursday, November 1, 2018  
(Friday, November 2, 2018, if necessary)

Committee on Budget & Employment Submits Tentative Budget to Board of Commissioners for Public Display ..... Tuesday, November 20, 2018

Board of Commissioners Holds a Public Hearing on the Budget at 2:00 P.M. .... Thursday, December 6, 2018

Board of Commissioners Adopts the Budget ..... Thursday, December 13, 2018

Board of Commissioners Amends the Adopted Budget ..... Thursday, December 20, 2018



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

CHICAGO, November 20, 2018

**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, 2019 and ending December 31, 2019, as prepared and submitted by the Executive Director in the document entitled "2019 Budget - Executive Director's Recommendations - October 16, 2018," 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, 2019, 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, 2019 and ending December 31, 2019";

and

"An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2019 and ending December 31, 2019, 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, 2019, 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, 2019 and ending December 31, 2019, 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, 2019, 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, 2019 and ending December 31, 2019, 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, 2019 and ending December 31, 2019, 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, 2019, 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, 2019 and ending December 31, 2019, 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, 2019, 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, 2019 and ending December 31, 2019”;

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2019 and ending December 31, 2019 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, 2019, 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, 2019 and ending December 31, 2019, 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, 2019, 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, 2019 and ending December 31, 2019, 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, 2019 and ending December 31, 2019, 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, 2019, for the purpose of providing revenues for the Reserve Claim Fund”;

Approved as to Form and Legality:

*Aileen S. Wright*

Head Assistant Attorney

*Samuel M. Koc*

General Counsel

and

“An Ordinance for the Levy of Taxes for the fiscal year beginning January 1, 2019 and ending December 31, 2019, 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, 2019, 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 2019 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, 2019 and ending December 31, 2019;

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 2019 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, 2019 and ending December 31, 2019, shall be published once before January 20, 2019, in a newspaper having general circulation within the territorial limits of the Metropolitan Water Reclamation District of Greater Chicago;

and it is further

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

Respectfully submitted,

*Kari K. Stule*

Chairman,

Committee on Budget and Employment

**ORDINANCE NUMBER O18-006A**

**ANNUAL APPROPRIATION ORDINANCE OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT  
OF GREATER CHICAGO  
FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2019  
AND ENDING DECEMBER 31, 2019**

**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, 2019 and ending December 31, 2019.”

*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, 2019 and ending December 31, 2019.

*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 2019 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.

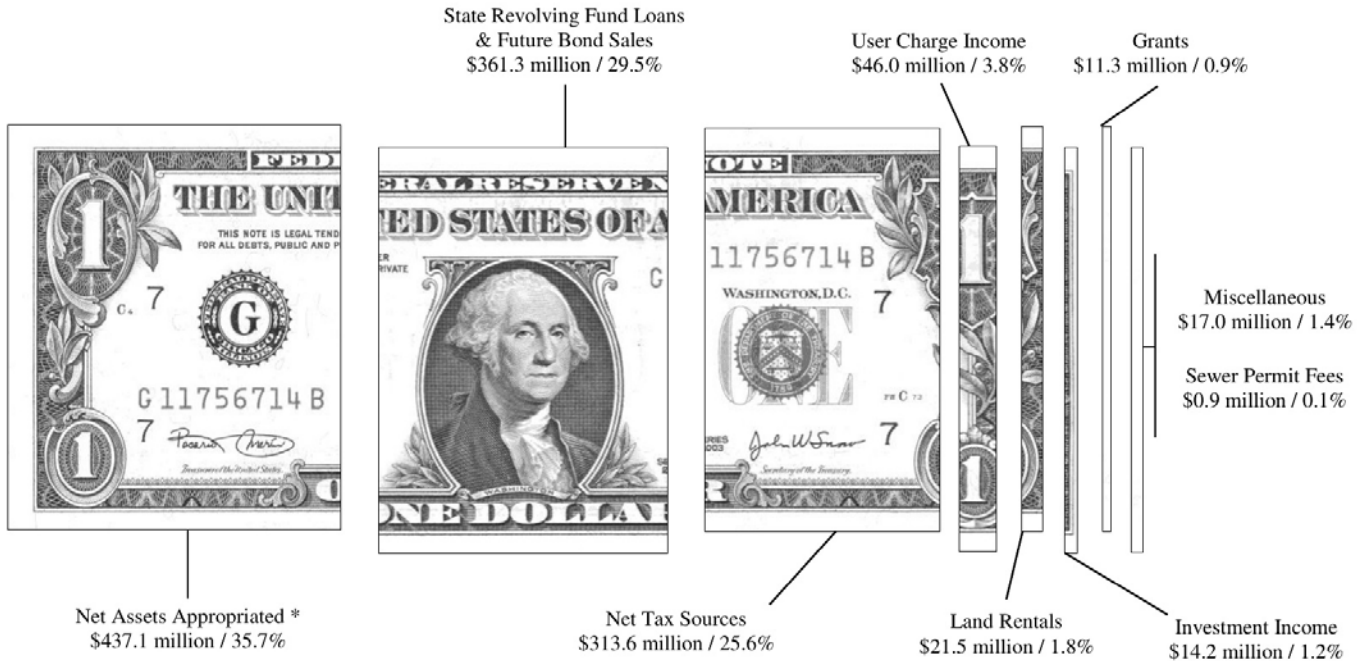
The comparison of budget and current year appropriations, tax levies, and tax rates by fund is one of the most comprehensive and most useful comparisons in the budget.

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 2019 and comparing it to previous years, this section also provides a projection of the future: the comprehensive Five-Year Financial Forecast for 2019 - 2023.

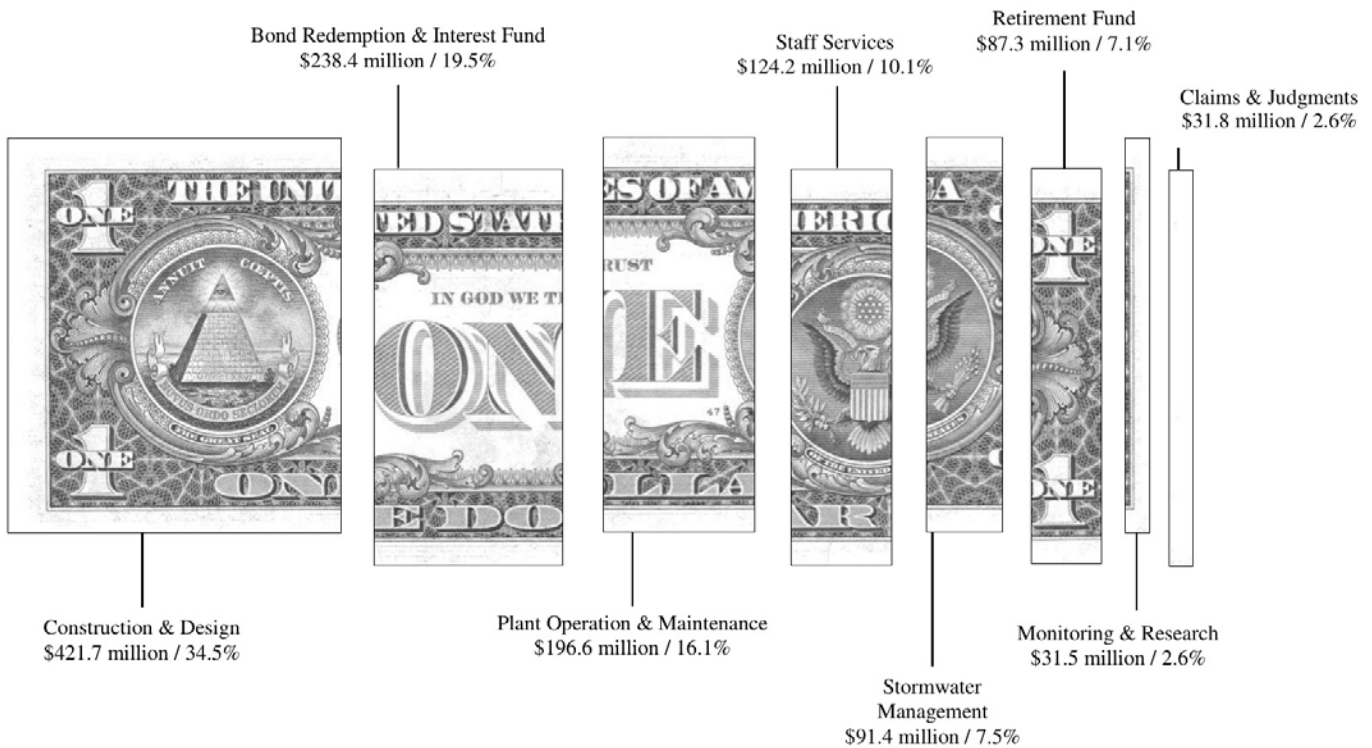
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WHERE THE MONEY COMES FROM: \$1,222.9 MILLION



\* \$437.1 of the \$536.4 Net Assets Appropriable detailed in the analysis on the next page will be appropriated as revenue for 2019 (excludes Capital Improvements Bond Fund).

WHERE THE MONEY GOES: \$1,222.9 MILLION



**SUMMARY OF NET ASSETS APPROPRIABLE**  
**at January 1, 2019**  
(In Millions)

CURRENT ASSETS	FUND								TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM		
Cash & Investments	\$ 110.2	\$ 232.0	\$ 13.7	\$ 29.1	\$ —	\$ 112.0	\$ 25.7	\$	522.7
Restricted Cash	—	—	—	—	—	—	—	—	—
Deposit with Escrow Agent	—	—	—	—	—	—	—	—	—
Taxes Receivable	232.8	—	11.3	46.6	69.0	236.2	5.8		601.8
Replacement Tax	15.8	—	—	—	18.3	—	—		34.1
Grants	—	1.0	—	—	—	—	—		1.0
State Revolving Fund Loans Receivable	—	120.0	—	—	—	—	—		120.0
Due from Other Funds	—	—	—	—	—	—	—		—
<b>Total</b>	<b>\$ 358.9</b>	<b>\$ 353.0</b>	<b>\$ 25.0</b>	<b>\$ 75.7</b>	<b>\$ 87.3</b>	<b>\$ 348.2</b>	<b>\$ 31.5</b>	<b>\$</b>	<b>1,279.6</b>

**CURRENT LIABILITIES,  
DESIGNATIONS AND RESTRICTIONS**

Unpaid Bill and Contingent Liabilities	\$ 37.4	\$ 962.4	\$ 2.4	\$ 3.4	\$ —	\$ —	\$ 0.4	\$	1,005.9
Due to Working Cash Funds	190.0	—	12.0	26.5	—	—	—		228.5
Liabilities for Restricted Assets	—	—	—	—	—	—	—		—
Principal and Interest	—	—	—	—	—	118.2	—		118.2
<b>Total</b>	<b>\$ 227.4</b>	<b>\$ 962.4</b>	<b>\$ 14.4</b>	<b>\$ 29.9</b>	<b>\$ —</b>	<b>\$ 118.2</b>	<b>\$ 0.4</b>	<b>\$</b>	<b>1,352.5</b>
<b>*Net Assets Appropriable</b>	<b>\$ 131.5</b>	<b>\$ (609.4)</b>	<b>\$ 10.6</b>	<b>\$ 45.8</b>	<b>\$ 87.3</b>	<b>\$ 230.1</b>	<b>\$ 31.2</b>	<b>\$</b>	<b>(72.9)</b>
Budget Reserve	<b>\$ (99.4)</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$</b>	<b>(99.4)</b>
<b>Net Assets Appropriated</b>	<b>\$ 32.1</b>	<b>\$ (609.4)</b>	<b>\$ 10.6</b>	<b>\$ 45.8</b>	<b>\$ 87.3</b>	<b>\$ 230.1</b>	<b>\$ 31.2</b>	<b>\$</b>	<b>(172.3)</b>
Equity Transfer	\$ 4.2	\$ (4.2)	\$ —	\$ (6.4)	\$ —	\$ 6.4	\$ —	\$	—

\* 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, 2019.

Gross Corporate Fund .....	16.22¢
Construction Fund .....	0.48
Stormwater Management Fund .....	3.37
Retirement Fund .....	4.56
Reserve Claim Fund .....	0.48
Subtotal .....	<u>25.11¢</u>

Bond Redemption & Interest Fund:

Capital Improvement Bonds - Series:

2016 Qualified Energy Conservation Limited Tax Series F .....	0.01¢
2009 Limited Tax Series .....	2.27
2011 Limited Tax Series B .....	1.21
2011 Unlimited Tax Series C .....	0.16
2014 Limited Tax Series C .....	0.53
2014 Unlimited Tax Series A .....	0.33
2014 Alternate Revenue Unlimited Tax Series B .....	0.22
2016 Alternate Revenue Unlimited Tax Series E .....	0.17
2016 Unlimited Tax Series C .....	0.10
2016 Limited Tax Series D .....	0.07

State Revolving Fund Bonds - Series:

Various .....	6.34¢
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Refunding Bonds - Series:

2007 Unlimited Tax Series A .....	1.70¢
2007 Unlimited Tax Series B .....	0.32
2007 Limited Tax Series C .....	0.35
2014 Limited Tax Series D .....	1.01
2016 Unlimited Tax Series A .....	0.93
2016 Limited Tax Series B .....	0.14

Subtotal Bond Redemption & Interest Fund .....	<u>15.86¢</u>
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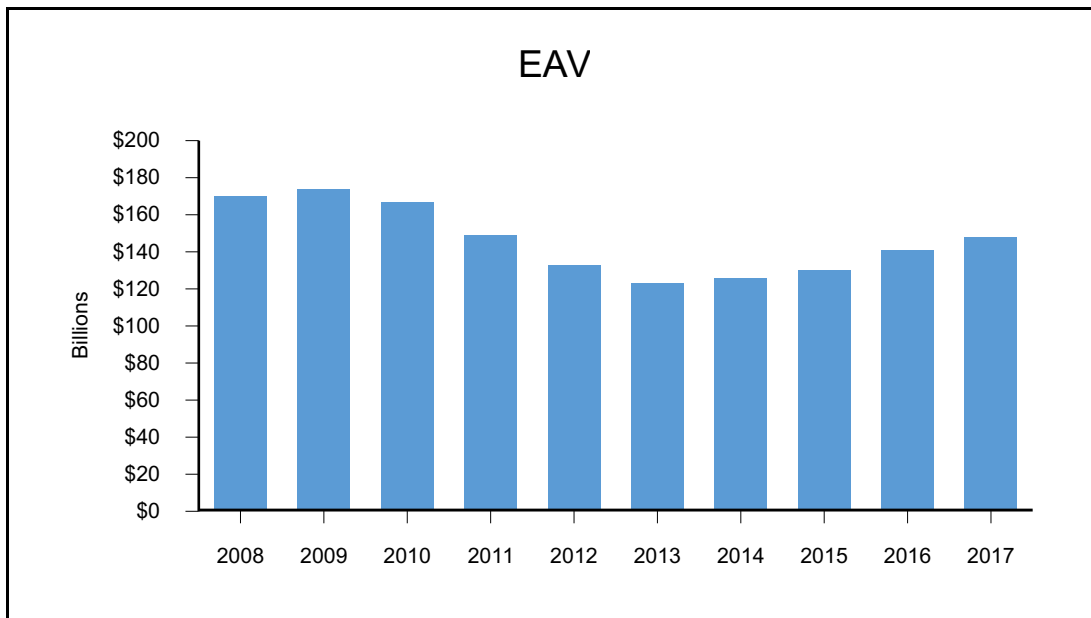
<b>TOTAL ESTIMATED TAX RATE - 2019 .....</b>	<b><u>40.97¢</u></b>
----------------------------------------------	----------------------

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

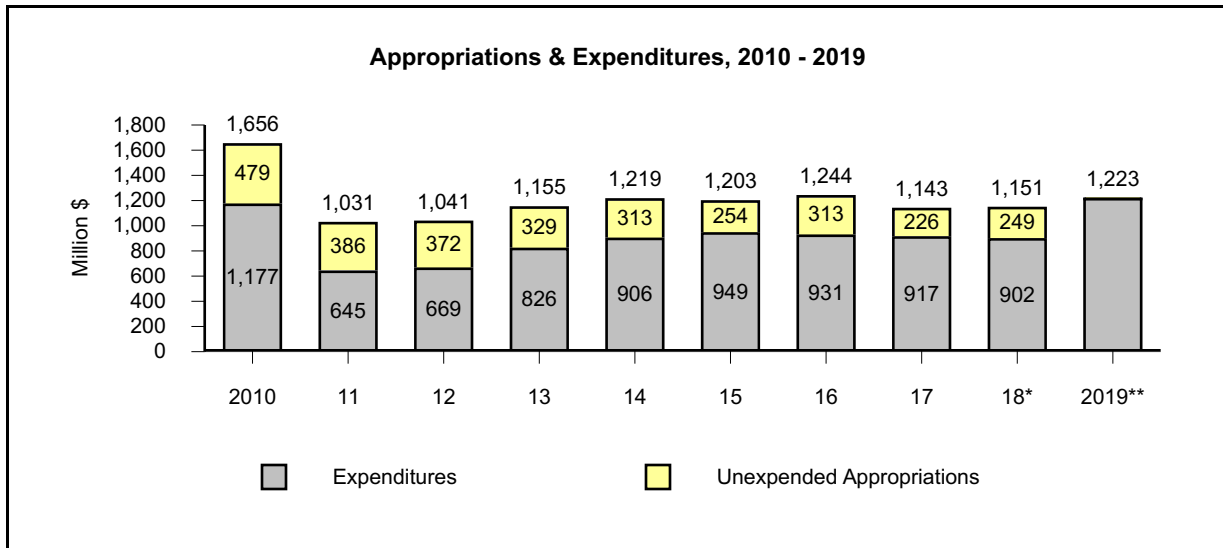
The equalized assessed property valuation (EAV) of the Metropolitan Water Reclamation District increased 5.11 percent from 2016 to 2017, showing the sustained growth for the second straight year. The boundaries of the District encompass 91 percent of the area of Cook County. The District is located in 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.



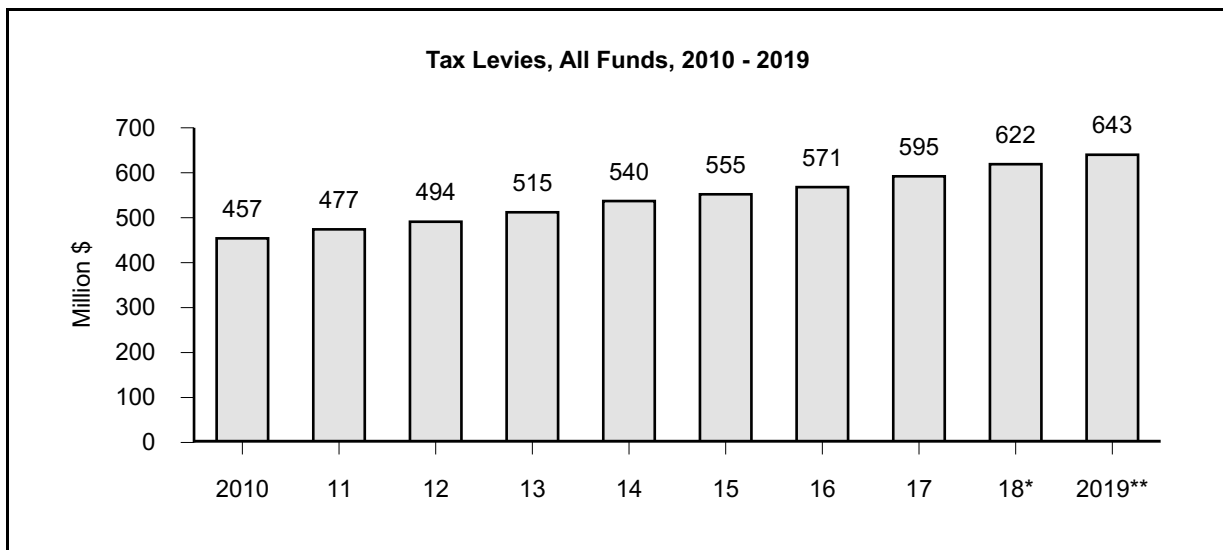
Year	Real Property	Railroad Property and Pollution Control Facilities	Total
2008	169.91 billion	186.24 million	170.10 billion
2009	174.26 billion	212.23 million	174.47 billion
2010	166.66 billion	256.49 million	166.92 billion
2011	148.77 billion	275.01 million	149.05 billion
2012	133.11 billion	286.93 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
2017	147.58 billion	362.43 million	147.95 billion



\*Adjusted

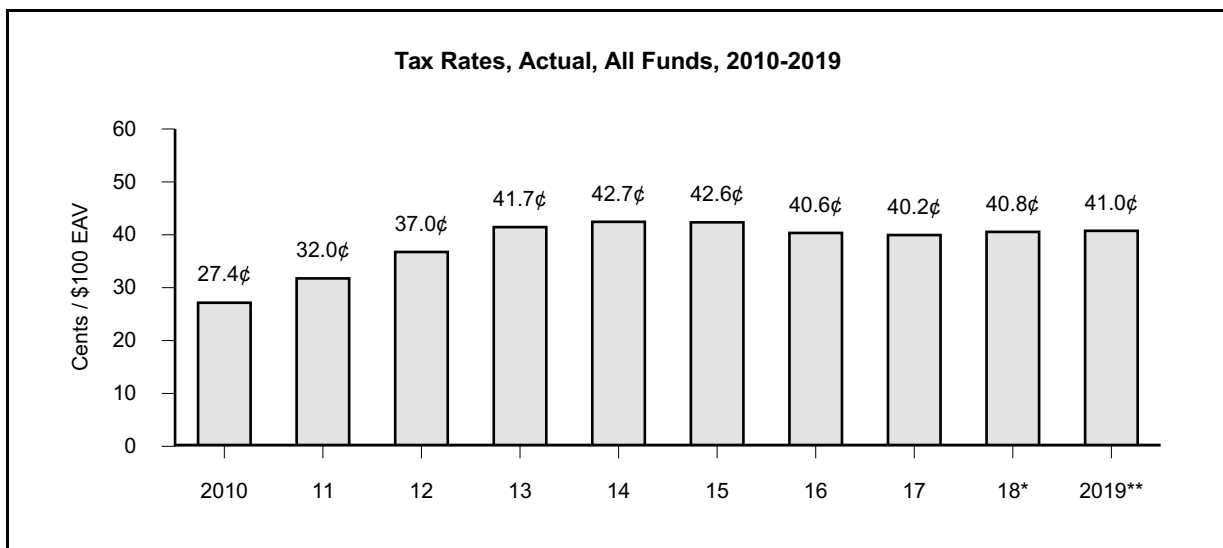
\*\*Estimated

Note: Amounts are rounded.



\*Adjusted

\*\*Estimated



\*Adjusted

\*\*Estimated using 2017 EAV

## COMPARATIVE STATEMENT OF APPROPRIATIONS AND TAX LEVIES 2019-2017 ALL FUNDS

APPROPRIATIONS	2019 **	2018 AS PASSED	2018 AS ADJUSTED *	2017 ACTUAL
<b>FUND</b>				
Corporate Fund	\$ 377,612,500	\$ 370,209,200	\$ 370,209,200	\$ 368,925,800
Construction Fund	18,340,300	26,080,600	26,080,600	34,450,400
Capital Improvements Bond Fund ***	378,173,800	312,982,900	312,982,900	354,625,600
Stormwater Management Fund	91,410,100	65,581,000	65,581,000	45,800,100
Retirement Fund	87,281,000	89,604,000	89,604,000	79,505,000
Reserve Claim Fund	31,767,800	30,289,500	30,289,500	30,617,100
Bond Redemption & Interest Fund	238,357,541	256,304,187	256,304,187	228,825,813
<b>TOTAL</b>	<b>\$ 1,222,943,041</b>	<b>\$ 1,151,051,387</b>	<b>\$ 1,151,051,387</b>	<b>\$ 1,142,749,813</b>
<b>LEVIES</b>				
Corporate Fund	\$ 254,574,100	\$ 240,465,800	\$ 240,465,800	\$ 224,824,731
Construction Fund	7,600,000	11,700,000	11,700,000	17,000,000
Stormwater Management Fund	52,926,000	47,826,000	47,826,000	40,856,008
Retirement Fund	71,565,400	71,534,197	71,534,197	73,438,135
Reserve Claim Fund	7,500,000	6,000,000	6,000,000	5,900,000
Subtotal	\$ 394,165,500	\$ 377,525,997	\$ 377,525,997	\$ 362,018,874
Bond Redemption & Interest Fund:				
Capital Improvement Bonds - Series:				
2016 Qualified Energy Conservation Limited Tax Series F	\$ 165,804	\$ 165,804	\$ 165,804	\$ 165,804
2009 Limited Tax Series	35,564,767	35,564,767	35,564,767	35,564,767
2011 Limited Tax Series B	18,950,616	28,911,239	28,911,239	41,406,315
2011 Unlimited Tax Series C	2,515,991	4,184,800	4,184,800	3,981,898
2014 Limited Tax Series C	8,286,788	6,763,472	6,763,472	3,240,156
2014 Unlimited Tax Series A	5,181,348	5,181,348	5,181,348	5,181,348
2014 Alternate Revenue Unlimited Tax Series B ****	3,391,037	3,390,570	3,390,570	3,389,171
2016 Alternate Revenue Unlimited Tax Series E ****	2,590,674	2,590,674	2,590,674	2,590,674
Alternate Revenue Abatement ****	—	—	—	(5,979,845)
2016 Unlimited Tax Series C	1,554,405	1,554,405	1,554,405	1,554,405
2016 Limited Tax Series D	1,036,270	1,036,270	1,036,270	1,036,270
State Revolving Fund Bonds - Series: Various	99,555,205	85,458,595	86,525,865	77,609,685
Refunding Bonds - Series:				
2007 Unlimited Tax Series A	26,694,301	26,623,057	26,623,057	26,509,845
2007 Unlimited Tax Series B	4,996,749	4,996,749	4,996,749	4,996,749
2007 Limited Tax Series C	5,541,607	5,541,607	5,541,607	5,541,607
2014 Limited Tax Series D	15,895,337	15,130,830	15,130,830	9,264,767
2016 Unlimited Tax Series A	14,555,959	14,555,959	14,555,959	14,555,959
2016 Limited Tax Series B	2,141,451	2,141,451	2,141,451	2,141,451
Subtotal Bond Redemption & Interest Fund	\$ 248,618,309	\$ 243,791,597	\$ 244,858,866	\$ 232,751,026
<b>TOTAL</b>	<b>\$ 642,783,809</b>	<b>\$ 621,317,594</b>	<b>\$ 622,384,863</b>	<b>\$ 594,769,900</b>
Abatement after the budget year ****	(6,185,100)	(6,152,228)	(6,152,228)	
<b>Total (after planned abatement)</b>	<b>\$ 636,598,709</b>	<b>\$ 615,165,366</b>	<b>\$ 616,232,635</b>	

NOTES: \* As Adjusted reflects the 2017 EAV (\$147,945,823,261) estimated to increase 3.0 percent, plus any subsequent supplemental levies or appropriations.

\*\* 2019 reflects an estimated 3.0 percent increase in EAV from the 2018 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 2019-2017 ALL FUNDS

Per \$100 in Equalized Assessed Valuation (EAV)

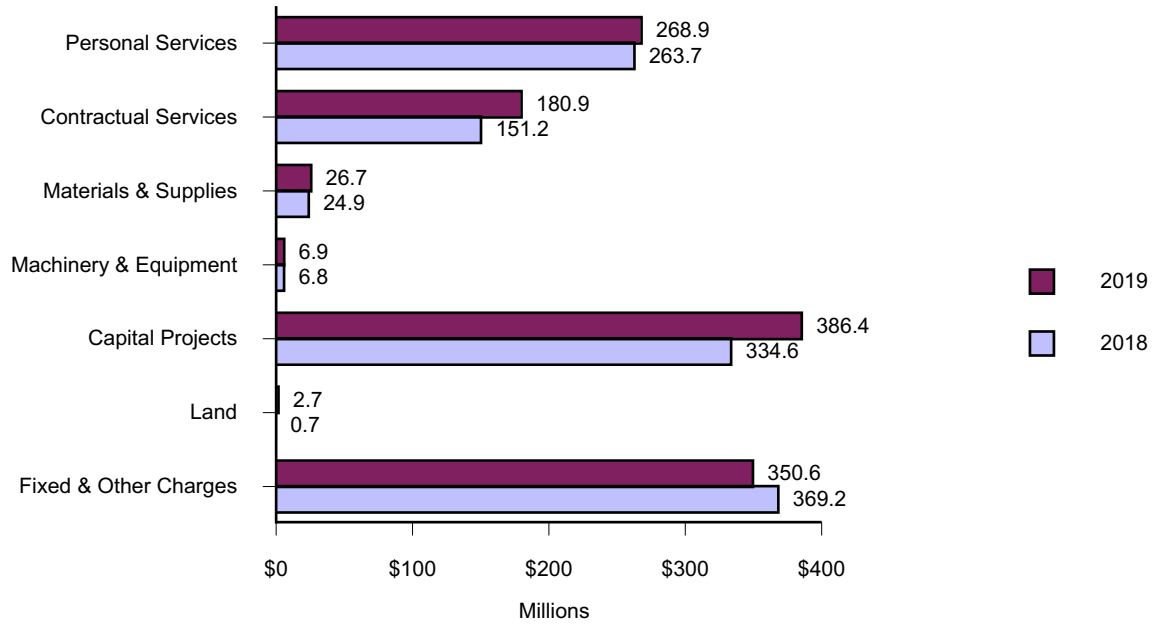
FUND		2019 **	2018 AS PASSED	2018 AS ADJUSTED *	2017 ACTUAL
	tax rate limit				
Corporate Fund	41¢	16.22¢	16.11¢	15.78¢	15.20¢
Construction Fund	10¢	0.48	0.78	0.77	1.15
Stormwater Management Fund	5¢	3.37	3.20	3.14	2.76
Retirement Fund		4.56	4.79	4.69	4.96
Reserve Claim Fund	½ ¢	0.48	0.40	0.39	0.40
Subtotal		25.11¢	25.28¢	24.77¢	24.47¢
Bond Redemption & Interest Fund:					
Capital Improvement & Interest Fund:					
2016 Qualified Energy Conservation Limited Tax Series F		0.01¢	0.01¢	0.01¢	0.01¢
2009 Limited Tax Series		2.27	2.38	2.33	2.40
2011 Limited Tax Series B		1.21	1.94	1.90	2.80
2011 Unlimited Tax Series C		0.16	0.28	0.27	0.27
2014 Limited Tax Series C		0.53	0.45	0.44	0.22
2014 Unlimited Tax Series A		0.33	0.35	0.34	0.35
2014 Alternate Revenue Unlimited Tax Series B ***		0.22	0.23	0.22	0.23
2016 Alternate Revenue Unlimited Tax Series E ***		0.17	0.17	0.17	0.18
Alternate Revenue Abatement ***		—	—	—	(0.41)
2016 Unlimited Tax Series C		0.10	0.10	0.10	0.11
2016 Limited Tax Series D		0.07	0.07	0.07	0.07
State Revolving Fund Bonds - Series:					
Various		6.34	5.72	5.68	5.25
Refunding Bonds - Series:					
2007 Unlimited Tax Series A		1.70	1.78	1.75	1.79
2007 Unlimited Tax Series B		0.32	0.33	0.33	0.34
2007 Limited Tax Series C		0.35	0.37	0.36	0.37
2014 Limited Tax Series D		1.01	1.01	0.99	0.63
2016 Unlimited Tax Series A		0.93	0.97	0.96	0.98
2016 Limited Tax Series B		0.14	0.14	0.14	0.14
Subtotal Bond Redemption & Interest Fund		15.86¢	16.30¢	16.06¢	15.73¢
<b>TOTAL</b>		<b>40.97¢</b>	<b>41.58¢</b>	<b>40.83¢</b>	<b>40.20¢</b>

NOTES: \* As Adjusted reflects the 2017 EAV (\$147,945,823,261) estimated to increase 3.0 percent, plus any subsequent supplemental levies or appropriations.

\*\* 2019 reflects an estimated 3.0 percent increase in EAV from the 2018 estimate.

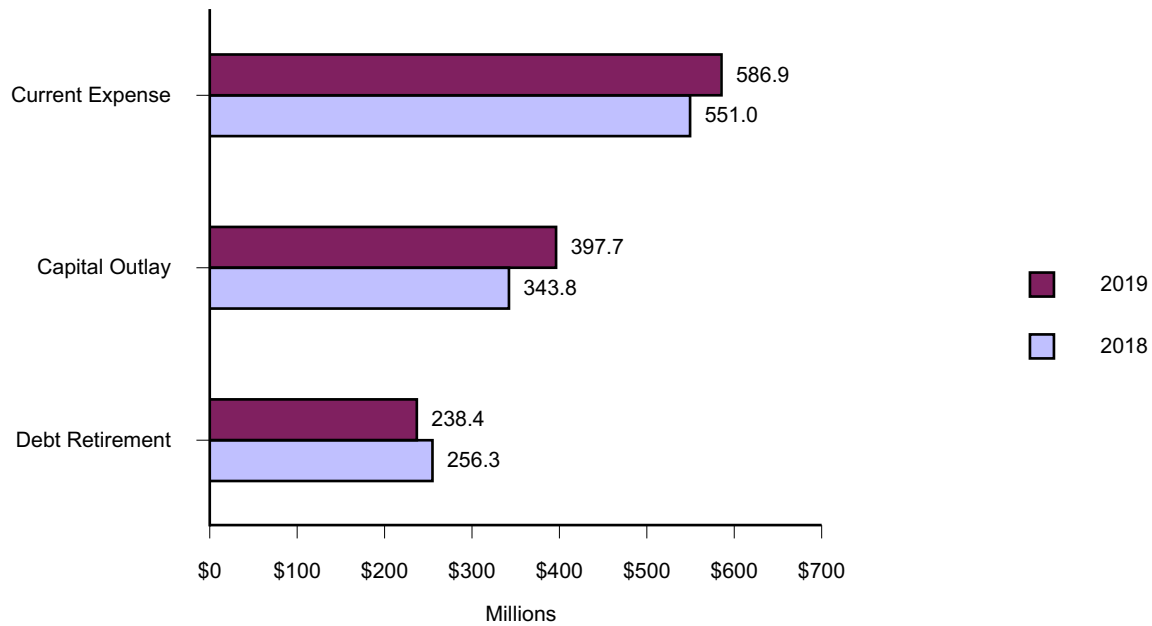
\*\*\* As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Management Fund be transferred to the Bond Redemption & Interest Fund and used to abate taxes levied for this issue.

**COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE**



Note: Percentages are rounded.

**COMPARATIVE APPROPRIATIONS BY MAJOR CHARACTER OF EXPENDITURE**



Note: Percentages are rounded.

## COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE 2019-2018 ALL FUNDS

ORGANIZATION or FUND	YEAR	TOTAL	PERSONAL SERVICES	CONTRACTUAL SERVICES	MATERIALS & SUPPLIES	MACHINERY & EQUIPMENT	CAPITAL PROJECTS	LAND	FIXED & OTHER CHARGES
Board of Commissioners	2019	\$ 5,256,000	\$ 4,302,100	\$ 928,400	\$ 25,500	\$ —	\$ —	\$ —	\$ —
	2018	\$ 5,145,200	\$ 4,249,300	\$ 890,400	\$ 5,500	\$ —	\$ —	\$ —	\$ —
General Administration	2019	18,713,800	11,880,900	5,535,700	302,400	994,800	—	—	—
	2018	16,725,400	11,895,600	4,622,100	207,700	—	—	—	—
Monitoring & Research	2019	31,548,300	29,620,100	1,005,800	538,100	384,300	—	—	—
	2018	31,888,700	30,150,900	964,900	482,800	290,100	—	—	—
Procurement & Materls. Management	2019	9,821,100	5,880,000	155,500	3,496,400	172,200	117,000	—	—
	2018	9,466,700	5,796,900	131,800	3,508,000	30,000	—	—	—
Human Resources	2019	60,229,600	55,193,200	4,833,400	203,000	—	—	—	—
	2018	59,226,400	54,412,200	4,531,500	257,700	25,000	—	—	—
Information Technology	2019	18,592,700	8,746,500	8,804,500	827,700	214,000	—	—	—
	2018	17,052,500	8,855,300	7,478,000	689,200	30,000	—	—	—
Law	2019	7,177,700	5,728,200	675,900	18,600	—	—	—	755,000
	2018	7,502,800	5,309,400	1,285,200	18,200	—	—	—	890,000
Finance	2019	3,739,800	3,379,200	338,000	22,600	—	—	—	—
	2018	3,743,900	3,335,100	393,400	15,400	—	—	—	—
<b>Maint. &amp; Operations:</b>									
General Division	2019	31,771,800	13,717,000	16,772,400	832,400	450,000	—	—	—
	2018	26,155,200	12,686,000	12,716,700	752,500	—	—	—	—
North Service Area	2019	43,582,000	26,234,900	13,374,700	3,609,700	362,700	—	—	—
	2018	42,258,700	25,512,400	13,930,300	2,709,100	106,900	—	—	—
Calumet Service Area	2019	36,727,200	19,338,800	12,826,000	3,648,400	914,000	—	—	—
	2018	36,295,300	18,749,700	13,695,200	3,764,700	85,700	—	—	—
Stickney Service Area	2019	84,511,300	39,346,000	31,910,300	12,940,000	315,000	—	—	—
	2018	86,426,300	38,231,300	35,901,200	12,268,800	25,000	—	—	—
TOTAL Maintenance & Operations	2019	\$ 196,592,300	\$ 98,636,700	\$ 74,883,400	\$ 21,030,500	\$ 2,041,700	\$ —	\$ —	\$ —
	2018	\$ 191,135,500	\$ 95,179,400	\$ 76,243,400	\$ 19,495,100	\$ 217,600	\$ —	\$ —	\$ —
Engineering	2019	25,941,200	25,544,200	342,900	54,100	—	—	—	—
	2018	28,322,100	27,840,200	401,500	80,400	—	—	—	—
TOTAL Corporate Fund	2019	\$ 377,612,500	\$ 248,911,100	\$ 97,503,500	\$ 26,518,900	\$ 3,807,000	\$ 117,000	\$ —	\$ 755,000
	2018	\$ 370,209,200	\$ 247,024,300	\$ 96,942,200	\$ 24,760,000	\$ 592,700	\$ —	\$ —	\$ 890,000
Construction Fund	2019	18,340,300	—	3,765,700	—	3,070,000	11,504,600	—	—
	2018	26,080,600	—	6,302,500	—	5,397,100	14,381,000	—	—
Capital Improvements Bond Fund	2019	378,173,800	—	27,209,100	—	—	347,256,100	1,664,700	2,043,900
	2018	312,982,900	—	9,472,000	—	795,000	300,665,900	300,000	1,750,000
Stormwater Management Fund	2019	91,410,100	9,956,500	52,407,100	131,400	—	27,515,100	1,000,000	400,000
	2018	65,581,000	6,683,500	38,466,500	124,900	—	19,506,100	400,000	400,000
Bond Redemption & Interest Fund	2019	238,357,541	—	—	—	—	—	—	238,357,541
	2018	256,304,187	—	—	—	—	—	—	256,304,187
Retirement Fund	2019	87,281,000	—	—	—	—	—	—	87,281,000
	2018	89,604,000	—	—	—	—	—	—	89,604,000
Reserve Claim Fund	2019	31,767,800	10,000,000	—	—	—	—	—	21,767,800
	2018	30,289,500	10,000,000	—	—	—	—	—	20,289,500
<b>GRAND TOTAL</b>	2019	\$ 1,222,943,041	\$ 268,867,600	\$ 180,885,400	\$ 26,650,300	\$ 6,877,000	\$ 386,392,800	\$ 2,664,700	\$ 350,605,241
	2018	\$ 1,151,051,387	\$ 263,707,800	\$ 151,183,200	\$ 24,884,900	\$ 6,784,800	\$ 334,553,000	\$ 700,000	\$ 369,237,687
PERCENTAGES	2019	100.0%	22.0%	14.8%	2.2%	0.6%	31.6%	0.2%	28.7%
	2018	100.0%	22.9%	13.1%	2.2%	0.6%	29.1%	0.1%	32.1%

Note: Percentages are rounded.

**COMPARATIVE APPROPRIATIONS BY CHARACTER OF EXPENDITURE  
2019-2018 ALL FUNDS**

ORGANIZATION OR FUND	YEAR	TOTAL	CURRENT EXPENSE	CAPITAL OUTLAY	DEBT RETIREMENT
Board of Commissioners	2019	\$ 5,256,000	\$ 5,256,000	\$ —	\$ —
	2018	\$ 5,145,200	\$ 5,145,200	\$ —	\$ —
General Administration	2019	18,713,800	17,719,000	994,800	—
	2018	16,725,400	16,725,400	—	—
Monitoring & Research	2019	31,548,300	31,164,000	384,300	—
	2018	31,888,700	31,598,600	290,100	—
Procurement & Materials Management	2019	9,821,100	9,531,900	289,200	—
	2018	9,466,700	9,436,700	30,000	—
Human Resources	2019	60,229,600	60,229,600	—	—
	2018	59,226,400	59,201,400	25,000	—
Information Technology	2019	18,592,700	18,378,700	214,000	—
	2018	17,052,500	17,022,500	30,000	—
Law	2019	7,177,700	7,177,700	—	—
	2018	7,502,800	7,502,800	—	—
Finance	2019	3,739,800	3,739,800	—	—
	2018	3,743,900	3,743,900	—	—
Maintenance & Operations:					
General Division	2019	31,771,800	31,321,800	450,000	—
	2018	26,155,200	26,155,200	—	—
North Service Area	2019	43,582,000	43,219,300	362,700	—
	2018	42,258,700	42,151,800	106,900	—
Calumet Service Area	2019	36,727,200	35,813,200	914,000	—
	2018	36,295,300	36,209,600	85,700	—
Stickney Service Area	2019	84,511,300	84,196,300	315,000	—
	2018	86,426,300	86,401,300	25,000	—
TOTAL Maintenance & Operations	2019	\$ 196,592,300	\$ 194,550,600	\$ 2,041,700	\$ —
	2018	\$ 191,135,500	\$ 190,917,900	\$ 217,600	\$ —
Engineering	2019	25,941,200	25,941,200	—	—
	2018	28,322,100	28,322,100	—	—
TOTAL Corporate Fund	2019	\$ 377,612,500	\$ 373,688,500	\$ 3,924,000	\$ —
	2018	\$ 370,209,200	\$ 369,616,500	\$ 592,700	\$ —
Construction Fund	2019	18,340,300	3,765,700	14,574,600	—
	2018	26,080,600	6,302,500	19,778,100	—
Capital Improvements Bond Fund	2019	378,173,800	27,503,000	350,670,800	—
	2018	312,982,900	9,472,000	303,510,900	—
Stormwater Management Fund	2019	91,410,100	62,895,000	28,515,100	—
	2018	65,581,000	45,674,900	19,906,100	—
Bond Redemption & Interest Fund	2019	238,357,541	—	—	238,357,541
	2018	256,304,187	—	—	256,304,187
Retirement Fund	2019	87,281,000	87,281,000	—	—
	2018	89,604,000	89,604,000	—	—
Reserve Claim Fund	2019	31,767,800	31,767,800	—	—
	2018	30,289,500	30,289,500	—	—
<b>GRAND TOTAL</b>	2019	\$ 1,222,943,041	\$ 586,901,000	\$ 397,684,500	\$ 238,357,541
	2018	\$ 1,151,051,387	\$ 550,959,400	\$ 343,787,800	\$ 256,304,187
<b>PERCENTAGES</b>	2019	100%	48%	33%	19%
	2018	100%	48%	30%	22%

Note: Percentages are rounded.



**2019 - 2018\* PROGRAM APPROPRIATION - ALL FUNDS**  
**BY DEPARTMENT AND MAJOR PROGRAM**  
(In Millions)

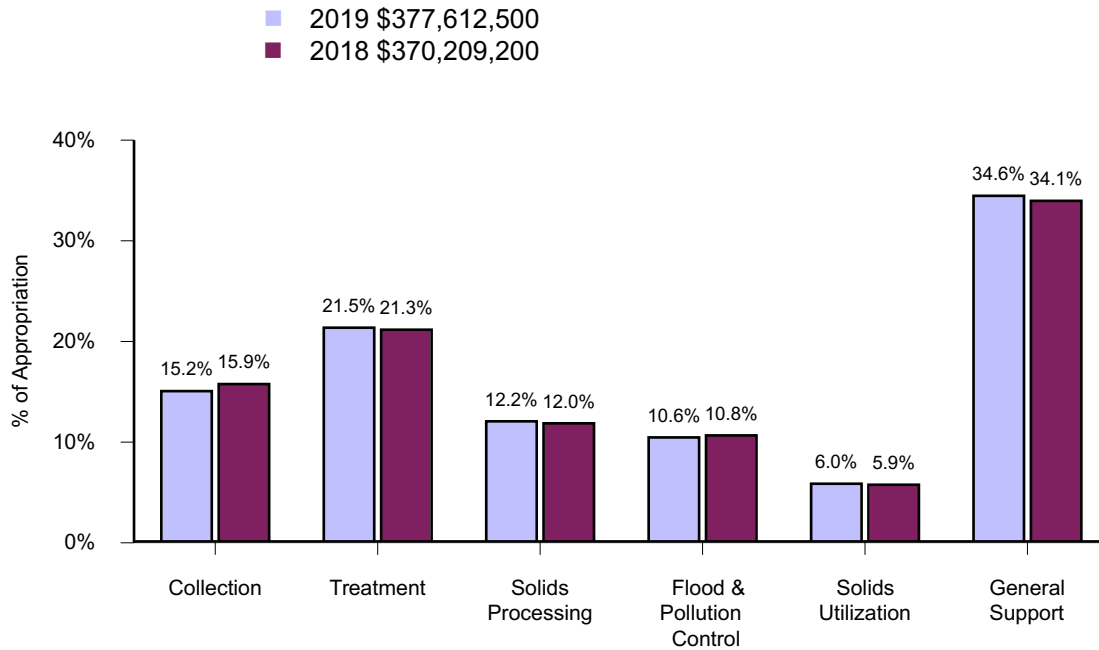
DEPARTMENT	MAJOR PROGRAM															
	COLLECTION		TREATMENT		SOLIDS PROCESSING		SOLIDS UTILIZATION		FLOOD & POLLUTION CONTROL		GENERAL SUPPORT		TOTAL			
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018		
Board of Commissioners	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 5.3	\$ 5.1	\$ 5.3	\$ 5.1
General Administration	—	—	—	—	—	—	—	—	—	—	—	—	18.7	16.7	18.7	16.7
Monitoring & Research	—	—	—	—	—	—	—	—	—	31.1	31.5	0.4	0.4	31.5	31.9	
Procurement & Materials Management	—	—	—	—	—	—	—	—	—	—	—	9.8	9.5	9.8	9.5	
Human Resources	—	—	—	—	—	—	—	—	—	—	—	60.2	59.2	60.2	59.2	
Information Technology	—	—	—	—	—	—	—	—	—	—	—	18.6	17.1	18.6	17.1	
Law	—	—	—	—	—	—	—	—	—	0.4	0.4	6.7	7.0	7.2	7.5	
Finance	—	—	—	—	—	—	—	—	—	0.3	—	3.5	3.7	3.7	3.7	
Maintenance & Operations	52.4	51.6	72.3	70.1	39.6	38.1	22.2	21.5	4.8	4.8	5.2	4.9	196.6	191.1		
Engineering	4.9	7.4	8.8	8.7	6.4	6.1	0.4	0.4	3.2	3.3	2.3	2.4	25.9	28.3		
Total Corporate Fund	\$ 57.3	\$ 59.0	\$ 81.1	\$ 78.9	\$ 46.0	\$ 44.3	\$ 22.6	\$ 21.9	\$ 39.9	\$ 40.0	\$ 130.6	\$ 126.2	\$ 377.6	\$ 370.2		
Construction and Capital Improvements Bond Funds	\$ 45.4	\$ 47.7	\$ 81.3	\$ 72.1	\$ 42.4	\$ 34.8	\$ 5.0	\$ 8.6	\$ 220.0	\$ 171.1	\$ 2.5	\$ 4.8	\$ 396.5	\$ 339.1		
Stormwater Management Fund	—	—	—	—	—	—	—	—	91.3	65.5	0.1	0.1	91.4	65.6		
Miscellaneous (Debt Service, Retirement, and Reserve Funds)	—	—	—	—	—	—	—	—	—	—	357.4	376.2	357.4	376.2		
<b>GRAND TOTAL</b>	<b>\$ 102.7</b>	<b>\$ 106.7</b>	<b>\$ 162.4</b>	<b>\$ 150.9</b>	<b>\$ 88.5</b>	<b>\$ 79.1</b>	<b>\$ 27.5</b>	<b>\$ 30.5</b>	<b>\$ 351.1</b>	<b>\$ 276.6</b>	<b>\$ 490.7</b>	<b>\$ 507.2</b>	<b>\$ 1,222.9</b>	<b>\$ 1,151.1</b>		

Notes: Totals are rounded.  
\*Adjusted Appropriation

### APPROPRIATION DISTRIBUTION BY MAJOR PROGRAM

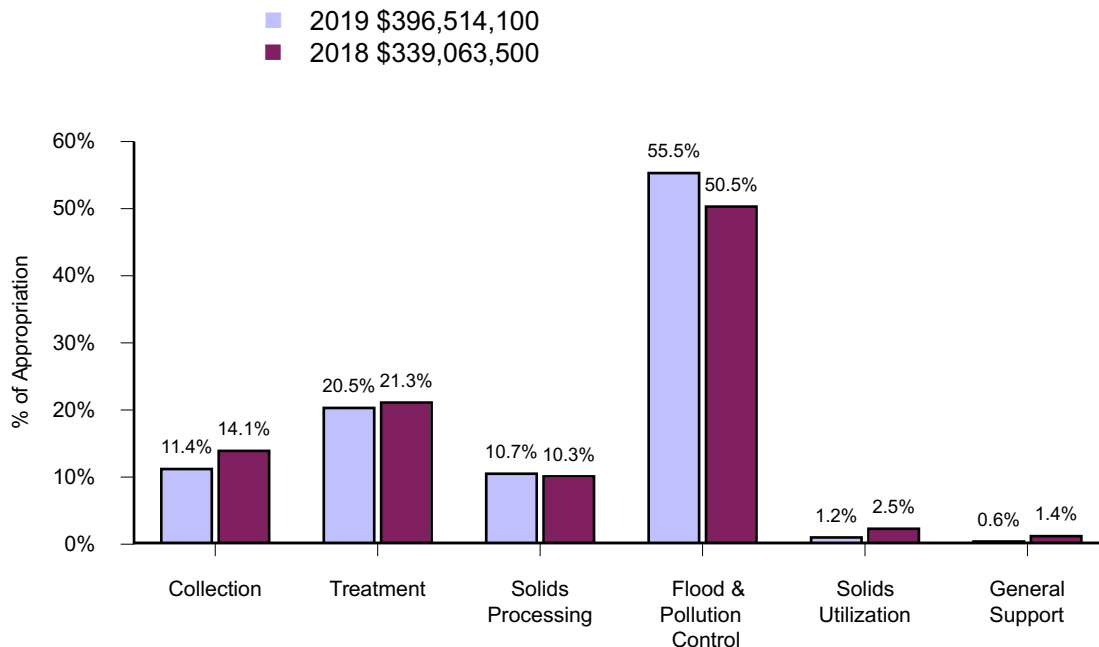
To comply with Illinois State Statute, it is necessary to prepare budget estimates and appropriate funds according to programs, as well as organizational units, performance principles, and unit cost data. The two charts on this page show the relationship of major objectives or functions within the Corporate, Construction, and Capital Improvements Bond Funds. The charts compare major program appropriations to the total fund appropriations for 2019 and 2018, as shown on the following page.

#### Corporate Fund



Note: Percentages are rounded.

#### Capital Improvements Bond & Construction Funds



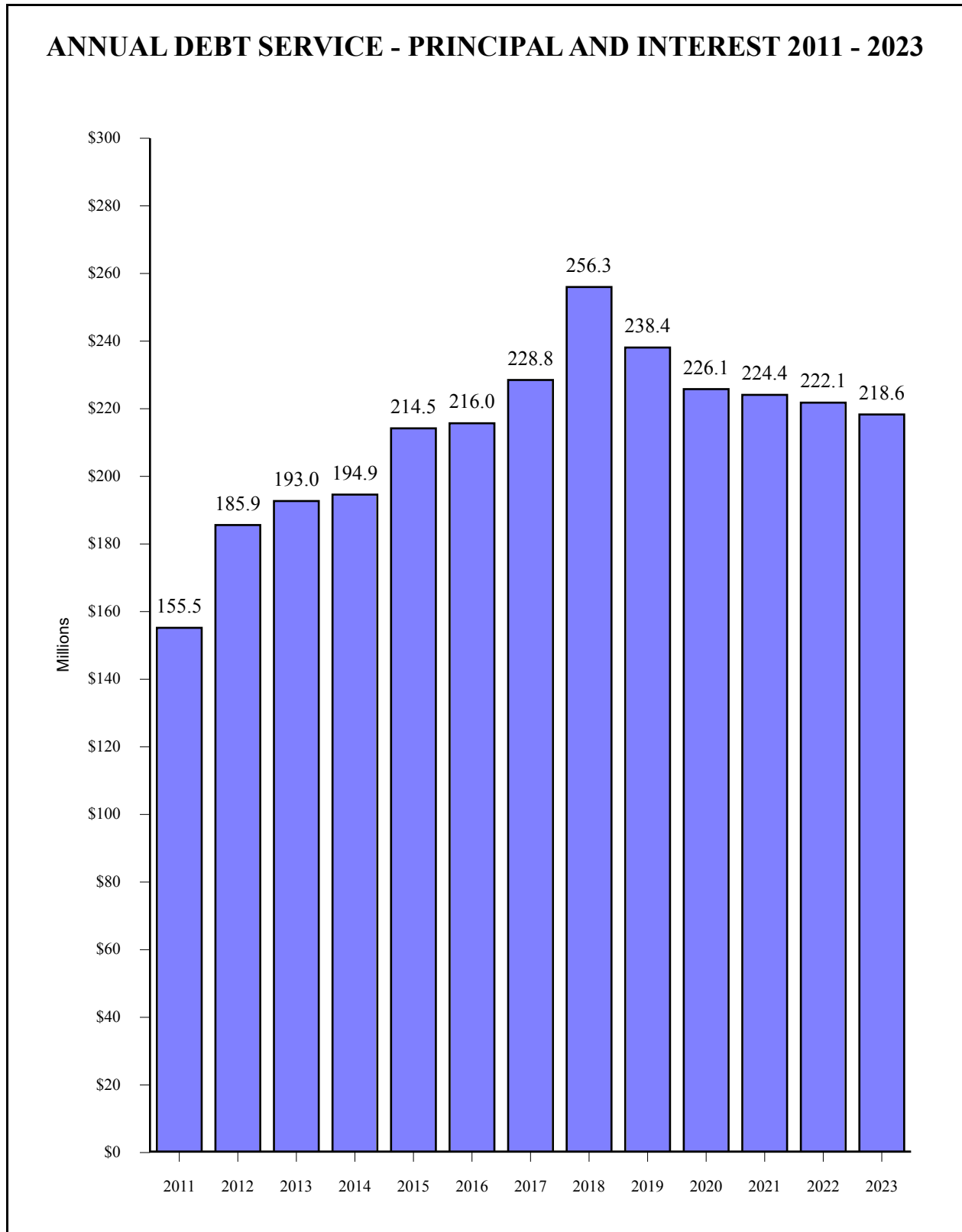
Note: Percentages are rounded.

## 2019 - 2018 PROGRAM APPROPRIATION COMPARISON ALL FUNDS

**PROGRAM OBJECTIVE**

NUMBER	NAME	2019 BUDGET	2018 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
						2019	2018
1000	Collection	\$ 102,692,675	\$ 106,673,907	\$ (3,981,232)	(3.7)	285	309
2000	Treatment	162,445,816	150,946,255	11,499,561	7.6	460	454
3000	Solids Processing	88,451,745	79,054,980	9,396,765	11.9	254	250
4000	Flood & Pollution Control	351,145,583	276,602,265	74,543,318	26.9	442	423
5000	Solids Utilization	27,549,217	30,536,700	(2,987,483)	(9.8)	43	41
7000	General Support (Debt, Retirement, Law, etc.)	490,658,005	507,237,280	(16,579,275)	(3.3)	483	489
<b>TOTAL</b>		<b>\$ 1,222,943,041</b>	<b>\$ 1,151,051,387</b>	<b>\$ 71,891,654</b>	<b>6.2</b>	<b>1,967</b>	<b>1,966</b>

SUMMARY BY FUND	2019 BUDGET	2018 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
					2019	2018
Corporate Fund	\$ 377,612,500	\$ 370,209,200	\$ 7,403,300	2.0	1,882	1,909
Construction & Capital Improvements Bond Funds	396,514,100	339,063,500	57,450,600	16.9	—	—
Stormwater Management Fund	91,410,100	65,581,000	25,829,100	39.4	85	57
Retirement Fund	87,281,000	89,604,000	(2,323,000)	(2.6)	—	—
Bond Redemption & Interest Fund	238,357,541	256,304,187	(17,946,646)	(7.0)	—	—
Reserve Claim Fund	31,767,800	30,289,500	1,478,300	4.9	—	—
<b>TOTAL</b>	<b>\$ 1,222,943,041</b>	<b>\$ 1,151,051,387</b>	<b>\$ 71,891,654</b>	<b>6.2</b>	<b>1,967</b>	<b>1,966</b>



This chart shows debt service for current bonds outstanding. The increase in 2018 is due to the advance payment of \$28.4 million, resulting in a savings of \$9.6 million over the life of the loans. Increases in 2017 and 2015 are due to issuances of July 2016 Limited and Unlimited Tax Series Bonds and December 2014 Limited and Unlimited Tax Series Bonds, respectively. The increase in 2012 is due to the issuance of July 2011 General Obligation Bonds.

Bonds to be sold in the future are not included in this chart and are detailed in the Five-Year Financial Forecast on pages 62 and 70.

**OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN  
DECEMBER 31, 2018**

<b>BOND SERIES</b>	<b>DATE OF MATURITY</b>	<b>INTEREST RATES</b>	<b>AMOUNT PAYABLE</b>
Capital Improvements Bonds - Series:			
2009 Limited Tax Series	2038	5.72%	\$ 600,000,000
2011 Limited Tax Series B	2032	3.1% to 5.0%	237,030,000
2011 Unlimited Tax Series C	2031	3.0% to 5.0%	43,735,000
2014 Unlimited Tax Series A	2044	5.0%	100,000,000
2014 Alternate Revenue Unlimited Tax Series B	2044	2.0% to 5.0%	47,190,000
2014 Limited Tax Series C	2028	2.0% to 5.0%	62,535,000
2016 Unlimited Tax Series C	2045	5.0%	30,000,000
2016 Limited Tax Series D	2030	5.0%	20,000,000
2016 Alternate Revenue Unlimited Tax Series E	2045	5.0%	50,000,000
2016 Qualified Energy Conservation Limited Tax Series F	2036	4.0%	4,000,000
SUBTOTAL - Capital Improvements Bonds:			<u>\$ 1,194,490,000</u>
Refunding Bonds - Series:			
2007 Unlimited Tax Series A	2022	4.0% to 5.0%	\$ 91,325,000
2007 Unlimited Tax Series B	2035	4.0% to 5.0%	91,845,000
2007 Limited Tax Series C	2033	4.0% to 5.0%	101,860,000
2014 Limited Tax Series D	2022	2.0% to 5.0%	53,125,000
2016 Unlimited Tax Series A	2031	5.0%	280,930,000
2016 Limited Tax Series B	2031	5.0%	41,330,000
SUBTOTAL - Refunding Bonds:			<u>\$ 660,415,000</u>
State Revolving Fund Bonds - Series:			
97AA SRF L170822	2019	2.506%	\$ 3,203,445
97BB SRF L171151	2020	2.535%	1,269,943
97CC SRF L172031	2021	2.535%	7,928,891
97DD SRF L171152	2023	2.905%	4,803,225
01A SRF L172126	2024	2.57%	19,357,481
01B SRF L172127	2024	2.50%	22,996,315
01C SRF L172128	2026	2.50%	23,082,086
04A SRF L172485	2028	2.50%	12,654,586
04B SRF L172488	2028	2.50%	14,783,023
04C SRF L172493	2027	2.50%	1,314,718
04D SRF L172494	2027	2.50%	1,260,783
04E SRF L172495	2028	2.50%	4,350,153
04F SRF L172496	2031	—%	2,484,180
04G SRF L172611	2027	2.50%	2,048,188
04H SRF L172849	2029	2.50%	32,490,869
07A SRF L172625	2030	2.50%	27,541,161
07B SRF L172850	2030	2.50%	19,080,229
07C SRF L172770	2031	—%	41,666,667
07D SRF L172763	2030	2.50%	6,281,836
09A SRF L173074	2032	1.25%	32,968,915
09B SRF L173064	2031	—%	4,786,123
09C SRF L173063	2031	—%	1,399,464
09D SRF L174558	2033	2.295%	29,269,495
09E SRF L173005	2031	1.25%	27,185,219
09F SRF L174557	2032	1.25%	44,859,856
09G SRF L173075	2032	1.25%	21,043,981
09H SRF L173800	2031	—%	459,904
09I SRF L174675	2031	1.25%	7,283,027

**OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN  
DECEMBER 31, 2018**

<b>BOND SERIES</b>	<b>DATE OF MATURITY</b>	<b>INTEREST RATES</b>	<b>AMOUNT PAYABLE</b>
State Revolving Fund Bonds - Series (continued):			
12A SRF L174710	2034	2.295%	\$ 6,208,752
12B SRF L174712	2034	2.295%	5,317,315
12C SRF L174621	2036	1.995%	12,484,442
12D SRF L174988	2035	1.93%	23,917,079
12E SRF L174709	2035	1.93%	4,955,103
12F SRF L174989	2035	1.93%	46,565,837
12G SRF L174923	2038	1.93%	32,840,169
12H SRF L174924	2035	1.93%	21,583,947
12I SRF L175222	2036	2.21%	4,644,104
12J SRF L175172	2035	1.995%	2,350,755
12K SRF L174925	2035	1.995%	12,144,738
12L SRF L175161	2036	2.21%	30,943,211
12M SRF L175168	2037	2.21%	11,447,119
12N SRF L175164	2036	1.995%	2,608,184
12O SRF L175166	2035	1.995%	4,199,543
14A SRF L173076	2036	2.21%	74,725,359
14B SRF L175171	2036	2.21%	2,559,300
14C SRF L174559	2036	2.295%	18,805,139
14D SRF L175263	2038	1.86%	11,223,741
14E SRF L173062	2038	1.86%	34,622,669
14G SRF L175152	2038	1.86%	15,369,975
14H SRF L175355	2036	1.86%	1,163,155
14I SRF L175223	2038	1.86%	5,918,088
14J SRF L175219	2036	2.21%	3,075,898
14K SRF L175366	2038	1.86%	4,871,950
14L SRF L175368	2038	1.75%	5,452,385
14M SRF L175372	2038	2.221%	1,441,655
14N SRF L175371	2038	1.995%	1,320,441
16A SRF L174555	2038	1.75%	129,663,954
16D SRF L175460	2038	1.75%	4,872,946
SUBTOTAL - State Revolving Fund Bonds:			\$ 955,150,713
<b>TOTAL OUTSTANDING BONDS:</b>			<b>\$ 2,810,055,713</b>

**CALCULATION OF ESTIMATED STATUTORY DEBT MARGIN**

Debt Applicable to Debt Limit:			
Outstanding Bonds		\$ 2,810,055,713	
Less: Alternate Revenue Bonds Outstanding		(97,190,000)	
Bond Anticipation Note - Principal		130,000,000	
Bond Anticipation Note - Interest		1,000,000	
Capital Lease - Biosolids Facility		35,979,558	
Liabilities of Tax Financed Funds		3,000,000	\$ 2,882,845,271
Less Applicable Assets:			
Cash and Investments - Bond Redemption & Interest Fund		\$ (112,000,000)	
Interest on Bonds Payable in Next Twelve Months		115,014,150	\$ 3,014,150
NET DEBT APPLICABLE TO LIMIT:			\$ 2,885,859,421
Statutory Debt Limit 5.75% of 2017 EAV			\$ 8,506,884,838
Less Net Debt Applicable to Limit			2,885,859,421
<b>ESTIMATED STATUTORY DEBT MARGIN:</b>			<b>\$ 5,621,025,417</b>

## ACCOUNT SUMMARY COMPARISON 2019 - 2018 ALL FUNDS

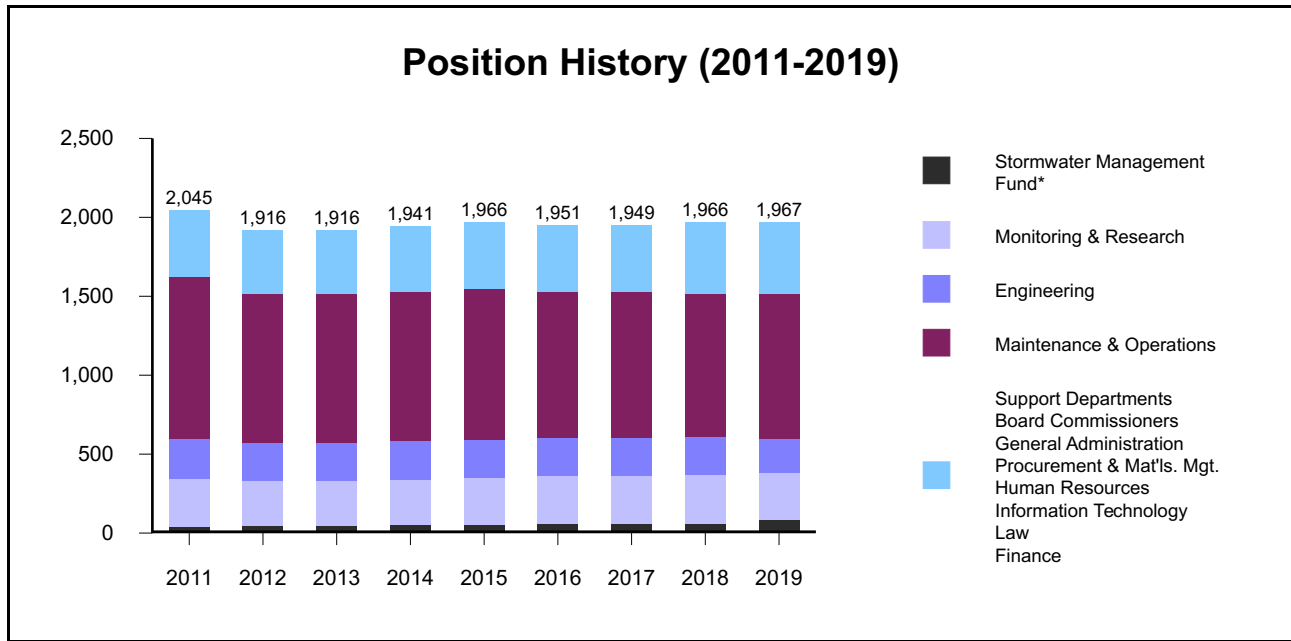
ORGANIZATION OR FUND	Account Appropriation		Increase (Decrease) 2019-2018	
	2019	2018	Dollars	Percent
<b>Board of Commissioners</b>	\$ 5,256,000	\$ 5,145,200	\$ 110,800	2.2
<b>General Administration</b>	18,713,800	16,725,400	1,988,400	11.9
<b>Monitoring &amp; Research</b>	31,548,300	31,888,700	(340,400)	(1.1)
<b>Procurement &amp; Materials Management</b>	9,821,100	9,466,700	354,400	3.7
<b>Human Resources</b>	60,229,600	59,226,400	1,003,200	1.7
<b>Information Technology</b>	18,592,700	17,052,500	1,540,200	9.0
<b>Law</b>	7,177,700	7,502,800	(325,100)	(4.3)
<b>Finance</b>	3,739,800	3,743,900	(4,100)	(0.1)
<b>Maintenance &amp; Operations:</b>				
<b>General Division</b>	31,771,800	26,155,200	5,616,600	21.5
<b>North Service Area</b>	43,582,000	42,258,700	1,323,300	3.1
<b>Calumet Service Area</b>	36,727,200	36,295,300	431,900	1.2
<b>Stickney Service Area</b>	84,511,300	86,426,300	(1,915,000)	(2.2)
<b>TOTAL Maintenance &amp; Operations</b>	\$ 196,592,300	\$ 191,135,500	\$ 5,456,800	2.9
<b>Engineering</b>	25,941,200	28,322,100	(2,380,900)	(8.4)
<b>TOTAL Corporate Fund</b>	\$ 377,612,500	\$ 370,209,200	\$ 7,403,300	2.0
<b>Construction Fund</b>	18,340,300	26,080,600	(7,740,300)	(29.7)
<b>Capital Improvements Bond Fund</b>	378,173,800	312,982,900	65,190,900	20.8
<b>TOTAL Capital Budget</b>	\$ 396,514,100	\$ 339,063,500	\$ 57,450,600	16.9
<b>Stormwater Management Fund</b>	91,410,100	65,581,000	25,829,100	39.4
<b>Bond Redemption &amp; Interest Fund</b>	238,357,541	256,304,187	(17,946,646)	(7.0)
<b>Retirement Fund</b>	87,281,000	89,604,000	(2,323,000)	(2.6)
<b>Reserve Claim Fund</b>	31,767,800	30,289,500	1,478,300	4.9
<b>GRAND TOTAL</b>	<u>\$1,222,943,041</u>	<u>\$1,151,051,387</u>	<u>\$ 71,891,654</u>	6.2

**PERSONNEL SUMMARY COMPARISON  
2019 - 2017 ALL FUNDS**

ORGANIZATION OR FUND	Proposed FTEs 2019	Budgeted FTEs 2018	Actual FTEs 2017	Increase (Decrease) 2019-2018	
				FTEs	Percent
<b>Board of Commissioners</b>	38	38	37	—	—
<b>General Administration</b>	119	121	122	(2)	(1.7)
<b>Monitoring &amp; Research</b>	300	312	305	(12)	(3.8)
<b>Procurement &amp; Materials Management</b>	63	63	60	—	—
<b>Human Resources</b>	93	91	71	2	2.2
<b>Information Technology</b>	71	73	68	(2)	(2.7)
<b>Law</b>	39	37	36	2	5.4
<b>Finance</b>	27	28	28	(1)	(3.6)
<b>Maintenance &amp; Operations:</b>					
<b>General Division</b>	115	107	115	8	7.5
<b>North Service Area</b>	248	245	246	3	1.2
<b>Calumet Service Area</b>	188	185	188	3	1.6
<b>Stickney Service Area</b>	369	367	372	2	0.5
<b>TOTAL Maintenance &amp; Operations</b>	920	904	921	16	1.8
<b>Engineering</b>	212	242	242	(30)	(12.4)
<b>TOTAL Corporate Fund</b>	1,882	1,909	1,890	(27)	(1.4)
<b>Construction Fund</b>	—	—	—	—	—
<b>Capital Improvements Bond Fund</b>	—	—	—	—	—
<b>TOTAL Capital Budget</b>	—	—	—	—	—
<b>Stormwater Management Fund</b>	85	57	59	28	49.1
<b>Bond Redemption &amp; Interest Fund</b>	—	—	—	—	—
<b>Retirement Fund</b>	—	—	—	—	—
<b>Reserve Claim Fund</b>	—	—	—	—	—
<b>GRAND TOTAL</b>	1,967	1,966	1,949	1	0.1



**PERSONAL SERVICE APPROPRIATIONS**



\*In 2019, 85 positions for the Maintenance & Operations and Engineering Departments are budgeted in the Stormwater Management Fund, while the operations remain within the departments.

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 reduction in 2012 was 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 2018 is primarily due to the expansion of the internship and apprenticeship programs.

The exhibit below provides the personal service appropriations for 2018 and 2019, and the actual expenditures for personal services in 2017. The District has introduced a number of initiatives in an effort to control cost increases including actively managing employee health benefit costs.

	2017 Actual Exp.	2018 Adj. Approp.	2019 Budgeted	Increase (Decrease) 2019-2018	
				Dollars	Percent
Salaries of Regular Employees	\$ 181,002,331	\$ 193,081,800	\$ 198,052,100	\$ 4,970,300	2.6 %
Compensation Plan Adjustments	7,393,517	8,254,400	8,024,000	\$ (230,400)	(2.8)%
Social Security & Medicare Contributions	2,678,867	2,867,200	2,980,500	\$ 113,300	4.0 %
Employee Claims	4,255,692	10,074,000	10,060,000	\$ (14,000)	(0.1)%
Other Employee Personal Services*	1,770,517	2,126,100	2,067,700	\$ (58,400)	(2.7)%
Health & Life Insurance Premiums**	43,402,648	47,008,800	47,683,300	\$ 674,500	1.4 %
<b>Total</b>	<b>\$ 240,503,572</b>	<b>\$ 263,412,300</b>	<b>\$ 268,867,600</b>	<b>\$ 5,455,300</b>	<b>2.1 %</b>

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

# **FIVE-YEAR FINANCIAL FORECAST**

## **2019 - 2023**

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

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

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

**BOARD OF COMMISSIONERS**

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*President*
- Barbara J. McGowan  
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- Frank Avila  
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- Josina Morita
- Debra Shore
- Kari K. Steele
- David J. Walsh

October 16, 2018

**SUBJECT: FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**

Dear Sir:

I have reviewed the Five-Year Financial Forecast prepared for the fiscal years 2019 - 2023 and offer the following report and summary. Subject to your review and approval, this will be included in the 2019 Budget. These projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the 2019 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**

Illinois Property Tax Extension Limitation (Tax Cap) statute 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 2019 is estimated to increase by 3.5 percent over 2018, as adjusted, and is projected to increase an average of 3.5 percent per year for 2020 through 2023. As noted on the graph on page 66, the 2019 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 2018 aggregate levy to be collected in 2019, depending on the 2018 CPI. It is not anticipated to be a significant reduction.

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 immediate five year time period covered by this forecast.

**EXPENDITURES: DEPARTMENTAL GUIDELINES AND METHODOLOGY**

The Budget Office asked each department to project its needs for the years 2019 - 2023. 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 and contractual rates.

**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. The District will monitor the impacts of tariffs, particularly on steel and other commodities;
- 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 2017 amount as provided by the Cook County Clerk, with estimated growth of 3.0 percent annually from 2019 - 2023;
- 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 3.0 percent for the years 2019 - 2023, and allowable adjustments to EAV for new property at just under 0.5 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>
2019		
2020		
2021	\$100 million	\$25 million
2022		
2023		

- 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 \$120 million in 2019 and \$175 million annually from 2020 - 2023 in State Revolving Fund loans;

**APPROPRIATION FORECASTS**

Total District appropriations are summarized in the exhibit on page 66, and detailed in Table I on page 67. 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 2019 through 2023. 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. Following four years of growth in energy and chemical costs, the District anticipates a stable outlook. The District's long-term benefits strategy continues to focus on rising health care costs. Employee and retiree benefits constitute approximately 11.1 percent of the Corporate Fund budget. While strategies to limit cost increases have resulted in average annual increases of 2.3 percent from 2013 to 2018, benefits are projected to increase an average 6.2 percent annually over the next five years. 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. Salaries are projected to increase 2.0 percent from 2020 through 2023, while the number of positions is projected to remain stable or decrease slightly.

*Energy Costs*

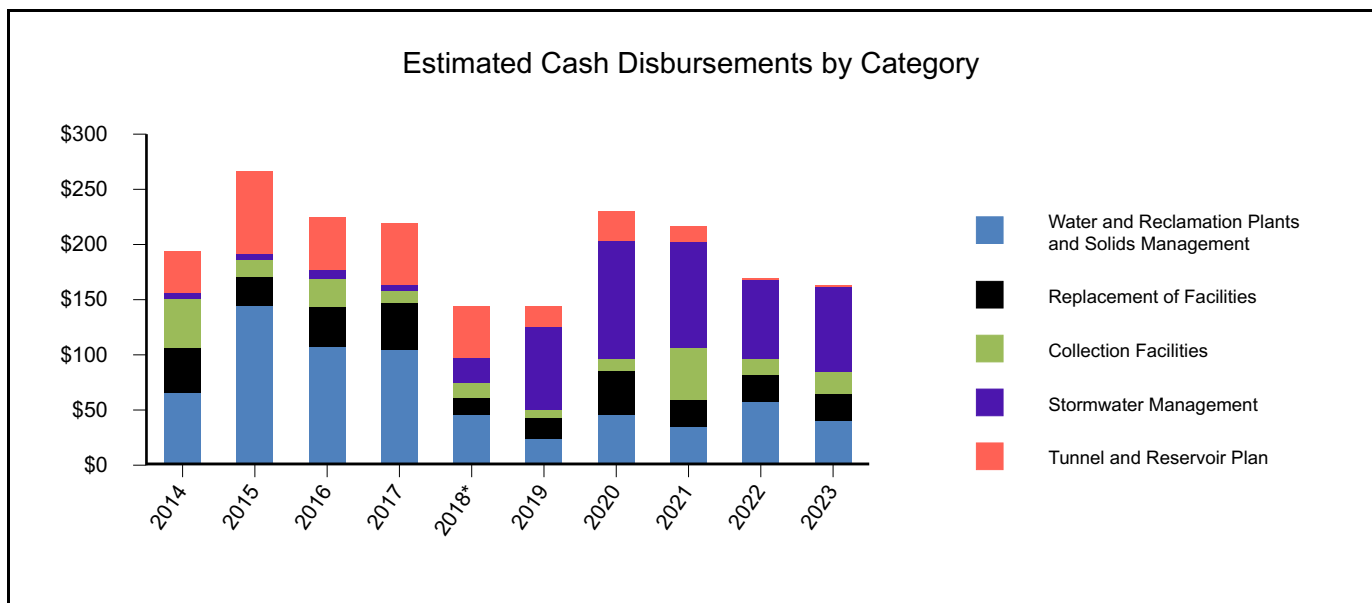
Energy costs are expected to decrease by 14.7 percent from 2018 to 2019 due primarily to a rate reduction and elimination of the Energy Efficiency charge. Projections remain stable from 2019 through 2023. In 2017, the District extended the electricity supply contract for 2019 at a rate that is 13.46% percent lower than the 2018 rate. The District has entered into an agreement with American Powernet LP, to sell Renewable Energy Credits on the open market in Illinois, Maryland and the District of Columbia. Estimated revenue is approximately \$200,000 annually. Finally, the District has completed phase 1 of 3 guaranteed energy performance agreements with the Public Building Commission and NORESCO. Work completed in 2017 at the Calumet Water Reclamation

Plant, included replacing lighting, HVAC controls and steam blanket insulation. In 2018, phase 2 work began in the North Area and various outlying stations. The third phase of the project is scheduled for 2019 at the Stickney Water Reclamation Plant.

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 \$125 million in 2021. 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. In the US Army Corps of Engineers’ (Corps) FY 2018 Work Plan, \$34.7 million in federal funds was designated to be transferred to the District to take over the management and complete Stage 2 of the McCook Reservoir. The District is currently working with the Corps to execute a Project Cooperation Agreement (PCA) amendment, that will allow the transfer of funds and responsibility to take place. The authority for this transfer stems from Section 1043 of the Water Resources Development Act of 2014.

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 2023. The table below shows the Estimated Cash Disbursements by Category for construction projects.



\*Estimated 2018 Year-end

Retirement Fund

The appropriation for the Retirement Fund is decreasing from 2018 to 2019 by \$2.3 million and is projected to remain stable from 2020 through 2023 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.

Debt Service Fund

Debt Service Fund appropriations will decrease slightly, an average of 2.0 percent annually over the next five years due primarily to the utilization of low-interest State Revolving Fund loans. 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 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.

### Reserve Claim Fund

The appropriation for the Reserve Claim Fund is expected to grow slowly between 2020 and 2023, from \$30.5 million to \$37.0 million. 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 stable. Beginning in 2015, the District purchased insurance coverage for roughly \$10.5 billion in assets.

### **TAX LEVY FORECASTS**

Tax levies are projected to increase an average rate of 3.0 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 3.7 percent annually from 2019 through 2023. Property tax revenues account for 65.0 percent of 2019 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 \$7.6 million in 2019. The Levy is projected to remain stable at \$8.0 million through 2021, and then increase to \$15.0 million. The Construction Fund finances small construction projects and equipment replacement on a pay-as-you-go basis.

#### Retirement Fund

The average increase projected for 2019 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 2019 through 2022, the Property Tax Levy, PPRT distribution, and the appropriation are expected to be stable.

#### Reserve Claim

The tax levy for the Reserve Claim Fund is projected to be \$7.5 million in 2019 and remain flat at \$7.5 million from 2020 through 2023.

#### Stormwater Management Fund

The Stormwater Management Fund levy is projected to increase an average of 8.5 percent annually as the District continues to address local flooding issues. Regional stormwater management projects are being vetted for funding in 2019 and the following years.

#### Bond Redemption and Interest Fund

The 2019 tax levies for the District's Debt Service Fund are based on six refunding bonds, 10 capital improvement bonds, and 63 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 2019 through 2023 appears on page 70. The District's outstanding bonds and ability to issue additional bonds are presented on pages 546 - 550.

### **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. Assuming a 3.00% annual increase in EAV, the District's tax rate per \$100 of assessed value will remain flat from 2019 through 2023 at approximately \$0.41.

Annual tax rate limits exist for the District's Corporate, Construction, Reserve Claim, and Working Cash Funds. The District's Corporate and Construction Funds annual tax rate limits are 41 and 10 cents per \$100 of assessed value, 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.

#### **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 General Corporate Fund.

The graphs on page 66, and the tables on page 67, summarize the projected appropriations, property tax rates, and tax levies for all funds for the years 2019 through 2023. Historical comparisons can be made by reviewing the actual appropriations, tax rates, and levies for the years 2010 through 2019 on page 45.

Table II, on page 68 provides detailed revenue and tax rate projections, as well as appropriations by department and major categories for the Corporate Fund for 2019 through 2023. Corporate Fund appropriations and expenditures for the years 2010 through 2019 can be found on page 109.

Projections for revenues, tax rates, and appropriations for the Construction Fund for the years 2019 through 2023, appear on page 69, and projected appropriable resources and appropriations for the Capital Improvements Bond Fund appear on page 70. The table on the bottom of page 68 and the exhibits on page 71 present appropriation projections by major programs. A summary of actual and projected expenditures for both funds, for the years 2014 through 2023, can be found in the Capital Improvement Program Section, on page 323.

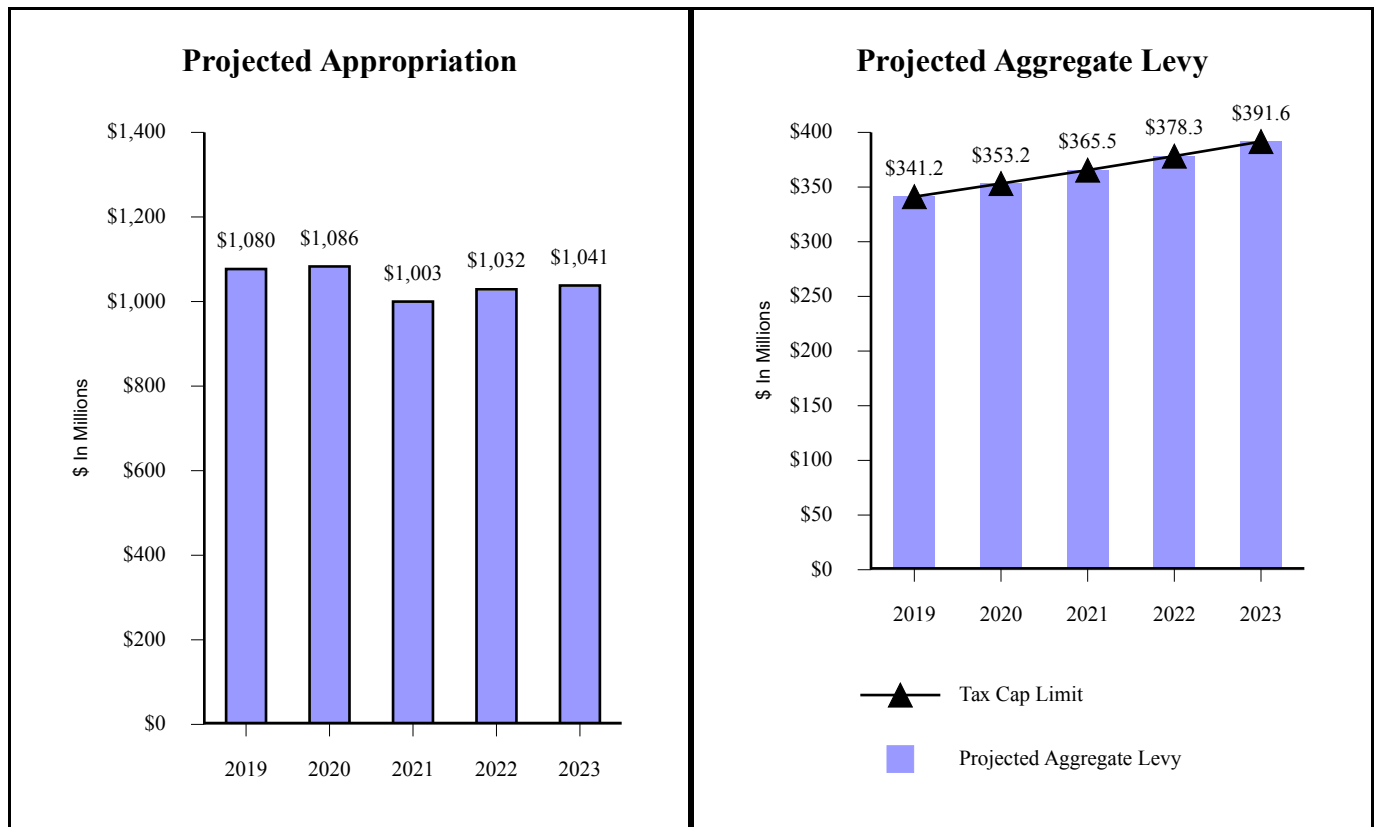
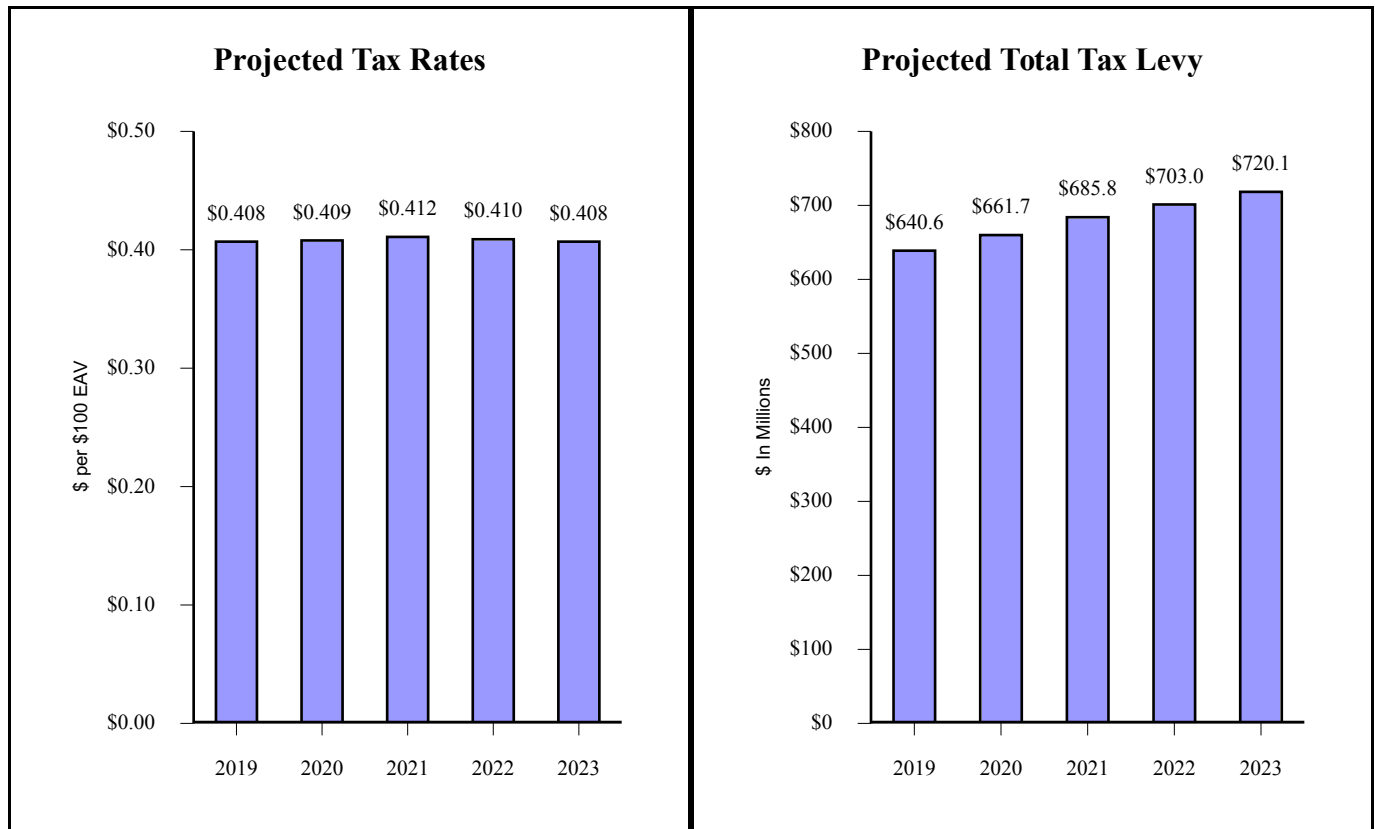
The balance sheet statement on page 72 is prepared on a GAAP-basis of accounting and is included to show the effect on the General Corporate Fund, which is comprised of the Corporate, Corporate Working Cash, and Reserve Claim Funds. The total fund equity projection for 2019 is \$331.4 million.

Respectfully submitted,



Shellie A. Riedle  
Budget Officer

**FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**





FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023

TABLE I

<b>ALL FUNDS</b>					
<b>Projected Tax Rates</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Corporate	\$ 0.1622	\$ 0.1639	\$ 0.1661	\$ 0.1642	\$ 0.1664
Construction	0.0048	0.0049	0.0048	0.0087	0.0085
Stormwater Management	0.0337	0.0359	0.0379	0.0398	0.0415
Debt Service	0.1570	0.1549	0.1544	0.1495	0.1445
Retirement	0.0456	0.0449	0.0441	0.0433	0.0425
Reserve Claim	0.0048	0.0046	0.0045	0.0044	0.0042
Total (\$ in cents)	\$ 0.4081	\$ 0.4093	\$ 0.4118	\$ 0.4099	\$ 0.4076
Percentage Change		0.30%	0.62%	(0.47)%	(0.56)%
Projected tax rate per \$100 Equalized Assessed Valuation (EAV). Assumes 2018 EAV of \$152.4 billion increasing 3.0% annually from 2019 - 2023.					
<b>Projected Tax Levies</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Corporate	\$ 254,574	\$ 265,018	\$ 276,555	\$ 281,550	\$ 293,991
Construction	7,600	8,000	8,000	15,000	15,000
Stormwater Management	52,926	58,026	63,126	68,226	73,326
Debt Service- Existing	246,484	243,124	239,571	236,602	231,825
Debt Service- Proposed	—	7,375	17,543	19,863	23,357
Retirement	71,565	72,665	73,489	74,288	75,090
Reserve Claim	7,500	7,500	7,500	7,500	7,500
Total Levy (\$ in thousands)	\$ 640,650	\$ 661,708	\$ 685,784	\$ 703,029	\$ 720,088
Percentage Change	3.31%	3.29%	3.64%	2.51 %	2.43 %
Aggregate Levy (\$ in thousands)	\$ 341,240	\$ 353,183	\$ 365,544	\$ 378,338	\$ 391,580
Percentage Change	3.50%	3.50%	3.50%	3.50 %	3.50 %
<b>Projected Annual Appropriations</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Corporate	\$ 376,807	\$ 383,234	\$ 389,557	\$ 397,797	\$ 405,485
Capital Improvements Bond	236,432	241,943	181,441	173,494	174,144
Construction	17,602	11,760	11,768	17,937	17,786
Stormwater Management	91,410	104,804	66,906	75,996	77,905
Debt Service- Existing	238,358	226,148	224,352	224,352	218,578
Debt Service- Proposed	—	—	7,375	17,543	19,863
Retirement	87,281	87,319	88,660	89,666	90,641
Reserve Claim	31,768	30,500	33,000	35,000	37,000
Total Appropriation (\$ in thousands)	\$ 1,079,658	\$ 1,085,709	\$ 1,003,059	\$ 1,031,784	\$ 1,041,401
<b>Projected Positions</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Corporate	1,889	1,887	1,886	1,885	1,885
Stormwater Management	84	83	83	83	83
Total Positions	1,973	1,970	1,969	1,968	1,968

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**

**TABLE II**

<b>CORPORATE FUND</b>						% average annual change
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>
Property Taxes	\$ 245,664	\$ 255,743	\$ 266,876	\$ 271,696	\$ 283,701	3.67 %
Personal Property Replacement Tax	15,000	15,000	15,000	15,000	15,000	— %
User Charge	46,000	43,000	42,000	42,000	43,000	(1.62)%
Investment Income	2,600	3,200	3,200	3,300	3,300	6.55 %
Land Rentals	21,500	22,000	22,500	23,000	23,500	2.25 %
Miscellaneous	10,532	4,059	4,201	4,348	4,500	(12.74)%
Equity Transfer	4,200	—	—	—	—	
Net Assets Appropriable	131,297	122,595	113,021	108,405	101,775	(6.16)%
Budget Reserve	(99,986)	(82,362)	(77,240)	(69,952)	(69,291)	(8.56)%
<b>Total Appropriable Resources (\$ in thousands)</b>	<b>\$ 376,807</b>	<b>\$ 383,234</b>	<b>\$ 389,557</b>	<b>\$ 397,797</b>	<b>\$ 405,485</b>	<b>1.85 %</b>
Projected Equalized Assessed Valuation (EAV)	\$ 156.96	\$ 161.66	\$ 166.51	\$ 171.51	\$ 176.66	
(Based on 2017 EAV, assumes 3.0% increase for 2018 and then 3.0% annually)	billion	billion	billion	billion	billion	
Projected Tax Rate Cents per \$100 EAV	16.2¢	16.4¢	16.6¢	16.4¢	16.6¢	
Gross Levy - assumes 3.5% uncollectible.	\$ 254,574	\$ 265,018	\$ 276,555	\$ 281,550	\$ 293,991	
<b>Projected Appropriations by Major Categories</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>
Employee Cost - Salaries	\$ 201,797	\$ 205,833	\$ 209,950	\$ 214,149	\$ 218,432	2.00 %
Employee Cost - Health Care	41,804	45,048	47,761	51,079	54,478	6.85 %
Other Postemployment Benefits Trust	5,000	5,000	5,000	5,000	5,000	— %
Professional Services	5,237	4,284	4,142	4,215	4,129	(5.45)%
Energy Cost	39,939	39,885	39,885	39,885	39,885	(0.03)%
Chemicals	12,446	12,447	12,472	12,447	12,447	— %
Materials & Supplies	13,107	11,675	11,776	11,601	11,600	(2.89)%
Solids Disposal	11,081	11,026	11,026	11,026	11,026	(0.12)%
Contracted Solids Disposal	3,943	5,402	5,594	5,792	5,996	11.90 %
Computer Systems & Telecommunications	8,665	8,751	8,839	8,927	9,016	1.00 %
Repairs to Structures & Equipment	12,069	13,550	12,704	13,218	12,718	1.57 %
Contractual Services	17,579	17,810	18,330	18,355	18,562	1.37 %
Machinery & Equipment	3,385	1,698	1,170	1,105	1,098	(21.78)%
Real Estate Taxes	755	825	908	998	1,098	9.82 %
<b>Total (\$ in thousands)</b>	<b>\$ 376,807</b>	<b>\$ 383,234</b>	<b>\$ 389,557</b>	<b>\$ 397,797</b>	<b>\$ 405,485</b>	<b>1.85 %</b>
<b>Projected Appropriations by Department</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>
Board of Commissioners	\$ 5,267	\$ 5,363	\$ 5,414	\$ 5,481	\$ 5,540	1.27 %
General Administration	19,718	18,269	18,433	18,687	18,945	(0.92)%
Monitoring & Research	31,253	31,635	32,153	32,396	32,784	1.20 %
Procurement & Materials Management	9,786	8,797	8,891	9,033	9,156	(1.52)%
Human Resources	60,108	63,519	66,682	70,423	74,169	5.40 %
Information Technology	18,352	18,154	18,592	18,868	19,258	1.22 %
Law	7,169	7,342	7,511	7,695	7,891	2.43 %
Finance	3,675	3,631	3,698	3,791	3,816	0.96 %
Engineering	25,473	25,820	26,592	26,871	27,233	1.69 %
Maintenance & Operations	196,006	200,704	201,591	204,552	206,693	1.34 %
<b>Total (\$ in thousands)</b>	<b>\$ 376,807</b>	<b>\$ 383,234</b>	<b>\$ 389,557</b>	<b>\$ 397,797</b>	<b>\$ 405,485</b>	<b>1.85 %</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2019-2023</b>
1000 Collection	\$ 57,288	\$ 57,594	\$ 58,084	\$ 58,653	\$ 59,352	0.9 %
2000 Treatment	78,562	81,849	82,734	83,708	84,794	1.93 %
3000 Solids Processing	45,421	46,334	46,082	47,133	47,155	0.95 %
4000 Flood & Pollution Control	39,651	39,991	40,520	40,869	41,372	1.07 %
5000 Solids Disposal	24,774	25,245	25,700	26,174	26,680	1.87 %
7000 General Support	131,111	132,221	136,437	141,260	146,132	2.8 %
<b>Total (\$ in thousands)</b>	<b>\$ 376,807</b>	<b>\$ 383,234</b>	<b>\$ 389,557</b>	<b>\$ 397,797</b>	<b>\$ 405,485</b>	<b>1.85 %</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**

**TABLE III**

<b>CONSTRUCTION FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Property Taxes	\$ 7,334	\$ 7,720	\$ 7,720	\$ 14,475	\$ 14,475
Personal Property Replacement Tax	—	—	—	—	—
Equity Transfer	—	—	—	—	—
Investment Income & Miscellaneous Revenue	406	520	520	520	620
Net Assets Appropriable	9,862	3,520	3,528	2,942	2,691
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$ 17,602</b>	<b>\$ 11,760</b>	<b>\$ 11,768</b>	<b>\$ 17,937</b>	<b>\$ 17,786</b>
Projected Equalized Assessed Valuation (EAV)	\$ 156.96	\$ 161.66	\$ 166.51	\$ 171.51	\$ 176.66
(Based on 2017 EAV, assumes 3.0% increase for 2018 and then 3.0% annually thereafter)	billion	billion	billion	billion	billion
Projected Tax Rate Cents per \$100 of EAV	0.5¢	0.5¢	0.5¢	0.9¢	0.8¢
Gross Levy - assumes 3.5% uncollectible rate.	7,600	8,000	8,000	15,000	15,000
<b>Projected Appropriations</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Capital Projects	\$ 14,656	\$ 7,608	\$ 6,568	\$ 11,711	\$ 11,641
Professional Services	2,796	4,152	5,200	6,226	6,145
Other Charges	150	—	—	—	—
<b>Total (\$ in thousands)</b>	<b>\$ 17,602</b>	<b>\$ 11,760</b>	<b>\$ 11,768</b>	<b>\$ 17,937</b>	<b>\$ 17,786</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
1000 Collection	\$ 4,196	\$ 2,125	\$ 2,842	\$ 4,374	\$ 4,260
2000 Treatment	6,262	3,384	2,510	4,947	4,626
3000 Solids Processing	582	384	310	523	507
4000 Flood & Pollution Control	3,126	3,560	3,783	4,875	4,789
5000 Solids Disposal	1,565	569	430	1,001	958
7000 General Support	1,871	1,737	1,894	2,217	2,646
<b>Total (\$ in thousands)</b>	<b>\$ 17,602</b>	<b>\$ 11,760</b>	<b>\$ 11,768</b>	<b>\$ 17,937</b>	<b>\$ 17,786</b>
<b>STORMWATER MANAGEMENT FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Property Taxes	\$ 51,074	\$ 55,995	\$ 60,917	\$ 65,838	\$ 70,760
Investment Income & Miscellaneous Revenue	800	900	900	900	900
Sewer Permit Fees	900	1,000	1,000	1,000	1,000
Net Assets Appropriable	45,033	27,423	23,407	22,765	22,799
Equity Transfer (Debt Service for Alternate Revenue Bonds)	(6,397)	(7,294)	(10,339)	(14,508)	(17,554)
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$ 91,410</b>	<b>\$ 78,024</b>	<b>\$ 75,885</b>	<b>\$ 75,996</b>	<b>\$ 77,905</b>
Projected EAV	\$ 156.96	\$ 161.66	\$ 166.51	\$ 171.51	\$ 176.66
(Based on 2016 EAV, assumes 3.0% increase for 2017 and then 3.0% annually)	billion	billion	billion	billion	billion
Projected Tax Rate Cents per \$100 of EAV	3.4¢	3.6¢	3.8¢	4.0¢	4.2¢
Gross Levy - assumes 3.5% uncollectible rate.	\$ 52,926	\$ 58,026	\$ 63,126	\$ 68,226	\$ 73,326
<b>Projected Appropriations</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Employee Cost - Salaries	\$ 8,913	\$ 9,092	\$ 9,273	\$ 9,459	\$ 9,648
Employee Cost - Health Care	879	940	991	1,053	1,117
Contractual Services	28,337	39,122	26,900	21,301	20,051
Capital Projects	2,500	2,493	2,488	3,359	3,496
Other Charges	50,781	53,158	27,255	40,824	43,593
<b>Total (\$ in thousands)</b>	<b>\$ 91,410</b>	<b>\$ 104,804</b>	<b>\$ 66,906</b>	<b>\$ 75,996</b>	<b>\$ 77,905</b>
<b>Projection Appropriation Distribution by Program</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
4000 Flood & Pollution Control	\$ 91,410	\$ 104,804	\$ 66,906	\$ 75,996	\$ 77,905
<b>Total (\$ in thousands)</b>	<b>\$ 91,410</b>	<b>\$ 104,804</b>	<b>\$ 66,906</b>	<b>\$ 75,996</b>	<b>\$ 77,905</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**

**TABLE IV**

<b>CAPITAL IMPROVEMENTS BOND FUND*</b>					
<b>Appropriable Resources (Cash)</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Bond Sales - Limited	\$ —	\$ —	\$ 100,000	\$ —	\$ —
Bond Sales - Unlimited	—	—	25,000	—	—
Bond Sales - Unlimited Stormwater Management	—	—	—	—	—
State Revolving Loan Fund Receipts	120,000	175,000	175,000	175,000	175,000
Investment Income & Grant Revenue	19,067	18,767	17,067	15,367	13,667
Beginning Cash	232,000	206,067	174,835	266,902	207,269
<b>Total Assets Appropriable (\$ in thousands)</b>	<b>\$ 371,067</b>	<b>\$ 399,835</b>	<b>\$ 491,902</b>	<b>\$ 457,269</b>	<b>\$ 395,936</b>
Expenditures	\$ 165,000	\$ 225,000	\$ 225,000	\$ 250,000	\$ 250,000
<b>Ending Cash (\$ in thousands)</b>	<b>\$ 206,067</b>	<b>\$ 174,835</b>	<b>\$ 266,902</b>	<b>\$ 207,269</b>	<b>\$ 145,936</b>
<b>Projected Appropriations by Major Categories</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Professional Consulting Services	\$ 20,023	\$ 15,900	\$ 15,137	\$ 10,902	\$ 15,137
Capital Projects	214,524	224,358	162,937	160,097	156,114
Other Charges	1,885	1,686	3,368	2,494	2,893
<b>Total (\$ in thousands)</b>	<b>\$ 236,432</b>	<b>\$ 241,943</b>	<b>\$ 181,441</b>	<b>\$ 173,494</b>	<b>\$ 174,144</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
1000 Collection	\$ 40,713	\$ 72,411	\$ 38,502	\$ 18,820	\$ 27,429
2000 Treatment	47,428	58,645	40,323	41,443	38,873
3000 Solids Processing	41,843	28,342	26,881	49,507	26,856
4000 Flood & Pollution Control	102,811	79,333	72,678	61,435	77,928
5000 Solids Disposal	3,388	2,792	2,649	1,933	2,649
7000 General Support	250	419	409	356	409
<b>Total (\$ in thousands)</b>	<b>\$ 236,432</b>	<b>\$ 241,943</b>	<b>\$ 181,441</b>	<b>\$ 173,494</b>	<b>\$ 174,144</b>

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

<b>DEBT SERVICE FUNDS</b>					
<b>Projected Debt</b>					
<b>EXISTING DEBT</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
January 1 Debt	\$ 2,810,056	\$ 2,806,712	\$ 2,864,171	\$ 3,038,883	\$ 3,080,052
Annual Current Debt Retirement	(123,343)	(115,201)	(117,136)	(118,646)	(118,979)
<b>Net Debt</b>	<b>\$ 2,686,712</b>	<b>\$ 2,691,511</b>	<b>\$ 2,747,035</b>	<b>\$ 2,920,237</b>	<b>\$ 2,961,072</b>
<b>PROPOSED FUTURE DEBT</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Annual Sale of Bonds:					
Capital Bonds - Limited	—	—	100,000	—	—
Capital Bonds - Unlimited	—	—	25,000	—	—
Alternate Bonds - Unlimited Stormwater	—	—	—	—	—
State Revolving Fund Bond Issues	120,000	175,000	175,000	175,000	175,000
Future Debt Retirement	—	(2,340)	(8,153)	(15,185)	(23,456)
<b>Proposed New Debt (\$ in thousands)</b>	<b>120,000</b>	<b>172,660</b>	<b>291,848</b>	<b>159,815</b>	<b>151,544</b>
<b>PROJECTED DEBT OUTSTANDING</b>	<b>\$ 2,806,712</b>	<b>\$ 2,864,171</b>	<b>\$ 3,038,883</b>	<b>\$ 3,080,052</b>	<b>\$ 3,112,617</b>
Gross Levy for Existing Debt	\$ 246,484	\$ 243,124	\$ 239,571	\$ 236,602	\$ 231,825
Gross Levy for Future Debt	—	7,375	17,543	19,863	23,357
<b>Total Debt Levy</b>	<b>\$ 246,484</b>	<b>\$ 250,499</b>	<b>\$ 257,114</b>	<b>\$ 256,464</b>	<b>\$ 255,182</b>
Tax Rate (cents)	15.7¢	15.5¢	15.4¢	15.0¢	14.4¢
Forecasted Stormwater Alternate Revenue Abatement**	\$ (6,397)	\$ (7,294)	\$ (10,339)	\$ (14,508)	\$ (17,554)
Projected Levy After Abatement	\$ 240,087	\$ 243,205	\$ 246,775	\$ 241,957	\$ 237,628
Projected Equalized Assessed Valuation (EAV)***	\$ 156.96	\$ 161.66	\$ 166.51	\$ 171.51	\$ 176.66
	billion	billion	billion	billion	billion

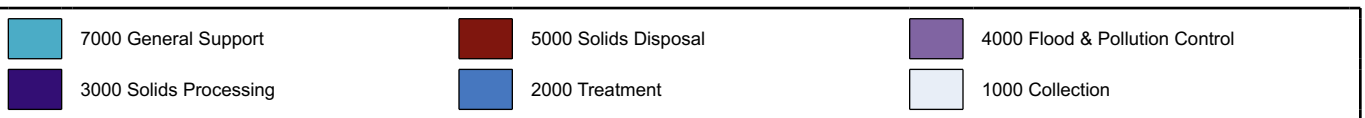
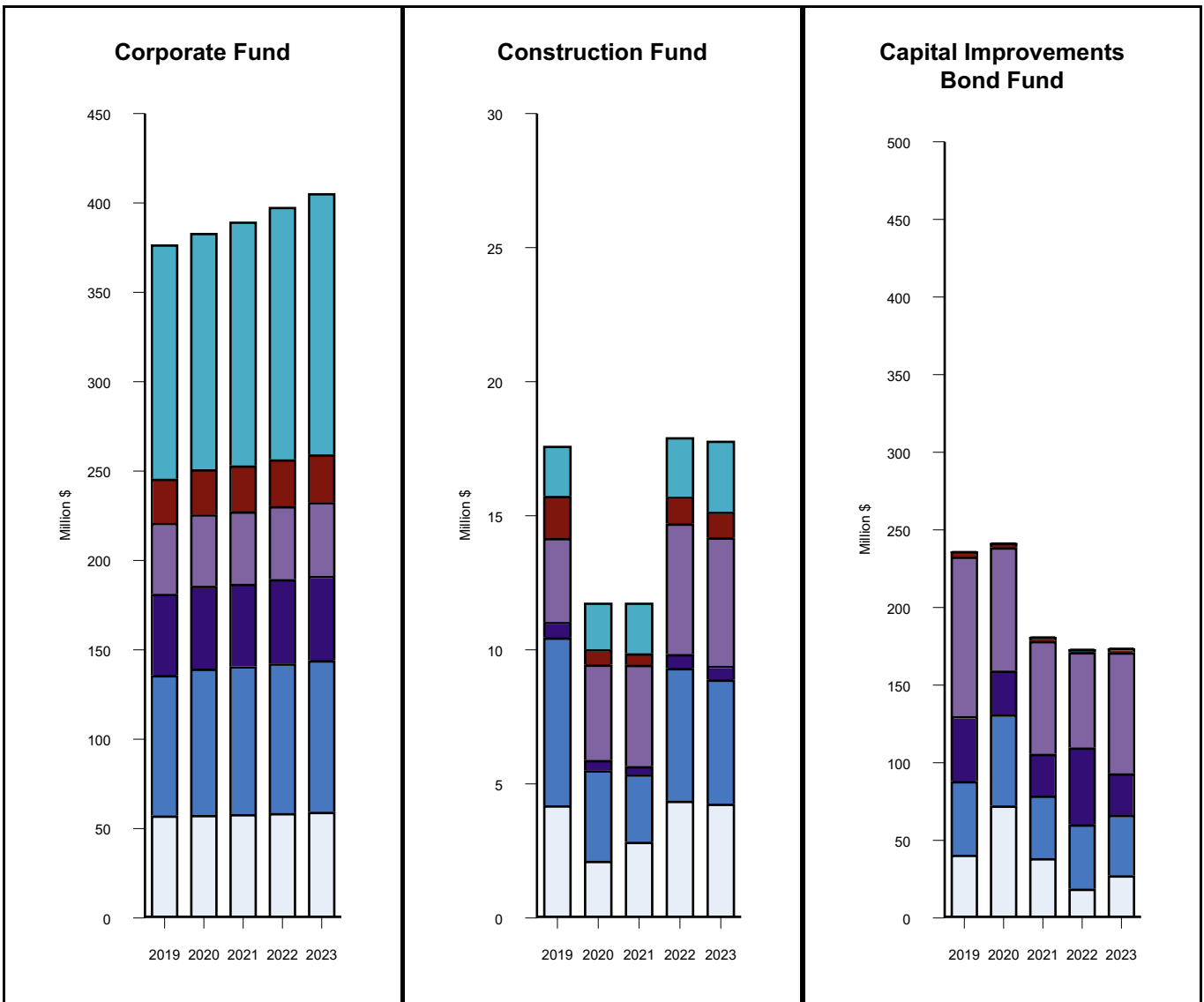
\*\*As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Fund be transferred to the Bond Fund

Note: Totals are rounded.

\*\*\*Assumes a 3.0% increase in 2018, and a 3.0% increase annually thereafter.

**FIVE-YEAR FINANCIAL FORECAST, 2019 - 2023**

**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, 2019 - 2023**

Combined GAAP Balance Sheets - General Corporate Fund

(in Thousands)

<b>Assets</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Cash	\$ 22,017	\$ 22,457	\$ 22,906	\$ 23,364	\$ 23,831
Prepaid Insurance	4,267	4,352	4,439	4,528	4,619
Investments	224,896	229,394	233,982	238,662	243,435
Receivables:					
Property Taxes	262,074	272,518	284,055	289,050	301,491
Less Allowance for Uncollectible Taxes	(9,173)	(9,538)	(9,942)	(10,117)	(10,552)
Net Property Taxes Receivable	252,901	262,980	274,113	278,933	290,939
Personal Property Replacement Tax	—	—	—	—	—
User Charges	2,895	2,953	3,012	3,072	3,133
Miscellaneous	6,052	6,173	6,296	6,422	6,550
Due from Stormwater Management Fund					
Restricted Deposits					
Inventories	36,193	36,917	37,655	38,408	39,176
<b>Total Assets</b>	<b>\$ 549,221</b>	<b>\$ 565,226</b>	<b>\$ 582,403</b>	<b>\$ 593,389</b>	<b>\$ 611,683</b>
<b>Liabilities and Fund Equity</b>					
<b>Liabilities:</b>					
Deferred Tax Revenue	\$ 188,959	\$ 190,849	\$ 192,757	\$ 194,685	\$ 196,632
Accounts Payable and Other Liabilities	28,873	28,296	27,730	27,175	27,719
Unearned Revenue	—	—	—	—	—
<b>Total Liabilities</b>	<b>\$ 217,832</b>	<b>\$ 219,145</b>	<b>\$ 220,487</b>	<b>\$ 221,860</b>	<b>\$ 224,351</b>
<b>Fund Equity:</b>					
Fund Balances					
Prepaid Insurance	\$ 4,267	\$ 4,352	\$ 4,439	\$ 4,528	\$ 4,619
Non-spendable - Inventory	36,193	36,917	37,655	38,408	39,176
Restricted - Working Cash	291,767	297,602	303,554	309,625	315,818
Real Estate Escrow	2,407	2,409	2,412	2,414	2,416
Reserve Claim	26,936	27,475	28,025	28,586	29,158
Deposits	—	—	—	—	—
Unreserved:					
Undesignated	(30,181)	(22,674)	(14,169)	(12,032)	(3,855)
<b>Total Fund Equity</b>	<b>\$ 331,389</b>	<b>\$ 346,081</b>	<b>\$ 361,916</b>	<b>\$ 371,529</b>	<b>\$ 387,332</b>
<b>Total Liabilities and Fund Equity</b>	<b>\$ 549,221</b>	<b>\$ 565,226</b>	<b>\$ 582,403</b>	<b>\$ 593,389</b>	<b>\$ 611,683</b>

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.

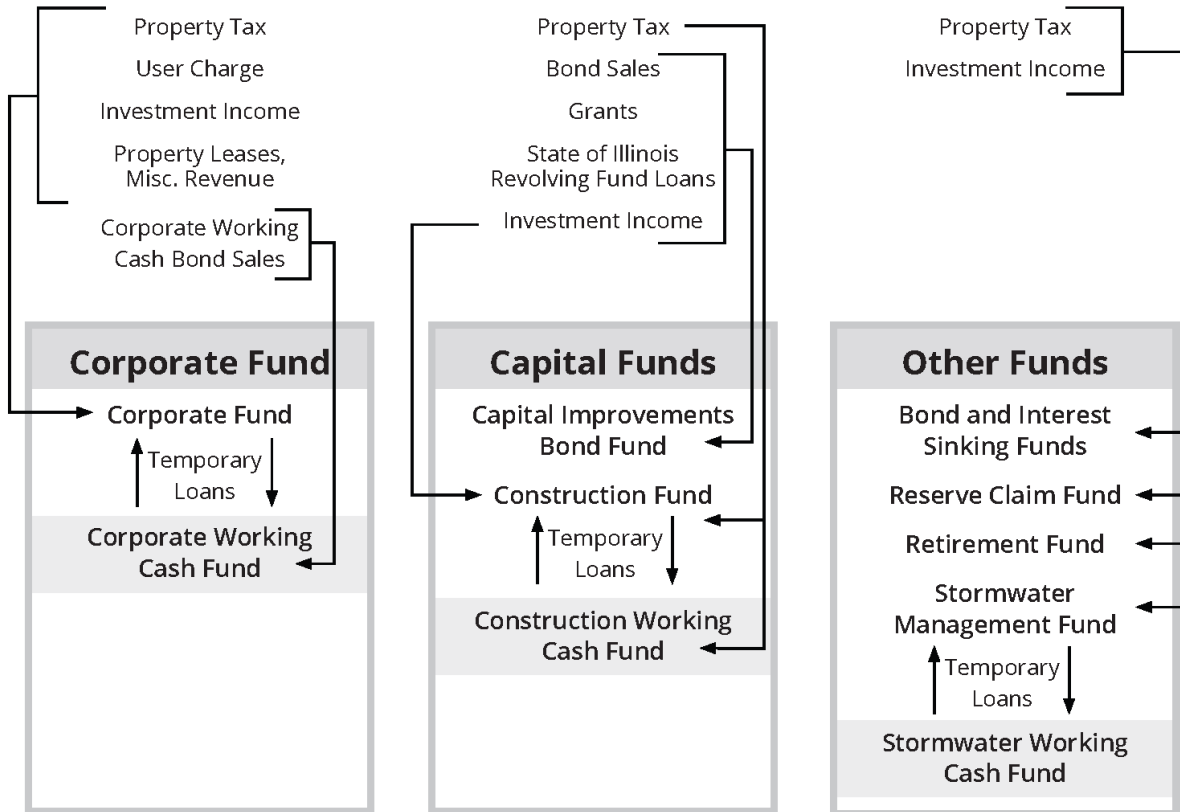
The financial statements are first presented in summary, with an overall financial narrative, then with summary statements of revenue and expenditures for 2017 through the Budget Year 2019. Consolidated statements of taxes receivable, providing historical data on tax levies, are included in this section. 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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# 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

### 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 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 - 5, are derived from the summary of revenue and expenditures found on pages 78 - 80 of the 2019 Budget and similar summaries in prior years' budgets. This section contains a summary of all District funds.

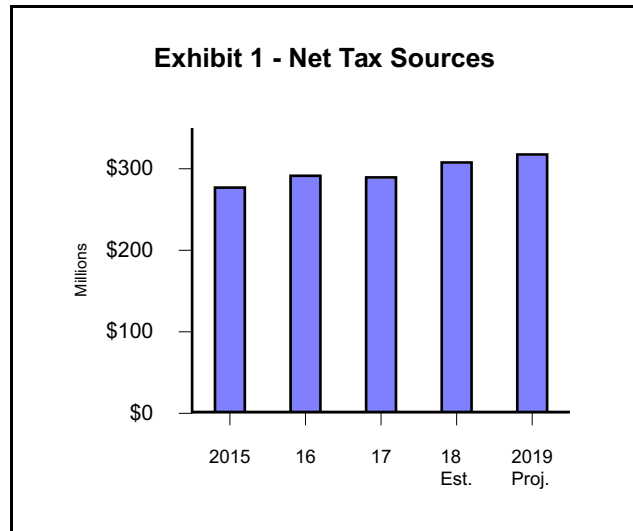
### TAX SOURCES

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 71.2 percent of the 2019 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 2019 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

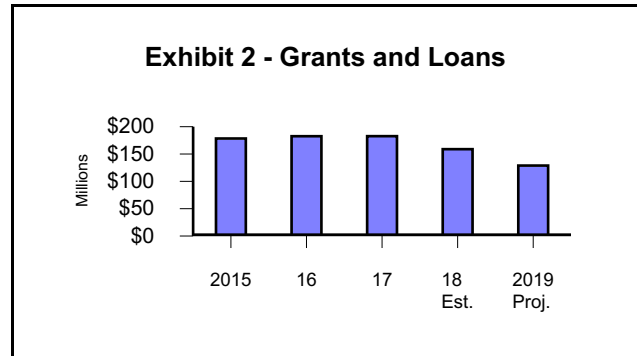
directly from the State of Illinois. Revenue from this source is estimated at \$33.3 million for 2019, a decrease of \$4.8 million from the 2018 Original Budget, or 12.7 percent. This revenue source typically trends with the state of the economy. Beginning with the State's Fiscal Year 2018 Budget, funds have been diverted from the local government allocation, accounting for the decline.

Exhibit 1 presents revenue from net tax sources for the years 2015 - 2019. 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 2019, an increase of 3.5 percent is forecast, consisting of an estimated 3.0 percent growth in the CPI plus an estimated 0.5 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 2019, \$120.0 million in Wastewater/Stormwater 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 2015 - 2019. The District anticipates receiving an annual allocation of up to \$175.0 million in SRF loans in each of the next four years.



**BOND SALES**

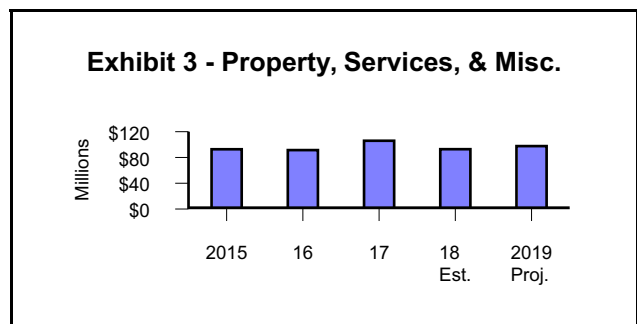
The District's Capital Program is financed primarily with SRF loans and general obligation bond sale proceeds. Bonds are used to provide necessary revenue for capital project cash flows. The District last issued bonds in 2016 and does not plan on new bond sales until 2020.

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 water reclamation plants.

The District is continuing to follow the implementation of new federal legislation limiting tax exempt advance refunding on outstanding debt. The Capital Funds narrative on page 93 provides a more detailed discussion. The statement of outstanding bonds and statutory debt margin on pages 55 and 56 shows the District's strong position. The Five-Year Financial Forecast on pages 62 and 70 details future bond sale projections.

**PROPERTY, SERVICES, AND MISCELLANEOUS**

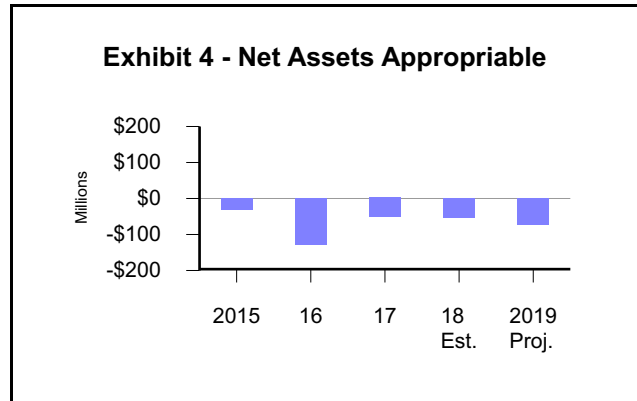
Exhibit 3 summarizes revenue from property, services, and miscellaneous items. A major revenue source is the user charge system, which imposes a surcharge above property tax payments for commercial, industrial, and tax-exempt users of the sewage systems. Estimated User Charge revenues in 2019 are \$46.0 million.



Land rentals, investment income, sewer permit fees, connection impact fees, and other revenues will provide an estimated \$53.7 million in 2019. 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 2019. Interest rates on short-term securities are expected to increase three to four times during 2019. Our investments are predominately short-term in nature. Sewer permit revenue estimates are based on anticipated projects and 2018 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**

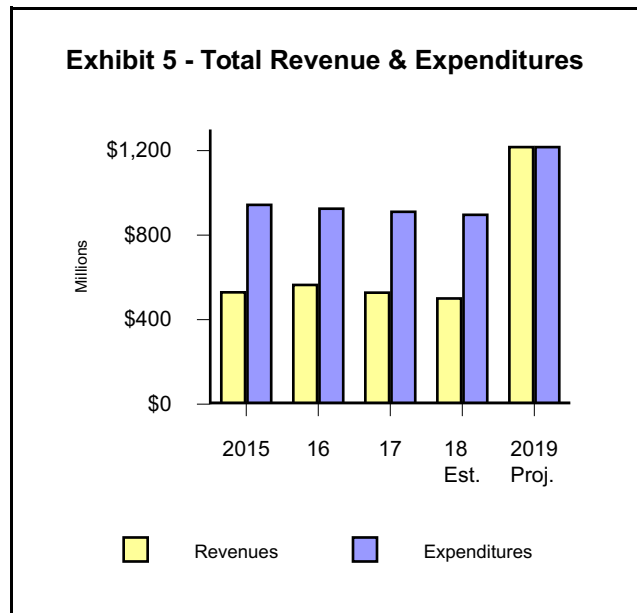
Exhibit 4 shows the trend in net assets appropriable, which is primarily impacted by bond sales, expenditures for capital projects, and the reservation of future years’ principal and interest payments in the debt service funds. Net assets appropriable have been used to reduce future years’ taxes. Beginning 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 - 2019 are attributable to use of the obligation basis of budgetary accounting for the Capital Improvements Bond Fund and indicate that future bond sales or State Revolving Fund loans are necessary to finance projects.



**TOTAL REVENUES AND EXPENDITURES**

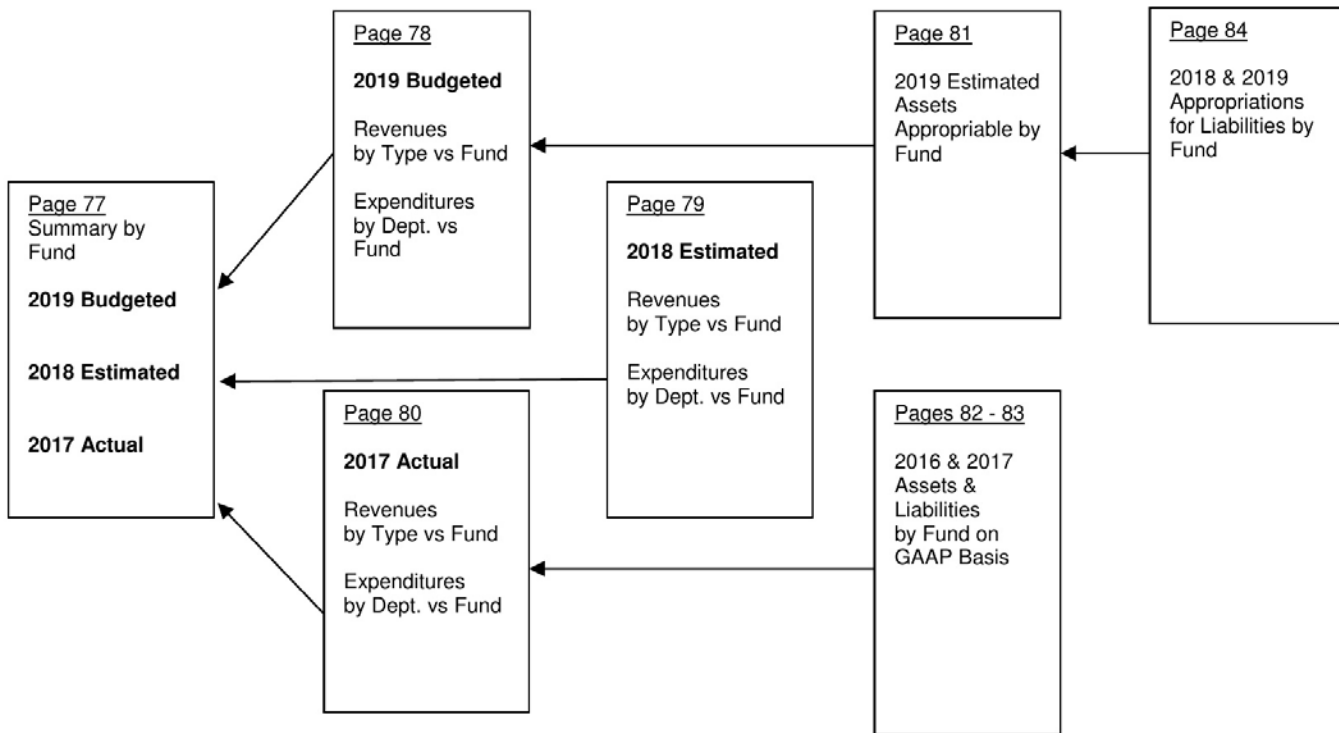
Exhibit 5 displays the relationship between revenues and expenditures. The difference between revenues and expenditures is primarily accounted for by bond sale proceeds to finance future payments for capital projects. In general, the Capital Improvements Bond Fund aside, a balance is maintained between revenues and expenditures to fully utilize net assets appropriable, therefore, limiting property taxes.

For 2019, 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.



**SUMMARY FINANCIAL STATEMENTS**

Summary financial statements presented on pages 77 - 80 provide comparisons of revenues and expenditures for all funds for the years 2017 - 2019. These statements provide a financial summarization by fund of the 2019 Budget as proposed, the estimated status at 2018 fiscal year-end, and the actual results of operations for fiscal year 2017. The relationships among the pages are diagrammed below.



The table of taxes receivable on page 85 provides detailed data on property tax levies and tax receipts from 2014 to 2018. While 2014 through 2016 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 2014 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 87 - 107.

**ALL FUNDS**

**SUMMARY OF REVENUE, EXPENDITURES, AND NET ASSETS APPROPRIABLE (b)  
2019 BUDGETED, 2018 ESTIMATED, AND 2017 ACTUAL**

(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT (d)	BOND REDEMPTION & INTEREST (d)	RESERVE CLAIM (d)	
<b>2019 BUDGETED</b>								
Net Assets Appropriable	\$ 131,510.3	\$ (609,357.7)	\$ 10,620.3	\$ 45,807.0	\$ 87,281.0	\$ 230,060.6	\$ 31,167.8	\$ (72,910.7)
Net Assets Appropriated	\$ 32,116.5	\$ (609,357.7)	\$ 10,620.3	\$ 45,807.0	\$ 87,281.0	\$ 230,060.6	\$ 31,167.8	\$ (172,304.5)
Revenue	345,496.0	987,531.5	7,720.0	45,603.1	—	8,296.9	600.0	1,395,247.5
Appropriation	\$ 377,612.5	\$ 378,173.8	\$ 18,340.3	\$ 91,410.1	\$ 87,281.0	\$ 238,357.5	\$ 31,767.8	\$ 1,222,943.0
<b>2018 ESTIMATED</b>								
Beginning Net Assets Appropriable as adjusted (c)	\$ 143,474.1	\$ (615,827.5)	\$ 15,526.9	\$ 35,706.1	\$ 89,604.0	\$ 248,287.6	\$ 30,591.2	\$ (52,637.6)
Revenue (a)	335,517.0	164,360.5	11,451.0	40,229.3	—	8,016.6	458.1	560,032.5
Adjustment for 2017 receipts	(105.6)	—	(461.8)	(369.2)	—	—	—	(936.6)
Expenditures	(347,375.2)	(157,890.7)	(15,895.8)	(29,759.2)	(89,604.0)	(256,304.2)	(5,600.0)	(902,429.1)
Ending Net Assets Appropriable	\$ 131,510.3	\$ (609,357.7)	\$ 10,620.3	\$ 45,807.0	\$ —	\$ —	\$ 25,449.3	\$ (395,970.8)
<b>2017 ACTUAL</b>								
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	339,836.6	178,242.3	22,936.2	39,264.3	—	4,625.7	310.0	585,215.1
Expenditures	(338,424.1)	(245,028.4)	(13,793.3)	(17,401.4)	(79,505.0)	(215,647.3)	(6,905.1)	(916,704.6)
Ending Net Assets Appropriable	\$ 143,474.1	\$ (615,827.5)	\$ 15,526.9	\$ 35,706.1	\$ —	\$ 13,514.9	\$ 24,860.5	\$ (382,745.0)
Adjusted NAA 1/1/2018	\$ 143,368.5		\$ 15,065.1	\$ 35,336.9				
Adjustment (a)	\$ (105.6)		\$ (461.8)	\$ (369.2)				

(a) Adjustment to NAA required due to current 2018 estimate on collection of property tax levies and PPRT. See the Balance Sheets and Appropriable Revenue statements 01/01/2018 for the Corporate (pages 89 - 90), Construction (pages 97 - 98), and Stormwater Management (pages 101 - 102) Funds. The adjustment is reflected in the 2018 revenues.

(b) This statement is a summary presentation of pages 78 - 80, 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, Bond Redemption & Interest, and Reserve Claim 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**  
**2019 BUDGETED**  
(In Thousands)

	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
<b>REVENUE</b>								
Net Assets Appropriable	\$ 131,510.3	\$ (609,357.7)	\$ 10,620.3	\$ 45,807.0	\$ 87,281.0	\$ 230,060.6	\$ 31,167.8	\$ (72,910.7)
Budget Reserve	(99,393.8)	—	—	—	—	—	—	(99,393.8)
Net Property Taxes	245,664.0	—	7,334.0	51,073.6	—	—	—	304,071.6
Personal Property Replacement Tax	15,000.0	—	—	—	—	—	—	15,000.0
Working Cash Borrowings Adjustment	(4,564.0)	—	(134.0)	(773.6)	—	—	—	(5,471.6)
Bond Sales (Present & Future)	—	850,664.2	—	—	—	—	—	850,664.2
Grants (Federal & State)	—	11,267.3	—	—	—	—	—	11,267.3
Investment Income	2,600.0	7,800.0	500.0	800.0	—	1,900.0	600.0	14,200.0
State Revolving Fund Loans	—	120,000.0	—	—	—	—	—	120,000.0
Property & Services	21,500.0	—	—	900.0	—	—	—	22,400.0
User Charge	46,000.0	—	—	—	—	—	—	46,000.0
TIF Differential Fee & Impact Fee	9,725.0	—	20.0	—	—	—	—	9,745.0
Equity Transfer	4,200.0	(4,200.0)	—	(6,396.9)	—	6,396.9	—	—
Resource Recovery	600.0	—	—	—	—	—	—	600.0
Miscellaneous	4,771.0	2,000.0	—	—	—	—	—	6,771.0
<b>TOTAL REVENUE</b>	<b>\$ 377,612.5</b>	<b>\$ 378,173.8</b>	<b>\$ 18,340.3</b>	<b>\$ 91,410.1</b>	<b>\$ 87,281.0</b>	<b>\$ 238,357.5</b>	<b>\$ 31,767.8</b>	<b>\$ 1,222,943.0</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 5,256.0	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 5,256.0
General Administration	18,713.8	—	—	—	—	—	—	18,713.8
Monitoring & Research	31,548.3	—	—	—	—	—	—	31,548.3
Procurement & Materials Mgmt.	9,821.1	—	—	—	—	—	—	9,821.1
Human Resources	60,229.6	—	—	—	—	—	—	60,229.6
Information Technology	18,592.7	—	—	—	—	—	—	18,592.7
Law	7,177.7	—	—	—	—	—	—	7,177.7
Finance	3,739.8	—	—	—	—	—	—	3,739.8
Engineering	25,941.2	378,173.8	18,340.3	—	—	—	—	422,455.3
Maintenance & Operations	196,592.3	—	—	—	—	—	—	196,592.3
Stormwater Management Fund	—	—	—	91,410.1	—	—	—	91,410.1
Retirement Fund	—	—	—	—	87,281.0	—	—	87,281.0
Bond Redemption & Interest Fund	—	—	—	—	—	238,357.5	—	238,357.5
Reserve Claim Fund	—	—	—	—	—	—	31,767.8	31,767.8
<b>TOTAL EXPENDITURES</b>	<b>\$ 377,612.5</b>	<b>\$ 378,173.8</b>	<b>\$ 18,340.3</b>	<b>\$ 91,410.1</b>	<b>\$ 87,281.0</b>	<b>\$ 238,357.5</b>	<b>\$ 31,767.8</b>	<b>\$ 1,222,943.0</b>

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

**ALL FUNDS**  
**SUMMARY OF REVENUE AND EXPENDITURES**  
**2018 ESTIMATED**  
(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
<b>REVENUE</b>								
Net Assets Appropriable	\$ 143,474.1	\$ (615,827.5)	\$ 15,526.9	\$ 35,706.1	\$ 89,604.0	\$ 248,287.6	\$ 30,591.2	\$ (52,637.6)
Adjustment for Receipts	(105.6)	—	(461.8)	(369.2)	—	—	—	(936.6)
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)	—	—	—	—	—	—	—	—
Grants (Federal & State)	—	11,294.5	—	—	—	—	—	11,294.5
Investment Income	2,594.0	5,266.0	341.0	595.0	—	2,226.0	458.1	11,480.1
State Revolving Fund Loans	—	150,000.0	—	—	—	—	—	150,000.0
Property & Services	22,003.0	—	—	—	—	—	—	22,003.0
User Charge	43,000.0	—	—	—	—	—	—	43,000.0
TIF Differential Fee & Impact Fee	10,725.0	—	10.0	—	—	—	—	10,735.0
Equity Transfer	4,200.0	(4,200.0)	—	(5,770.6)	—	5,770.6	—	—
Miscellaneous	5,695.0	2,000.0	—	4.9	—	20.0	—	7,719.9
<b>TOTAL REVENUE</b>	<b>\$ 478,885.5</b>	<b>\$ (451,467.0)</b>	<b>\$ 26,516.1</b>	<b>\$ 75,566.2</b>	<b>\$ 89,604.0</b>	<b>\$ 256,304.2</b>	<b>\$ 31,049.3</b>	<b>\$ 506,458.3</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,309.4	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,309.4
General Administration	15,866.0	—	—	—	—	—	—	15,866.0
Monitoring & Research	29,441.6	—	—	—	—	—	—	29,441.6
Procurement & Materials Mgmt.	8,655.7	—	—	—	—	—	—	8,655.7
Human Resources	53,743.9	—	—	—	—	—	—	53,743.9
Information Technology	14,866.1	—	—	—	—	—	—	14,866.1
Law	6,377.0	—	—	—	—	—	—	6,377.0
Finance	3,464.5	—	—	—	—	—	—	3,464.5
Engineering	26,035.5	157,890.7	15,895.8	—	—	—	—	199,822.0
Maintenance & Operations	184,615.5	—	—	—	—	—	—	184,615.5
Stormwater Management Fund	—	—	—	29,759.2	—	—	—	29,759.2
Retirement Fund	—	—	—	—	89,604.0	—	—	89,604.0
Bond Redemption & Interest Fund	—	—	—	—	—	256,304.2	—	256,304.2
Reserve Claim Fund	—	—	—	—	—	—	5,600.0	5,600.0
<b>TOTAL EXPENDITURES</b>	<b>\$ 347,375.2</b>	<b>\$ 157,890.7</b>	<b>\$ 15,895.8</b>	<b>\$ 29,759.2</b>	<b>\$ 89,604.0</b>	<b>\$ 256,304.2</b>	<b>\$ 5,600.0</b>	<b>\$ 902,429.1</b>

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

**ALL FUNDS**  
**SUMMARY OF REVENUE AND EXPENDITURES**  
**2017 ACTUAL**  
(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
<b>REVENUE</b>								
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	7,254.5	—	(1,201.1)	212.8	—	—	—	6,266.2
Net Property Taxes	216,955.9	—	16,405.0	39,426.0	—	—	—	272,786.9
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	—	—	—	—	—	—	—	—
Grants (Federal & State)	—	16,137.2	—	—	—	—	—	16,137.2
Investment Income	1,523.4	3,938.8	196.4	222.8	—	1,346.2	310.0	7,537.6
State Revolving Fund Loans	—	168,986.7	—	—	—	—	—	168,986.7
Property & Services	21,779.4	—	—	—	—	—	—	21,779.4
User Charge	53,252.0	—	—	—	—	—	—	53,252.0
TIF Differential Fee & Impact Fee	12,036.3	—	740.3	—	—	—	—	12,776.6
Equity Transfer	6,000.0	(13,000.0)	7,000.0	—	—	3,269.3	—	3,269.3
Miscellaneous	7,143.1	2,179.6	0.6	28.7	—	10.2	—	9,362.2
<b>TOTAL REVENUE</b>	<b>\$ 481,898.1</b>	<b>\$ (370,799.1)</b>	<b>\$ 29,320.2</b>	<b>\$ 53,107.5</b>	<b>\$ 79,505.0</b>	<b>\$ 229,162.2</b>	<b>\$ 31,765.6</b>	<b>\$ 533,959.5</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,073.0	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,073.0
General Administration	15,729.4	—	—	—	—	—	—	15,729.4
Monitoring & Research	29,089.3	—	—	—	—	—	—	29,089.3
Procurement & Materials Mgmt.	8,727.2	—	—	—	—	—	—	8,727.2
Human Resources	54,172.3	—	—	—	—	—	—	54,172.3
Information Technology	14,556.9	—	—	—	—	—	—	14,556.9
Law	5,920.2	—	—	—	—	—	—	5,920.2
Finance	3,529.7	—	—	—	—	—	—	3,529.7
Engineering	26,061.0	245,028.4	13,793.3	—	—	—	—	284,882.7
Maintenance & Operations	176,565.1	—	—	—	—	—	—	176,565.1
Stormwater Management Fund	—	—	—	14,132.2	—	—	—	14,132.2
Retirement Fund	—	—	—	—	79,505.0	—	—	79,505.0
Bond Redemption & Interest Fund	—	—	—	—	—	215,647.3	—	215,647.3
Reserve Claim Fund	—	—	—	—	—	—	6,905.1	6,905.1
Equity Transfer	—	—	—	3,269.3	—	—	—	3,269.3
<b>TOTAL EXPENDITURES</b>	<b>\$ 338,424.1</b>	<b>\$ 245,028.4</b>	<b>\$ 13,793.3</b>	<b>\$ 17,401.5</b>	<b>\$ 79,505.0</b>	<b>\$ 215,647.3</b>	<b>\$ 6,905.1</b>	<b>\$ 916,704.7</b>

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



**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 2019**

DESCRIPTION	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
2019 Revenue	\$ 341,296,000	\$ 991,731,485	\$ 7,720,000	\$ 52,000,000	\$ —	\$ 1,900,000	\$ 600,000	\$ 1,395,247,485
Resources Available at 01/01/2019	358,878,281	353,000,000	24,972,000	75,707,666	87,281,000	348,244,870	31,546,693	1,279,630,510
Total Resources	\$ 700,174,281	\$ 1,344,731,485	\$ 32,692,000	\$ 127,707,666	\$ 87,281,000	\$ 350,144,870	\$ 32,146,693	\$ 2,674,877,995
Liabilities:								
Payable From Restricted Assets	—	—	—	—	—	—	—	—
Liabilities and Designations at 01/01/2019	227,368,016	962,357,685	14,351,700	29,900,666	—	118,184,246*	378,893	1,352,541,206
Equity Transfer	4,200,000	(4,200,000)	—	(6,396,900)	—	6,396,900	—	—
Budget Reserve	99,393,765	—	—	—	—	—	—	99,393,765
<b>ASSETS APPROPRIABLE</b>	<b>\$ 377,612,500</b>	<b>\$ 378,173,800</b>	<b>\$ 18,340,300</b>	<b>\$ 91,410,100</b>	<b>\$ 87,281,000</b>	<b>\$ 238,357,524</b>	<b>\$ 31,767,800</b>	<b>\$ 1,222,943,024</b>

\* Liabilities for the Bond Redemption & Interest Fund are for future Years' Principal and Interest

**GAAP Basis Statement From 2017 CAFR - Exhibit A-1**  
**Governmental Funds Balance Sheets / Statements of Net Assets**

December 31, 2017 (with comparative amounts for prior year)

	General Corporate Fund		Debt Service Fund		Capital Improvement Bond Funds	
	2017	2016	2017	2016	2017	2016
<i>(in thousands of dollars)</i>						
<b>Assets and deferred outflows of resources</b>						
Assets:						
Cash	\$ 21,162	\$ 19,388	\$ 11,145	\$ 3,478	\$ 14,113	\$ 7,514
Certificates of deposit	116,881	65,675	10,051	20,009	56,219	82,187
Investments (note 4)	99,282	146,736	88,768	92,185	255,468	233,557
Prepaid insurance	4,101	2,117	—	—	—	—
Taxes receivable, net (note 5)	221,802	223,793	224,578	219,040	—	—
Other receivables, net (note 5)	8,599	14,294	—	—	42,497	97,261
Due from other funds (note 12)	101	101	—	—	—	—
Restricted deposits	527	285	—	—	—	—
Inventories	34,787	35,502	—	—	—	—
Capital assets not being depreciated/amortized (note 6)	—	—	—	—	—	—
Capital assets being depreciated/amortized, net (note 6)	—	—	—	—	—	—
Total assets	<u>507,242</u>	<u>507,891</u>	<u>334,542</u>	<u>334,712</u>	<u>368,297</u>	<u>420,519</u>
Deferred outflows of resources:						
Loss on prior debt refunding	—	—	—	—	—	—
Deferred outflows for pension related amounts	—	—	—	—	—	—
Total deferred outflows of resources	—	—	—	—	—	—
Total assets and deferred outflows of resources	<u>\$ 507,242</u>	<u>\$ 507,891</u>	<u>\$ 334,542</u>	<u>\$ 334,712</u>	<u>\$ 368,297</u>	<u>\$ 420,519</u>
<b>Liabilities, deferred inflows of resources, and fund balances/net position</b>						
Liabilities:						
Accounts payable and other liabilities (note 5)	\$ 21,924	\$ 28,126	\$ —	\$ —	\$ 55,356	\$ 45,543
Due to Pension Trust Fund (note 12)	—	—	—	—	—	—
Due to other funds (note 12)	—	—	—	—	—	—
Accrued interest payable	—	—	—	—	—	—
Unearned Revenue (note 5)	8,139	4,855	—	—	—	—
Long-term liabilities: (note 11)						
Due within one year	—	—	—	—	—	—
Due in more than one year	—	—	—	—	—	—
Total liabilities	<u>30,063</u>	<u>32,981</u>	<u>—</u>	<u>—</u>	<u>55,356</u>	<u>45,543</u>
Deferred inflows of resources:						
Unavailable tax revenue (note 5)	185,236	174,919	187,542	171,204	—	—
Other unavailable revenue (note 5)	—	—	—	—	944	941
Deferred inflows for other pension amounts	—	—	—	—	—	—
Total deferred inflows of resources	<u>185,236</u>	<u>174,919</u>	<u>187,542</u>	<u>171,204</u>	<u>944</u>	<u>941</u>
Fund balances:						
Nonspendable:						
Prepaid insurance	4,101	2,117	—	—	—	—
Inventories	34,787	35,502	—	—	—	—
Restricted for:						
Deposits	527	285	—	—	—	—
Working cash	280,437	279,390	—	—	—	—
Reserve claims	25,890	27,125	—	—	—	—
Debt service	—	—	147,000	163,508	—	—
Capital projects	—	—	—	—	164,524	228,694
Construction	—	—	—	—	—	—
Assigned	—	—	—	—	147,473	145,341
Unassigned (Deficit)	(53,799)	(44,428)	—	—	—	—
Total fund balances	<u>291,943</u>	<u>299,991</u>	<u>147,000</u>	<u>163,508</u>	<u>311,997</u>	<u>374,035</u>
Total liabilities, deferred inflows, and fund balances	<u>\$ 507,242</u>	<u>\$ 507,891</u>	<u>\$ 334,542</u>	<u>\$ 334,712</u>	<u>\$ 368,297</u>	<u>\$ 420,519</u>
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						

Metropolitan Water Reclamation District of Greater Chicago

Retirement Fund		Other Governmental / Nonmajor Funds		Total Governmental Funds		Adjustments (Note 2a)		Statements of Net Position	
2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
\$ —	\$ —	\$ 2,590	\$ 5,081	\$ 49,010	\$ 35,461	\$ —	\$ —	\$ 49,010	\$ 35,461
—	—	29,069	5,003	212,220	172,874	—	—	212,220	172,874
—	—	32,958	31,360	476,476	503,838	—	—	476,476	503,838
—	—	79	1	4,180	2,118	—	—	4,180	2,118
75,042	69,200	55,128	45,865	576,550	557,898	—	—	576,550	557,898
—	—	746	—	51,842	111,555	—	—	51,842	111,555
—	—	—	—	101	101	(101)	(101)	—	—
—	—	—	—	527	285	—	—	527	285
—	—	—	—	34,787	35,502	—	—	34,787	35,502
—	—	—	—	—	—	5,910,375	5,730,902	5,910,375	5,730,902
—	—	—	—	—	—	1,684,067	1,696,032	1,684,067	1,696,032
<u>75,042</u>	<u>69,200</u>	<u>120,570</u>	<u>87,310</u>	<u>1,405,693</u>	<u>1,419,632</u>	<u>7,594,341</u>	<u>7,426,833</u>	<u>9,000,034</u>	<u>8,846,465</u>
—	—	—	—	—	—	4,899	5,426	4,899	5,426
—	—	—	—	—	—	182,036	187,959	182,036	187,959
—	—	—	—	—	—	186,935	193,385	186,935	193,385
<u>\$ 75,042</u>	<u>\$ 69,200</u>	<u>\$ 120,570</u>	<u>\$ 87,310</u>	<u>\$ 1,405,693</u>	<u>\$ 1,419,632</u>	<u>\$ 7,781,276</u>	<u>\$ 7,620,218</u>	<u>\$ 9,186,969</u>	<u>\$ 9,039,850</u>
\$ —	\$ —	\$ 4,886	\$ 5,430	\$ 82,166	\$ 79,099	\$ —	\$ —	\$ 82,166	\$ 79,099
15,868	20,051	—	—	15,868	20,051	73,990	60,208	89,858	80,259
—	—	101	101	101	101	(101)	(101)	—	—
—	—	—	—	—	—	15,899	16,145	15,899	16,145
—	—	—	—	8,139	4,855	—	—	8,139	4,855
—	—	—	—	—	—	167,351	140,400	167,351	140,400
—	—	—	—	—	—	4,192,025	4,179,147	4,192,025	4,179,147
<u>15,868</u>	<u>20,051</u>	<u>4,987</u>	<u>5,531</u>	<u>106,274</u>	<u>104,106</u>	<u>4,449,164</u>	<u>4,395,799</u>	<u>4,555,438</u>	<u>4,499,905</u>
59,174	49,149	46,028	35,849	477,980	431,121	(477,980)	(431,121)	—	—
—	—	—	—	944	941	(944)	(941)	—	—
—	—	—	—	—	—	15,102	—	15,102	—
<u>59,174</u>	<u>49,149</u>	<u>46,028</u>	<u>35,849</u>	<u>478,924</u>	<u>432,062</u>	<u>(463,822)</u>	<u>(432,062)</u>	<u>15,102</u>	<u>—</u>
—	—	79	1	4,180	2,118	(4,180)	(2,118)	—	—
—	—	—	—	34,787	35,502	(34,787)	(35,502)	—	—
—	—	—	—	527	285	(527)	(285)	—	—
—	—	59,713	59,454	340,150	338,844	(340,150)	(338,844)	—	—
—	—	—	—	25,890	27,125	(25,890)	(27,125)	—	—
—	—	—	—	147,000	163,508	(147,000)	(163,509)	—	—
—	—	4,146	—	168,670	228,694	(168,670)	(228,694)	—	—
—	—	5,696	—	5,696	—	(5,696)	—	—	—
—	—	—	—	147,473	145,341	(147,473)	(145,341)	—	—
—	—	(79)	(13,525)	(53,878)	(57,953)	53,878	57,954	—	—
—	—	69,555	45,930	820,495	883,464	(820,495)	(883,464)	—	—
<u>\$ 75,042</u>	<u>\$ 69,200</u>	<u>\$ 120,570</u>	<u>\$ 87,310</u>	<u>\$ 1,405,693</u>	<u>\$ 1,419,632</u>				
Net position:									
Net investment in capital assets						4,710,123	4,591,899	4,710,123	4,591,899
Restricted for corporate working cash						280,437	279,390	280,437	279,390
Restricted for reserve claim						9,976	2,128	9,976	2,128
Restricted for debt service						318,646	318,575	318,646	318,575
Restricted for capital projects						32,067	75,762	32,067	75,762
Restricted for construction working cash						22,204	22,070	22,204	22,070
Restricted for stormwater working cash						37,509	37,384	37,509	37,384
Unrestricted (Deficit)						(794,533)	(787,263)	(794,533)	(787,263)
Total net position						<u>\$ 4,616,429</u>	<u>\$ 4,539,945</u>	<u>\$ 4,616,429</u>	<u>\$ 4,539,945</u>

Notes reference the 2017 CAFR of the District - Available on the internet at www.mwr.org

**APPROPRIATION FOR LIABILITIES - BY FUND  
JANUARY 1, 2019 AND 2018**

<b>CORPORATE FUND</b>	<b>2019</b>	<b>2018</b>
Unpaid Bills:		
Accrued Salaries & Wages	\$ 3,685,000	\$ 3,850,000
Personal Services - Other	2,700,000	1,022,559
Payroll Withholding & Miscellaneous	2,000,000	2,000,000
Contractual Services	28,983,016	28,000,000
Due to Corporate Working Cash Fund	190,000,000	190,000,000
Designated for Future Claims Liabilities	—	—
<b>Total Liabilities of Corporate Fund</b>	<b>\$ 227,368,016</b>	<b>\$ 224,872,559</b>
<b>CONSTRUCTION FUND</b>		
Unpaid Bills:		
Contracts Payable	\$ 2,075,700	\$ 2,340,000
Contractual Services	276,000	1,300,000
Machinery & Equipment	—	—
Due to Construction Working Cash Fund	12,000,000	12,000,000
<b>Total Liabilities of Construction Fund</b>	<b>\$ 14,351,700</b>	<b>\$ 15,640,000</b>
<b>CAPITAL IMPROVEMENTS BOND FUND</b>		
Unpaid Bills:		
Contractual Services	\$ 74,000,000	\$ 73,937,199
Contracts Payable	888,357,685	1,040,318,906
<b>Total Liabilities of Capital Improvements Bond Fund</b>	<b>\$ 962,357,685</b>	<b>\$ 1,114,256,105</b>
<b>RESERVE CLAIM FUND</b>		
Accounts Payable & Other Liabilities	\$ 378,893	\$ 241,216
<b>BOND REDEMPTION &amp; INTEREST FUND</b>		
Future Payment of Principal & Interest	\$ 238,357,524	\$ 256,304,186
<b>STORMWATER MANAGEMENT FUND</b>		
Accrued Salaries & Wages	\$ 100,000	\$ 104,000
Vouchers Payable	1,300,000	2,000,000
Contracts Payable	2,000,666	1,461,208
Due to Stormwater Working Cash Fund	26,500,000	26,500,000
<b>Total Liabilities of Stormwater Management Fund</b>	<b>\$ 29,900,666</b>	<b>\$ 30,065,208</b>
<b>TOTAL LIABILITIES JANUARY 1, 2019 AND 2018</b>	<b>\$ 1,472,714,484</b>	<b>\$ 1,641,379,274</b>

**STATEMENT OF TAXES RECEIVABLE FOR 2018 AND PRIOR YEARS AT JANUARY 1, 2019  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2019**

YEAR FUND	TAX EXTENSION	COLLECTED THRU 12/31/18	%	UNCOLLECTED AT 12/31/18	RESERVE \$	%	ESTIMATED NET TAXES RECEIVABLE	CASH ESTIMATED IN 2019
<b>2018</b>								
Corporate	\$ 240,465,800	\$ —	—%	\$ 240,465,800	\$ 8,416,303	3.5%	\$ 232,049,497	\$ 234,454,155
Bond Redemption & Interest	243,791,597	—	—%	243,791,597	8,532,706	3.5%	235,258,891	237,696,807
Retirement	71,534,197	—	—%	71,534,197	2,503,697	3.5%	69,030,500	69,030,500
Construction	11,700,000	—	—%	11,700,000	409,500	3.5%	11,290,500	11,407,500
Stormwater Management	47,826,000	—	—%	47,826,000	1,673,910	3.5%	46,152,090	46,630,350
Reserve Claim	6,000,000	—	—%	6,000,000	210,000	3.5%	5,790,000	5,850,000
Total	\$ 621,317,594	\$ —	—%	\$ 621,317,594	\$ 21,746,116	3.5%	\$ 599,571,478	\$ 605,069,312
<b>2017</b>								
Corporate	\$ 223,946,065	\$ 218,347,413	97.5%	\$ 5,598,652	\$ 7,838,112	3.5%	\$ —	\$ 2,463,407
Bond Redemption & Interest	233,887,123	228,039,945	97.5%	5,847,178	8,186,049	3.5%	—	2,572,758
Retirement	73,438,135	71,602,182	97.5%	1,835,953	2,570,335	3.5%	—	—
Construction	17,000,000	16,575,000	97.5%	425,000	595,000	3.5%	—	187,000
Stormwater Management	40,856,008	39,834,608	97.5%	1,021,400	1,429,960	3.5%	—	449,416
Reserve Claim	5,900,000	5,752,500	97.5%	147,500	206,500	3.5%	—	64,900
Total	\$ 595,027,331	\$ 580,151,648	97.5%	\$ 14,875,683	\$ 20,825,957	3.5%	\$ —	\$ 5,737,481
<b>2016</b>								
Corporate	\$ 226,742,879	\$ 223,568,479	98.6%	\$ 3,174,400	\$ 7,936,001	3.5%	\$ —	\$ (1,587,200)
Bond Redemption & Interest	225,714,902	222,554,893	98.6%	3,160,009	7,900,022	3.5%	—	(1,580,004)
Retirement	65,161,200	62,880,558	96.5%	2,280,642	2,280,642	3.5%	—	—
Construction	13,784,956	13,591,967	98.6%	192,989	482,473	3.5%	—	(96,495)
Stormwater Management	34,250,000	33,770,500	98.6%	479,500	1,198,750	3.5%	—	(239,750)
Reserve Claim	5,800,000	5,718,800	98.6%	81,200	203,000	3.5%	—	(40,600)
Total	\$ 571,453,937	\$ 562,085,197	98.4%	\$ 9,368,740	\$ 20,000,888	3.5%	\$ —	\$ (3,544,049)
<b>2015</b>								
Corporate	\$ 227,659,785	\$ 224,700,208	98.7%	\$ 2,959,577	\$ 7,968,092	3.5%	\$ —	\$ (1,593,618)
Bond Redemption & Interest	224,487,727	221,569,387	98.7%	2,918,340	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	14,999,392	98.7%	197,560	531,893	3.5%	—	(106,379)
Stormwater Management	24,050,000	23,737,350	98.7%	312,650	841,750	3.5%	—	(168,350)
Reserve Claim	5,700,000	5,625,900	98.7%	74,100	199,500	3.5%	—	(39,900)
Total	\$ 555,098,464	\$ 546,606,096	98.5%	\$ 8,492,368	\$ 19,428,446	3.5%	\$ —	\$ (3,479,661)
<b>2014</b>								
Corporate	\$ 230,415,559	\$ 225,576,832	97.9%	\$ 4,838,727	\$ 8,064,545	3.5%	\$ —	\$ (691,247)
Bond Redemption & Interest	218,319,348	213,734,642	97.9%	4,584,706	7,641,177	3.5%	—	(654,958)
Retirement	50,530,700	49,267,433	97.5%	1,263,268	1,768,575	3.5%	—	—
Construction	17,400,000	17,034,600	97.9%	365,400	609,000	3.5%	—	(52,200)
Stormwater Management	21,000,000	20,559,000	97.9%	441,000	735,000	3.5%	—	(63,000)
Reserve Claim	3,000,000	2,937,000	97.9%	63,000	105,000	3.5%	—	(9,000)
Total	\$ 540,665,607	\$ 529,109,506	97.9%	\$ 11,556,101	\$ 18,923,296	3.5%	\$ —	\$ (1,470,405)
<b>Prior Years'</b>								
Corporate								\$ (230,416)
Bond Redemption & Interest								(218,319)
<b>Levies</b>								
Retirement								—
Construction								(17,400)
Stormwater Management								(21,000)
Reserve Claim								(3,000)
Total								\$ (490,135)
<b>RECAPITULATION BY FUND</b>								
Corporate	\$ 1,149,230,088	\$ 892,192,932		\$ 257,037,156	\$ 40,223,053		\$ 232,049,497	\$ 232,815,081
Bond Redemption & Interest	1,146,200,697	885,898,867		260,301,830	40,117,024		235,258,891	236,244,870
Retirement	318,668,232	239,724,032		78,944,200	11,153,388		69,030,500	69,030,500
Construction	75,081,908	62,200,958		12,880,950	2,627,867		11,290,500	11,322,027
Stormwater Management	167,982,008	117,901,458		50,080,550	5,879,370		46,152,090	46,587,666
Reserve Claim	26,400,000	20,034,200		6,365,800	924,000		5,790,000	5,822,400
Total	\$ 2,883,562,933	\$ 2,217,952,447		\$ 665,610,486	\$ 100,924,703		\$ 599,571,478	\$ 601,822,543

**STATEMENT OF PERSONAL PROPERTY REPLACEMENT TAXES  
RECEIVABLE FOR 2019 AND PRIOR YEARS AT JANUARY 1, 2019  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2019**

LEVY YEAR	FUND	BUDGETED RECEIVABLE	ACTUAL/ESTIMATED COLLECTED THROUGH 2018	CASH ESTIMATED IN 2019
<b>2019</b>	Corporate	\$ 15,000,000	\$ —	\$ —
	Retirement	18,258,400	—	—
	Construction	—	—	—
	Total	\$ 33,258,400	\$ —	\$ —
<b>2018</b>	Corporate	\$ 19,849,500	\$ —	\$ 15,849,500
	Retirement	18,250,500	—	18,250,500
	Construction	—	—	—
	Total	\$ 38,100,000	\$ —	\$ 34,100,000
<b>2017</b>	Corporate	\$ 18,164,000	\$ 17,970,400	\$ —
	Retirement	18,736,200	18,736,200	—
	Construction	—	—	—
	Total	\$ 36,900,200	\$ 36,706,600	\$ —
<b>2016</b>	Corporate	\$ 24,676,000	\$ 23,751,730	\$ —
	Retirement	16,624,500	16,624,500	—
	Construction	1,100,000	—	—
	Total	\$ 42,400,500	\$ 40,376,230	\$ —
<b>2015</b>	Corporate	\$ 23,101,600	\$ 23,435,980	\$ —
	Retirement	14,798,400	14,798,400	—
	Construction	—	—	—
	Total	\$ 37,900,000	\$ 38,234,380	\$ —
<b>2014</b>	Corporate	\$ 18,608,149	\$ 30,257,802	\$ —
	Retirement	12,891,851	12,891,851	—
	Construction	10,500,000	—	—
	Total	\$ 42,000,000	\$ 43,149,653	\$ —

NOTE: Personal Property Replacement Taxes are recorded as collected against the prior year's tax estimate. For example, collections in 2019 will be recorded against the 2018 budgeted receivable.

## CORPORATE FUND FINANCIAL NARRATIVE

The Corporate Fund is the general fund of the District and used to account for the general operations and expenditures. The 2019 Budget is \$377.6 million, an increase of \$7.4 million, or 2.0 percent, from the 2018 Adjusted Budget. Property taxes are the major source of revenue for the Corporate Fund. In 2019, the net property tax levy will provide 65.1 percent of the fund's revenue. The property tax levy for 2019 is \$254.6 million, an increase of \$14.1 million, or 5.9 percent, from the 2018 Adjusted Levy.

The Corporate Fund receives significant funding from user charge revenue, estimated at \$46.0 million in 2019, unchanged from the 2018 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 2018 year-end estimated revenue is stable at \$43.0 million.

User charge rates and revenues parallel changes in operations and maintenance costs. User charge rates are based on the 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 \$15.0 million for 2019, a decrease of \$4.8 million compared to the 2018 Adjusted Budget of \$19.8 million for the Corporate Fund. PPRT revenues are accounted for in arrears and compared against the prior year tax estimate. Beginning in Fiscal Year 2018, the State of Illinois began allocating additional PPRT funds to fund community colleges, which decreased the funds available for local government allocations. The District projects revenue received in 2018 to be \$18.0 million, short of budgetary expectations. The PPRT is allocated first to the Retirement Fund to pay 20.9 percent of the Retirement Fund total levy.

In 2019, land rental revenue is budgeted at \$21.5 million, an increase of \$0.5 million from the 2018 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 2019, 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. Investment income is budgeted for 2019 at \$2.6 million, an increase of \$1.3 million from the 2018 Original Budget. The investment income estimate assumes four rate hikes in 2018 and three in 2019 after several years of relatively stable but low short-term interest rates.

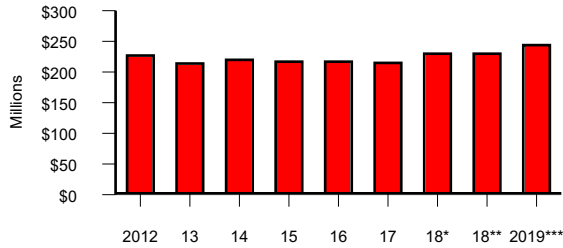
Overall, 2018 non-tax revenue is projected to end the year under 2018 Original Budget by \$0.6 million, or 0.7 percent. This decrease is the result of User Charge revenues ending the year under budget by \$3.0 million, offset by solid investment returns based on increasing interest rates and higher than anticipated TIF surplus distributions from the City of Chicago and suburban Cook County. In 2018, sewer permit fee revenues are expected to total \$1.0 million. Beginning in 2019, sewer permit fees will be recorded in the Stormwater Management Fund to offset a portion of operational costs related to the administration of the Watershed Management Ordinance being transferred from the Corporate Fund.

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 2019, a portion amounting to \$99.4 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 2019. The estimated amount the District will allocate as available for loan in 2019 is \$256.1 million, or 95 percent, of the maximum.

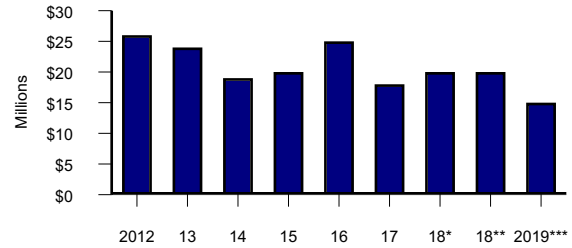
**REVENUE - CORPORATE FUND (BUDGETARY BASIS)**

**Net Property Tax Levy**



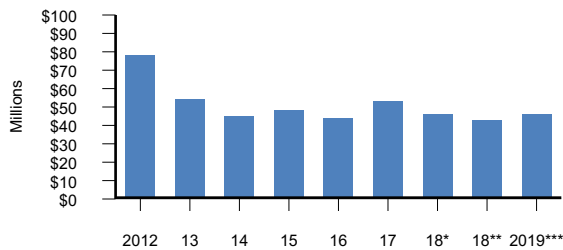
The property tax levy is the primary source of revenue for the Corporate Fund. Its increase, therefore, trends with increases in appropriations.

**Personal Property Replacement Tax**



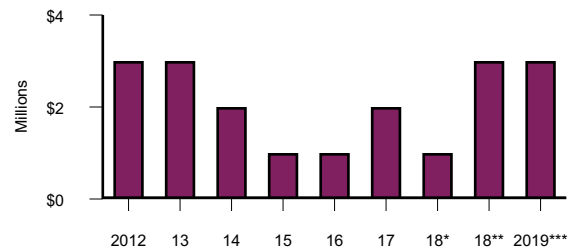
Beginning in 2014, the District's distribution to the Retirement Fund increased. Errors in the State's calculations and changes in the allocation have resulted in decreased PPRT revenue.

**User Charge**



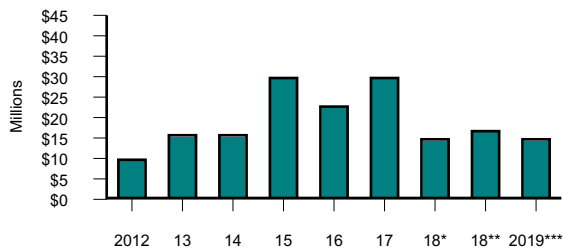
The growth in the food processing and chemical industries has been offset by improvements in processing and reduced discharges, resulting in steady revenue projections.

**Investment Income**



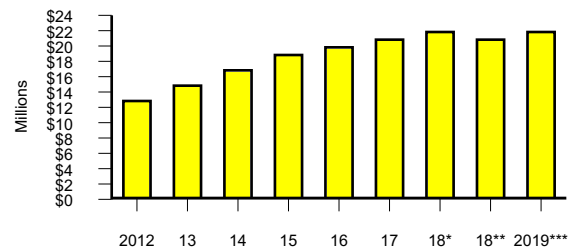
Investment income is expected to increase due to anticipated rate increases in 2018 and 2019. In both 2015 and 2016, low rates and smaller investment balances resulted in lower returns.

**Other**



In 2015, TIF surplus distribution and land sales were higher than anticipated. In 2017, the Corporate Fund received a \$6.0 million equity transfer from the Capital Improvements Bond Fund and a higher than normal TIF surplus distribution.

**Land Rentals**



Land rentals have continue to gradually increase since 2012. In 2019, the revenue is expected to remain stable at \$21.5 million.

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. Beginning in 2019, sewer permit fees will be recorded to the Stormwater Management Fund.

- 2012-2017 actual
- \* 2018 as budgeted
- \*\* 2018 adjusted estimated
- \*\*\* 2019 estimate



**CORPORATE FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	<b>ASSETS</b>			
	<b>2019</b>		<b>2018</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 110,213,700	\$ 110,213,700	\$ 127,347,300	\$ 127,347,300
Taxes Receivable	232,049,497	232,815,081	216,107,953	216,737,459
Replacement Tax	15,849,500	15,849,500	18,164,000	18,164,000
<b>Total Current Assets</b>	<b>\$ 358,112,697</b>	<b>\$ 358,878,281</b>	<b>\$ 361,619,253</b>	<b>\$ 362,248,759</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 3,685,000	\$ 3,685,000	\$ 3,850,000	\$ 3,850,000
Personal Services - Other	2,700,000	2,700,000	1,022,559	1,022,559
Payroll Withholding & Miscellaneous	2,000,000	2,000,000	2,000,000	2,000,000
Contractual Services	28,983,016	28,983,016	28,000,000	28,000,000
Due to Corporate Working Cash Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Liabilities</b>	<b>\$ 227,368,016</b>	<b>\$ 227,368,016</b>	<b>\$ 224,872,559</b>	<b>\$ 224,872,559</b>
<b>Total Liabilities</b>		<b>\$ 227,368,016</b>		<b>\$ 224,872,559</b>
<b>ASSETS APPROPRIABLE FOR 2019 &amp; 2018</b>				
Net Assets Appropriable		\$ 131,510,265		\$ 137,376,200
Budget Reserve		(99,393,765)		(103,261,000)
Net Assets Appropriated		\$ 32,116,500		\$ 34,115,200
Estimated Revenue		345,496,000		336,094,000
<b>Total Assets Appropriable</b>		<b>\$ 377,612,500</b>		<b>\$ 370,209,200</b>
<b>FUND EQUITY</b>				
Undesignated	\$ 130,744,681		\$ 136,746,694	
<b>Total Fund Equity</b>	<b>\$ 130,744,681</b>		<b>\$ 136,746,694</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 358,112,697</b>		<b>\$ 361,619,253</b>	

**CORPORATE FUND  
APPROPRIABLE REVENUE  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
<b>Revenue from Property Taxes</b>					
Gross Tax Levy	\$ 254,574,100	\$ 240,465,800	\$ 240,465,800	\$ 224,824,731	\$ 226,742,879
Less Allowance for Uncollectible Taxes	(8,910,094)	(8,416,303)	(8,416,303)	(7,868,866)	(7,936,001)
Net Property Taxes	\$ 245,664,006	\$ 232,049,497	\$ 232,049,497	\$ 216,955,865	\$ 218,806,878
<b>Revenue from Personal Property</b>					
Replacement Tax	\$ 15,000,000	\$ 19,849,500	\$ 19,849,500	\$ 18,164,000	\$ 24,676,000
Net Tax Sources	\$ 260,664,006	\$ 251,898,997	\$ 251,898,997	\$ 235,119,865	\$ 243,482,878
Adjustment to match working cash borrowings	(4,564,007)	(4,598,997)	(4,598,997)	(4,271,953)	(4,671,474)
Working Cash Financing at 95% of Gross Tax Sources	\$ 256,100,000	\$ 247,300,000	\$ 247,300,000	\$ 230,800,000	\$ 238,800,000
Investment Income	\$ 2,600,000	\$ 2,594,000	\$ 1,300,000	\$ 1,523,399	\$ 1,020,669
Land Rentals	21,500,000	21,000,000	21,500,000	20,628,245	20,458,550
Sewer Permit Fees	—	1,000,000	900,000	1,100,992	1,007,195
Sewer Service Agreement Revenue	1,500,000	1,500,000	1,500,000	2,286,078	1,497,979
User Charge	46,000,000	43,000,000	46,000,000	53,252,035	44,487,370
Resource Recovery	600,000	600,000	1,600,000	295,602	—
Lockport Electrical Energy Generation	1,200,000	1,300,000	1,000,000	1,323,132	1,176,146
Miscellaneous (details below)	11,796,000	13,023,000	10,794,000	15,620,329	12,438,302
Subtotal	\$ 85,196,000	\$ 84,017,000	\$ 84,594,000	\$ 96,029,812	\$ 82,086,211
Adjustment to Net Assets Available for Projected Receipts	—	(105,600)	—	7,254,500	11,314,834
Equity Transfer	4,200,000	4,200,000	4,200,000	6,000,000	—
<b>GRAND TOTAL</b>	<b>\$ 345,496,000</b>	<b>\$ 335,411,400</b>	<b>\$ 336,094,000</b>	<b>\$ 340,084,312</b>	<b>\$ 332,201,045</b>
<hr/>					
<b>TIF Surplus Distribution</b>	\$ 9,500,000	\$ 10,500,000	\$ 9,500,000	\$ 11,811,280	\$ 8,431,979
TIF Differential Fee	225,000	225,000	225,000	225,000	225,000
Land Sales	—	3,000	—	50,200	1,233,562
Claims & Damage Settlements	—	200,000	—	213,158	186,573
Scrap Sales	50,000	55,000	50,000	116,041	67,015
Sales of Automobiles	18,000	20,000	16,000	42,440	23,707
Interest on Taxes - Cook County Treasurer	3,000	20,000	3,000	10,265	3,774
Other	2,000,000	2,000,000	1,000,000	3,151,945	2,266,692
<b>Total</b>	<b>\$ 11,796,000</b>	<b>\$ 13,023,000</b>	<b>\$ 10,794,000</b>	<b>\$ 15,620,329</b>	<b>\$ 12,438,302</b>

**CORPORATE FUND  
FINANCING  
2019 - 2014**

	ESTIMATED			ACTUAL			
	2019 (1)	2018 REVISED	2018 ORIGINAL	2017	2016	2015	2014
<b>BORROWINGS</b>							
Working Cash Loans Current Year	\$ 256,100,000	\$ 190,000,000	\$ 247,300,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 236,200,000
Working Cash Loans Prior Year	—	—	—	—	—	—	—
<b>Total Borrowings</b>	<u>\$ 256,100,000</u>	<u>\$ 190,000,000</u>	<u>\$ 247,300,000</u>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 236,200,000</u>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 236,200,000	\$ 190,000,000
Working Cash Loans Repaid							
Prior	—	—	—	—	—	—	—
<b>Total Repayments</b>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 190,000,000</u>	<u>\$ 236,200,000</u>	<u>\$ 190,000,000</u>

**(1) FINANCING LIMITATION**

		2019
		(In Millions)
Property Tax Levy	\$	254.6
Personal Property Replacement Tax		15.0
Total	\$	269.6
* Borrowing Limitation		95.0%
Total Available for Financing	\$	<u>256.1</u>
* Statutory limitation is 100%		

**CORPORATE WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 91,228,000	\$ 91,228,000	\$ 89,986,148	\$ 89,986,148
Due from Corporate Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Assets</b>	<u>\$ 281,228,000</u>	<u>\$ 281,228,000</u>	<u>\$ 279,986,148</u>	<u>\$ 279,986,148</u>
	FUND EQUITY			
Estimated Revenue & Other Financing Sources		\$ 2,100,000		\$ 800,000
<b>ASSETS AVAILABLE FOR 2019 AND 2018</b>		<u>\$ 283,328,000</u>		<u>\$ 280,786,148</u>
<b>FUND EQUITY</b>		<u>\$ 281,228,000</u>		<u>\$ 279,986,148</u>

**CORPORATE WORKING CASH FUND  
REVENUES  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Money & Property					
Investment Income	\$ 2,100,000	\$ 1,630,000	\$ 800,000	\$ 817,809	\$ 537,822
Revenue from Miscellaneous Sources	—	—	—	—	—
<b>TOTAL</b>	<u>\$ 2,100,000</u>	<u>\$ 1,630,000</u>	<u>\$ 800,000</u>	<u>\$ 817,809</u>	<u>\$ 537,822</u>

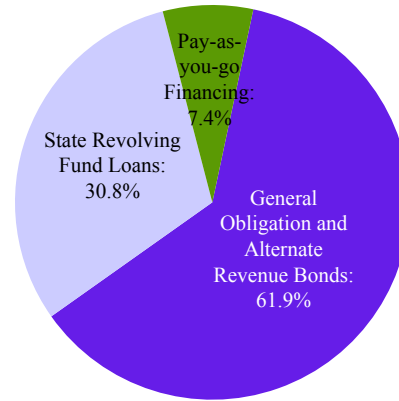
**CAPITAL FUNDS FINANCIAL NARRATIVE**

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 through the Capital Improvement Program. 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, loans, grants, and other financial assistance available to the District.

The District utilizes a combination of funding methods to finance the Capital Improvement Program. The 2019 revenue sources include 7.4 percent from property taxes, grants, investment income or other miscellaneous revenues. Low-interest Wastewater and Stormwater State Revolving Fund (SRF) loans account for 30.8 percent of 2019 revenues, while General Obligation and Alternate Revenue Bonds account for 61.9 percent. Stormwater Alternate Revenue bonds and Stormwater State Revolving Fund loans finance large stormwater projects that address overland flooding throughout Cook County backed by the Stormwater Management Fund Property Tax Levy to pay the principal and interest on the loans.

The Construction Fund is supported primarily by Property Taxes and is used to finance smaller construction projects on a pay-as-you-go basis, while the Capital Improvements Bond Fund is used to budget and account for larger infrastructure and stormwater projects.

**2019 Capital Improvement Program Revenue Sources**



**Capital Improvements Bond Fund**

The CIBF is used to provide resources from Wastewater and Stormwater State Revolving Fund loans, grants, bonds, and other sources to design and construct major capital facilities that are structures of permanent duration. The 2019 appropriation is \$378.2 million, an increase of \$65.2 million from the 2018 Adjusted Budget, or 20.8 percent. The appropriation varies by the scheduled awards of major projects.

The CIBF balance sheet on page 95 estimates the net assets appropriable for 2019 at (\$609.4) million and (\$626.1) million for 2018. The CIBF balance sheet estimated negative net assets appropriable for 2019 and 2018 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. On a cash flow basis, the District has a goal to keep expenditures at a maximum of \$250.0 million per year.

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 61 - 72 presents detailed projections of the financial aspects of the capital program into the future.

Illinois property tax limitation laws limit the District's authority to issue bonds without a referendum. Projects initiated prior to October 1, 1991, which generally cover only Tunnel and Reservoir Plan (TARP) projects, are excluded from the limitation. The District is authorized to issue "limited tax bonds" without a voter referendum. 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. The extension base limitation for the 2018 levy year is \$166.1 million and \$170.7 million for the 2019 levy year.

Illinois' Stormwater/Wastewater Revolving Loan Fund (SRF) provides low-interest loans to finance qualifying projects. The current interest rate for new loans to the District is 1.84 percent. The District expects to receive an allocation of \$120.0 million in 2019 and \$175.0 million annually for the following four years. The District continues to plan for the use of SRF loans and other low cost financing options. SRF loans will make up 72.6 percent of construction cost financing for projects currently under construction and those with projected 2019 construction contract award dates. For 2019, a Build America Bonds (BABs) subsidy of \$11.3

million and \$2.0 million in miscellaneous revenue is available for capital projects in the Capital Improvements Bond Fund, while \$4.2 million in accumulated interest income will be transferred to the Corporate Fund.

### **Construction Fund**

The 2019 tax levy for the Construction Fund is \$7.6 million, a decrease of \$4.1 million, or 35.0 percent, from the 2018 Adjusted Budget. The fund will also be supported by existing assets appropriable to fund capital projects. Additionally, 2017 marked the end of a 10-year payment agreement with the City of Chicago for sewer connection impact fees reducing revenue by \$745,000 annually beginning in 2018.

The 2019 appropriation is \$18.3 million, a decrease of \$7.7 million, or 29.7 percent, from the 2018 Adjusted Budget. This decreased appropriation level reflects the anticipated expenditures for existing projects and the appropriations required to fund projects with 2019 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 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 following year. For 2019, there is \$5.7 million budgeted for projects currently under construction and \$9.2 million for projects scheduled for award in 2019.

**CAPITAL IMPROVEMENTS BOND FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	<b>ASSETS</b>			
	<b>2019</b>		<b>2018</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 232,000,000	\$ 232,000,000	\$ 337,222,198	\$ 337,222,198
Grants Receivable	1,000,000	1,000,000	941,207	941,207
State Revolving Fund Loans Receivable	120,000,000	120,000,000	150,000,000	150,000,000
<b>Total Current Assets</b>	<b>\$ 353,000,000</b>	<b>\$ 353,000,000</b>	<b>\$ 488,163,405</b>	<b>\$ 488,163,405</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Contractual Services	\$ 74,000,000	\$ 74,000,000	\$ 73,937,199	\$ 73,937,199
Contracts Payable	888,357,685	888,357,685	1,040,318,906	1,040,318,906
<b>Total Current Liabilities</b>	<b>\$ 962,357,685</b>	<b>\$ 962,357,685</b>	<b>\$ 1,114,256,105</b>	<b>\$ 1,114,256,105</b>
Designated for Future Claims Liabilities	—	—	—	—
<b>Total Liabilities &amp; Designations</b>	<b>\$ 962,357,685</b>	<b>\$ 962,357,685</b>	<b>\$ 1,114,256,105</b>	<b>\$ 1,114,256,105</b>
<b>ASSETS APPROPRIABLE</b>				
Net Assets Appropriable		\$ (609,357,685)		\$ (626,092,700)
Net Assets Appropriated		\$ (609,357,685)		\$ (626,092,700)
Estimated Revenue		987,531,485		939,075,600
<b>Total Assets Appropriable</b>		<b>\$ 378,173,800</b>		<b>\$ 312,982,900</b>
<b>FUND EQUITY</b>				
	\$ (609,357,685)		\$ (626,092,700)	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 353,000,000</b>		<b>\$ 488,163,405</b>	

**CAPITAL IMPROVEMENTS BOND FUND**  
**APPROPRIABLE REVENUE**  
**2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Money & Property					
Bond Sales (Present & Future)	\$ 850,664,185	\$ —	\$ 776,281,100	\$ —	\$ 125,003,513
Investment Income	7,800,000	5,266,000	3,700,000	3,938,820	2,395,116
<b>Subtotal</b>	<b>\$ 858,464,185</b>	<b>\$ 5,266,000</b>	<b>\$ 779,981,100</b>	<b>\$ 3,938,820</b>	<b>\$ 127,398,629</b>
Revenue from Miscellaneous Sources					
Federal & State Grants	\$ 11,267,300	\$ 11,294,500	\$ 11,294,500	\$ 16,137,198	\$ 11,233,702
State Revolving Fund Loans	120,000,000	150,000,000	150,000,000	168,986,700	173,739,000
Miscellaneous	2,000,000	2,000,000	2,000,000	2,179,586	2,468,262
<b>Subtotal</b>	<b>\$ 133,267,300</b>	<b>\$ 163,294,500</b>	<b>\$ 163,294,500</b>	<b>\$ 187,303,484</b>	<b>\$ 187,440,964</b>
<b>Total Revenue</b>	<b>\$ 991,731,485</b>	<b>\$ 168,560,500</b>	<b>\$ 943,275,600</b>	<b>\$ 191,242,304</b>	<b>\$ 314,839,593</b>
Other Financing Sources (Uses)					
Equity Transfer	\$ (4,200,000)	\$ (4,200,000)	\$ (4,200,000)	\$ (13,000,000)	\$ —
<b>GRAND TOTAL</b>	<b>\$ 987,531,485</b>	<b>\$ 164,360,500</b>	<b>\$ 939,075,600</b>	<b>\$ 178,242,304</b>	<b>\$ 314,839,593</b>



**CONSTRUCTION FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	<b>ASSETS</b>			
	<b>2019</b>		<b>2018</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 13,650,000	\$ 13,650,000	\$ 13,926,461	\$ 13,926,461
Taxes Receivable	11,290,500	11,322,000	16,405,000	16,454,139
Replacement Tax	—	—	—	—
<b>Total Current Assets</b>	<b>\$ 24,940,500</b>	<b>\$ 24,972,000</b>	<b>\$ 30,331,461</b>	<b>\$ 30,380,600</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Contracts Payable	\$ 2,075,700	\$ 2,075,700	\$ 2,340,000	\$ 2,340,000
Contractual Services	276,000	276,000	1,300,000	1,300,000
Due to:				
Construction Working Cash Fund	12,000,000	12,000,000	12,000,000	12,000,000
<b>Total Current Liabilities</b>	<b>\$ 14,351,700</b>	<b>\$ 14,351,700</b>	<b>\$ 15,640,000</b>	<b>\$ 15,640,000</b>
<b>Total Liabilities</b>		<b>\$ 14,351,700</b>		<b>\$ 15,640,000</b>
<b>ASSETS APPROPRIABLE FOR 2019 AND 2018</b>				
Net Assets Appropriable		<b>\$ 10,620,300</b>		<b>\$ 14,740,600</b>
Net Assets Appropriated		\$ 10,620,300		\$ 14,740,600
Estimated Revenue		7,720,000		11,340,000
<b>Total Assets Appropriable</b>		<b>\$ 18,340,300</b>		<b>\$ 26,080,600</b>
<b>FUND EQUITY</b>				
Designated for Future Claims Liabilities	\$ —		\$ —	
Undesignated	10,588,800		14,691,461	
<b>Total Fund Equity</b>	<b>\$ 10,588,800</b>		<b>\$ 14,691,461</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 24,940,500</b>		<b>\$ 30,331,461</b>	

**CONSTRUCTION FUND FINANCING**

**2019 - 2014**

	ESTIMATED			ACTUAL			
	2019 (1)	2018 REVISED	2018 ORIGINAL	2017	2016	2015	2014
<b>BORROWINGS</b>							
Working Cash Loans	\$ 7,200,000	\$ 11,100,000	\$ 11,100,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000
<b>Total Borrowings</b>	<b>\$ 7,200,000</b>	<b>\$ 11,100,000</b>	<b>\$ 11,100,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 10,000,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 11,100,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000	\$ 7,000,000
Prior Year	—	—	—	—	—	—	—
<b>Total Repayments</b>	<b>\$ 11,100,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 10,000,000</b>	<b>\$ 7,000,000</b>

**(1) FINANCING LIMITATION**

2019	
(In Millions)	
Property Tax Levy	\$ 7.6
Personal Property Replacement Tax	—
<b>Total</b>	<b>\$ 7.6</b>
Borrowing Limitation*	95% * Statutory limitation is 100%
<b>Total Available for Financing</b>	<b>\$ 7.2</b>

**CONSTRUCTION FUND  
APPROPRIABLE REVENUE  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED		ACTUAL		
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Property Taxes					
Gross Tax Levy	\$ 7,600,000	\$ 11,700,000	\$ 11,700,000	\$ 17,000,000	\$ 13,784,956
Less: Allowance for Uncollectible Taxes	(266,000)	(409,500)	(409,500)	(595,000)	(581,000)
Net Property Taxes	\$ 7,334,000	\$ 11,290,500	\$ 11,290,500	\$ 16,405,000	\$ 13,302,483
Revenue from Personal Property					
Replacement Tax	—	—	—	—	1,100,000
Net Tax Sources	\$ 7,334,000	\$ 11,290,500	\$ 11,290,500	\$ 16,405,000	\$ 14,402,483
Adjustment to Match Working Cash Borrowings	(134,000)	(190,500)	(190,500)	(205,000)	(319,000)
Working Cash Financing (Maximum 95% of Gross Tax Sources)	\$ 7,200,000	\$ 11,100,000	\$ 11,100,000	\$ 16,200,000	\$ 14,100,000
Connection Impact Fees	20,000	10,000	40,000	740,250	1,491,000
Investment Income	500,000	341,000	200,000	196,389	178,062
Miscellaneous	—	—	—	624	43,039
User Charge	—	—	—	—	—
Equity Transfer from the Capital Improvements Bond Fund	—	—	—	7,000,000	—
Subtotal	\$ 520,000	\$ 351,000	\$ 240,000	\$ 7,937,263	\$ 1,712,101
Adjustment to Net Assets Available for Projected Receipts	—	(461,800)	—	(1,201,100)	(4,451,800)
<b>Total</b>	<b>\$ 7,720,000</b>	<b>\$ 10,989,200</b>	<b>\$ 11,340,000</b>	<b>\$ 22,936,163</b>	<b>\$ 11,360,301</b>

**CONSTRUCTION WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 11,260,000	\$ 11,260,000	\$ 10,212,039	\$ 10,212,039
Due from Construction Fund	11,100,000	11,100,000	12,000,000	12,000,000
<b>Total Current Assets</b>	<b>\$ 22,360,000</b>	<b>\$ 22,360,000</b>	<b>\$ 22,212,039</b>	<b>\$ 22,212,039</b>
<b>FUND EQUITY</b>				
Estimated Revenue & Other Financing Sources		\$ 300,000		\$ 200,000
<b>ASSETS APPROPRIABLE FOR 2019 &amp; 2018</b>		<b>\$ 22,660,000</b>		<b>\$ 22,412,039</b>
<b>FUND EQUITY</b>	<b>\$ 22,360,000</b>		<b>\$ 22,212,039</b>	

**CONSTRUCTION WORKING CASH FUND  
REVENUES  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Money & Property					
Investment Income	\$ 300,000	\$ 206,000	\$ 200,000	\$ 116,028	\$ 122,332
Revenue from Miscellaneous Sources	—	—	—	—	—
<b>TOTAL</b>	<b>\$ 300,000</b>	<b>\$ 206,000</b>	<b>\$ 200,000</b>	<b>\$ 116,028</b>	<b>\$ 122,332</b>

## OTHER FUNDS FINANCIAL NARRATIVE

**The Stormwater Management Fund** was established in 2005 to fund stormwater management activities throughout all of Cook County. The 2019 property tax levy for the Stormwater Management Fund is \$52.9 million, an increase of \$5.1 million, or 10.7 percent from the 2018 Adjusted Budget. An equity transfer to the Bond Redemption & Interest Fund is planned in the amount of \$6.4 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 \$91.4 million appropriation for 2019 are presented in Section VI.

**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 and State Revolving Fund loans. The 2019 property tax levy for the B&I Fund is \$248.6 million, an increase of \$3.8 million, or 1.5 percent, from the 2018 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or State Revolving Fund loans. The 2019 appropriation for this fund is \$238.4 million, a decrease of \$17.9 million, or 7.0 percent from the 2018 Original Budget. The 2018 budget included a \$28.4 million advance payment on seven State Revolving Fund loans resulting in \$9.6 million in interest savings over the life of the loans.

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 projected year end is \$2.2 million, while 2019 estimate is \$1.9 million, an increase of \$0.9 million from the 2018 Original Budget. An equity transfer from the Stormwater Management Fund of \$6.4 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 546 - 550.

**The Reserve Claim Fund** is the District's self-insurance fund, and is financed through an annual property tax levy of no more than 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 2019, a \$7.5 million levy 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 2019 appropriation for this fund is \$31.8 million, an increase of \$1.5 million, or 4.9 percent, from the 2018 Adjusted Budget. The maximum fund balance that can be accumulated is 0.05 percent of the last known EAV. For the 2019 Budget, using the last known EAV of 2017, the maximum accumulation is estimated at \$74.0 million. The allowance for accounts payable and estimated liabilities is estimated at \$0.4 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 543.

**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 2019 is \$71.6 million, an increase of \$31,203 from the 2018 Adjusted Levy. The levy is calculated based on a statutory multiplier of 4.19 times employee contributions made two years prior, or 2017 and 2016, respectively. Additionally, \$18.3 million from Personal Property Replacement Tax is allocated to the Retirement Fund tax levy for 2019.

The appropriable resources and appropriation consist of the collection of the previous year's property tax levy plus personal property replacement tax receipts. The 2019 appropriation is \$87.3 million, a decrease of \$2.3 million, or 2.6 percent, from the 2018 Adjusted Budget. An expanded presentation on the Retirement Fund is made on pages 551 - 553.

**STORMWATER MANAGEMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 29,120,000	\$ 29,120,000	\$ 16,000,800	\$ 16,000,800
Taxes Receivable	46,152,090	46,587,666	39,426,048	39,816,008
<b>Total Current Assets</b>	<b>\$ 75,272,090</b>	<b>\$ 75,707,666</b>	<b>\$ 55,426,848</b>	<b>\$ 55,816,808</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 100,000	\$ 100,000	\$ 104,000	\$ 104,000
Contracts Payable	2,000,666	2,000,666	1,461,208	1,461,208
Vouchers Payable	1,300,000	1,300,000	2,000,000	2,000,000
Due to:				
Stormwater Working Cash Fund	26,500,000	26,500,000	26,500,000	26,500,000
<b>Total Current Liabilities</b>	<b>\$ 29,900,666</b>	<b>\$ 29,900,666</b>	<b>\$ 30,065,208</b>	<b>\$ 30,065,208</b>
Designated for Future Claims Liabilities		\$ —		\$ —
<b>Total Current Liabilities and Designations</b>		<b>\$ 29,900,666</b>		<b>\$ 30,065,208</b>
<b>ASSETS APPROPRIABLE FOR 2019 &amp; 2018</b>				
Net Assets Appropriable		\$ 45,807,000		\$ 25,751,600
Net Assets Appropriated		\$ 45,807,000		\$ 25,751,600
Equity Transfer to Bond and Interest Fund				
Estimated Revenue		45,603,100		38,800,000
<b>Total Assets Appropriable</b>		<b>\$ 91,410,100</b>		<b>\$ 64,551,600</b>
<b>FUND EQUITY</b>				
	\$ 45,371,424		\$ 25,361,640	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 75,272,090</b>		<b>\$ 55,426,848</b>	

**STORMWATER MANAGEMENT FUND FINANCING**  
**2019 - 2014**

	ESTIMATED			ACTUAL			
	2019 (1)	2018 REVISED	2018 ORIGINAL	2017	2016	2015	2014
<b>BORROWINGS</b>							
Working Cash Loans	\$ 50,300,000	\$ 26,500,000	\$ 45,400,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000
<b>Total Borrowings</b>	<b>\$ 50,300,000</b>	<b>\$ 26,500,000</b>	<b>\$ 45,400,000</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 12,400,000</b>	<b>\$ 10,000,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000	\$ 19,000,000
Prior Year	—	—	—	—	—	—	—
<b>Total Repayments</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 12,400,000</b>	<b>\$ 10,000,000</b>	<b>\$ 19,000,000</b>

**(1) FINANCING LIMITATION**

2019	
(In Millions)	
Property Tax Levy	\$ 52.9
Personal Property Replacement Tax	—
<b>Total</b>	<b>\$ 52.9</b>
Borrowing Limitation*	95% * Statutory limitation is 100%
<b>Total Available for Financing</b>	<b>\$ 50.3</b>

**STORMWATER MANAGEMENT FUND**  
**APPROPRIABLE REVENUE**  
**2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Property Taxes					
Gross Tax Levy	\$ 52,926,000	\$ 47,826,000	\$ 47,826,000	\$ 40,856,008	\$ 34,250,000
Less: Allowance for Uncollectible Taxes	(1,852,410)	(1,673,910)	(1,673,910)	(1,429,960)	(1,198,750)
Net Property Taxes	\$ 51,073,590	\$ 46,152,090	\$ 46,152,090	\$ 39,426,048	\$ 33,051,250
Adjustment to Match Working Cash Borrowings	(773,590)	(752,090)	(752,090)	(626,048)	(551,250)
Working Cash Financing at 95% of Gross Tax Sources	\$ 50,300,000	\$ 45,400,000	\$ 45,400,000	\$ 38,800,000	\$ 32,500,000
Revenue from Money & Property					
Investment Income	\$ 800,000	\$ 595,000	\$ 200,000	\$ 222,780	\$ 117,260
Sewer Permit Fees	900,000	—	—	—	—
Miscellaneous	—	4,927	—	28,745	399
Grants	—	—	—	—	—
Subtotal	\$ 1,700,000	\$ 599,927	\$ 200,000	\$ 251,525	\$ 117,659
Adjustment to Net Assets Available for Projected Receipts	\$ —	\$ (369,200)	\$ —	\$ 212,750	\$ 721,400
Equity Transfer to Bond Redemption & Interest Fund	(6,396,900)	(5,770,600)	(5,770,600)	—	—
<b>Total</b>	<b>\$ 45,603,100</b>	<b>\$ 39,860,127</b>	<b>\$ 39,829,400</b>	<b>\$ 39,264,275</b>	<b>\$ 33,339,059</b>

**STORMWATER WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 11,128,000	\$ 11,128,000	\$ 10,769,633	\$ 10,769,633
Due from Stormwater Management Fund	26,500,000	26,500,000	26,500,000	26,500,000
<b>Total Current Assets</b>	<b>\$ 37,628,000</b>	<b>\$ 37,628,000</b>	<b>\$ 37,269,633</b>	<b>\$ 37,269,633</b>
	FUND EQUITY			
Estimated Revenue & Other Financing Sources		\$ 300,000		\$ 100,000
<b>ASSETS APPROPRIABLE FOR 2019 AND 2018</b>		<b>\$ 37,928,000</b>		<b>\$ 37,369,633</b>
<b>FUND EQUITY</b>	<b>\$ 37,628,000</b>		<b>\$ 37,269,633</b>	

**STORMWATER WORKING CASH FUND  
APPROPRIABLE REVENUE  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Investment Income	\$ 300,000	\$ 178,000	\$ 100,000	\$ 94,365	\$ 168,037
<b>GRAND TOTAL</b>	<b>\$ 300,000</b>	<b>\$ 178,000</b>	<b>\$ 100,000</b>	<b>\$ 94,365</b>	<b>\$ 168,037</b>

**BOND REDEMPTION & INTEREST FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	<b>ASSETS</b>			
	<b>2019</b>		<b>2018</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 112,000,000	\$ 112,000,000	\$ 112,917,005	\$ 112,917,005
Restricted Cash	—	—	—	—
Deposits with Escrow Agent	—	—	—	—
Taxes Receivable	235,258,891	236,244,870	225,701,074	226,617,605
<b>Total Current Assets</b>	<b>\$ 347,258,891</b>	<b>\$ 348,244,870</b>	<b>\$ 338,618,079</b>	<b>\$ 339,534,610</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Bonds Payable	\$ 123,343,344		\$ 141,435,815	
Interest Payable	115,014,180		114,868,371	
Program Expense Payable			—	
Equity Transfer	—		—	
<b>Total Current Liabilities</b>	<b>\$ 238,357,524</b>		<b>\$ 256,304,186</b>	
<b>ASSETS APPROPRIABLE FOR 2019 AND 2018</b>				
Net Assets Appropriable		\$ 348,244,870		\$ 339,534,610
Equity Transfer from Stormwater Management Fund		6,396,900		5,770,600
Estimated Revenue		1,900,000		1,000,000
Total Assets Available		\$ 356,541,770		\$ 346,305,210
Liabilities Payable from Restricted Assets		—		—
Less: Assets Available for Future Years (Principal & Interest Payments)		(118,184,246)		(90,001,024)
<b>Total Assets Appropriable</b>		<b>\$ 238,357,524</b>		<b>\$ 256,304,186</b>
<b>FUND EQUITY</b>				
Undesignated	\$ 108,901,367		\$ 82,313,893	
<b>TOTAL FUND EQUITY</b>	<b>\$ 108,901,367</b>		<b>\$ 82,313,893</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 347,258,891</b>		<b>\$ 338,618,079</b>	



**BOND REDEMPTION & INTEREST FUND**  
**APPROPRIABLE REVENUE**  
**2019-2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Taxes					
Real Estate					
Current	\$ 237,696,807	\$ 228,039,945	\$ 228,039,945	\$ 224,164,748	\$ 223,010,587
Prior	(1,451,937)	(1,422,340)	(1,422,340)	(1,191,583)	(952,025)
<b>Total</b>	<b>\$ 236,244,870</b>	<b>\$ 226,617,605</b>	<b>\$ 226,617,605</b>	<b>\$ 222,973,165</b>	<b>\$ 222,058,562</b>
Revenue from Money & Property					
Investment Income	\$ 1,900,000	\$ 2,226,000	\$ 1,000,000	\$ 1,346,189	\$ 1,020,000
Revenue from Miscellaneous Sources					
Cash Available	112,000,000	112,917,005	112,917,005	110,265,700	10,853,283
Other	—	20,000	—	10,220	—
Other Financing Sources (Uses)					
Bond Premium	—	—	—	—	—
Sale of Capital Improvement Bonds (CIB)	—	—	—	—	—
Bond Redemption	—	—	—	—	—
Refunding Transaction Costs	—	—	—	—	—
Equity Transfer From Stormwater Management Fund	6,396,900	5,770,600	5,770,600	3,269,250	3,272,650
Less: Amount to Be Expended After Budget Year	(118,184,246)	(91,247,024)	(90,001,024)	(122,217,224)	(21,557,195)
<b>GRAND TOTAL</b>	<b>\$ 238,357,524</b>	<b>\$ 256,304,186</b>	<b>\$ 256,304,186</b>	<b>\$ 215,647,300</b>	<b>\$ 215,647,300</b>

**RESERVE CLAIM FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 25,724,293	\$ 25,724,293	\$ 24,500,000	\$ 24,500,000
Taxes Receivable	5,790,000	5,822,400	5,693,500	5,730,716
<b>Total Current Assets</b>	<b>\$ 31,514,293</b>	<b>\$ 31,546,693</b>	<b>\$ 30,193,500</b>	<b>\$ 30,230,716</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>ACCOUNTS PAYABLE &amp; OTHER LIABILITIES</b>	\$ 378,893	\$ 378,893	\$ 241,216	\$ 241,216
<b>ASSETS APPROPRIABLE FOR 2019 AND 2018</b>				
Net Assets Appropriable		\$ 31,167,800		\$ 29,989,500
Equity Transfer to Bond and Interest Fund		—		—
Estimated Revenue		600,000		300,000
<b>Total Assets Appropriable</b>		<b>\$ 31,767,800</b>		<b>\$ 30,289,500</b>
<b>FUND EQUITY</b>	\$ 31,135,400		\$ 29,952,284	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 31,514,293</b>		<b>\$ 30,193,500</b>	

**RESERVE CLAIM FUND  
APPROPRIABLE REVENUE  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Taxes					
Real Estate - Current	\$ 5,850,000	\$ 5,752,500	\$ 5,752,500	\$ 5,655,000	\$ 5,555,316
Real Estate - Prior	(27,600)	(21,784)	(21,784)	(28,177)	11,690
Replacement Tax	—	—	—	—	—
<b>SUBTOTAL</b>	<b>\$ 5,822,400</b>	<b>\$ 5,730,716</b>	<b>\$ 5,730,716</b>	<b>\$ 5,626,823</b>	<b>\$ 5,567,006</b>
Investment Income & Miscellaneous	600,000	458,062	300,000	309,988	405,179
<b>GRAND TOTAL</b>	<b>\$ 6,422,400</b>	<b>\$ 6,188,778</b>	<b>\$ 6,030,716</b>	<b>\$ 5,936,811</b>	<b>\$ 5,972,185</b>

**RETIREMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2019 AND 2018**

	ASSETS			
	2019		2018	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Taxes Receivable	\$ 69,030,500	\$ 69,030,500	\$ 70,867,800	\$ 70,867,800
Replacement Tax	18,250,500	18,250,500	18,736,200	18,736,200
<b>Total Current Assets</b>	<b>\$ 87,281,000</b>	<b>\$ 87,281,000</b>	<b>\$ 89,604,000</b>	<b>\$ 89,604,000</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>ASSETS APPROPRIABLE FOR 2019 AND 2018</b>				
Net Assets Appropriable		\$ 87,281,000		\$ 89,604,000
<b>Total Assets Appropriable Due to Retirement Fund</b>		<b>\$ 87,281,000</b>		<b>\$ 89,604,000</b>
<b>FUND EQUITY</b>				
<b>Total Fund Equity</b>	<b>\$ 87,281,000</b>		<b>\$ 89,604,000</b>	

**RETIREMENT FUND  
APPROPRIABLE REVENUE  
2019 - 2016**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2019 BUDGET	2018 ADJUSTED	2018 BUDGET	2017	2016
Revenue from Taxes					
Real Estate - Current	\$ 69,030,500	\$ 70,867,800	\$ 70,867,800	\$ 62,880,558	\$ 55,973,860
Replacement Tax	18,250,500	18,736,200	18,736,200	16,624,500	14,798,400
<b>GRAND TOTAL</b>	<b>\$ 87,281,000</b>	<b>\$ 89,604,000</b>	<b>\$ 89,604,000</b>	<b>\$ 79,505,058</b>	<b>\$ 70,772,260</b>

**NOTE PAGE**

# 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 2010 through 2019. The structure of sub-units and sections, the number of actual 2017 full-time equivalent (FTE) positions, as well as FTE positions budgeted for 2018 and 2019 are shown in the organization chart. In this section, and throughout the Budget, actual expenditures are used for 2017 with estimated costs for 2018 and budgeted costs for 2019. Additional information for each department includes:

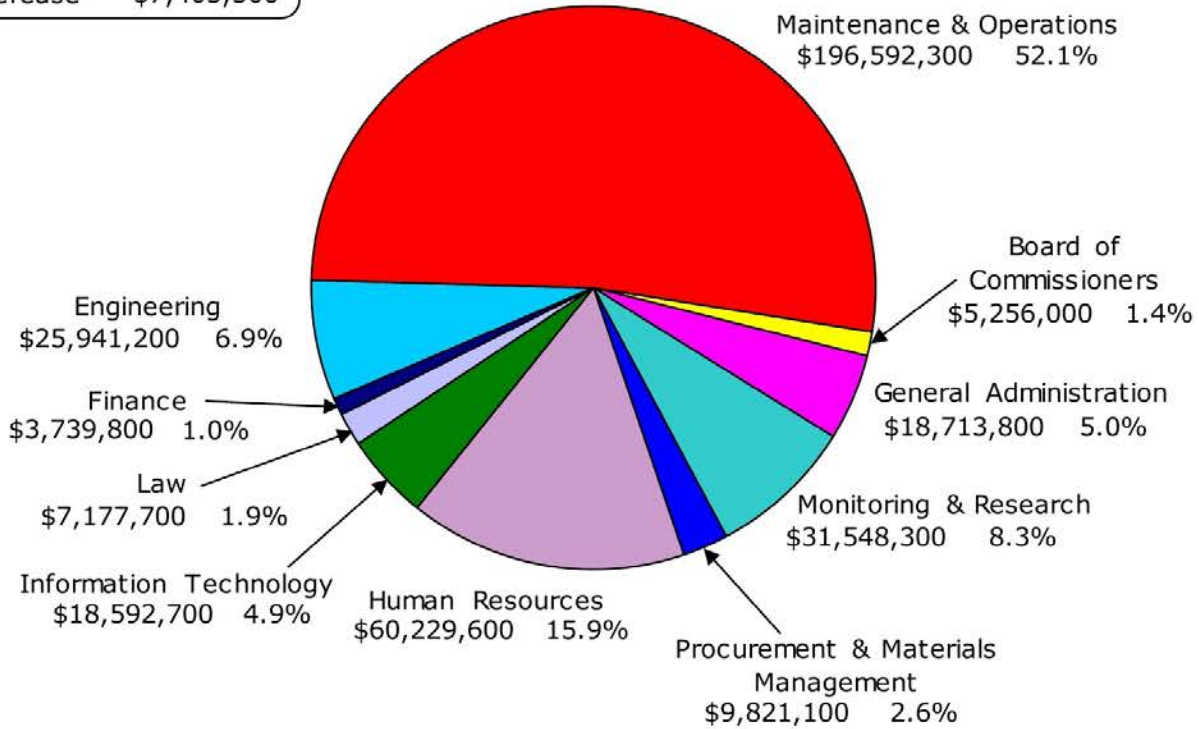
- A *Narrative* explanation of the responsibilities of the department, changes in appropriation from the 2018 Budget, accomplishments during 2018, and significant features for the 2019 Budget. The mission statement, major goals, and initiatives are also provided.
- A list of *Objectives by Priority* 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 2018. Actual costs are shown for 2017.
- *Performance Data* measures specific department activities by cost and, where possible, measurable units, and compares budgeted costs for 2019 and 2018 with actual costs for 2017.
- The *Line Item Analysis* provides detailed line item appropriations over a three-year period. Appropriations for 2019 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 2018. Actual 2017 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 2019 salary appropriation is adjusted for vacancies in the Line Item Analysis.

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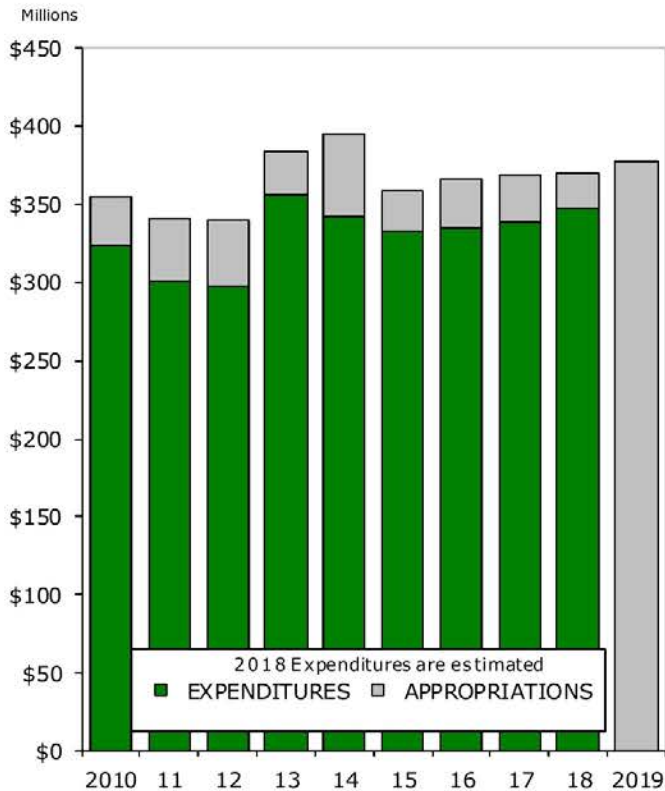
# CORPORATE FUND

## FUNCTIONS

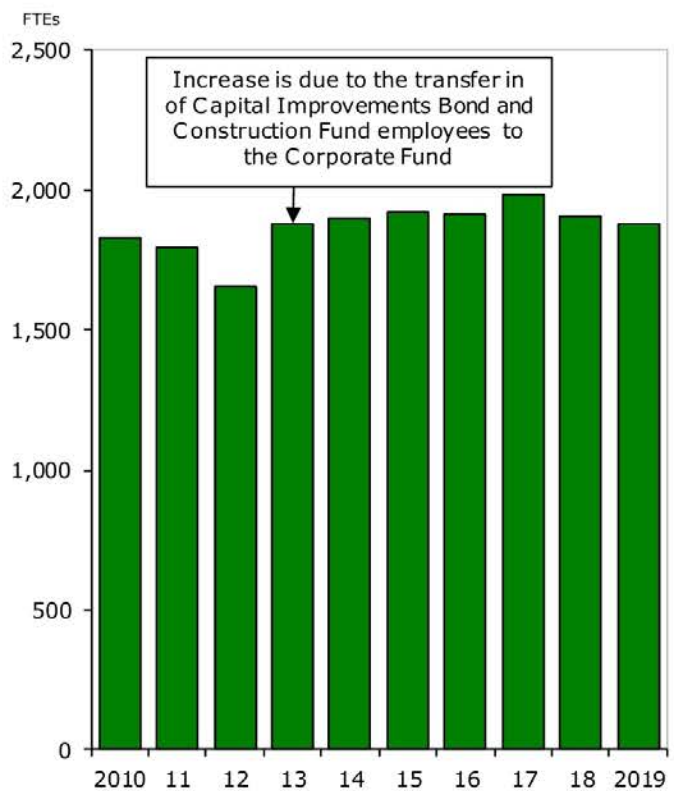
2019	\$377,612,500
2018	\$370,209,200
Increase	\$7,403,300



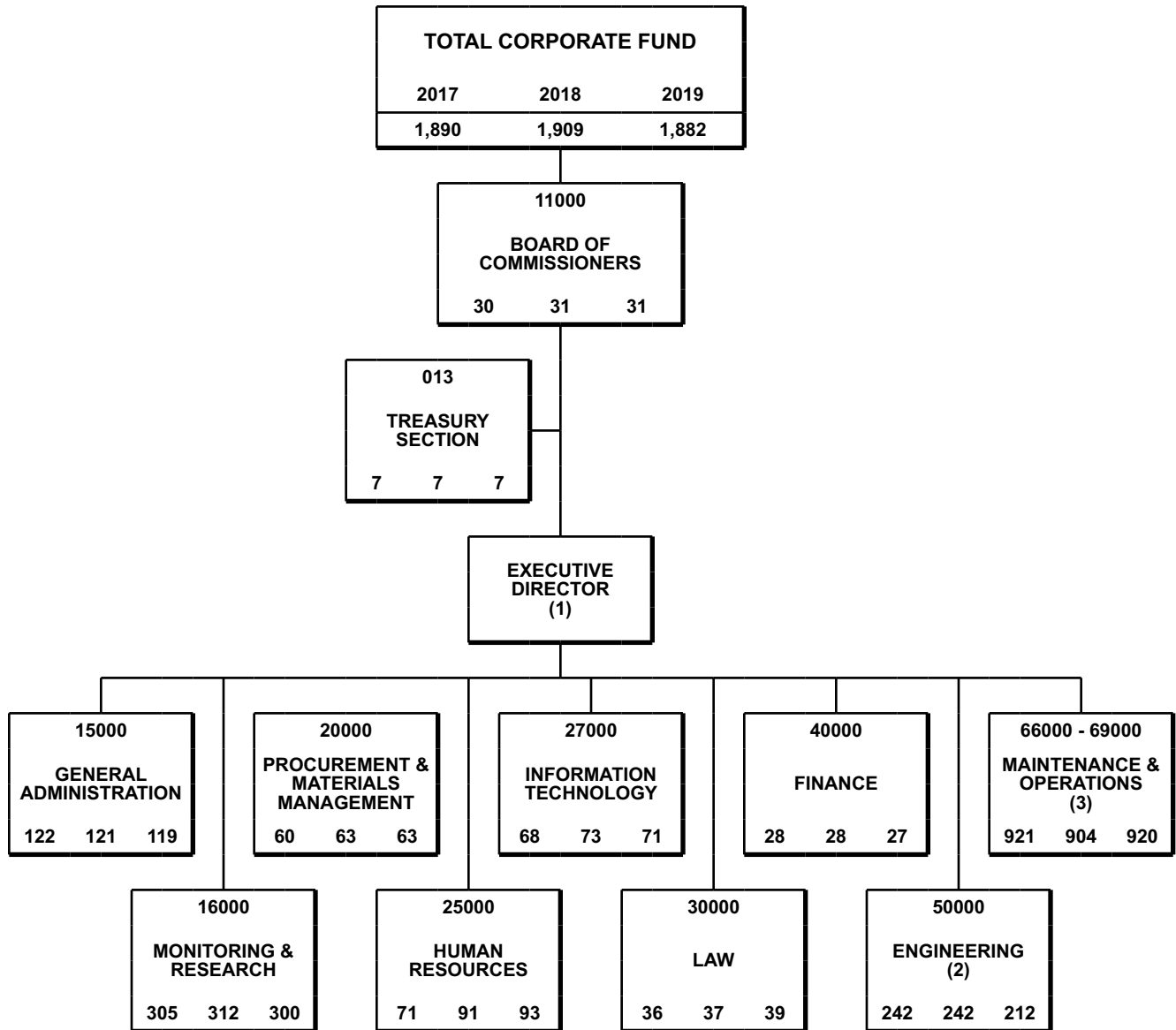
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# CORPORATE FUND



- (1) Personnel count for the Executive Director's Office is reflected in General Administration.
- (2) 58 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						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$175,631,950	\$ 187,998,400	\$ 187,270,900	\$178,270,800	\$188,038,300	\$ 188,038,300	\$ 189,425,600
601060	Compensation Plan Adjustments	7,285,145	7,642,200	8,062,200	7,567,900	7,651,400	7,651,400	7,730,900
601070	Social Security and Medicare Contributions	2,602,035	2,762,800	2,783,800	2,660,400	2,805,900	2,805,900	2,853,500
601080	Salaries of Nonbudgeted Employees	64,939	31,900	31,900	—	5,300	5,300	5,300
601090	Employee Claims	21,969	60,000	74,000	74,000	60,000	60,000	60,000
601100	Tuition and Training Payments	1,028,242	1,139,300	1,130,300	929,800	1,243,400	1,243,400	1,243,400
601250	Health and Life Insurance Premiums	42,900,978	46,455,800	46,441,800	42,435,800	46,804,400	46,804,400	46,804,400
601270	General Salary Adjustments	—	—	—	—	1,204,800	1,204,800	—
601300	Personal Services, N.O.C.	668,566	933,900	933,900	680,900	788,000	788,000	788,000
100	TOTAL PERSONAL SERVICES	230,203,824	247,024,300	246,728,800	232,619,600	248,601,500	248,601,500	248,911,100
612010	Travel	55,863	117,500	117,100	95,100	105,700	105,700	111,700
612030	Meals and Lodging	144,671	221,200	246,100	233,700	193,700	193,700	200,700
612040	Postage, Freight, and Delivery Charges	104,794	93,000	113,300	110,400	122,900	122,900	122,900
612050	Compensation for Personally-Owned Automobiles	150,807	203,600	185,600	148,100	158,500	158,500	158,500
612080	Motor Vehicle Operating Services	69,267	64,800	65,900	56,200	65,000	65,000	65,000
612090	Reprographic Services	123,837	140,900	140,900	102,400	126,400	126,400	126,400
612150	Electrical Energy	36,219,039	38,941,900	38,766,900	38,563,600	34,718,600	36,970,400	36,770,400
612160	Natural Gas	2,954,432	2,820,300	3,087,800	2,875,100	2,970,200	2,970,200	2,970,200
612170	Water and Water Services	1,868,726	1,803,900	2,097,100	2,045,800	2,124,200	2,120,200	2,120,200
612210	Communication Services	1,505,737	2,063,300	2,040,900	1,766,900	1,578,200	1,578,200	1,578,200
612240	Testing and Inspection Services	118,984	276,300	232,300	182,700	166,700	166,700	166,700
612250	Court Reporting Services	76,779	112,000	121,500	75,000	88,500	88,500	88,500
612260	Medical Services	90,281	97,300	103,800	92,200	121,100	121,100	121,100
612280	Subscriptions and Membership Dues	720,582	816,700	847,100	845,600	865,800	865,800	961,200
612290	Insurance Premiums	3,058,107	3,080,300	3,080,300	3,062,600	3,471,100	3,471,100	3,471,100
612330	Rental Charges	472,532	533,000	528,000	498,900	753,300	753,300	753,300
612340	Discount Lost	2,651	1,500	2,000	2,000	3,000	3,000	3,000
612360	Advertising	94,659	124,000	121,000	95,800	133,000	133,000	133,000
612370	Administration Building Operation	1,014,937	1,015,800	1,202,500	1,156,900	1,313,200	1,313,200	1,313,200
612390	Administration Building McMillan Pavilion Operation	736,741	645,700	750,600	659,900	782,900	782,900	782,900
612400	Intergovernmental Agreements	—	—	—	—	—	—	49,600
612410	Governmental Service Charges	3,577,199	3,540,800	3,786,200	3,522,700	3,491,100	3,491,100	3,667,100
612420	Maintenance of Grounds and Pavements	828,992	1,013,500	898,900	866,300	1,430,900	1,430,900	1,430,900

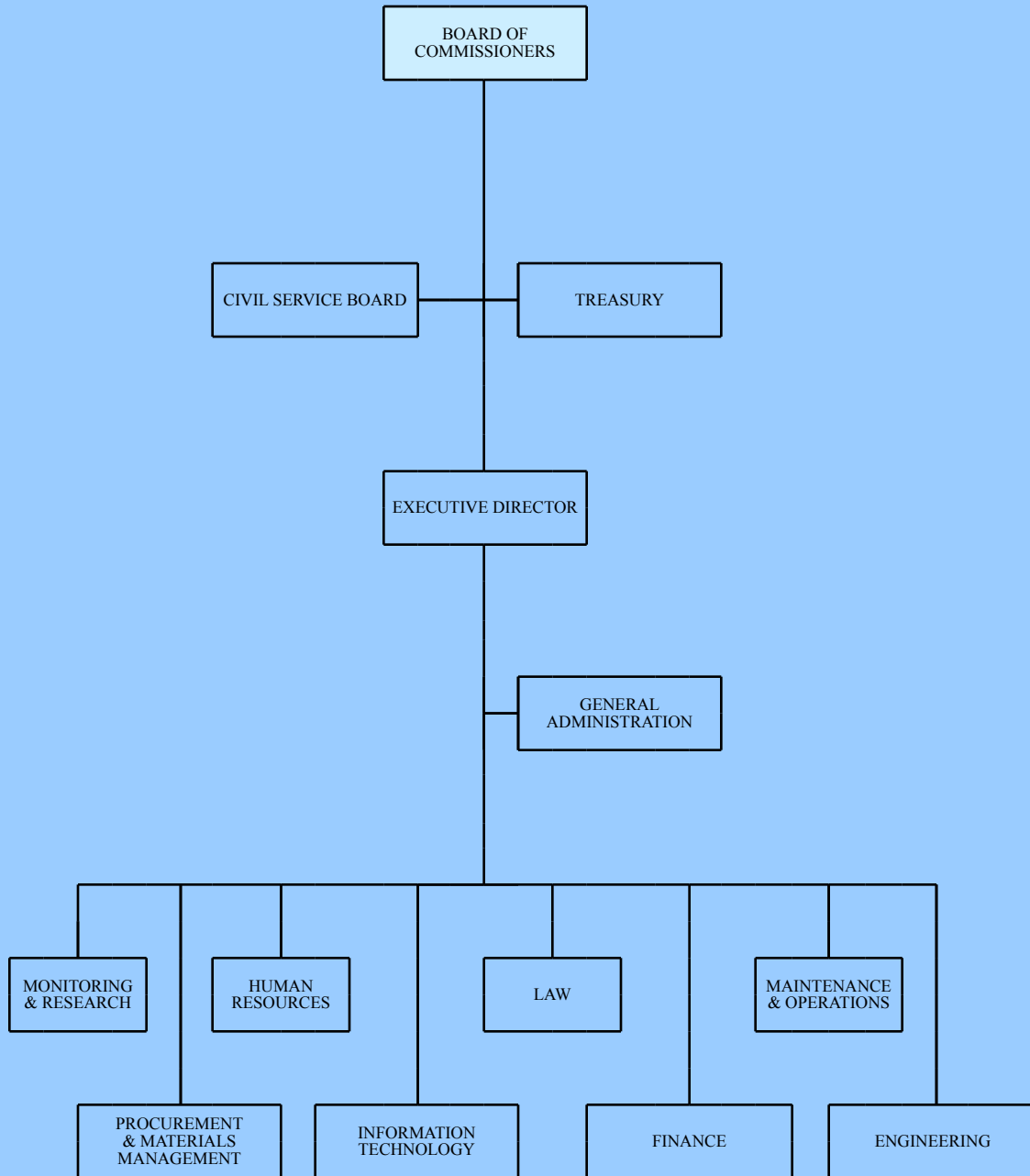


101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612430	Payments for Professional Services	3,044,450	5,221,000	5,139,400	3,403,200	4,594,500	4,594,500	4,950,100
612440	Preliminary Engineering Reports and Studies	13,440	—	—	—	—	—	—
612490	Contractual Services, N.O.C.	1,092,951	1,705,600	1,351,400	1,104,000	1,618,000	1,618,000	1,588,000
612520	Waste Material Disposal Charges	10,284,686	10,894,000	10,868,200	9,919,300	10,926,400	10,823,400	10,823,400
612530	Farming Services	24,700	24,700	20,000	20,000	154,700	34,700	24,000
612590	Sludge Disposal	3,600,138	3,700,000	4,025,000	3,575,000	6,193,300	4,100,000	4,100,000
612600	Repairs to Collection Facilities	3,075,735	3,249,300	3,118,600	2,880,800	3,486,100	3,486,100	3,486,100
612620	Repairs to Waterway Facilities	86,663	89,900	89,900	87,700	119,000	119,000	119,000
612650	Repairs to Process Facilities	4,648,489	5,528,900	5,611,000	5,290,300	5,582,800	5,582,800	5,982,800
612670	Repairs to Railroads	266,937	368,700	322,500	291,300	266,900	266,900	266,900
612680	Repairs to Buildings	637,081	1,092,100	1,029,000	784,900	1,134,700	1,659,700	1,589,700
612760	Repairs to Material Handling and Farming Equipment	280,002	313,600	351,300	292,700	315,900	315,900	315,900
612780	Safety Repairs and Services	340,819	459,500	422,400	378,500	442,000	442,000	442,000
612790	Repairs to Marine Equipment	80,328	94,600	98,400	93,600	89,000	89,000	89,000
612800	Repairs to Office Furniture and Equipment	91,871	124,300	124,900	120,700	54,500	54,500	54,500
612810	Computer Equipment Maintenance	237,365	364,200	312,200	182,800	340,100	340,100	340,100
612820	Computer Software Maintenance	3,844,881	4,224,400	4,270,200	3,588,300	4,311,200	4,341,200	4,341,200
612840	Communications Equipment Maintenance (Includes Software)	701,834	758,700	784,200	774,600	800,500	800,500	802,000
612860	Repairs to Vehicle Equipment	507,702	611,100	647,800	537,600	588,200	588,200	588,200
612970	Repairs to Testing and Laboratory Equipment	353,884	356,500	356,000	320,200	396,800	396,800	396,800
612990	Repairs, N.O.C.	16,775	33,800	30,000	19,500	38,000	38,000	38,000
200	TOTAL CONTRACTUAL SERVICES	87,220,346	96,942,200	97,508,200	90,722,900	96,236,600	96,723,100	97,503,500
623030	Metals	150,296	139,300	128,800	104,900	134,800	134,800	134,800
623070	Electrical Parts and Supplies	2,061,270	2,327,800	3,112,800	2,891,700	2,950,100	3,047,100	3,006,400
623090	Plumbing Accessories and Supplies	837,421	1,135,700	1,140,900	1,038,200	1,174,800	1,178,800	1,178,800
623110	Hardware	110,328	102,200	102,200	98,100	104,100	104,100	104,100
623130	Buildings, Grounds, Paving Materials, and Supplies	428,907	629,300	584,600	452,500	504,800	504,800	502,400
623170	Fiber, Paper, and Insulation Materials	51,955	52,100	52,100	50,200	53,800	53,800	53,800
623190	Paints, Solvents, and Related Materials	55,995	57,900	57,900	55,300	64,300	64,300	64,300
623250	Vehicle Parts and Supplies	177,464	161,700	177,300	170,200	178,400	178,400	178,400
623270	Mechanical Repair Parts	2,398,403	2,691,600	4,060,400	3,861,800	4,060,600	4,060,600	3,849,100

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623300	Manhole Materials	10,266	6,900	6,900	6,100	25,000	25,000	25,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	316,659	367,000	366,000	334,800	360,300	360,300	360,300
623530	Farming Supplies	38,338	41,700	41,700	27,600	32,000	32,000	32,000
623560	Processing Chemicals	9,134,723	12,878,200	10,208,200	9,821,000	12,445,500	12,445,500	12,445,500
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	992,092	988,200	1,051,400	989,600	1,065,600	1,068,600	1,068,600
623660	Cleaning Supplies	297,967	266,300	268,800	260,600	269,400	269,400	269,400
623680	Tools and Supplies	478,341	293,300	313,800	306,900	352,600	355,600	355,600
623700	Wearing Apparel	219,987	191,600	200,800	188,500	243,600	245,100	245,100
623720	Books, Maps, and Charts	16,504	20,900	23,000	21,300	20,100	20,100	20,100
623780	Safety and Medical Supplies	226,466	363,600	353,600	251,200	291,500	291,500	279,500
623800	Computer Software	80,645	143,100	195,700	141,300	138,800	138,800	138,800
623810	Computer Supplies	488,286	519,600	518,400	499,100	765,800	765,800	766,700
623820	Fuel	448,396	614,000	637,600	552,000	616,000	616,000	631,000
623840	Gases	76,620	71,200	71,200	61,400	85,700	85,700	85,700
623850	Communications Supplies	97,557	134,200	147,800	129,200	219,500	219,500	203,700
623860	Lubricants	234,253	247,500	237,300	164,000	234,100	234,100	234,100
623990	Materials and Supplies, N.O.C.	269,397	315,100	305,700	268,800	285,700	285,700	285,700
300	TOTAL MATERIALS AND SUPPLIES	19,698,534	24,760,000	24,364,900	22,746,300	26,676,900	26,785,400	26,518,900
634600	Equipment for Collection Facilities	45,129	44,200	44,200	44,200	60,000	60,000	60,000
634650	Equipment for Process Facilities	108,984	178,400	237,600	161,000	166,700	186,700	176,700
634760	Material Handling and Farming Equipment	—	—	11,900	11,700	454,200	504,200	467,200
634790	Marine Equipment	—	—	—	—	80,000	80,000	80,000
634810	Computer Equipment	36,706	—	7,100	5,700	312,000	202,000	202,000
634820	Computer Software	—	55,000	25,000	14,200	182,000	207,000	207,000
634840	Communications Equipment (Includes Software)	—	—	16,400	14,700	16,500	16,500	—
634860	Vehicle Equipment	—	—	—	—	2,099,000	2,099,000	2,099,000
634970	Testing and Laboratory Equipment	424,452	315,100	363,100	323,600	394,300	394,300	384,300
634990	Machinery and Equipment, N.O.C.	—	—	12,000	11,300	130,800	130,800	130,800
400	TOTAL MACHINERY AND EQUIPMENT	615,271	592,700	717,300	586,400	3,895,500	3,880,500	3,807,000
645680	Buildings	—	—	—	—	642,000	117,000	117,000
500	TOTAL CAPITAL PROJECTS	—	—	—	—	642,000	117,000	117,000

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
667130	Taxes on Real Estate	686,083	890,000	890,000	700,000	755,000	755,000	755,000
700	TOTAL FIXED AND OTHER CHARGES	686,083	890,000	890,000	700,000	755,000	755,000	755,000
<b>TOTAL CORPORATE FUND</b>		<b>\$338,424,057</b>	<b>\$ 370,209,200</b>	<b>\$ 370,209,200</b>	<b>\$347,375,200</b>	<b>\$376,807,500</b>	<b>\$ 376,862,500</b>	<b>\$ 377,612,500</b>

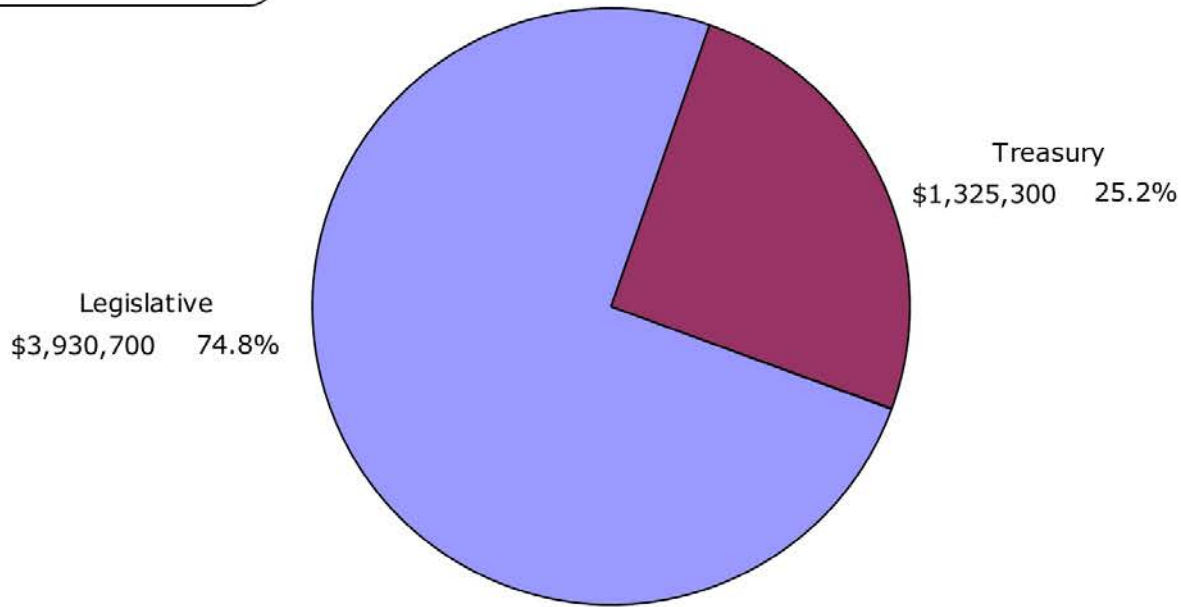
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may exceed Adjusted Appropriation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



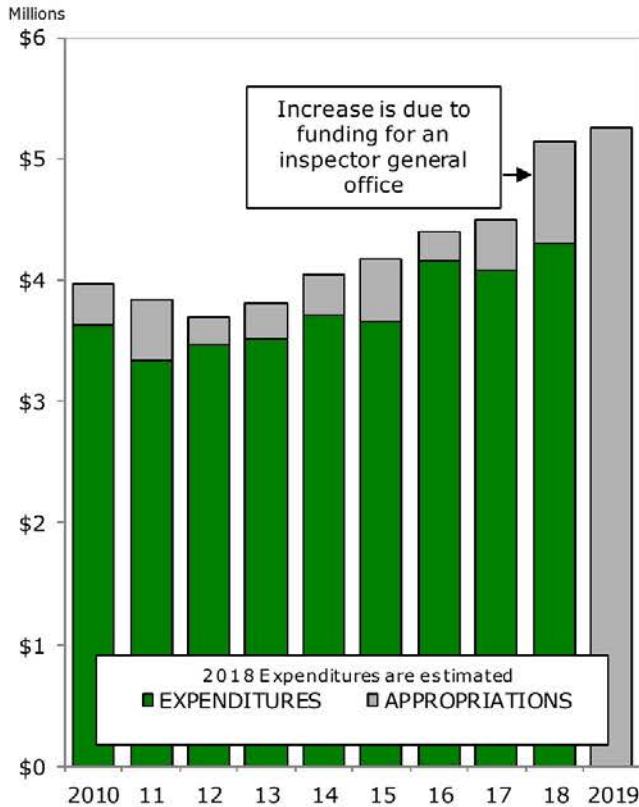
# BOARD OF COMMISSIONERS

## FUNCTIONS

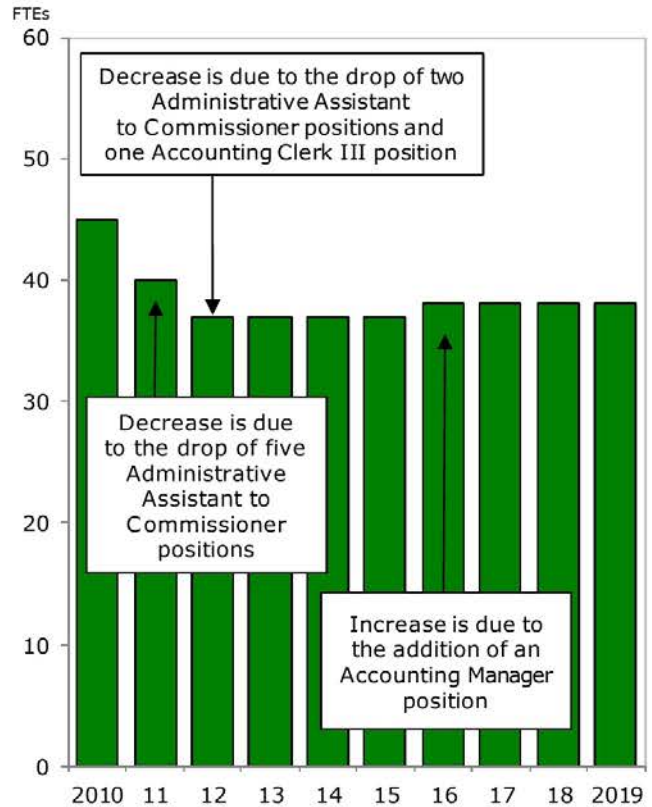
2019	\$5,256,000
2018	\$5,145,200
Increase	\$110,800



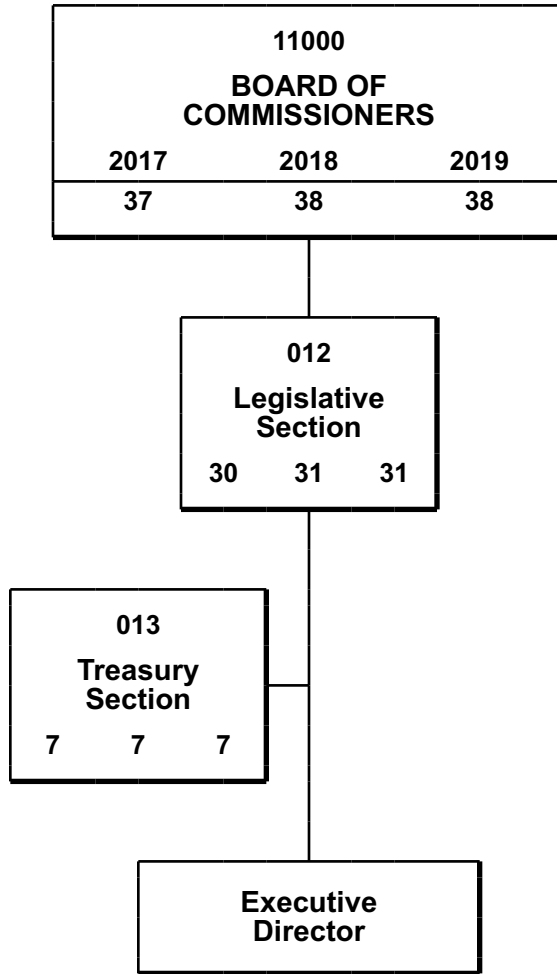
## APPROPRIATIONS & EXPENDITURES



## 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 2018 Accomplishments

- Investment interest income earned for the year was approximately \$13.5 million reflecting higher yields on interest-bearing investments due to four interest rate increases by the Federal Reserve during 2018;
- For the sixth 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, 2017, the Retirement Fund's funded ratio was 58.3 percent and the OPEB Trust Fund's funded ratio was 63.2 percent (based upon the most recent actuarial valuation in 2017);
- The District was presented with the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting for the 2017 Retiree Health Care Trust Comprehensive Annual Financial Report. This marks the 11th consecutive year that the Retiree Health Care Trust has been presented with the award.

### Budget Highlights

The 2019 appropriation for the Board of Commissioners is \$5,256,000, an increase of \$110,800, or 2.2 percent, from 2018. The staffing level remains unchanged at 38 positions.

The significant feature of the Treasury Section 2019 Budget is:

- Investment Interest Income Estimate: \$16.9 million or less - The Federal Reserve is expected to raise rates at least twice in 2019, which will lead to higher investment yields for the year.

### 2019 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 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

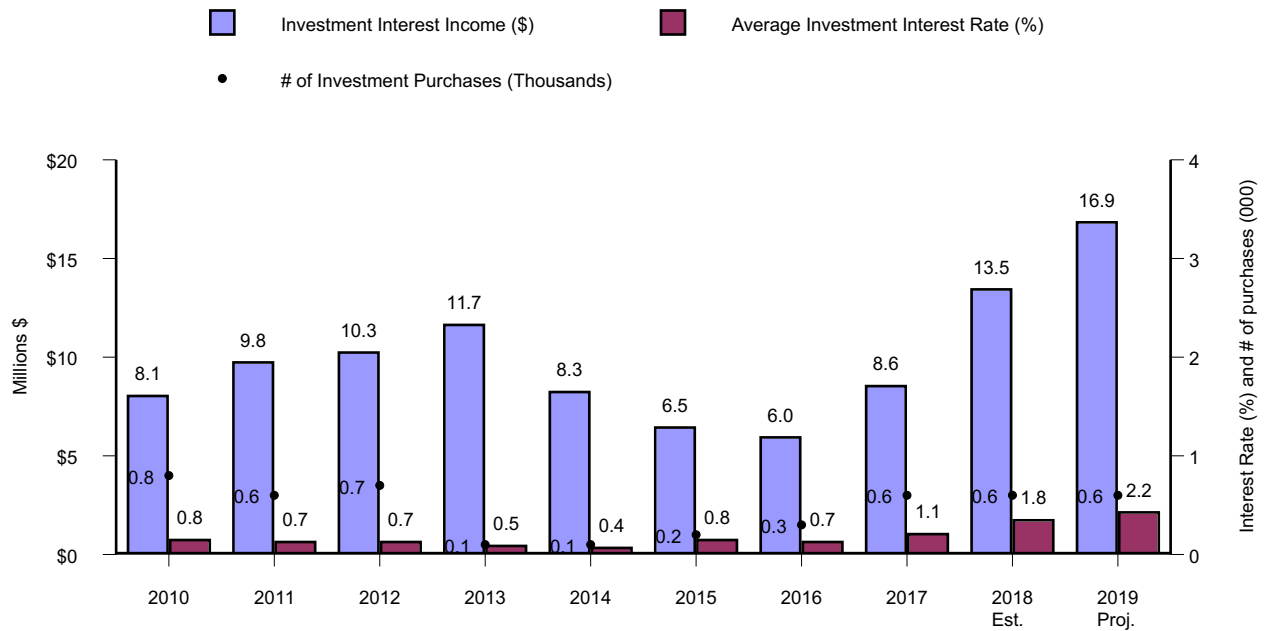
The Legislative Section continues to appropriate funds for an inspector general. Inspectors general are accountable to the taxpayers. Their role is to detect and prevent waste, fraud, and abuse and thereby build trust in government. It is anticipated that an inspector general will investigate complaints or allegations of wrongdoing or misconduct within the programs or operations of the District.

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.

### Investment Interest Income / Average Investment Interest Rate All Funds 2010-2019



Ending Investment Inventory (Par Value) (Dollars in Millions)	2010	2011	2012	2013	2014	2015	2016	2017	2018 Est.	2019 Proj.
	\$660.8	\$990.4	\$975.0	\$717.0	\$547.2	\$715.2	\$711.3	\$736.7	\$647.9	\$587.9

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 2019 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.	\$ 3,930,700	74.8%
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.	\$ 1,325,300	25.2%
Enhance the District's image in national financial markets through the prudent use of debt financing for capital needs and debt service savings.		
Totals	\$ 5,256,000	100.0%

MEASURABLE GOALS:	2017 Actual	2018 Estimated	2019 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: Number Name	2017 Actual	Budgeted		Change		
		FTEs	Dollars	Dollars	Percent	
7110 Legislative	\$ 2,844,660	2019	31	\$ 3,844,000	\$ 11,000	0.3
		2018	31	\$ 3,833,000		
7210 Treasury Activities	\$ 661,872	2019	4	\$ 813,500	\$ 87,200	12.0
		2018	4	\$ 726,300		
7316 Other Postemployment Benefits Trust Management and Report Preparation	\$ 141,877	2019	1	\$ 154,600	\$ 6,700	4.5
		2018	1	\$ 147,900		
7601 Capital Financing Program and Other Related Costs	\$ 347,893	2019	2	\$ 357,200	\$ 4,700	1.3
		2018	2	\$ 352,500		
7604 Social Security and Medicare Contributions	\$ 76,680	2019	—	\$ 86,700	\$ 1,200	1.4
		2018	—	\$ 85,500		
Totals	\$ 4,072,982	2019	38	\$ 5,256,000	\$ 110,800	2.2%
		2018	38	\$ 5,145,200		

**11000 BOARD OF COMMISSIONERS**

**PERFORMANCE DATA**

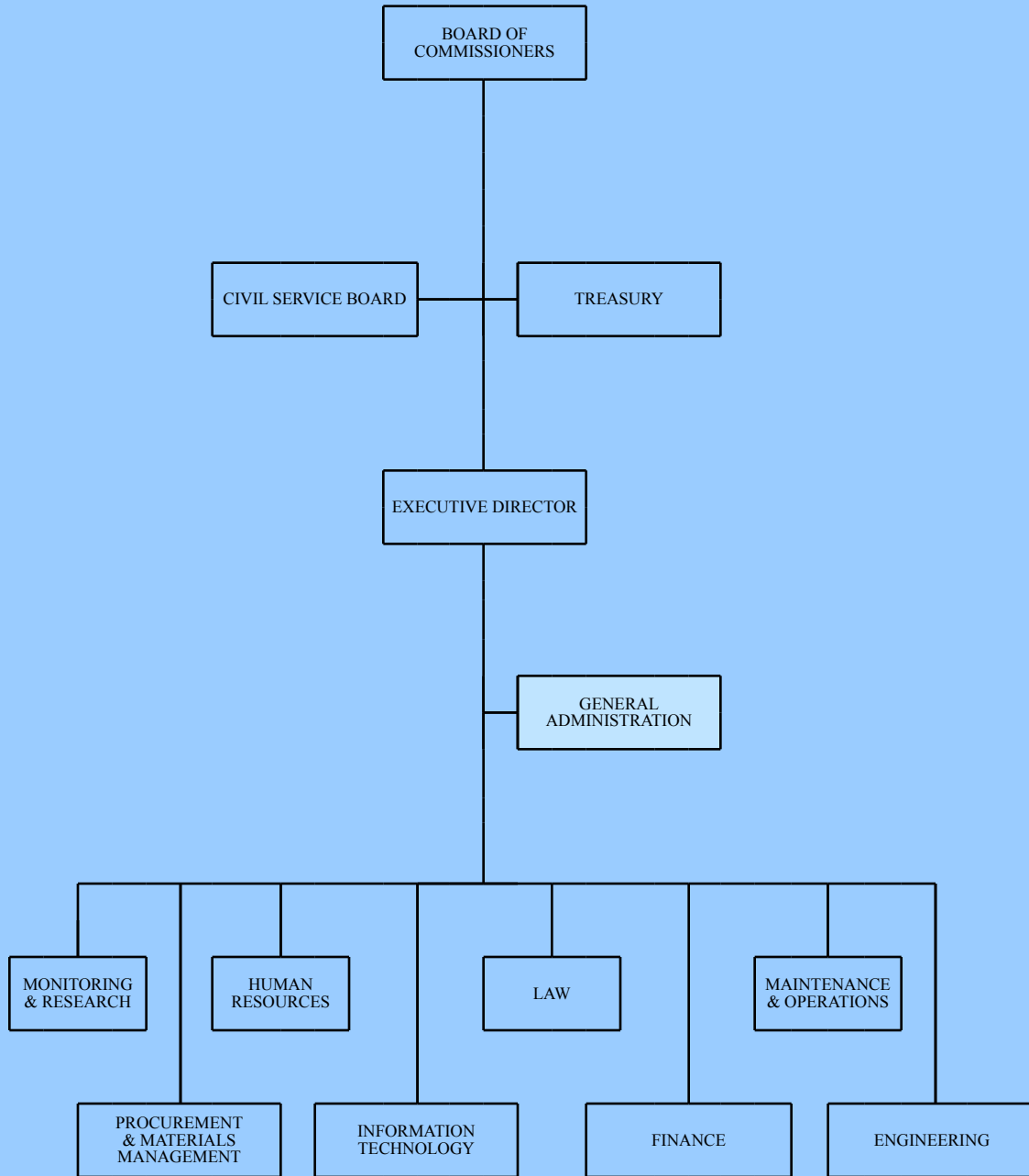
Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated
7110	Legislative	Cost	\$ 2,844,660	\$ 3,833,000	\$ 3,844,000
7210	Treasury Activities	Cost	\$ 661,872	\$ 726,300	\$ 813,500
7316	Other Postemployment Benefits Trust Management and Report Preparation	Cost	\$ 141,877	\$ 147,900	\$ 154,600
7601	Capital Financing Program and Other Related Costs	Cost	\$ 347,893	\$ 352,500	\$ 357,200
7604	Social Security and Medicare Contributions	Cost	\$ 76,680	\$ 85,500	\$ 86,700
		Totals	\$ 4,072,982	\$ 5,145,200	\$ 5,256,000

101 11000	Fund: Corporate Department: Board of Commissioners	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 3,421,654	\$ 3,682,100	\$ 3,682,100	\$ 3,419,900	\$ 3,716,000	\$ 3,716,000	\$ 3,712,400
601060	Compensation Plan Adjustments	10,968	38,600	38,600	33,800	61,800	61,800	54,900
601070	Social Security and Medicare Contributions	76,680	85,500	85,500	77,600	86,900	86,900	86,700
601100	Tuition and Training Payments	16,233	15,100	15,100	15,100	20,100	20,100	20,100
601300	Personal Services, N.O.C.	309,316	428,000	428,000	428,000	428,000	428,000	428,000
100	TOTAL PERSONAL SERVICES	3,834,851	4,249,300	4,249,300	3,974,400	4,312,800	4,312,800	4,302,100
612010	Travel	8,345	20,100	20,100	20,100	19,700	19,700	19,700
612030	Meals and Lodging	9,777	30,300	30,300	30,300	21,700	21,700	21,700
612280	Subscriptions and Membership Dues	34,802	38,600	38,600	38,600	27,700	27,700	27,700
612430	Payments for Professional Services	178,572	800,900	800,900	240,000	858,800	858,800	858,800
612490	Contractual Services, N.O.C.	435	500	500	500	500	500	500
200	TOTAL CONTRACTUAL SERVICES	231,930	890,400	890,400	329,500	928,400	928,400	928,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	6,201	5,500	5,500	5,500	25,500	25,500	25,500
300	TOTAL MATERIALS AND SUPPLIES	6,201	5,500	5,500	5,500	25,500	25,500	25,500
<b>TOTAL BOARD OF COMMISSIONERS</b>		<b>\$ 4,072,982</b>	<b>\$ 5,145,200</b>	<b>\$ 5,145,200</b>	<b>\$ 4,309,400</b>	<b>\$ 5,266,700</b>	<b>\$ 5,266,700</b>	<b>\$ 5,256,000</b>

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

Fund: Corporate Dept: Board of Commissioners		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>012</b>	<b>Legislative Section</b>					
EX22	President	1	1		1	
EX21	Vice President	1	1		1	
EX01	Commissioner (Chairman, Committee on Finance)	1	1		1	
EX02	Commissioner	6	6		6	
EX03	Administrative Aide to President	1	1		1	
EX04	Administrative Assistant to Commissioner (Secretary)	20	21		21	
TOTAL	Legislative Section	30	31	2,726,809.53	31	2,707,722.66
<b>013</b>	<b>Treasury Section</b>					
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	973,677.00	7	1,023,368.29
TOTAL	Board of Commissioners	37	38	3,700,486.53	38	3,731,090.95

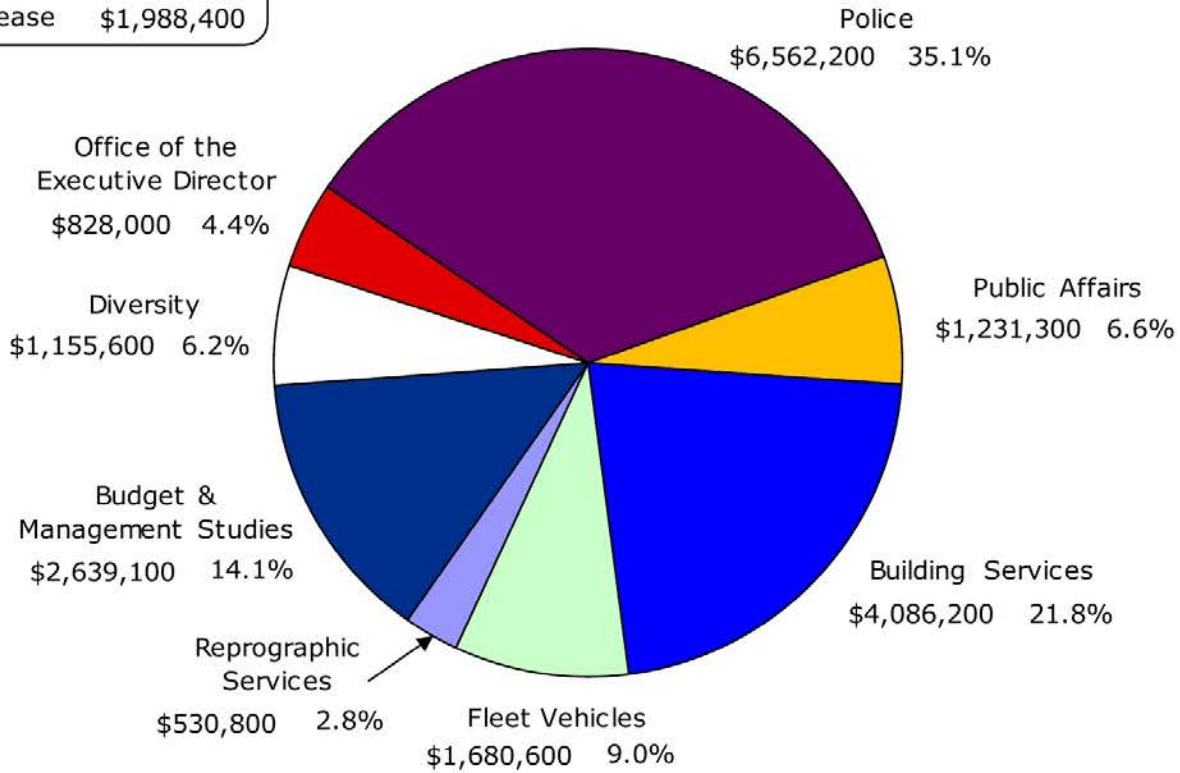
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



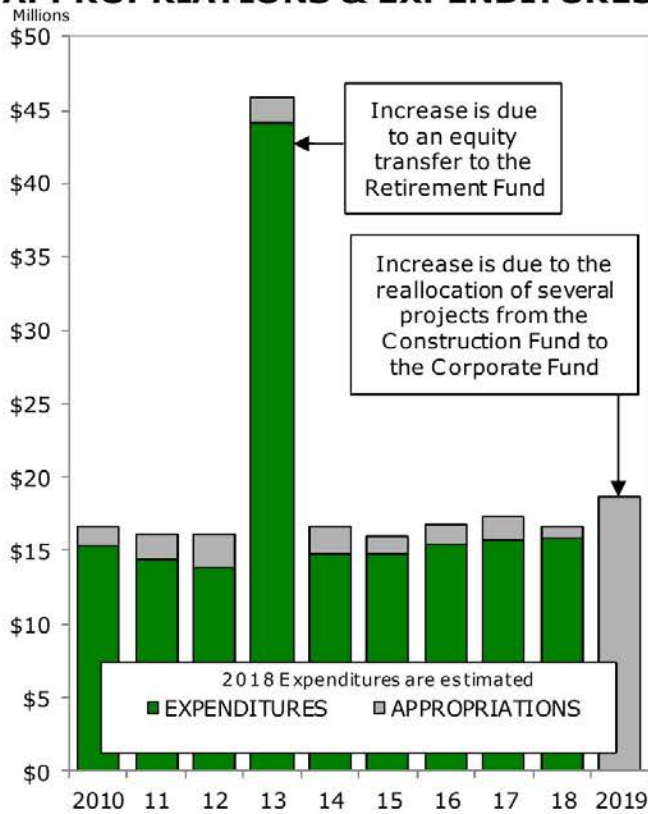
# GENERAL ADMINISTRATION

2019	\$18,713,800
2018	\$16,725,400
Increase	\$1,988,400

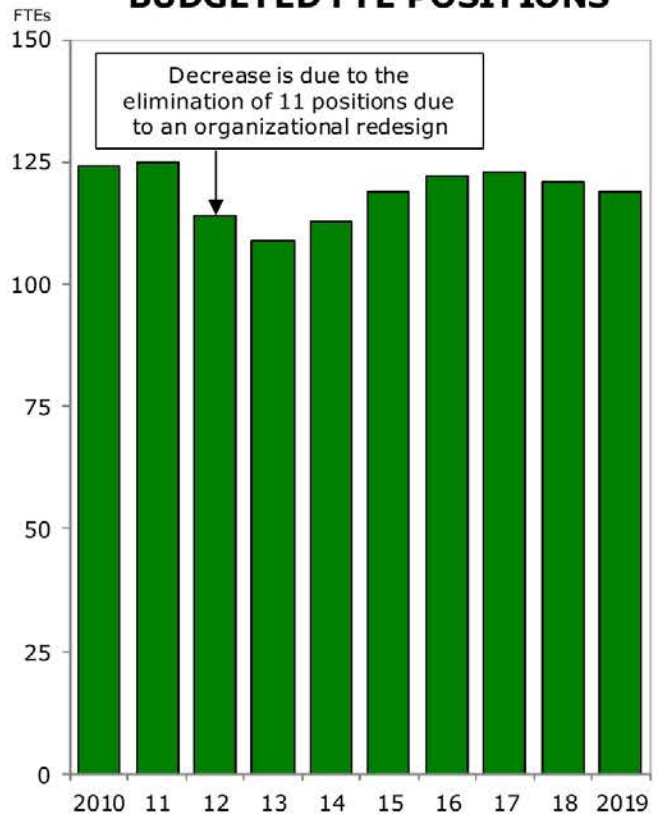
## FUNCTIONS



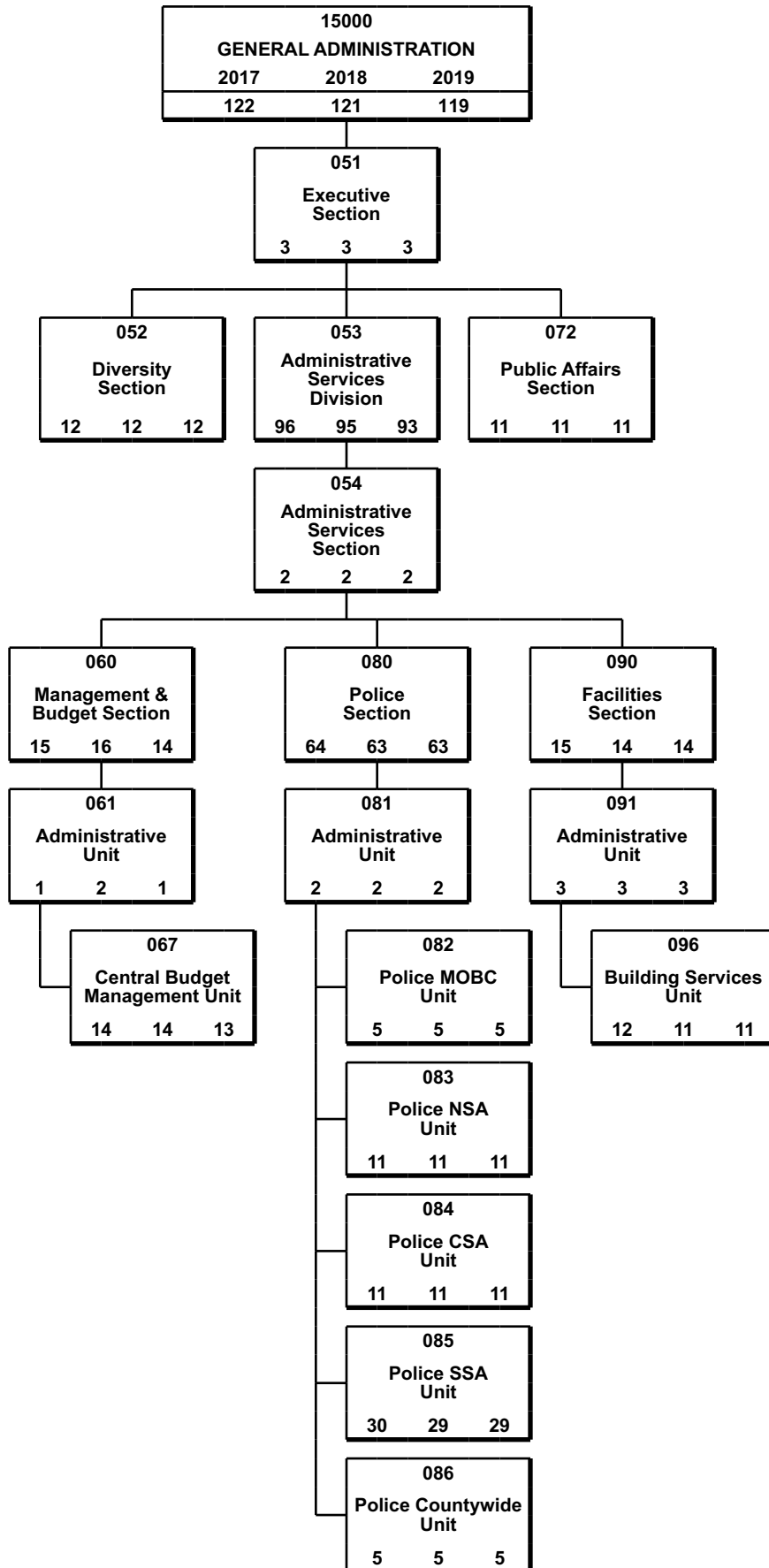
## APPROPRIATIONS & EXPENDITURES



## 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 2018 Accomplishments**

- The 2018 Budget received the 34th 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 by implementing a new budget publishing solution;
- Began modernization of two elevators at the Main Office Building (MOB) with the goal of eliminating service stoppage;
- Completed an overhaul of the MOB roof to extend service life an additional ten years;
- The Facilities Section continued another year of reducing utility expenditures, which resulted in savings of roughly 13 percent from 2015;
- 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 in two of 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 the District's Prescription Drug Take Back Program at four District locations;
- The Police Section continued to reduce Police overtime expenditures resulting in savings of roughly 56 percent from 2015;
- Promoted "Restore the Canopy" tree distribution, compost, and "Space to Grow" green schoolyard projects;
- Facilitated the Buffalo Creek Reservoir Expansion and Melvina Ditch Reservoir Expansion groundbreaking ceremonies;
- Participated in the Chicago Flower and Garden Show, showcasing composted biosolids and best management practices in stormwater management and Green Infrastructure;
- Organized the 6th Annual Sustainability Summit, honoring individuals and organizations promoting a sustainable environment;
- Published approximately 100 press releases and captured thousands of photos and hundreds of hours of footage of District properties and events using drone, photography, and videography equipment;
- Hosted the District's African American History Celebration titled "Ascent to the National Stage", which gave an overview of Illinois elected officials' rise from a local to a national arena;
- Hosted 190 tours/open houses with over 5,000 visitors, attended over 60 outreach events impacting more than 37,000 people, and visited over 30 schools and other organizations to educate more than 1,800 people.

### **Budget Highlights**

The 2019 appropriation for General Administration is \$18,713,800, an increase of \$1,988,400, or 11.9 percent, from 2018. The staffing level has decreased from 121 to 119 positions, which includes the drop of two Administrative Specialist positions.

Significant features of the 2019 Budget include:

- Major projects include construction of a plenum fan array, replacement of two chillers, and replacement of the main production equipment in the printshop at the Main Office Building Annex;
- Continue the reduction of fleet inventory and pursue replacement of vehicles, with hybrid vehicles when possible, 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 as projects are completed.



## **2019 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 2019.

- **Add Value**

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

- **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 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 office environment for staff and delivering efficient and cost-effective automotive fleet services, mailroom, and print services. The Facilities Section will continue to maintain 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 2019, 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 continue to 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 implemented a new budget publishing solution in 2018 for the preparation of the 2019 Budget. This application streamlines the budget document preparation process.

The Facilities Section will replace its main print production equipment with the latest generation of production technology. A digital storefront will also be added to the printshop for electronic submission of print jobs and automated tracking of expenditures by department and by job.

**2019 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 2019.

• **Add Value**

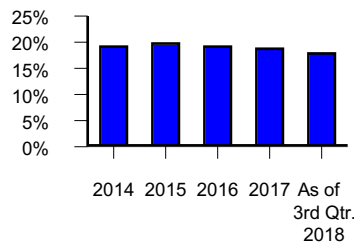
The Diversity Section will continue to fulfill its community leadership role regarding contract and employment diversity in the District’s service communities by establishing and monitoring goals for construction-related projects, as well as participating in outreach activities, including trade shows, 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 in 2019.

Construction & Consulting Contracts	2014*	2015	2016	2017	As of 2018 3rd Quarter
Minority-owned Business Enterprises	\$75,053,441	\$23,292,180	\$39,402,363	\$9,800,078	\$13,897,085
Women-owned Business Enterprises	\$39,870,628	\$10,855,589	\$27,298,129	\$5,565,425	\$8,263,597
Small Business Enterprises	\$857,220	\$375,118	\$307,759	\$1,364,898	\$2,160,687
Total Contracts Awarded	\$386,198,534	\$116,523,512	\$202,973,188	\$51,475,204	\$76,628,799

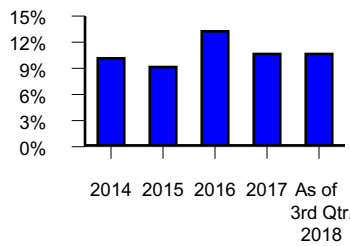
For years 2016-2018, SBE contract award amounts only include non-MBEs and non-WBEs.

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

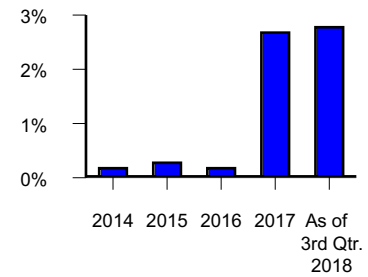
**Minority-owned Business Enterprises**



**Women-owned Business Enterprises**



**Small Business Enterprises**



• **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 2018, the Diversity staff was trained in contract compliance through the American Contract Compliance Association, which highlights new and pending rules and legislation regarding Affirmative Action. In 2019, Diversity staff will continue to 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.

## **2019 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 in 2019.

- **Add Value**

The Public Affairs Section will work with subject matter experts to develop materials that educate the public on how to manage stormwater and prevent water pollution. 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 waterways and the positive impact the recovery facility will have on improving our water environment locally as well as nationally. 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 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. Our two Federal Aviation Administration licensed drone pilots will continue to record videos 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 continue to 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 generate online photo archives 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.	\$ 6,562,200	35.1%
2. Carry out policies established by the elected Board of Commissioners for the protection of the water environment of the District.	\$ 828,000	4.4%
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.	\$ 1,155,600	6.2%
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.	\$ 2,288,400	12.2%
5. Operate and maintain the Main Office Building Complex to provide a functional and cost-effective office environment for staff, contractors, and visitors.	\$ 4,086,200	21.8%
6. Provide public understanding of District functions and activities through media, publications, and tours.	\$ 1,231,300	6.6%
7. Provide fleet management services by administering the operation, maintenance, repair, and procurement of the District's fleet.	\$ 1,680,600	9.0%
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.	\$ 530,800	2.8%
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.	\$ 350,700	1.9%
<b>Totals</b>	<b>\$ 18,713,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017 Actual	2018 Actual	2019 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, LinkedIn, YouTube, and Instagram.			

Year	Facebook		Twitter		LinkedIn		YouTube		Instagram	
	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year	Number of Followers	Percent Increase from Previous Year
2019 - Proposed	4,000	20%	3,200	16%	2,500	22%	225	97%	400	123%
2018 - Estimated	3,340	26%	2,752	30%	2,056	20%	114	90%	179	100%
2017 - Actual	2,646	22%	2,112	35%	1,719	23%	60	100%	N/A	N/A

**15000 GENERAL ADMINISTRATION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
7100	Office of the Executive Director	\$ 486,967	2019	3	\$ 486,200	\$ (11,000)	(2.2)	
			2018	3	\$ 497,200			
7110	Legislative	\$ 424,203	2019	—	\$ 341,800	\$ (99,500)	(22.5)	a)
			2018	—	\$ 441,300			
7220	Reprographic Services	\$ 501,119	2019	2	\$ 530,800	\$ (3,500)	(0.7)	
			2018	2	\$ 534,300			
7240	Public Affairs	\$ 1,102,084	2019	11	\$ 1,231,300	\$ (81,500)	(6.2)	
			2018	11	\$ 1,312,800			
7251	Corporate Budget Preparation, Monitoring, and Administration	\$ 1,956,320	2019	8	\$ 1,912,900	\$ 81,500	4.5	
			2018	9	\$ 1,831,400			
7252	Management and Organization Studies	\$ 259,543	2019	3	\$ 350,700	\$ 6,100	1.8	
			2018	3	\$ 344,600			
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ —	2019	3	\$ 286,500	\$ 5,400	1.9	
			2018	3	\$ 281,100			
7254	Enterprise System	\$ 87,945	2019	1	\$ 89,000	\$ 1,300	1.5	
			2018	1	\$ 87,700			
7340	Security of Plants and Properties	\$ 6,151,030	2019	63	\$ 6,400,100	\$ 45,400	0.7	
			2018	64	\$ 6,354,700			
7460	Main Office Building Complex Services	\$ 3,039,055	2019	11	\$ 4,086,200	\$ 1,008,800	32.8	b)
			2018	11	\$ 3,077,400			
7470	Contract Diversity	\$ 990,351	2019	12	\$ 1,155,600	\$ 17,200	1.5	
			2018	12	\$ 1,138,400			
7490	Automotive Fleet Operations	\$ 576,347	2019	2	\$ 1,680,600	\$ 1,010,500	150.8	c)
			2018	2	\$ 670,100			
7604	Social Security and Medicare Contributions	\$ 154,459	2019	—	\$ 162,100	\$ 7,700	5.0	
			2018	—	\$ 154,400			
Totals		\$15,729,423	2019	119	\$ 18,713,800	\$ 1,988,400	11.9%	
			2018	121	\$ 16,725,400			

a) Decrease is due to the reduction in Federal consulting activity required due to the completion of McCook Reservoir Phase I (\$100,000).

b) Increase is due to the reallocation of the paint and carpet replacement project in the Main Office Building (\$425,000) and the Main Office Building Annex common area major projects (\$100,000) from the Construction Fund to the Corporate Fund and the estimated increases in man-hour rates for 18-416-11, Operating Engineering Services to the Main Office Building Complex (\$377,900) and 18-408-11, Janitorial Services for the Main Office Building Complex (\$52,700).

c) Increase is due to the reallocation of replacement fleet vehicles from the Construction Fund to the Corporate Fund (\$900,000) and the overhaul of in-plant fueling systems at various locations (\$94,800).

**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7100	Office of the Executive Director	Cost	\$ 486,967	\$ 497,200	\$ 486,200	
7110	Legislative	Cost	\$ 424,203	\$ 441,300	\$ 341,800	a)
7220	Reprographic Services					
7221	Duplication Services	# of Impressions	3,068,687	3,000,000	3,030,000	
		Cost	\$ 489,211	\$ 521,300	\$ 509,500	
		Cost/Impression	\$ 0.16	\$ 0.17	\$ 0.17	
7224	Design Services	Cost	\$ 11,908	\$ 13,000	\$ 21,300	b)
7240	Public Affairs					
7247	Internal Public Affairs					
	Interdepartmental Support	Cost	\$ 298,431	\$ 363,200	\$ 337,300	
7248	External Public Affairs					
	Respond to Public Inquiries and Furnish Public Information Pamphlets	# of Responses	46,000	47,000	48,000	
		Cost	\$ 268,297	\$ 317,022	\$ 298,460	
		Cost/Response	\$ 5.83	\$ 6.75	\$ 6.22	
	Coordinate District Communications with Public, Civic, and Social Groups	# of Contacts	23,000	24,000	25,000	
		Cost	\$ 146,599	\$ 173,222	\$ 163,079	
		Cost/Contact	\$ 6.37	\$ 7.22	\$ 6.52	
	Monitor Public Hearings, Board Meetings, Internet, and Media and Issue Press Releases	Cost	\$ 189,289	\$ 223,664	\$ 210,569	
	Special Public Events	Cost	\$ 199,468	\$ 235,692	\$ 221,892	
7250	Budget Preparation and Management Studies					
7251	Corporate Budget Preparation, Monitoring, and Administration	Cost	\$ 1,956,320	\$ 1,831,400	\$ 1,912,900	
7252	Management and Organization Studies	Cost	\$ 259,543	\$ 344,600	\$ 350,700	
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ —	\$ 281,100	\$ 286,500	
7254	Enterprise Systems	Cost	\$ 87,945	\$ 87,700	\$ 89,000	

a) Decrease is due to the reduction in Federal consulting activity required due to the completion of McCook Reservoir Phase I (\$100,000).  
 b) Increase is due to additional design services required for the 130th anniversary of the District in 2019 (\$8,000).

**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7340	Security of Plants and Properties					
	Patrol of District Facilities	# of Miles	136,610	115,803	136,600	c)
		Cost	\$ 1,190,759	\$ 1,230,186	\$ 1,238,975	
		Cost/Mile	\$ 8.72	\$ 10.62	\$ 9.07	
	Patrol of District Real Estate	# of Miles	265,182	230,000	265,200	d)
		Cost	\$ 3,367,260	\$ 3,478,756	\$ 3,503,609	
		Cost/Mile	\$ 12.70	\$ 15.13	\$ 13.21	
	Access Control to Facilities	# of Hours	46,121	46,000	46,100	
		Cost	\$ 1,593,011	\$ 1,645,758	\$ 1,657,516	
		Cost/Hour	\$ 34.54	\$ 35.78	\$ 35.95	
7460	Main Office Building Complex Services					
7461	Main Office Building Complex Operations	Area (Sq. Ft.)	198,901	198,901	198,901	
		Cost	\$ 2,694,665	\$ 2,702,100	\$ 3,680,200	e)
		Cost/Sq. Ft.	\$ 13.55	\$ 13.59	\$ 18.50	
7463	Collect and Distribute Mail	# of Pieces	1,008,726	756,730	893,300	
		Cost	\$ 259,564	\$ 289,800	\$ 317,900	
		Cost/Piece	\$ 0.26	\$ 0.38	\$ 0.36	
7464	Telephone Switchboard Operations at Main Office Building Complex	Cost	\$ 84,826	\$ 85,500	\$ 88,100	
7470	Contract Diversity					
7471	Contract Compliance	Cost	\$ 442,905	\$ 505,800	\$ 518,100	
7472	Community Activity	Cost	\$ 326,794	\$ 378,700	\$ 382,200	
7473	Contract Diversity Support	Cost	\$ 220,652	\$ 253,900	\$ 255,300	
7490	Automotive Fleet Operations					
7491	Automotive Fleet Procurement	Cost	\$ 8,633	\$ —	\$ 900,000	f)
7496	Automotive Fleet Disposal	Cost	\$ 6,684	\$ —	\$ —	
7499	Automotive Fleet Operations	Cost	\$ 561,030	\$ 670,100	\$ 780,600	g)
7604	Social Security and Medicare Contributions	Cost	\$ 154,459	\$ 154,400	\$ 162,100	
	Totals		\$ 15,729,423	\$ 16,725,400	\$ 18,713,800	

c) Increase is due to the increased number of patrols through more efficient utilization of staff.

d) Increase is due to mandatory property checks for special business purposes.

e) Increase is due to the reallocation of the paint and carpet replacement project in the Main Office Building (\$425,000) and the Main Office Building Annex common area major projects (\$100,000) from the Construction Fund to the Corporate Fund and the estimated increases in man-hour rates for 18-416-11, Operating Engineering Services to the Main Office Building Complex (\$377,900) and 18-408-11, Janitorial Services for the Main Office Building Complex (\$52,700).

f) Increase is due to the reallocation of replacement fleet vehicles from the Construction Fund to the Corporate Fund (\$900,000).

g) Increase is due to the overhaul of in-plant fueling systems at various locations. (\$94,800).

101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 10,214,862	\$ 10,863,500	\$ 10,684,900	\$ 10,377,900	\$ 10,917,700	\$ 10,917,700	\$ 11,019,100
601060	Compensation Plan Adjustments	781,971	840,000	740,000	610,800	664,600	664,600	666,700
601070	Social Security and Medicare Contributions	154,459	154,400	156,400	155,100	160,300	160,300	162,100
601080	Salaries of Nonbudgeted Employees	1,248	—	—	—	—	—	—
601100	Tuition and Training Payments	80,968	37,700	37,700	16,200	33,000	33,000	33,000
601270	General Salary Adjustments	—	—	—	—	1,204,800	1,204,800	—
100	TOTAL PERSONAL SERVICES	11,233,507	11,895,600	11,619,000	11,160,000	12,980,400	12,980,400	11,880,900
612010	Travel	7,777	7,200	7,200	6,200	10,000	10,000	10,000
612030	Meals and Lodging	12,433	11,000	14,500	14,300	17,200	17,200	17,200
612040	Postage, Freight, and Delivery Charges	97,267	84,800	101,800	101,300	109,700	109,700	109,700
612050	Compensation for Personally-Owned Automobiles	1,928	3,000	4,000	4,000	3,700	3,700	3,700
612080	Motor Vehicle Operating Services	68,058	62,700	63,800	55,000	62,700	62,700	62,700
612090	Reprographic Services	116,109	118,000	118,000	95,100	103,400	103,400	103,400
612150	Electrical Energy	318,240	340,000	340,000	322,700	325,200	325,200	325,200
612160	Natural Gas	25,934	24,000	24,000	24,000	24,900	24,900	24,900
612170	Water and Water Services	5,492	5,200	7,300	6,800	6,500	6,500	6,500
612210	Communication Services	3,000	3,000	3,000	3,000	3,000	3,000	3,000
612280	Subscriptions and Membership Dues	685,780	778,100	808,500	807,000	838,100	838,100	933,500
612330	Rental Charges	14,010	8,700	8,700	8,500	93,500	93,500	93,500
612360	Advertising	12,417	13,000	13,000	11,900	13,000	13,000	13,000
612370	Administration Building Operation	1,014,937	1,015,800	1,202,500	1,156,900	1,313,200	1,313,200	1,313,200
612390	Administration Building McMillan Pavilion Operation	736,741	645,700	750,600	659,900	782,900	782,900	782,900
612430	Payments for Professional Services	407,640	474,000	439,600	397,100	324,000	324,000	324,000
612490	Contractual Services, N.O.C.	235,074	428,300	331,600	280,100	331,800	331,800	331,800
612680	Repairs to Buildings	21,557	26,500	26,500	5,300	41,300	566,300	566,300
612800	Repairs to Office Furniture and Equipment	90,251	118,200	118,200	114,100	47,900	47,900	47,900
612840	Communications Equipment Maintenance (Includes Software)	17,784	17,800	42,800	36,800	22,800	22,800	22,800
612860	Repairs to Vehicle Equipment	383,733	437,100	479,800	386,200	440,500	440,500	440,500
200	TOTAL CONTRACTUAL SERVICES	4,276,163	4,622,100	4,905,400	4,496,200	4,915,300	5,440,300	5,535,700
623070	Electrical Parts and Supplies	9,275	7,600	7,600	5,700	8,600	8,600	8,600



101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623090	Plumbing Accessories and Supplies	11,869	7,500	19,300	19,200	8,500	8,500	8,500
623110	Hardware	16,618	14,400	14,400	14,400	16,000	16,000	16,000
623130	Buildings, Grounds, Paving Materials, and Supplies	—	—	1,500	800	—	—	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	111,618	115,100	112,500	111,200	136,600	136,600	136,600
623660	Cleaning Supplies	997	1,300	1,300	1,200	1,300	1,300	1,300
623700	Wearing Apparel	24,201	28,400	34,500	24,200	53,400	53,400	53,400
623720	Books, Maps, and Charts	497	500	500	400	1,000	1,000	1,000
623850	Communications Supplies	—	—	—	—	25,000	25,000	25,000
623990	Materials and Supplies, N.O.C.	44,679	32,900	34,400	32,700	52,000	52,000	52,000
300	TOTAL MATERIALS AND SUPPLIES	219,753	207,700	226,000	209,800	302,400	302,400	302,400
634860	Vehicle Equipment	—	—	—	—	900,000	900,000	900,000
634990	Machinery and Equipment, N.O.C.	—	—	—	—	94,800	94,800	94,800
400	TOTAL MACHINERY AND EQUIPMENT	—	—	—	—	994,800	994,800	994,800
645680	Buildings	—	—	—	—	525,000	—	—
500	TOTAL CAPITAL PROJECTS	—	—	—	—	525,000	—	—
<b>TOTAL GENERAL ADMINISTRATION</b>		<b>\$ 15,729,423</b>	<b>\$ 16,725,400</b>	<b>\$ 16,750,400</b>	<b>\$ 15,866,000</b>	<b>\$ 19,717,900</b>	<b>\$ 19,717,900</b>	<b>\$ 18,713,800</b>

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

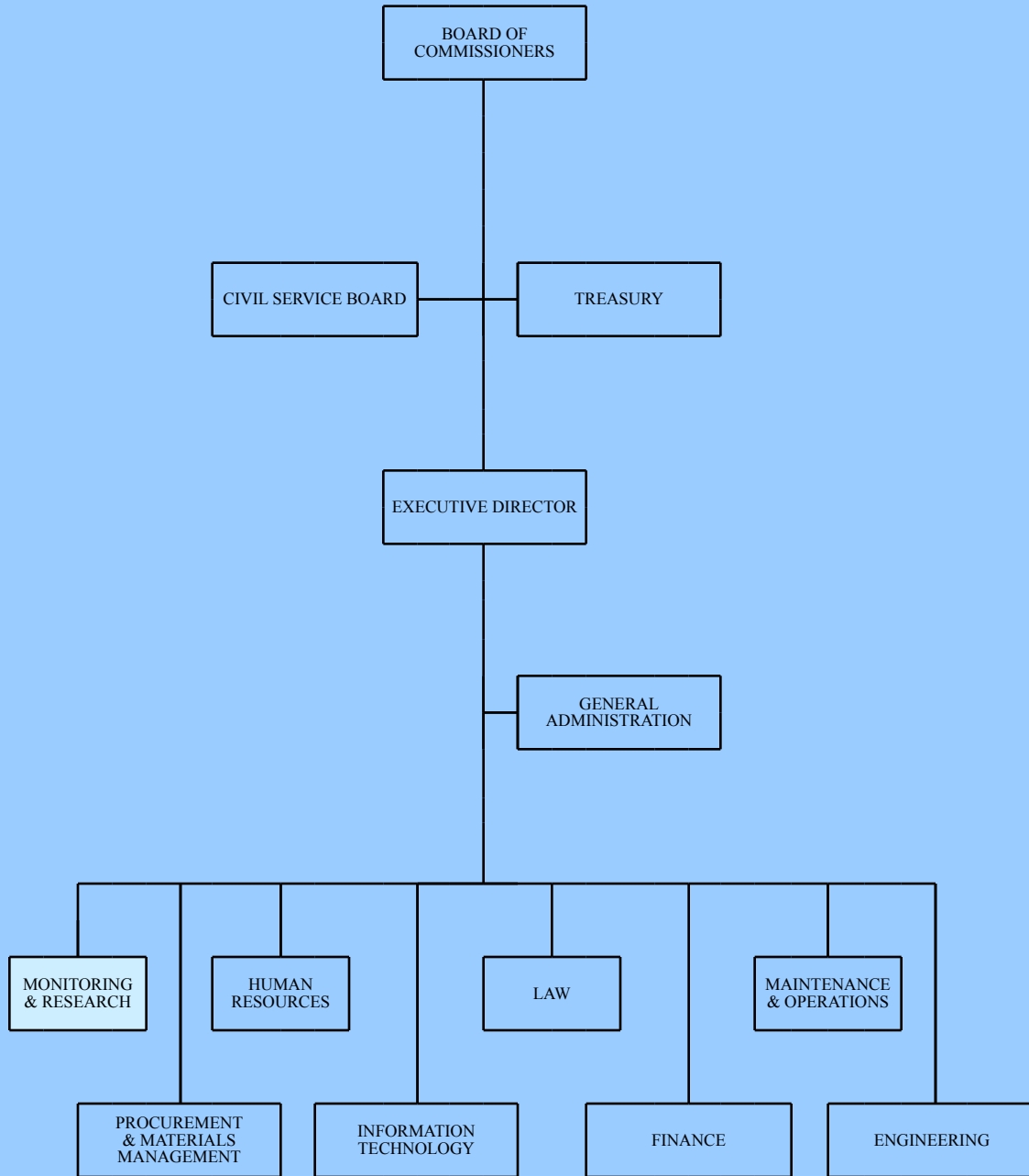
Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>051</b>	<b>Executive Section</b>					
EX07	Executive Director	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	492,312.24	3	483,504.43
<b>052</b>	<b>Diversity Section</b>					
HP18	Diversity Administrator	1	1		1	
HP16	Senior Diversity Officer	2	2		2	
HP15	Compliance Officer #2 (Diversity Officer) (New Grade HP14)	3	1		—	
HP14	Diversity Officer	3	5		6	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	1	1		1	
TOTAL	Diversity Section	12	12	1,045,948.21	12	1,055,745.02
<b>053</b>	<b>Administrative Services Division</b>					
<b>054</b>	<b>Administrative Services Section</b>					
EX19	Administrative Services Officer	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Administrative Services Section	2	2	339,787.75	2	346,583.50
<b>060</b>	<b>Management &amp; Budget Section</b>					
<b>061</b>	<b>Administrative Unit</b>					
HP20	Budget Officer	1	1		1	
HP11	Administrative Specialist	—	1		—	
TOTAL	Administrative Unit	1	2	221,091.67	1	166,378.79
<b>067</b>	<b>Central Budget Management Unit</b>					
HP18	Supervising Budget & Management Analyst	1	1		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	—		—	
HP16	Senior Budget & Management Analyst	3	4		4	
HP14	Budget & Management Analyst	8	8		8	
HP11	Administrative Specialist	1	1		—	
TOTAL	Central Budget Management Unit	14	14	1,334,318.62	13	1,313,511.17
TOTAL	Management & Budget Section	15	16	1,555,410.29	14	1,479,889.96

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>080</b>	<b>Police Section</b>					
<b>081</b>	<b>Administrative Unit</b>					
HP18	Chief of Police	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Administrative Unit	2	2	241,562.19	2	250,408.20
<b>082</b>	<b>Police Main Office Building Complex Unit</b>					
NR2483	Police Officer	5	5		5	
TOTAL	Police Main Office Building Complex Unit	5	5	405,496.00	5	421,928.00
<b>083</b>	<b>Police North Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	10		10	
TOTAL	Police North Service Area Unit	11	11	910,815.67	11	945,676.09
<b>084</b>	<b>Police Calumet Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	10		10	
TOTAL	Police Calumet Service Area Unit	11	11	920,536.04	11	955,590.86
<b>085</b>	<b>Police Stickney Service Area Unit</b>					
HP16	Police Lieutenant	2	2		2	
HP14	Police Sergeant	5	5		5	
NR2483	Police Officer	22	22		22	
NR2483	Police Officer #1	1	—		—	
TOTAL	Police Stickney Service Area Unit	30	29	2,550,566.38	29	2,643,153.11
<b>086</b>	<b>Police Countywide Unit</b>					
NR2483	Police Officer	5	5		5	
TOTAL	Police Countywide Unit	5	5	405,496.00	5	421,928.00
TOTAL	Police Section	64	63	5,434,472.28	63	5,638,684.26
<b>090</b>	<b>Facilities Section</b>					
<b>091</b>	<b>Administrative Unit</b>					
HP16	Senior Budget & Management Analyst	1	1		1	

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Unit	3	3	240,214.44	3	220,967.82
<b>096</b>	<b>Building Services Unit</b>					
HP14	Budget & Management Analyst	1	1		1	
HP14	Chief Printing Press Operator	1	1		1	
HP12	Printing Press Operator	1	1		1	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	3	3		3	
HP09	Administrative Clerk #1	1	—		—	
NR8661	Motor Vehicle Dispatcher Supervisor	1	1		1	
NR8660	Motor Vehicle Dispatcher	2	2		2	
TOTAL	Building Services Unit	12	11	735,782.60	11	759,847.47
TOTAL	Facilities Section	15	14	975,997.04	14	980,815.29
TOTAL	Administrative Services Division	96	95	8,305,667.36	93	8,445,973.01
<b>072</b>	<b>Public Affairs Section</b>					
EX18	Public & Intergovernmental Affairs Officer	1	1		1	
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	—		—	
HP15	Public Affairs Specialist #2 (New Grade HP14)	3	3		3	
HP14	Public Affairs Specialist	—	1		1	
HP13	Graphic Artist	2	2		2	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	—	1		1	
HP09	Administrative Clerk	1	—		—	
TOTAL	Public Affairs Section	11	11	1,047,474.24	11	1,085,426.98
TOTAL	General Administration	122	121	10,891,402.05	119	11,070,649.44

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.

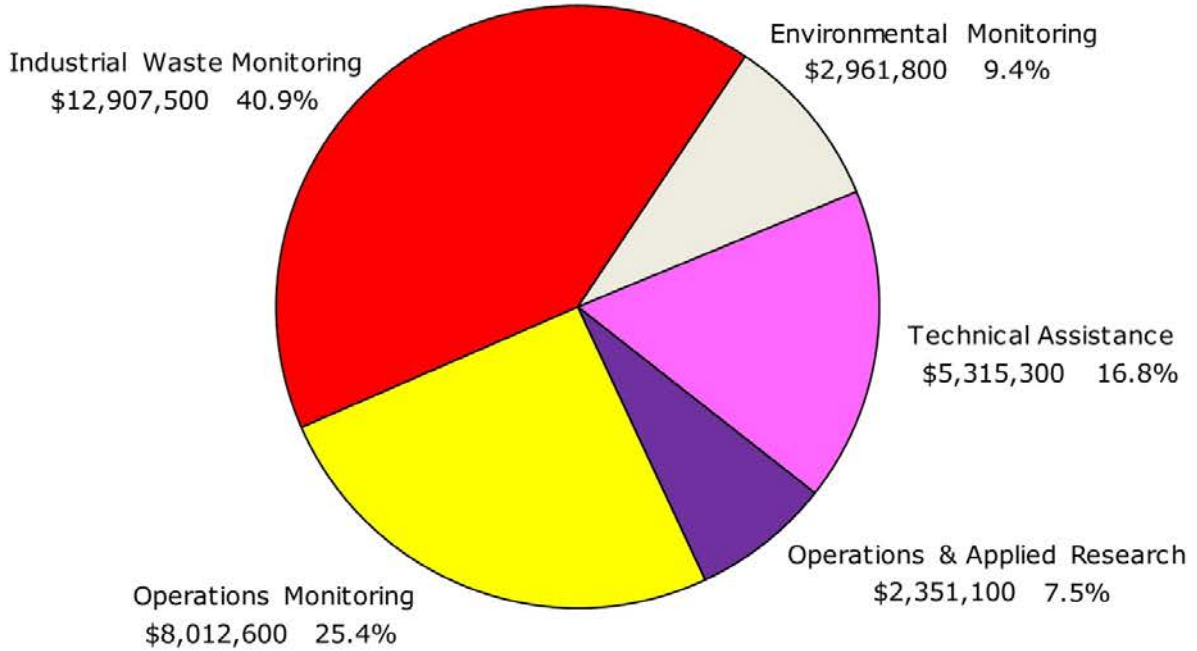
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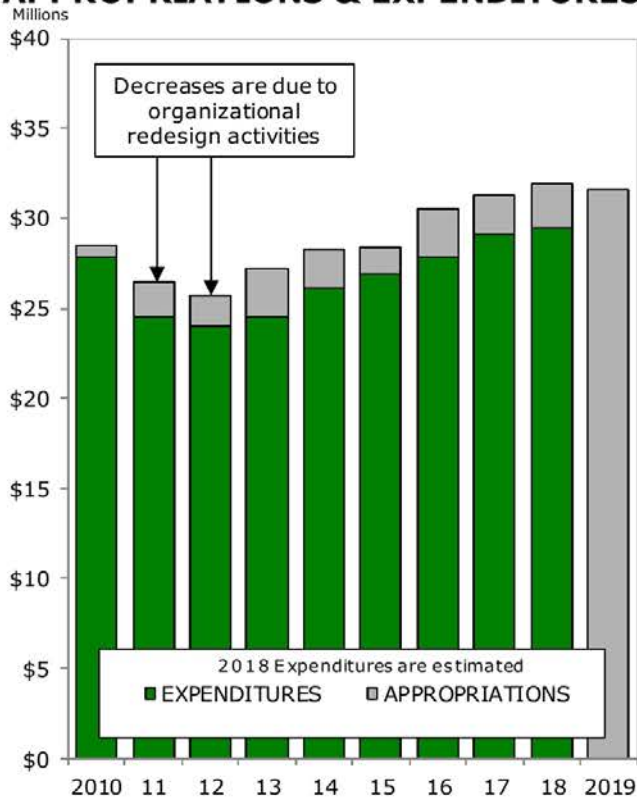
# MONITORING & RESEARCH

2019	\$31,548,300
2018	\$31,888,700
Decrease	(\$340,400)

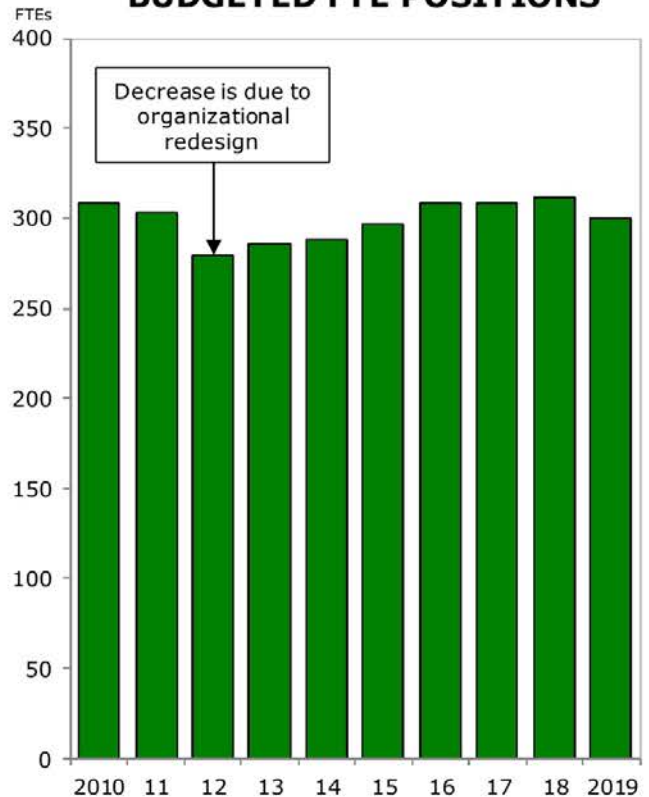
## FUNCTIONS



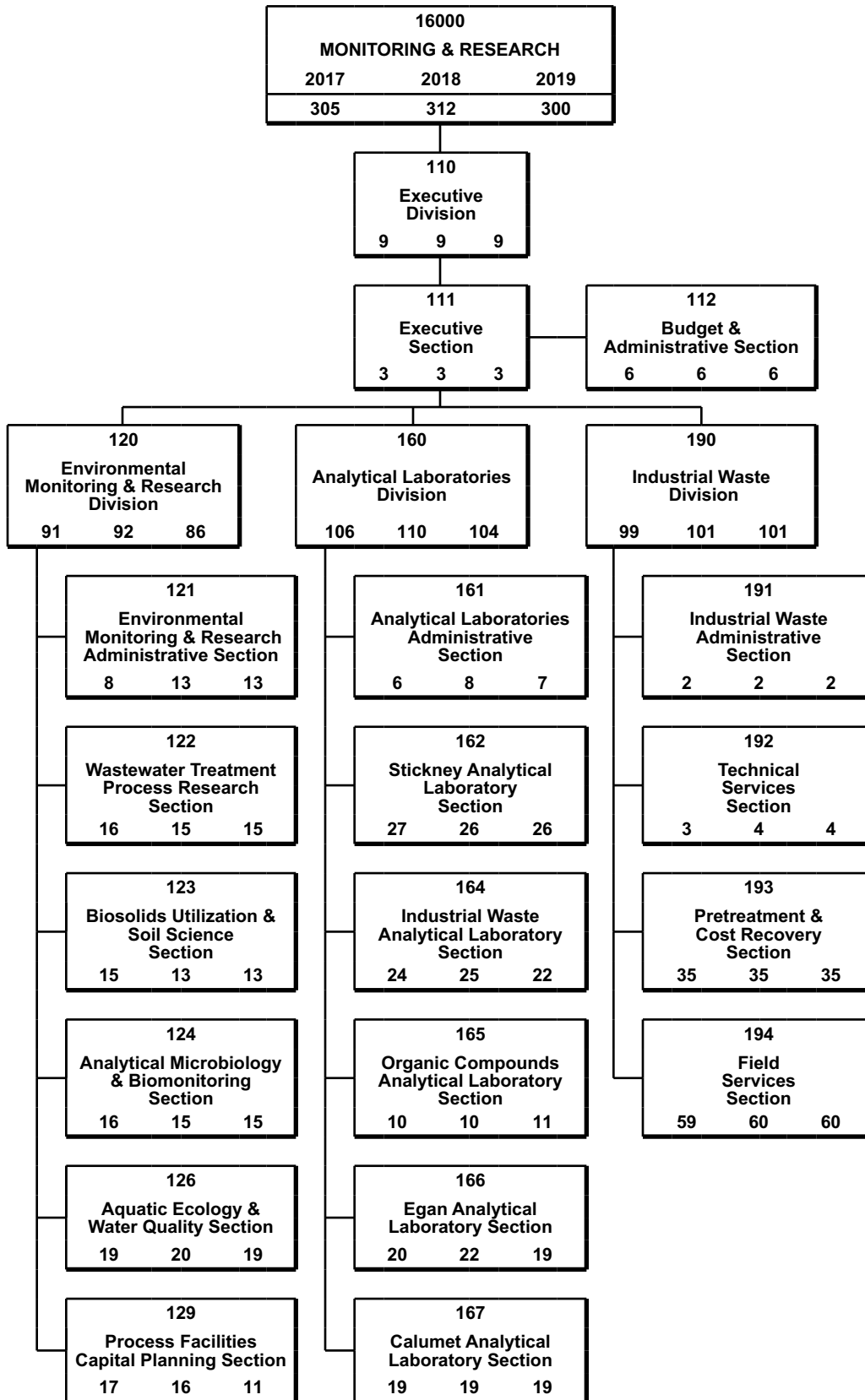
## APPROPRIATIONS & EXPENDITURES



## 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, Resource Recovery, 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 2018 Accomplishments

- Completed the redesign of the Chemist and Laboratory Technician series;
- Screened and tested 47 high strength organic materials (HSOM) to determine their suitability for acceptance under the Resource Recovery Program and began receiving materials at the Stickney and Calumet Water Reclamation Plants (WRP);
- Completed start-up monitoring and support of the Anita™ Mox ammonia removal process at the Egan WRP and began start-up monitoring and support of the WASSTRIP® process for enhanced phosphorus recovery at the Stickney WRP;
- Installed tile and denitrifying bioreactors at the Fulton County site as part of the collaboration with the agricultural sector on development and demonstration of best management practices to reduce nutrient discharge from the state;
- Completed conceptual designs for a biological phosphorus removal pilot at the Egan WRP and a sidestream return activated sludge fermentation pilot at the Calumet WRP;
- Conducted wet weather monitoring in the Calumet River System to assess the effectiveness of the Thornton Composite Reservoir portion of the Tunnel and Reservoir Plan (TARP);
- Finalized the study to optimize Lake Michigan discretionary diversion and existing aeration station operation to achieve maximum attainment of dissolved oxygen standards in the Chicago Area Waterway System (CAWS);
- Hired an industrial hygiene consultant to conduct an air quality study in the laboratories to ensure a clean working environment. This will continue annually in each laboratory facility on a rotating basis.

### Budget Highlights

The 2019 appropriation for M&R is \$31,548,300, a decrease of \$340,400, or 1.1 percent, from 2018. The staffing level has decreased from 312 to 300 positions, which includes the addition of three Laboratory Technician II positions, one Environmental Research Technician and one Senior Environmental Research Scientist, offset by the drop of two Assistant Environmental Chemist #1, one Senior Laboratory Technician #1, one Assistant Aquatic Biologist #1, one Laboratory Technician I #1, one Senior Environmental Chemist #1, four Environmental Chemists, one Laboratory Technician I, one Associate Civil Engineer, and one Associate Electrical Engineer, and the transfer out of one Senior Mechanical Engineer, one Senior Electrical Engineer, one Associate Mechanical Engineer, and one Associate Electrical Engineer to the Maintenance & Operations (M&O) Department. Also, a crosshatch #1 was added to two Laboratory Technician I positions and an Administrative Specialist position was reclassified to a Senior Administrative Specialist.

Significant features of the 2019 budget include:

- Continue to lead the phosphorus feasibility studies and implement biological phosphorus removal at District WRPs;
- Continue implementation of a District-wide Odor Reduction Strategy;
- Conduct the final year of a seven-year microbial source tracking study to determine the sources and distribution of microbes in portions of the 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 permit-required groundwater monitoring for four TARP systems, three reservoirs, six biosolids management sites, and Fischer Farm in Hanover Park;
- Continue to lead and develop the Resource Recovery Programs for supporting the District's energy recovery, phosphorus removal, and biosolids composting initiatives;
- Initiate development of a phosphorus assessment and reduction plan for the CAWS;
- Complete the Post Construction Monitoring Report evaluating effectiveness of the Calumet TARP System.

**2019 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 2019 User Charge revenue, based on 2019 rates and a three-year (2015-2017) average of user clearing data, is \$46.0 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.

<b>Five-Year Trend in User Charge Revenue</b>	
<b>Year</b>	<b>User Charge Receipts</b>
2015	\$48,476,512
2016	\$44,487,370
2017	\$53,252,035
2018 Estimated	\$43,000,000
2019 Projected	\$46,000,000

In 2019, 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 2019, 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 \$263,400 in the Construction Fund in 2019.

M&R will continue to provide technical support to the M&O Department in 2019 with the 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. M&R will conduct public outreach and marketing for local utilization of the composted biosolids product to reduce hauling cost.

• **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 (LIMS) to increase data processing and reporting and to enhance data acquisition from automated instruments. M&R and the Information Technology Department began a major LIMS upgrade to SampleManager V12. This upgrade is expected to reduce customization by 70 percent and allow future updates to the system to happen seamlessly. 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.

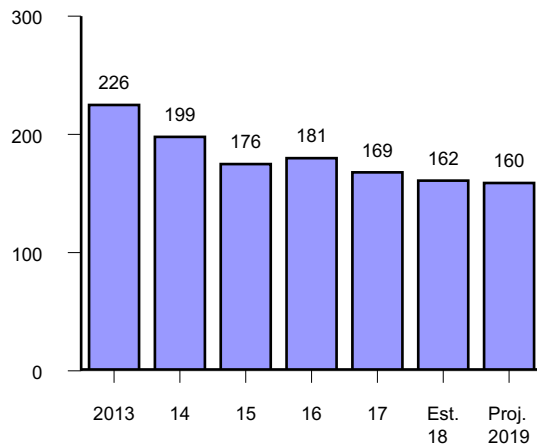
M&R is also committed to stopping pollution at its source by operating an effective Industrial Waste Pretreatment Program in full compliance with all federal and state statutes. During 2019, the administration of the District’s Industrial Waste Pretreatment Program will require the issuance or renewal 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 2019, M&R expects to 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 2019, 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 2019 are expected to meet the highest quality criteria for trace metals in the United States Environmental Protection Agency Biosolids Rule (40 CFR Part 503) and the WRP effluents are expected to meet all National Pollutant Discharge Elimination System permit limits for regulated industrial pollutants.

**Five-Year Trend in Enforcement Activities**

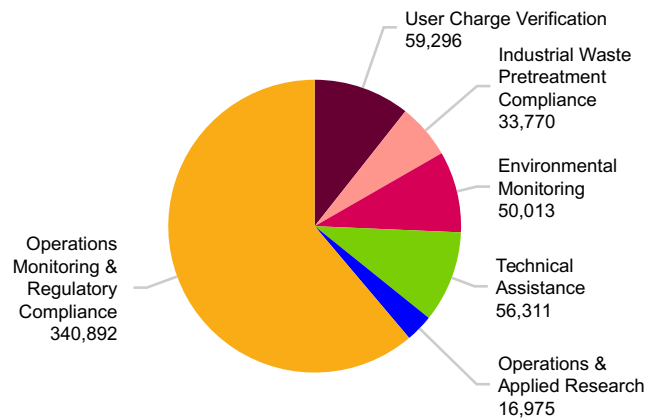
Year	Cease and Desist Orders
2015	71
2016	56
2017	72
2018 Estimated	70
2019 Projected	70

**Number of Emergency Responses**



2014, 2015 - Decrease is due to lower industrial activity and fewer heavy precipitation events

**2019 Projected Laboratory Analyses by Program**



M&R provides first-response services for hazardous materials emergencies and complaints of pollution and will conduct approximately 160 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 2019.

In 2019, M&R will collect and analyze approximately 650 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, 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 Illinois Environmental Protection Agency. In 2019, a total of 32 monitoring reports will be submitted to the Illinois Environmental Protection Agency.

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 557,257 projected tests in 2019. This includes chemical, biological, and microbiological monitoring. Whole effluent toxicity tests and fecal bacteria indicator analyses will be conducted as required by National Pollutant Discharge Elimination System permits. 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.

M&R provides Quality Assurance support to M&O by providing calibration and check standards for the analysis of pH and residual chloride. This support allows the District to provide defensible results for these important operational parameters. M&R will continue this support in 2019.

The District conducts an Odor Monitoring Program to minimize or eliminate nuisance odors in the communities surrounding its facilities. In 2019, 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.

M&R will continue to implement some of the recommendations 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 2019, M&R will continue to address issues such as 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**

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 Egan 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 in 2017 and anticipates the delivery of 600 loads of HSOM from its permitted haulers in 2019. M&R will continue to support the operation of the WASSTRIP® process at the Stickney WRP to help increase the phosphorus recovery in the Ostara facility. M&R is leading 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, biocatalysts for activated sludge replacement, ammonia aeration control, and co-digestion. 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.

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 by local park and school districts in the Chicago metropolitan area for maintaining high-quality vegetation on fields and landscaping. M&R will continue the promotion of biosolids and sustainability practices through a sustainability workshop, biosolids beneficial reuse awards, 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 2,050 attendees in 2018, it is anticipated that attendance for 2019 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 Research Foundation, National Association of Clean Water Agencies, United States Environmental Protection Agency, National Environmental Laboratory Accreditation Conference Institute, American Chemical Society, and others. In 2019, 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 work environment. M&R maintains a Chemical Hygiene Plan to ensure employee safety at its laboratories and conducts monthly safety training. Also, M&R provides an annual indoor air quality assessment for each facility in the Analytical Laboratories Division. A M&R staff member has been certified to handle the radioactive materials by the laboratory in a safe and secure manner.

- **Leading Partnerships**

M&R will continue to 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 2019, 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 Illinois Environmental Protection Agency by participating in various work 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 2019 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 include research and demonstration projects and field days at the District's Fulton County site and exploration of developing a nutrient trading program as a tool to achieve statewide nutrient management goals.

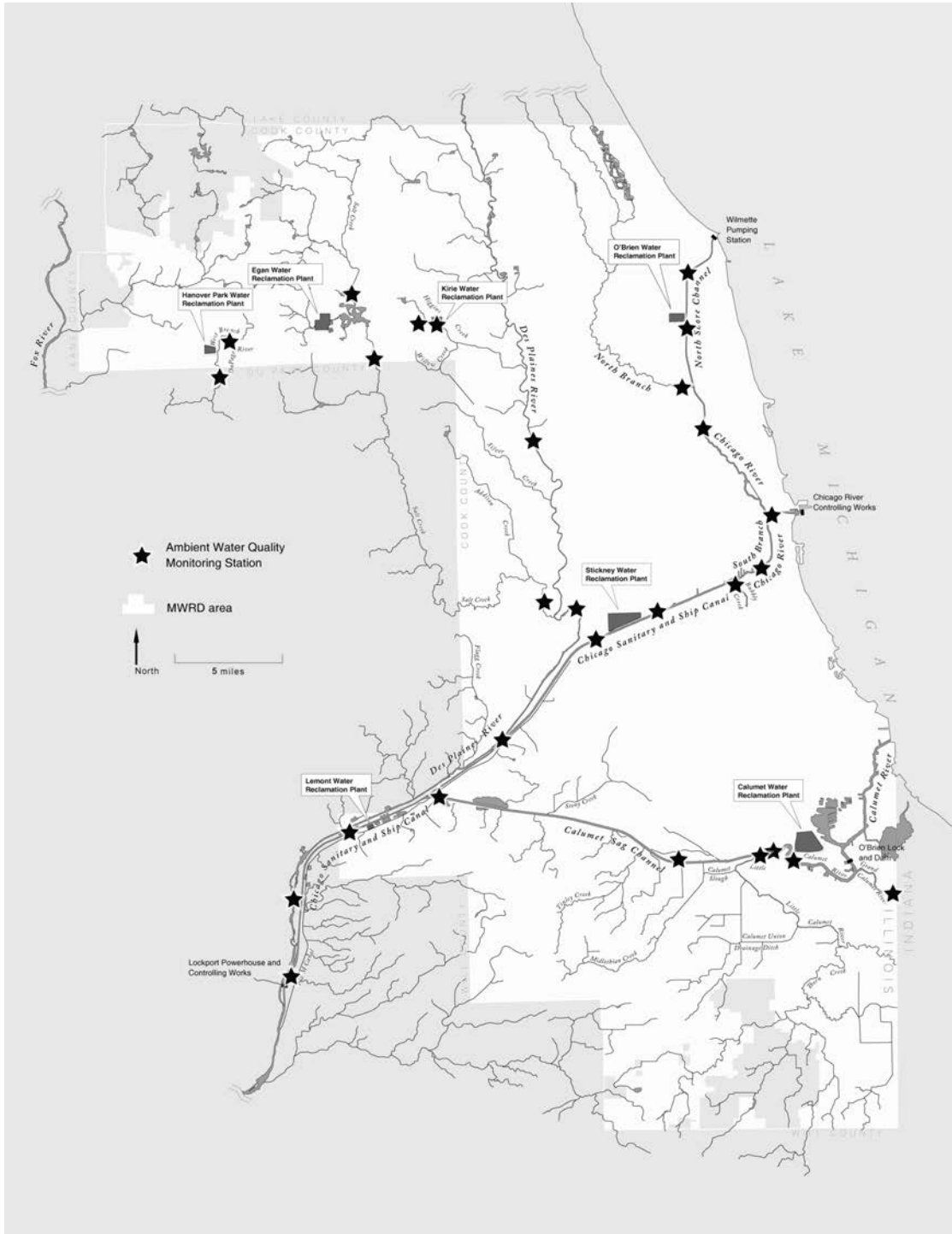
- **Technology**

The internet-based Publicly owned treatment works Administration and Compliance System is used to monitor Commercial/Industrial User compliance with United States Environmental Protection Agency regulations. In 2019, enhancements to the internet-based Publicly owned treatment works Administration and Compliance System will allow M&R to continue implementing electronic management of assignment scheduling and reporting, as well as Industrial User self-reporting.

In 2019, M&R and the Information Technology Department will continue to use consultants and in-house expertise to make enhancements to the LIMS SampleManager V12 upgrade that will support the continued attainment of laboratory accreditation. M&R will apply 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 National Pollutant Discharge Elimination System permits issued for each WRP. Processing and utilization of solids are regulated by Illinois Environmental Protection Agency 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. 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	\$ 5,196,400	16.5%	
	Solids Process Analyses	\$ 2,645,700	8.4%	
	Air Quality Monitoring	\$ 170,500	0.5%	
		<b>\$ 8,012,600</b>	<b>25.4%</b>	
2. INDUSTRIAL WASTE MONITORING: 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.	Residential Users	\$ 314,100	1.0%	
	Tax-Exempt Users	\$ 1,248,300	3.9%	
	Large Commercial/Industrial Users	\$ 4,498,500	14.3%	
	Environmental Remediation	\$ 132,300	0.4%	
	Chemical Toilet Waste	\$ 207,600	0.7%	
	* Note: "SIUs" refers to Significant Industrial Users.	SIUs* - Pretreatment Program	\$ 4,514,700	14.3%
	SIUs* - Extraordinary Monitoring/ Enforcement	\$ 1,002,200	3.2%	
	Other Industrial Users	\$ 578,300	1.8%	
	All Other - General	\$ 411,500	1.3%	
		<b>\$ 12,907,500</b>	<b>40.9%</b>	
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	\$ 69,000	0.2%	
	Waterways Monitoring	\$ 2,209,500	7.0%	
	Inspection Events	\$ 216,600	0.7%	
	Groundwater Monitoring	\$ 466,700	1.5%	
		<b>\$ 2,961,800</b>	<b>9.4%</b>	
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	\$ 1,625,700	5.1%	
	General Assistance	\$ 639,800	2.0%	
	Regulatory Review and Response	\$ 629,800	2.0%	
	Engineering Process Design Support	\$ 1,329,700	4.2%	
	Regulatory Compliance Reporting	\$ 274,600	0.9%	
	Facility Capital Planning	\$ 815,700	2.6%	
		<b>\$ 5,315,300</b>	<b>16.8%</b>	
5. OPERATIONS & APPLIED RESEARCH: Conduct operations and applied research for process improvement and cost reduction in District operations.		\$ 2,351,100	7.5%	
	<b>Totals</b>	<b>\$ 31,548,300</b>	<b>100.0%</b>	

**16000 MONITORING & RESEARCH**

**OBJECTIVES AND PROGRAM SUMMARY**

MEASURABLE GOALS:	2017	2018	2019
	Actual	Estimated	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. 2019 is the seventh and final year of this study.	70%	90%	100%
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%
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.	169	162	160

PROGRAMS BY PRIORITY:		2017	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
4650	Operations Monitoring	\$ 7,462,653	2019	79	\$ 8,012,600	\$ 11,700	0.1	
			2018	81	\$ 8,000,900			
4660	Industrial Waste Monitoring	\$10,579,403	2019	121	\$12,496,000	\$ 969,600	8.4	a)
			2018	117	\$11,526,400			
4670	Environmental Monitoring	\$ 2,896,586	2019	28	\$ 2,961,800	\$ (170,500)	(5.4)	b)
			2018	30	\$ 3,132,300			
4680	Technical Assistance	\$ 5,775,101	2019	49	\$ 5,315,300	\$ (1,118,000)	(17.4)	c)
			2018	61	\$ 6,433,300			
4690	Operations and Applied Research	\$ 2,007,686	2019	23	\$ 2,351,100	\$ (29,900)	(1.3)	
			2018	23	\$ 2,381,000			
7604	Social Security and Medicare Contributions	\$ 367,913	2019	—	\$ 411,500	\$ (3,300)	(0.8)	
			2018	—	\$ 414,800			
Totals		\$29,089,342	2019	300	\$31,548,300	\$ (340,400)	(1.1)%	
			2018	312	\$31,888,700			

a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$1,052,100).

b) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$99,000) and the drop of one FTE position (\$90,300).

c) Decrease is due to the transfer of one Senior Mechanical Engineer position, one Senior Electrical Engineer position, one Associate Electrical Engineer position, and one Associate Mechanical Engineer position to the Maintenance & Operations Department (\$490,400), the reallocation of salaries to more accurately reflect current activities (\$463,000), and the drop of three FTE positions (\$293,700), offset by the addition of one FTE position (\$64,500).



**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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	257,095	250,666	246,737	
		Program Cost	\$ 4,886,972	\$ 5,188,800	\$ 5,196,400	
		Program Cost/Analysis	\$ 19.01	\$ 20.70	\$ 21.06	
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	97,098	102,262	90,905	
		Program Cost	\$ 2,392,469	\$ 2,638,900	\$ 2,645,700	
		Program Cost/Analysis	\$ 24.64	\$ 25.81	\$ 29.10	
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	3,244	3,500	3,250	
		Sampling Events	389	600	450	a)
		Program Cost	\$ 183,212	\$ 173,200	\$ 170,500	
		Program Cost/Analysis	\$ 56.48	\$ 49.49	\$ 52.46	
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	6,154	6,200	6,200	
		Program Cost	\$ 155,289	\$ 154,500	\$ 314,100	b)
		Program Cost/User	\$ 25.23	\$ 24.92	\$ 50.66	b)
4662	User Charge Ordinance - Tax-Exempt Users	Number of Users	2,958	2,970	2,970	
		Program Cost	\$ 1,268,760	\$ 1,423,000	\$ 1,248,300	c)
		Program Cost/User	\$ 428.92	\$ 479.12	\$ 420.30	c)
		Revenue	\$ 13,206,505	\$ 12,880,000	\$ 13,000,000	
		Revenue/User	\$ 4,464.67	\$ 4,336.70	\$ 4,377.10	
4663	User Charge Ordinance - Large Commercial/Industrial Users	Number of Users	645	630	630	
		Program Cost	3,383,445	3,669,100	4,498,500	d)
		Program Cost/User	\$ 5,245.65	\$ 5,823.97	\$ 7,140.48	d)
		Revenue	\$ 40,045,530	\$ 33,120,000	\$ 33,000,000	
		Revenue/User	\$ 62,086.09	\$ 52,571.43	\$ 52,380.95	
		Industrial Waste Monitoring Analyses	69,289	75,858	59,296	e)
		Program Cost/Analysis	\$ 48.83	\$ 48.37	\$ 75.87	d)
4664	Environmental Remediation Wastewater Ordinance	Permits Issued	10	15	15	
		Program Cost	\$ 118,756	\$ 97,400	\$ 132,300	f)
		Program Cost/Permit	\$ 11,875.60	\$ 6,493.33	\$ 8,820.00	f)

- a) Decrease is due to the cessation of odor monitoring at the pelletizer facility as of June 2018.
- b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$156,600).
- c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$143,800).
- d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$935,500).
- e) Decrease is due to estimates based on actual data collected for the first half of 2018.
- f) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$34,600).

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
4665	Chemical Toilet Wastes Disposal Ordinance	Permits Issued	3	3	4	g)
		Program Cost	\$ 43,730	\$ 87,900	\$ 207,600	h)
		Program Cost/Permit	\$ 14,576.67	\$ 29,300.00	\$ 51,900.00	h)
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	353	340	345	
		Waste Monitoring Analyses	31,105	42,000	33,770	i)
		Program Cost	\$ 3,309,407	\$ 3,653,600	\$ 4,514,700	j)
		Program Cost/Analysis	\$ 106.39	\$ 86.99	\$ 133.69	j)
		Program Cost/SIU	\$ 9,375.09	\$ 10,745.88	\$ 13,086.09	j)
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	107	120	120	
		Program Cost	\$ 1,718,477	\$ 1,810,600	\$ 1,002,200	k)
		Program Cost/SIU	\$ 16,060.53	\$ 15,088.33	\$ 8,351.67	k)
4668	Other Regulatory Activities - Industrial Users	Number of IUs	219	300	300	
		Program Cost	\$ 581,539	\$ 630,300	\$ 578,300	
		Program Cost/IU	\$ 2,655.43	\$ 2,101.00	\$ 1,927.67	
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	Environmental Analyses	422	100	383	l)
		Program Cost	\$ 73,785	\$ 63,700	\$ 69,000	
		Program Cost/Analysis	\$ 174.85	\$ 637.00	\$ 180.16	
4672	Waterways Monitoring: Sampling and analysis of Chicago Area Waterways to assess the impact of treated effluent discharge and comply with regulations	Sampling Events	1,029	900	1,000	
		Environmental Analyses	40,010	33,354	33,663	
		Program Cost	\$ 2,120,343	\$ 2,298,100	\$ 2,209,500	
		Program Cost/Analysis	\$ 53.00	\$ 68.90	\$ 65.64	
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	169	156	160	
		Program Cost	\$ 242,639	\$ 258,200	\$ 216,600	m)
		Program Cost/Inspection	\$ 1,435.73	\$ 1,655.13	\$ 1,353.75	m)
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	10,070	12,284	15,967	n)
		Sampling Events	609	1,300	650	o)
		Number of Sites	160	160	165	
		Program Cost	\$ 459,819	\$ 512,300	\$ 466,700	
		Program Cost/Analysis	\$ 45.66	\$ 41.70	\$ 29.23	

g) Increase is due to the issuance of an additional Chemical Toilet Waste Permit during 2018.

h) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$119,000).

i) Decrease is due to estimates based on actual data collected for the first half of 2018.

j) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$805,000).

k) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$806,000).

l) Increase is due to estimates based on actual data collected for the first half of 2018.

m) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$40,100).

n) Increase in analyses is due to more samples collected as a result of the recently completed Phase I of the McCook Reservoir.

o) Decrease is due to the implementation of the Illinois Environmental Protection Agency-approved plan for reduced monitoring of Tunnel and Reservoir Plan wells.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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	224	170	218	p)
		Number of Analyses	43,215	45,602	41,103	
		Sampling Events	453	792	300	q)
		Program Cost	\$ 1,939,397	\$ 2,187,600	\$ 1,625,700	r)
		Program Cost/Analysis	\$ 44.88	\$ 47.97	\$ 39.55	r)
		Program Cost/Event	\$ 4,281.23	\$ 2,762.12	\$ 5,419.00	r)
4682	General Assistance to All Other Departments: Technical assistance based on requests, primarily to the Law Department	Responses Completed	231	234	240	
		Number of Analyses	1,152	1,737	342	s)
		Sampling Events	45	40	35	
		Program Cost	\$ 626,875	\$ 701,800	\$ 639,800	
		Program Cost/Analysis	\$ 544.16	\$ 404.03	\$ 1,870.76	
		Program Cost/Event	\$ 13,930.56	\$ 17,545.00	\$ 18,280.00	
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	198	244	141	t)
		Program Cost	\$ 765,995	\$ 871,400	\$ 629,800	u)
4684	Engineering Process Design Support: Technical assistance to the Engineering Department to improve District facilities and optimize process design	Number of Analyses	16,947	13,615	14,861	
		Responses Completed	150	114	130	
		Sampling Events	110	118	10	v)
		Program Cost	\$ 1,264,395	\$ 1,422,400	\$ 1,329,700	
		Program Cost/Analysis	\$ 74.61	\$ 104.47	\$ 89.48	
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	56	56	
		Number of Analyses	18	12	5	w)
		Program Cost	\$ 249,838	\$ 265,000	\$ 274,600	
		Program Cost/Analysis	\$ 13,879.89	\$ 22,083.33	\$ 54,920.00	
4686	Facility Capital Planning and Capital/Maintenance Project Evaluations: Activities to develop, facilitate, prioritize, and document the District's capital plan alternatives to improve the District's treatment plant processes and infrastructure	Program Cost	\$ 928,601	\$ 985,100	\$ 815,700	x)

p) Increase is due to estimates based on actual data collected for the first half of 2018.

q) Decrease is due to the sampling for the enhanced biological phosphorus removal project being terminated at the O'Brien WRP and reduced at the Stickney and Calumet WRPs.

r) Decrease is due to the transfer of two FTE positions to the Maintenance & Operations Department (\$268,400) and the reallocation of salaries to more accurately reflect current activities (\$251,200).

s) Decrease is due to a reduction in special projects.

t) Decrease is due to estimates based on actual data collected for the first half of 2018.

u) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$237,300).

v) Decrease is due to a significant reduction in the number of new high strength waste suppliers that require sampling of their materials.

w) Decrease is due to a reduction in required analyses, which vary based on the schedule of the National Pollutant Discharge Elimination System permits.

x) Decrease is due to the transfer of one FTE position to the Maintenance & Operations Department (\$138,600).

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
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	1,169	1,210	1,000	y)
		Research Projects	65	70	60	
		Laboratory Analyses	20,405	18,764	16,975	
		Program Cost	\$ 2,007,686	\$ 2,381,000	\$ 2,351,100	
		Program Cost/Analysis	\$ 98.39	\$ 126.89	\$ 138.50	
7604	Social Security and Medicare Contributions	Program Cost	\$ 367,913	\$ 414,800	\$ 411,500	
		Totals	\$ 29,089,342	\$ 31,888,700	\$ 31,548,300	

y) Decrease is due to estimates based on actual data collected for the first half of 2018.

101 16000	Fund: Corporate Department: Monitoring & Research	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 26,103,909	\$ 29,031,800	\$ 28,711,800	\$ 26,638,100	\$ 28,065,000	\$ 28,065,000	\$ 28,311,400
601060	Compensation Plan Adjustments	803,658	644,200	964,200	958,900	779,900	779,900	819,500
601070	Social Security and Medicare Contributions	367,913	414,800	414,800	375,500	402,600	402,600	411,500
601080	Salaries of Nonbudgeted Employees	56,764	2,000	2,000	—	—	—	—
601100	Tuition and Training Payments	66,481	58,100	58,100	48,500	77,700	77,700	77,700
100	TOTAL PERSONAL SERVICES	27,398,725	30,150,900	30,150,900	28,021,000	29,325,200	29,325,200	29,620,100
612010	Travel	10,231	22,000	22,000	19,000	18,000	18,000	18,000
612030	Meals and Lodging	27,053	34,700	45,700	44,700	39,700	39,700	39,700
612040	Postage, Freight, and Delivery Charges	5,394	4,400	6,500	5,000	8,700	8,700	8,700
612050	Compensation for Personally-Owned Automobiles	25,773	27,300	27,300	24,400	27,400	27,400	27,400
612080	Motor Vehicle Operating Services	346	800	800	500	300	300	300
612090	Reprographic Services	—	100	100	—	—	—	—
612170	Water and Water Services	413	400	700	600	—	—	—
612330	Rental Charges	900	2,300	2,300	—	1,300	1,300	1,300
612400	Intergovernmental Agreements	—	—	—	—	—	—	49,600
612410	Governmental Service Charges	17,000	67,000	67,000	17,000	17,000	17,000	17,000
612430	Payments for Professional Services	92,591	102,900	102,300	68,900	102,400	102,400	92,400
612490	Contractual Services, N.O.C.	233,583	319,900	265,400	176,400	365,600	365,600	335,600
612790	Repairs to Marine Equipment	26,643	29,600	31,800	29,600	24,000	24,000	24,000
612970	Repairs to Testing and Laboratory Equipment	352,192	353,500	353,000	317,300	391,800	391,800	391,800
200	TOTAL CONTRACTUAL SERVICES	792,118	964,900	924,900	703,400	996,200	996,200	1,005,800
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	23,683	30,100	31,800	31,300	30,000	30,000	30,000
623530	Farming Supplies	33,727	38,000	38,000	24,200	28,000	28,000	28,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	348,277	354,900	350,100	308,500	415,000	415,000	415,000
623700	Wearing Apparel	15,193	10,200	13,300	13,300	12,600	12,600	12,600
623720	Books, Maps, and Charts	2,320	600	600	600	600	600	600
623810	Computer Supplies	—	2,400	2,400	2,300	500	500	500
623820	Fuel	11,909	9,400	11,800	11,800	13,400	13,400	13,800
623990	Materials and Supplies, N.O.C.	44,676	37,200	34,800	32,200	37,600	37,600	37,600
300	TOTAL MATERIALS AND SUPPLIES	479,785	482,800	482,800	424,200	537,700	537,700	538,100

101 16000	Fund: Corporate Department: Monitoring & Research	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634970	Testing and Laboratory Equipment	418,714	290,100	330,100	293,000	394,300	394,300	384,300
400	TOTAL MACHINERY AND EQUIPMENT	418,714	290,100	330,100	293,000	394,300	394,300	384,300
<b>TOTAL MONITORING &amp; RESEARCH</b>		<b>\$ 29,089,342</b>	<b>\$ 31,888,700</b>	<b>\$ 31,888,700</b>	<b>\$ 29,441,600</b>	<b>\$ 31,253,400</b>	<b>\$ 31,253,400</b>	<b>\$ 31,548,300</b>

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

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>110</b>	<b>Executive Division</b>					
<b>111</b>	<b>Executive Section</b>					
EX11	Director of Monitoring & Research	1	1		1	
EX06	Secretary to Officer	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	—	—		1	
HP11	Administrative Specialist	1	1		—	
TOTAL	Executive Section	3	3	427,449.88	3	460,194.13
<b>112</b>	<b>Budget &amp; Administrative Section</b>					
HP23	Deputy Director of Monitoring & Research	1	—		—	
HP22	Assistant Director of Monitoring & Research	—	1		1	
HP18	Supervising Budget & Management Analyst	1	1		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	—		—	
HP16	Senior Budget & Management Analyst	—	1		1	
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL	Budget & Administrative Section	6	6	744,084.92	6	750,713.27
TOTAL	Executive Division	9	9	1,171,534.80	9	1,210,907.40
<b>120</b>	<b>Environmental Monitoring &amp; Research Division</b>					
<b>121</b>	<b>Environmental Monitoring &amp; Research Administrative Section</b>					
HP22	Assistant Director of Monitoring & Research	1	1		1	
HP20	Environmental Monitoring & Research Manager	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP18	Biostatistician	1	1		1	
HP18	Principal Environmental Scientist	—	2		2	
HP15	Associate Civil Engineer	1	1		1	
HP13	Senior Administrative Specialist	1	2		2	
HP11	Administrative Specialist	2	4		4	
TOTAL	Environmental Monitoring & Research Administrative Section	8	13	1,503,580.86	13	1,586,355.80
<b>122</b>	<b>Wastewater Treatment Process Research Section</b>					
HP18	Principal Environmental Scientist	—	1		1	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP18	Supervising Environmental Research Scientist	1	—		—	
HP17	Senior Environmental Research Scientist	3	3		3	
HP15	Environmental Research Scientist	3	3		3	
HP13	Senior Environmental Research Technician	1	1		1	
HP11	Administrative Specialist	1	—		—	
HP11	Environmental Research Technician	2	6		7	
HP11	Laboratory Technician II	3	—		—	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	1	—		—	
HP10	Laboratory Technician I	1	1		—	
TOTAL	Wastewater Treatment Process Research Section	16	15	1,375,438.88	15	1,341,396.44
<b>123</b>	<b>Biosolids Utilization &amp; Soil Science Section</b>					
HP18	Principal Environmental Scientist	—	1		1	
HP18	Supervising Environmental Soil Scientist	1	—		—	
HP17	Senior Environmental Soil Scientist	2	2		2	
HP15	Environmental Soil Scientist	3	3		3	
HP15	Environmental Chemist	1	1		1	
HP14	Assistant Environmental Chemist #1	1	—		—	
HP11	Administrative Specialist	1	—		—	
HP11	Environmental Research Technician	3	5		5	
HP11	Laboratory Technician II	1	—		—	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	1	—		—	
HP09	Laboratory Assistant	1	1		1	
TOTAL	Biosolids Utilization & Soil Science Section	15	13	1,152,902.63	13	1,209,652.24
<b>124</b>	<b>Analytical Microbiology &amp; Biomonitoring Section</b>					
HP18	Principal Environmental Scientist	—	1		1	
HP18	Supervising Environmental Microbiologist	1	—		—	
HP17	Senior Environmental Microbiologist	1	1		1	
HP16	Associate Environmental Microbiologist #2 (Environmental Microbiologist) (New Grade HP15)	1	1		1	
HP15	Environmental Microbiologist	1	1		1	
HP14	Assistant Environmental Microbiologist #1	1	—		—	



Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP13	Senior Laboratory Technician	1	1		1	
HP11	Administrative Specialist	1	—		—	
HP11	Laboratory Technician II	5	7		8	
HP11	Laboratory Technician II #4	2	1		—	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Analytical Microbiology & Biomonitoring Section	16	15	1,187,727.68	15	1,186,877.66
<b>126</b>	<b>Aquatic Ecology &amp; Water Quality Section</b>					
HP18	Principal Environmental Scientist	—	1		1	
HP18	Supervising Aquatic Biologist	1	—		—	
HP17	Senior Aquatic Biologist	1	1		1	
HP16	Associate Aquatic Biologist #2 (Aquatic Biologist) (New Grade HP15)	2	2		2	
HP15	Aquatic Biologist	—	1		1	
HP14	Assistant Aquatic Biologist #1	1	1		—	
HP13	Senior Environmental Research Technician	1	1		1	
HP11	Environmental Research Technician	1	5		5	
HP11	Laboratory Technician II	2	—		—	
HP11	Laboratory Technician II #2 (Environmental Research Technician)	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	1,638,512.80	19	1,585,238.44
<b>129</b>	<b>Process Facilities Capital Planning Section</b>					
HP18	Principal Civil Engineer	1	1		1	
HP17	Senior Civil Engineer	2	2		2	
HP17	Senior Electrical Engineer	1	1		—	
HP17	Senior Environmental Research Scientist	2	2		3	
HP17	Senior Mechanical Engineer	2	2		1	
HP15	Associate Civil Engineer	2	2		1	
HP15	Associate Electrical Engineer	2	2		—	
HP15	Environmental Research Scientist	2	2		2	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Mechanical Engineer	3	2		1	
TOTAL	Process Facilities Capital Planning Section	17	16	1,853,698.65	11	1,316,192.36
TOTAL	Environmental Monitoring & Research Division	91	92	8,711,861.50	86	8,225,712.94
<b>160</b>	<b>Analytical Laboratories Division</b>					
<b>161</b>	<b>Analytical Laboratories Administrative Section</b>					
HP22	Assistant Director of Monitoring & Research	1	1		1	
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist #1	—	1		—	
HP15	Environmental Chemist	1	2		2	
HP13	Senior Administrative Specialist	1	1		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	—		—	
HP11	Administrative Specialist	—	1		—	
TOTAL	Analytical Laboratories Administrative Section	6	8	980,126.96	7	813,784.23
<b>162</b>	<b>Stickney Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	2		2	
HP15	Environmental Chemist	6	5		4	
HP14	Assistant Environmental Chemist #1	1	—		—	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Administrative Specialist	1	1		1	
HP11	Laboratory Technician II	9	9		11	
HP10	Laboratory Technician I	2	2		—	
HP10	Laboratory Technician I #1	—	—		2	
HP09	Laboratory Assistant	3	3		2	
TOTAL	Stickney Analytical Laboratory Section	27	26	2,034,613.08	26	2,059,646.35
<b>164</b>	<b>Industrial Waste Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	2		2	
HP15	Environmental Chemist	4	5		4	

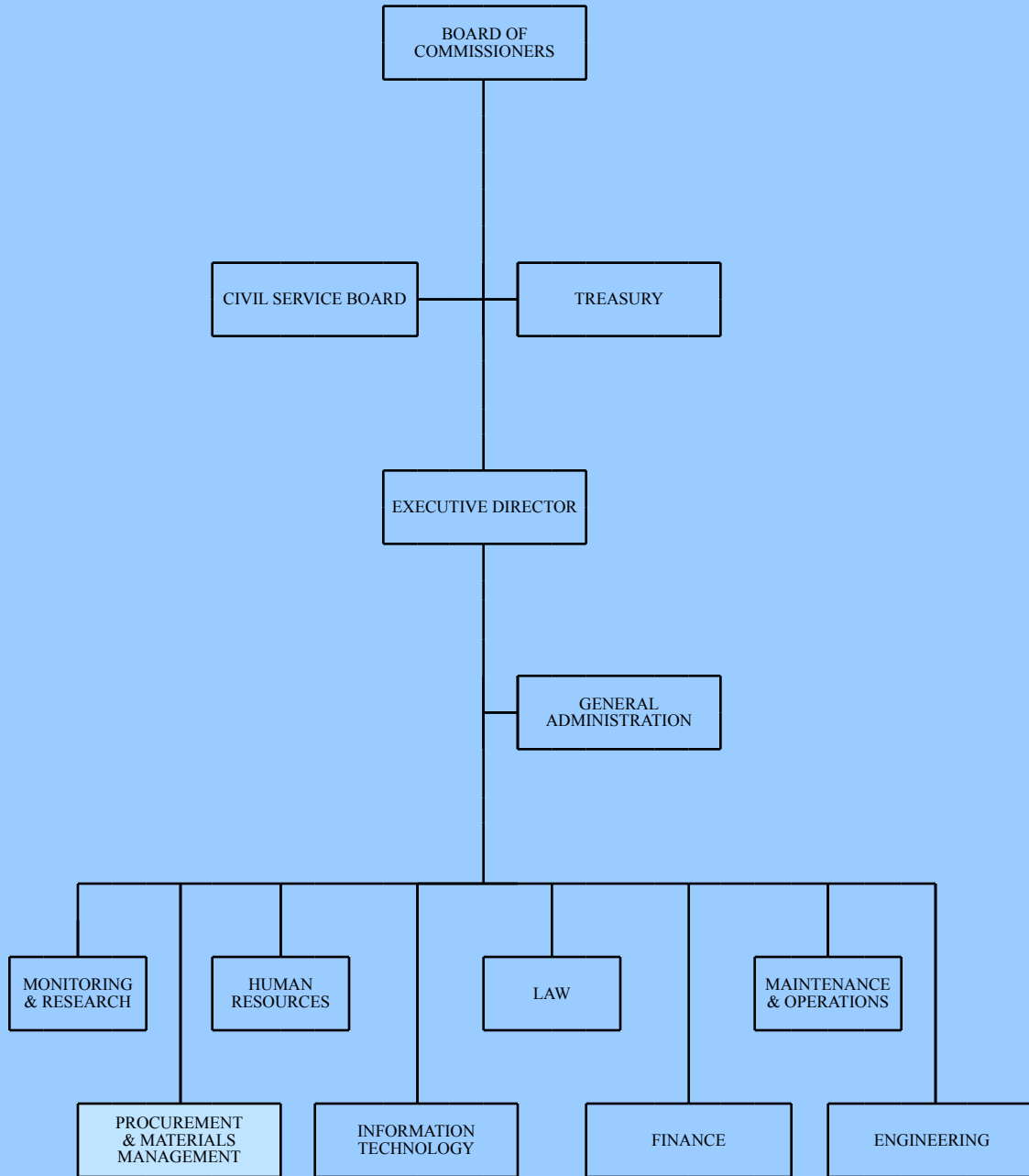
Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Environmental Chemist #1	1	1		—	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Laboratory Technician II	13	12		10	
HP09	Laboratory Assistant	1	1		2	
TOTAL	Industrial Waste Analytical Laboratory Section	24	25	2,116,039.97	22	1,894,793.51
<b>165</b>	<b>Organic Compounds Analytical Laboratory Section</b>					
HP18	Supervising Instrumentation Chemist	1	1		1	
HP17	Senior Instrumentation Chemist	2	2		2	
HP16	Instrumentation Chemist II #2 (Instrumentation Chemist) (New Grade HP15)	2	2		2	
HP15	Instrumentation Chemist	2	2		2	
HP13	Senior Laboratory Technician	1	1		1	
HP11	Laboratory Technician II	2	2		3	
TOTAL	Organic Compounds Analytical Laboratory Section	10	10	1,118,452.68	11	1,184,211.11
<b>166</b>	<b>Egan Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	2		2	
HP15	Environmental Chemist	3	4		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	6	6		7	
HP11	Laboratory Technician II #4	1	1		1	
HP10	Laboratory Technician I	1	1		—	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Egan Analytical Laboratory Section	20	22	1,868,973.95	19	1,562,844.00
<b>167</b>	<b>Calumet Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	1	2		2	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Environmental Chemist	4	4		3	
HP13	Senior Laboratory Technician	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Laboratory Technician II	7	7		8	
HP10	Laboratory Technician I #1	1	—		—	
HP09	Laboratory Assistant	2	2		2	
TOTAL	Calumet Analytical Laboratory Section	19	19	1,625,614.51	19	1,592,334.77
TOTAL	Analytical Laboratories Division	106	110	9,743,821.15	104	9,107,613.97
<b>190</b>	<b>Industrial Waste Division</b>					
<b>191</b>	<b>Industrial Waste Administrative Section</b>					
HP22	Assistant Director of Monitoring & Research	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Industrial Waste Administrative Section	2	2	301,142.29	2	307,165.00
<b>192</b>	<b>Technical Services Section</b>					
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	475,962.39	4	454,429.48
<b>193</b>	<b>Pretreatment &amp; Cost Recovery Section</b>					
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	7	7		7	
HP15	Associate Mechanical Engineer #2 (Associate Civil Engineer)	1	1		1	
HP15	Environmental Specialist	16	16		16	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		—	
HP11	Administrative Specialist	2	2		3	
HP09	Administrative Clerk	2	2		2	
TOTAL	Pretreatment & Cost Recovery Section	35	35	3,597,481.48	35	3,636,666.94

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>194</b>	<b>Field Services Section</b>					
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		1	
NR3642	Pollution Control Technician II	1	2		2	
NR3641	Pollution Control Technician I	21	21		21	
TOTAL	Field Services Section	59	60	5,519,055.38	60	5,528,040.43
TOTAL	Industrial Waste Division	99	101	9,893,641.54	101	9,926,301.85
TOTAL	Monitoring & Research	305	312	29,520,858.99	300	28,470,536.16

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.

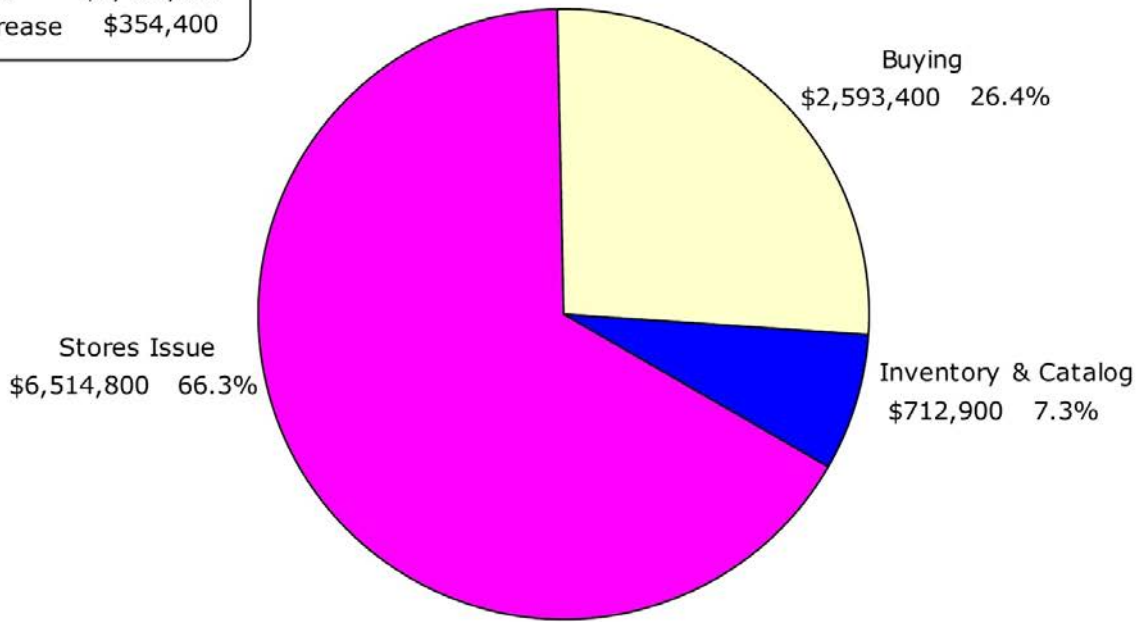
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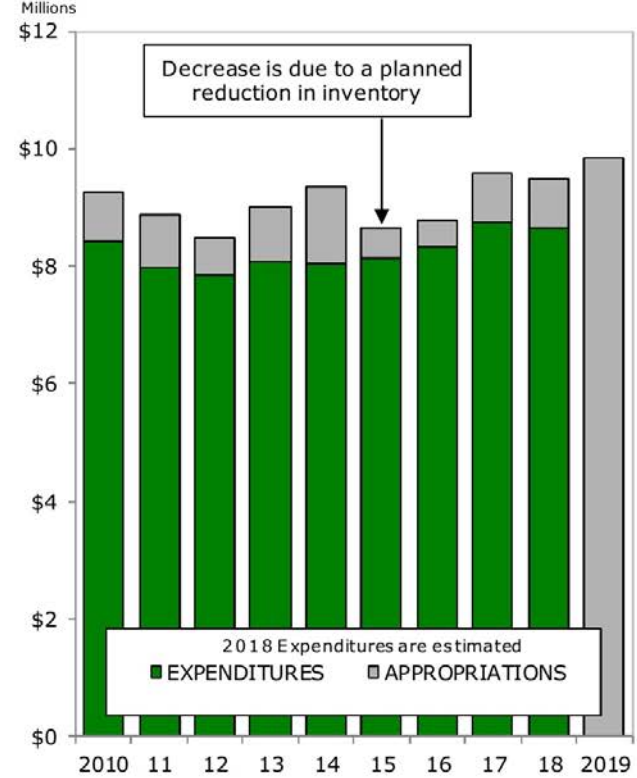
# PROCUREMENT & MATERIALS MANAGEMENT

2019	\$9,821,100
2018	\$9,466,700
Increase	\$354,400

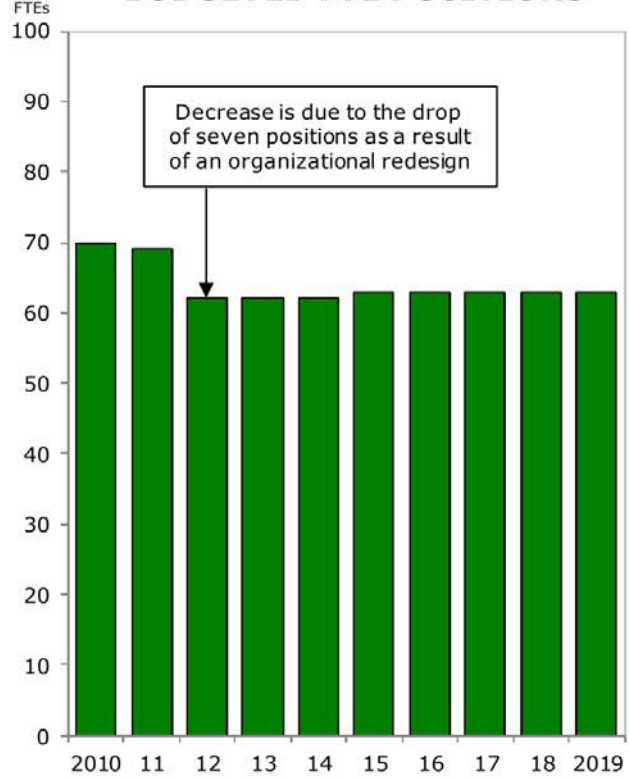
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

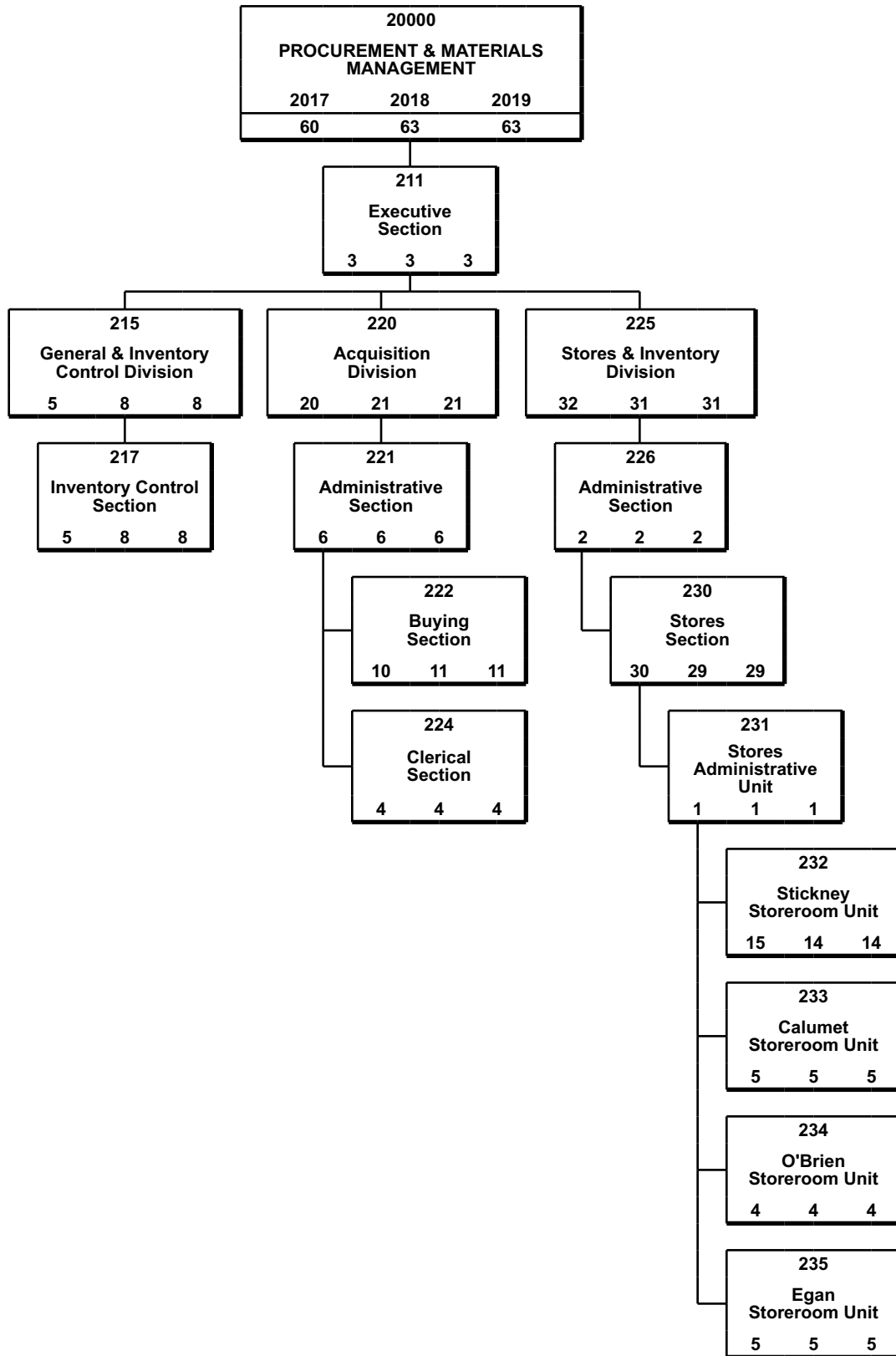


## BUDGETED FTE POSITIONS





# 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 2018 Accomplishments

- Enhanced the evaluation process to include other departments in the selection of engineering consultants and attorneys. In April 2018, a request for qualifications for attorneys was advertised to attract additional legal firms to be included in the vendor database. This allowed legal firms to be classified in specialized areas;
- Continued to purchase recyclable plastic pallets to replace wooden pallets in the storerooms. This is the third and final year of the planned replacement;
- Collaborated with the Maintenance & Operations Department (M&O) and sold electrical energy from Lockport in 2018, as a Pennsylvania-New Jersey-Maryland Interconnection (PJM) service provider on the wholesale market;
- Secured the electrical energy supply price for 2020 at \$0.02744 per kilowatt-hour (kWh), for a total unit price of \$0.02968 kWh, including a bandwidth of 100 percent;
- Reduced engineering spare parts inventory;
- Redesigned the oil room at the Stickney Water Reclamation Plant (WRP) storeroom with pallet flow racking to accommodate 55-gallon drums to ensure stock rotation and space utilization.

### Budget Highlights

The 2019 appropriation for P&MM is \$9,821,100, an increase of \$354,400, or 3.7 percent, from 2018. The staffing level remains unchanged at 63 positions.

Significant features of the 2019 Budget are:

- Implement improvements to the Fertilizer Building at the Stickney WRP to secure and store materials from outlying areas;
- Enhance the vendor online application process, including allowing vendors to update their profile information;
- Develop a request for qualifications for the Engineering Department, and search criteria for the vendor information database;
- Sell renewable energy credits as a PJM service provider on the wholesale market;
- Replace lighting in the Egan WRP storeroom with high-efficiency, light-emitting diode fixtures.

### 2019 Initiatives in Support of the Strategic Business Plan Include the Following:

#### • Add Value

In 2018, P&MM had an active role in the selection of engineering consultants and attorneys. In April 2018, a request for qualifications for attorneys was advertised to attract additional legal firms to be included in the vendor database. This initiative allowed legal firms to be classified in specialized areas for easier identification when a particular expertise is needed. In 2019, a request for qualifications for engineering consultant firms will be advertised to attract additional engineering firms to be included in the vendor database. This will include search criteria for the 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 2018, P&MM reviewed the data after seven months and found a decrease in turnaround time from 10.6 days in 2015 to 8.3 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 to adhere to project timeframes.

#### • Excellence

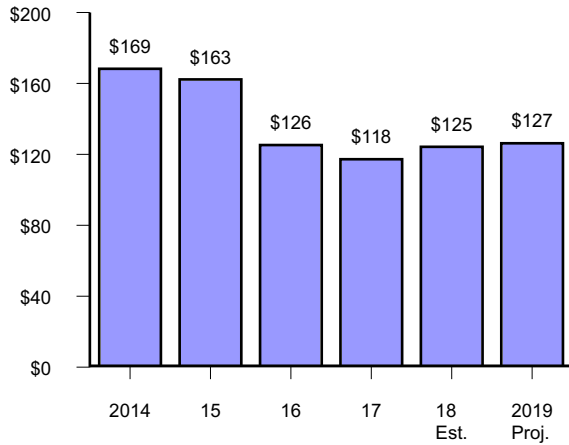
In 2018, the District secured the electrical energy supply price for 2020 at \$0.02744 per kWh for a total unit price of \$0.02968 per kWh, including a bandwidth of 100 percent. As a result of this one year extension, the District will realize a cost savings of

approximately \$1.1 million in 2020. By 2020, P&MM will be able to purchase electrical energy for the year 2021 on the open market as a PJM member which can assist efforts to obtain a price for electrical energy that is equal to or less than the 2020 price.

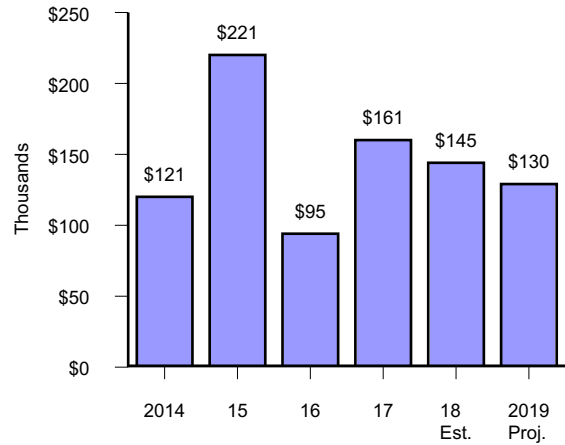
It is estimated that the value of engineering spare parts inventory will decrease by approximately \$1 million in 2019. P&MM is continuing to monitor levels of engineering parts for obsolescence and optimum reorder points.

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

**Cost to Prepare a Purchase Order**



**Sales of Surplus Goods**



– 2016 - Decrease is due to vacancies in Acquisition Division

– 2015 - Beginning in 2015, sales of vehicles were included in revenue totals  
 – 2016 - Decrease is due to fewer materials being identified as surplus  
 – 2018 - Decrease is due to a projected reduction of surplus materials

**• Resource Recovery**

In collaboration with M&O, the District has become a PJM service provider. In 2018, the District was able to market electrical energy generated from the Lockport Powerhouse. In 2019, the District will be allowed to purchase electrical energy for 2021, and sell Renewable Energy Credits on the wholesale market.

**• Develop Employees**

The development of employees is important to P&MM. We continue to develop and implement leadership initiatives that support succession planning.

**• Technology**

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

P&MM will also be working with the Information Technology Department to enhance the vendor portal to allow vendors to update information in their vendor profile. This enhancement will ensure that vendor information is current and accurate.

As always, P&MM is committed to supporting the District’s 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 \$257.2 million. The estimated number of contracts and purchase orders is 150 and 5,500, 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.	\$ 2,593,400	26.4%
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 68,000 items.	\$ 6,514,800	66.3%
3. Support the material and supply requirements of the District by planning, monitoring, cataloging, and controlling \$33,400,000 of inventory consisting of 68,000 items.	\$ 712,900	7.3%
<b>Totals</b>	<b>\$ 9,821,100</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017 Actual	2018 Estimated	2019 Proposed
1. Process all requisitions and issue the related purchase orders within 25 days.			
Percent of Purchase Orders Processed within 25 days	79%	92%	92%
Percent of Purchase Orders Processed within 10 days	55%	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 Number of Inventory Items	67,235	65,100	68,000
Total Stock-outs (Storeroom stock items only)	986	900	900
Stock Issues (Number of Stock Documents)	16,112	16,400	16,200
Total Quantity SKUs (Individual Items) Issued	1,171,161	1,255,000	1,120,000
Multi-Issues of Like Items	37,396	38,000	37,500
Total Stock Transports and Two-Steps	27,758	27,000	26,000
Percent of Stock-outs (Maintain a level below three percent)	2.6%	2.4%	2.4%
3. Achieve inventory accuracy of 98 percent of operating supplies.			
Total Cycle Counts (Periodic physical inventory)	75,817	76,000	78,000
Total Errors	538	475	450
Percent Accuracy	99.3%	99.4%	99.4%
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	3.5%	6.0%	6.0%
Women-owned Business Enterprises Solicited	4.5%	6.0%	6.0%
Small Business Enterprises Solicited	0.1%	1.0%	1.0%
Total Percent Solicited	8.1%	13.0%	13.0%

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ 40,076	2019	1	\$ 127,100	\$ 6,100	5.0
			2018	1	\$ 121,000		
7260	Buying Procedures	\$ 2,109,249	2019	23	\$ 2,466,300	\$ (19,000)	(0.8)
			2018	23	\$ 2,485,300		
7270	Inventory and Cataloging	\$ 772,525	2019	8	\$ 712,900	\$ 20,300	2.9
			2018	8	\$ 692,600		
7280	Stores Operation and Issue	\$ 5,732,979	2019	31	\$ 6,430,700	\$ 343,600	5.6
			2018	31	\$ 6,087,100		
7604	Social Security and Medicare Contributions	\$ 72,353	2019	—	\$ 84,100	\$ 3,400	4.2
			2018	—	\$ 80,700		
Totals		\$ 8,727,182	2019	63	\$ 9,821,100	\$ 354,400	3.7%
			2018	63	\$ 9,466,700		

a) Increase is due to the purchase of cantilever racking (\$117,000), a multi-directional forklift (\$82,000), bar-coding equipment (\$70,000), a higher demand for wearing apparel (\$29,800), and a greater need to replenish tools and supplies (\$27,000).

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017			2018			2019		
			Actual	Budgeted	Estimated	Actual	Budgeted	Estimated	Actual	Budgeted	Estimated
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ 40,076	\$ 121,000	\$ 127,100						
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	5,552	5,000	5,500						
		Cost	\$ 476,675	\$ 482,300	\$ 487,600						
		Cost/Purchase Order	\$ 85.86	\$ 96.46	\$ 88.65						
7262	Process Requisition Requirements into Inquiries for Competitive Purchases	Requisitions	8,828	7,500	8,000						
		Cost	\$ 217,096	\$ 252,300	\$ 249,500						
		Cost/Requisition	\$ 24.59	\$ 33.64	\$ 31.19						
7263	Purchase all Labor, Materials, Services, and Equipment through Formal Contracts	Contracts Advertised	152	150	150						
		Cost	\$ 860,586	\$ 989,300	\$ 991,100						
		Cost/Contract	\$ 5,661.75	\$ 6,595.33	\$ 6,607.33						
7264	Prepare, Receive, and Evaluate Quotations from Various Suppliers	Inquiries	36,325	34,000	35,000						
		Cost	\$ 276,997	\$ 260,800	\$ 265,500						
		Cost/Inquiry	\$ 7.63	\$ 7.67	\$ 7.59						
7265	Advertise, Evaluate Bids, and Award the Sale of Obsolete Inventory, Scrap, Surplus Materials, and Document Fees	Revenue	\$ 160,581	\$ 71,000	\$ 130,000						
		Cost	\$ 13,832	\$ 105,000	\$ 109,100						
		Cost/\$1,000 Revenue	\$ 86.14	\$ 1,478.87	\$ 839.23						
7269	Buying Procedures - All Other (General)	Cost	\$ 264,063	\$ 395,600	\$ 363,500						
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	\$ 34,775,347	\$ 33,400,000	\$ 33,400,000						
		Cost	\$ 171,631	\$ 176,900	\$ 181,100						
		Cost/Million	\$ 4,935.42	\$ 5,296.41	\$ 5,422.16						
7272	Cycle Counting and Transaction File Maintenance to Ensure Optimum Levels of Inventory and Accountability of District Stock	Inventory	\$ 34,775,347	\$ 33,400,000	\$ 33,400,000						
		Cost	\$ 299,668	\$ 352,000	\$ 361,400						
		Cost/Million	\$ 8,617.25	\$ 10,538.92	\$ 10,820.36						
7273	Requirement Planning, Controlling, Monitoring, and Analyzing Commodity Index Coded Items in an Optimum and Economic Manner	Cost	\$ 162,941	\$ 137,800	\$ 143,700						
7279	Inventory and Cataloging - All Other (General)	Cost	\$ 138,285	\$ 25,900	\$ 26,700						

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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, Total Stock Transports, Two-Steps, and Miscellaneous Purchases in Accordance with Established Policies and Rules	Requisitions	6,570	6,700	6,700	
		Cost	\$ 285,205	\$ 467,800	\$ 484,400	
		Cost/Requisition	\$ 43.41	\$ 69.82	\$ 72.30	
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	19,306	14,500	20,000	
		Cost	\$ 756,497	\$ 660,400	\$ 682,100	
		Cost/Receipt	\$ 39.18	\$ 45.54	\$ 34.11	
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	\$ 34,775,347	\$ 33,400,000	\$ 33,400,000	
		Cost	\$ 735,408	\$ 595,700	\$ 853,400	a)
		Cost/Million	\$ 21,147.40	\$ 17,835.33	\$ 25,550.90	
7285	Provide Controlled Disbursement of Stored Materials and Supplies to Requesting Departments	Issue Slips	16,112	16,000	16,200	
		Cost	\$ 633,294	\$ 624,600	\$ 646,000	
		Cost/Issue Slip	\$ 39.31	\$ 39.04	\$ 39.88	
7286	Stores Operation and Issue - All Other (General)	Cost	\$ 82,603	\$ 293,800	\$ 355,600	b)
7289	Inventory Purchases	Cost	\$ 3,239,972	\$ 3,444,800	\$ 3,409,200	
7604	Social Security and Medicare Contributions	Cost	\$ 72,353	\$ 80,700	\$ 84,100	
		Totals	\$ 8,727,182	\$ 9,466,700	\$ 9,821,100	
<p>a) Increase is due to the purchase of cantilever racking (\$117,000), a multi-directional forklift (\$82,000), and a standard forklift (\$35,200).</p> <p>b) Increase is due to the purchase of bar-coding equipment (\$55,000) and professional services for the bar-coding project (\$15,000).</p>						

101 20000	Fund: Corporate Department: Procurement & Materials Management	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,118,659	\$ 5,590,700	\$ 5,590,700	\$ 5,249,400	\$ 5,686,900	\$ 5,686,900	\$ 5,714,700
601060	Compensation Plan Adjustments	62,538	123,900	123,900	76,800	74,600	74,600	80,600
601070	Social Security and Medicare Contributions	72,353	80,700	80,700	74,800	82,900	82,900	84,100
601100	Tuition and Training Payments	596	1,600	1,600	1,200	600	600	600
100	TOTAL PERSONAL SERVICES	5,254,146	5,796,900	5,796,900	5,402,200	5,845,000	5,845,000	5,880,000
612010	Travel	—	1,500	1,500	600	1,500	1,500	1,500
612030	Meals and Lodging	245	2,000	1,500	900	800	800	800
612050	Compensation for Personally-Owned Automobiles	1,146	1,900	1,900	900	1,100	1,100	1,100
612360	Advertising	82,243	111,000	108,000	83,900	120,000	120,000	120,000
612430	Payments for Professional Services	—	—	—	—	15,000	15,000	15,000
612490	Contractual Services, N.O.C.	—	—	500	500	—	—	—
612680	Repairs to Buildings	3,424	6,500	6,500	5,600	8,400	8,400	8,400
612800	Repairs to Office Furniture and Equipment	1,621	1,200	1,700	1,600	1,600	1,600	1,600
612840	Communications Equipment Maintenance (Includes Software)	—	—	500	—	—	—	—
612860	Repairs to Vehicle Equipment	8,983	7,700	9,700	9,300	7,100	7,100	7,100
200	TOTAL CONTRACTUAL SERVICES	97,662	131,800	131,800	103,300	155,500	155,500	155,500
623030	Metals	122,624	103,700	96,700	79,400	104,300	104,300	104,300
623070	Electrical Parts and Supplies	300,921	313,300	283,300	252,500	303,100	303,100	303,100
623090	Plumbing Accessories and Supplies	305,075	342,600	342,600	327,700	342,500	342,500	342,500
623110	Hardware	78,287	79,800	79,800	76,400	79,800	79,800	79,800
623130	Buildings, Grounds, Paving Materials, and Supplies	303,267	456,500	413,300	329,300	356,500	356,500	356,500
623170	Fiber, Paper, and Insulation Materials	46,410	42,200	42,200	42,000	42,700	42,700	42,700
623190	Paints, Solvents, and Related Materials	51,131	51,300	51,300	48,800	51,300	51,300	51,300
623250	Vehicle Parts and Supplies	9,376	10,500	12,500	11,900	10,400	10,400	10,400
623270	Mechanical Repair Parts	195,315	237,500	237,500	218,200	237,500	237,500	237,500
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	14,457	11,100	12,600	12,100	15,000	15,000	15,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	620,673	607,700	677,700	660,000	625,000	625,000	625,000
623660	Cleaning Supplies	293,194	263,300	263,300	256,100	265,900	265,900	265,900
623680	Tools and Supplies	98,540	73,000	78,000	77,900	100,000	100,000	100,000



101 20000	Fund: Corporate Department: Procurement & Materials Management	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623700	Wearing Apparel	172,487	145,200	145,200	144,300	175,000	175,000	175,000
623780	Safety and Medical Supplies	88,223	100,000	100,000	67,700	71,300	71,300	71,300
623810	Computer Supplies	66,910	48,000	48,000	46,700	40,000	40,000	40,000
623820	Fuel	181,152	265,900	265,900	217,900	285,000	285,000	285,000
623840	Gases	75,779	70,100	70,100	60,700	85,100	85,100	85,100
623850	Communications Supplies	7,755	8,100	8,100	5,000	7,400	7,400	7,400
623860	Lubricants	227,260	226,100	226,100	157,100	226,400	226,400	226,400
623990	Materials and Supplies, N.O.C.	116,537	52,100	52,100	41,800	72,200	72,200	72,200
300	TOTAL MATERIALS AND SUPPLIES	3,375,374	3,508,000	3,506,300	3,133,500	3,496,400	3,496,400	3,496,400
634650	Equipment for Process Facilities	—	30,000	19,800	5,000	—	—	—
634760	Material Handling and Farming Equipment	—	—	11,900	11,700	117,200	117,200	117,200
634810	Computer Equipment	—	—	—	—	55,000	55,000	55,000
400	TOTAL MACHINERY AND EQUIPMENT	—	30,000	31,700	16,700	172,200	172,200	172,200
645680	Buildings	—	—	—	—	117,000	117,000	117,000
500	TOTAL CAPITAL PROJECTS	—	—	—	—	117,000	117,000	117,000
TOTAL PROCUREMENT & MATERIALS MANAGEMENT		\$ 8,727,182	\$ 9,466,700	\$ 9,466,700	\$ 8,655,700	\$ 9,786,100	\$ 9,786,100	\$ 9,821,100

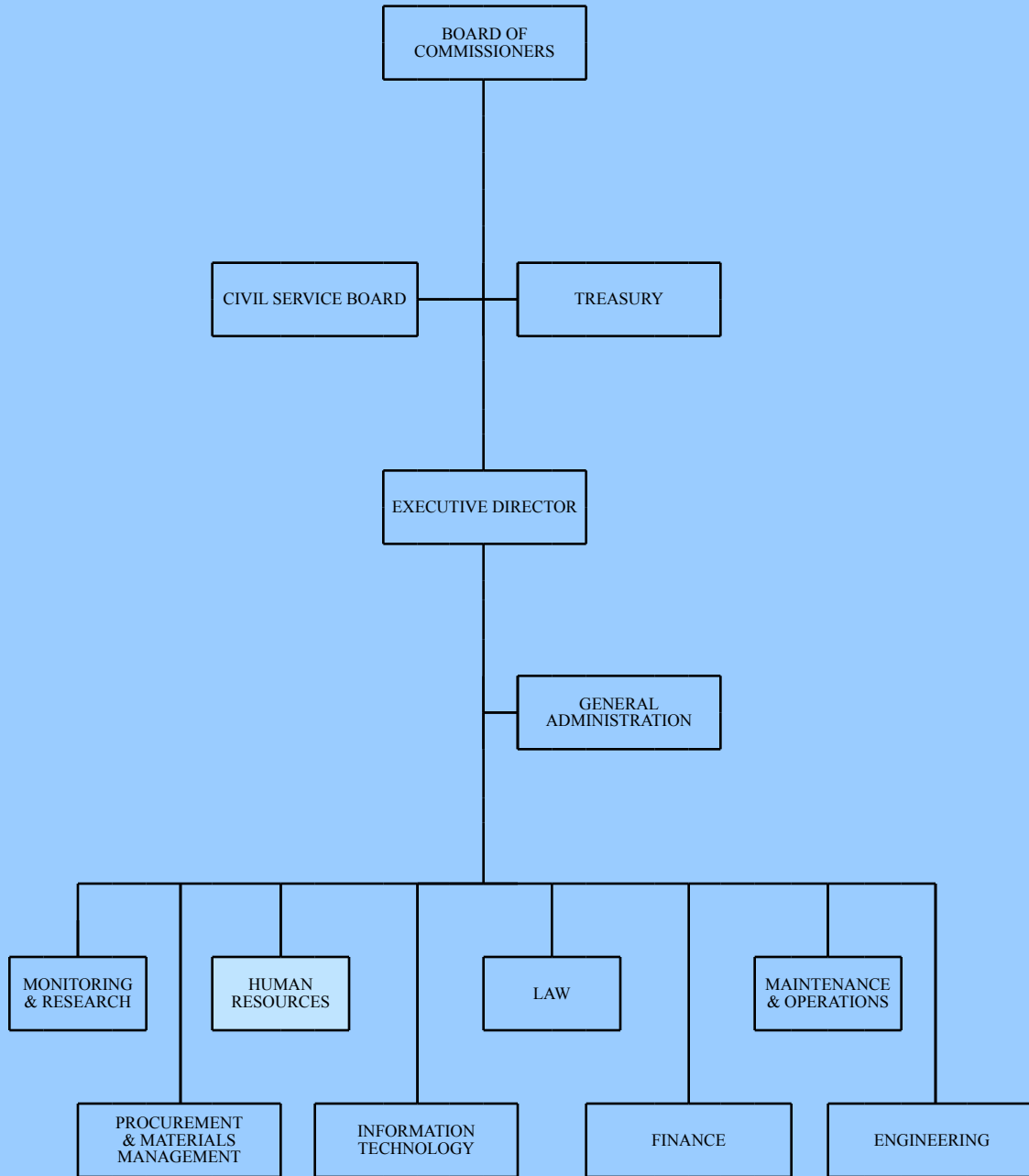
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may exceed Adjusted Appropriation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

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>211</b>	<b>Executive Section</b>					
EX08	Director of Procurement & Materials Management	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL	Executive Section	3	3	442,079.12	3	450,920.63
<b>215</b>	<b>General &amp; Inventory Control Division</b>					
<b>217</b>	<b>Inventory Control Section</b>					
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	3	5		5	
HP09	Administrative Clerk	—	1		1	
TOTAL	Inventory Control Section	5	8	658,811.94	8	670,447.62
TOTAL	General & Inventory Control Division	5	8	658,811.94	8	670,447.62
<b>220</b>	<b>Acquisition Division</b>					
<b>221</b>	<b>Administrative Section</b>					
HP20	Assistant Director of Procurement & Materials Management	1	1		1	
HP14	Budget & Management Analyst	1	1		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	586,022.80	6	593,620.25
<b>222</b>	<b>Buying Section</b>					
HP18	Head Buyer	2	2		2	
HP17	Buyer III #2 (Senior Buyer) (New Grade HP16)	1	—		—	
HP16	Senior Buyer	4	5		5	
HP14	Buyer	3	4		4	
TOTAL	Buying Section	10	11	1,180,469.40	11	1,166,625.63
<b>224</b>	<b>Clerical Section</b>					
HP11	Administrative Specialist	2	2		2	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2017	2018		2019	
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	209,248.37	4	222,853.40
TOTAL	Acquisition Division	20	21	1,975,740.57	21	1,983,099.28
<b>225</b>	<b>Stores &amp; Inventory Division</b>					
<b>226</b>	<b>Administrative Section</b>					
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	274,289.72	2	284,950.52
<b>230</b>	<b>Stores Section</b>					
<b>231</b>	<b>Stores Administrative Unit</b>					
HP17	Supervising Stores Specialist #2 (New Grade HP16)	1	1		1	
TOTAL	Stores Administrative Unit	1	1	129,958.60	1	132,557.84
<b>232</b>	<b>Stickney Storeroom Unit</b>					
HP11	Administrative Specialist	1	1		1	
HP09	Administrative Clerk	2	1		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	14	1,103,873.78	14	1,145,826.79
<b>233</b>	<b>Calumet Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	2	2		2	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Calumet Storeroom Unit	5	5	369,153.44	5	385,756.16
<b>234</b>	<b>O'Brien Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	1	1		1	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	O'Brien Storeroom Unit	4	4	290,554.28	4	303,919.92
<b>235</b>	<b>Egan Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	
NR1853	Storekeeper	2	2		2	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Egan Storeroom Unit	5	5	374,152.73	5	385,756.16
TOTAL	Stores Section	30	29	2,267,692.83	29	2,353,816.87
TOTAL	Stores & Inventory Division	32	31	2,541,982.55	31	2,638,767.39
TOTAL	Procurement & Materials Management	60	63	5,618,614.18	63	5,743,234.92
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.						

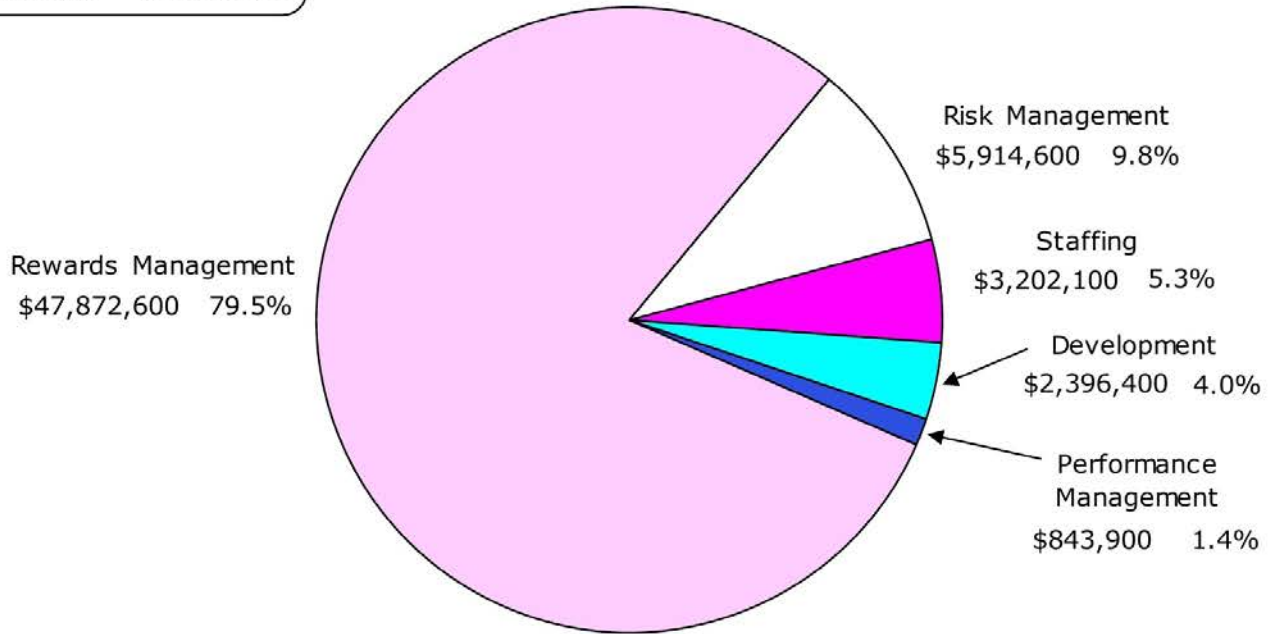
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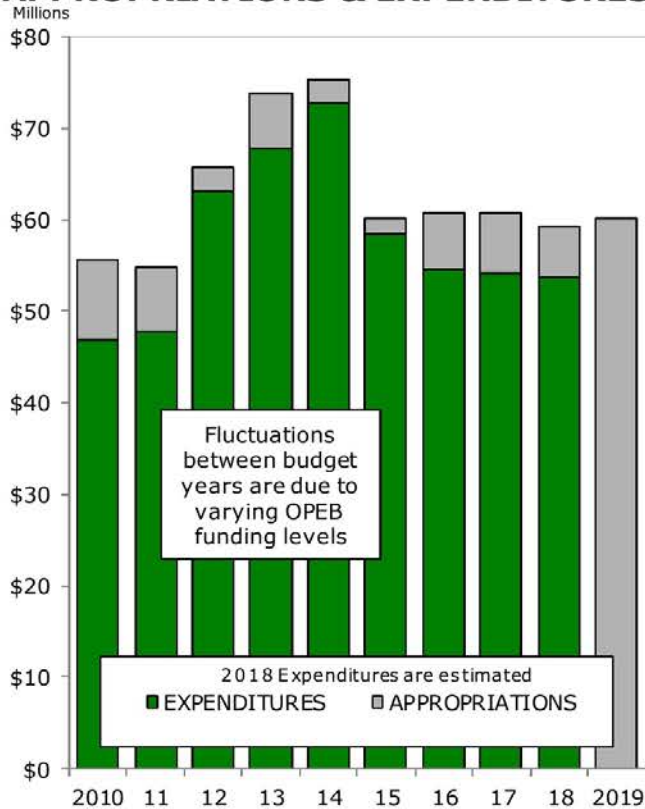
# HUMAN RESOURCES

2019	\$60,229,600
2018	\$59,226,400
Increase	\$1,003,200

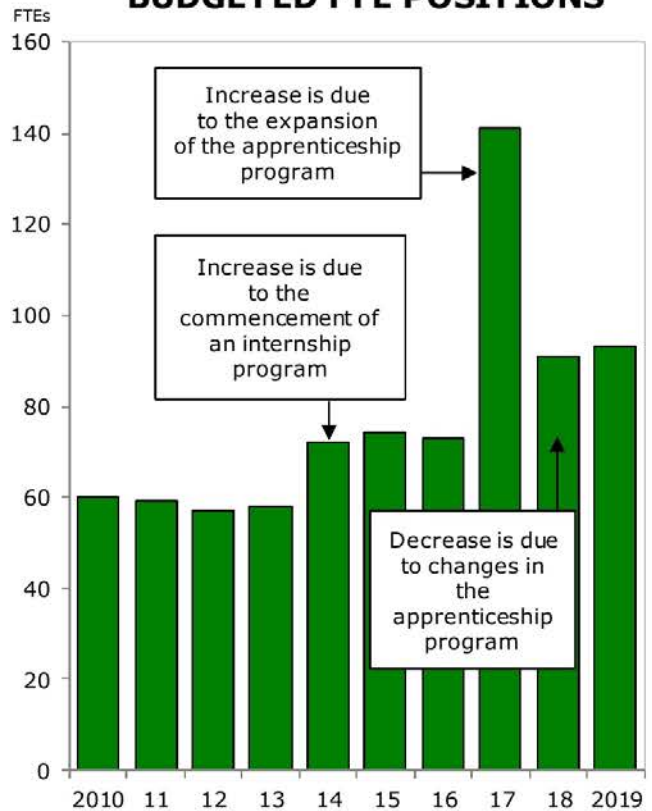
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# HUMAN RESOURCES

25000		
HUMAN RESOURCES		
2017	2018	2019
71	91	93

252		
Executive Unit		
7	7	7

254		
Employee Selection Section		
14	14	14

255		
Employee Development Section		
19	39	39

256		
Classification, Compensation, & Benefits Section		
8	8	9

257		
Risk Management Section (1)		
0	0	4

258		
Employee Relations Section		
8	8	8

259		
Safety Section (1) (2)		
15	15	12

- (1) Effective 01/01/19, four positions from Section 259 were transferred to Section 257.
- (2) Effective 01/01/19, Section 259 was retitled from Risk Management Section to Safety Section.



## 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;
- Safety: develop and supervise the safety guidelines and procedures, provide safety training, and make recommendations to provide a safe working environment for employees and others on District property.

### Summary of 2018 Accomplishments

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

- Staff made a presentation at the Utility Management Conference on exercising the District's Emergency Operations Plan;
- The Emergency Operations Plan, Business Continuity Plan, and Critical Operational Guidance documents for the Maintenance & Operations Department mission-essential functions were updated. Training was conducted for plant-level business continuity staff.

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 positively impact both frequency and severity of employee injuries. Area-specific online dashboards continued to provide access to key workers' compensation claims information at all times;
- Safety staff conducted approximately 1,300 Occupational Safety and Health Administration (OSHA) focused training sessions, with approximately 10,000 attendees, including OSHA 10 classes for 54 field-level engineering personnel, as well as plant-level hands-on training for the revised and enhanced Lockout/Tagout program to safeguard employees from the unexpected startup of machinery and equipment.

Developed and implemented leadership initiatives that support succession planning:

- A leaders coaching leaders program was developed and delivered to approximately 70 District supervisors;
- Twelve employees were offered leadership training through an emerging leaders program, water and wastewater leadership program, and executive coaching;
- Twenty engineering employees participated in mentoring activities.

Developed a culture that recognized the value of every employee:

- All employees received mandatory refresher compliance training for ethics in the workplace;
- Over 5,000 individuals, including employees and the public, were served by Employee Selection staff through the recruitment and selection process;
- An ongoing training program was provided to new hires in specific job classifications, providing job readiness skills and an introduction to District core values and ethics;
- A Parental Leave Policy was adopted for employees to allow paid time-off benefits for the birth or adoption of a child.

Other major accomplishments include:

- The internship program continued to provide meaningful projects and educational training experiences for students interested in wastewater management and District operations;
- Civil Service examinations were administered for 42 classifications.

### Budget Highlights

The 2019 appropriation for the Human Resources Department is \$60,229,600, an increase of \$1,003,200, or 1.7 percent, from 2018. The staffing level has increased from 91 to 93 positions, which includes the addition of one Human Resources Manager and one Safety Manager. The number of employees budgeted in the Human Resources Department includes 13 Apprentices, 20 full-time equivalent Interns, and three Civil Service Board members. In 2018, the Human Resources Department conducted a review of all major contracts and reclassified several to other categories within program numbers. This reclassification more accurately categorizes each activity by function.

**2019 Initiatives in Support of the Strategic Business Plan Include the Following:**

**• Add Value**

In 2019, 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.

The Safety Section will continue to focus on safe work procedures, a safe work environment, preventive health measures, life safety protection, accident prevention and investigations, and recordkeeping. Increased emphasis will be placed on compliance tracking and targeting programs to address the District’s key cost drivers. The emphasis will be on walking and working surfaces in order to reduce slip and fall accidents. Additionally, back safety classes will continue to take place in 2019 in an effort to reduce back injuries and improve body mechanics. Safety staff will work 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 45 examinations in 2019. All employment applications are submitted and received online.

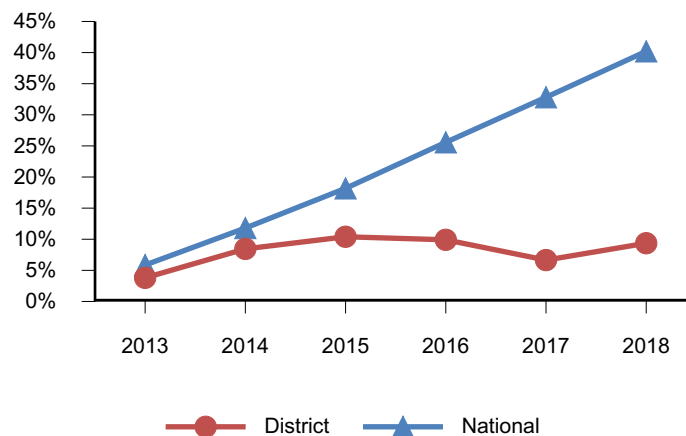
**• Excellence**

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 1,990 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 \$49 million. While these costs are partially offset by employee and retiree contributions, they must be actively managed. The District continues to implement programs and plan design elements 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 spending. From 2013 through 2018, the national trend has been an average annual increase of 6.91 percent in health care costs resulting in a total increase of 40.20 percent during this period. The District’s health care trend over that same period has been 1.56 percent annually or a total of 9.36 percent.

**Health Care Cost Trend  
(Compounded)**



In 2019, the District will introduce a new employee benefits software platform. This platform will provide a robust employee portal with consumerism tools such as cost calculators and educational videos to help employees select the most appropriate health plan, better navigate their insurance benefits and be more educated consumers of health care. The platform will also include a robust communication module to assist the District in keeping employees informed about the benefits plans and changes in the health care market overall. These consumer tools can play a key role in helping employees be more conscious of their health care needs, which can 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**

	<b>Tuition Reimbursement *</b>	<b>In-House Training</b>	<b>eLearning Courses Accessed</b>
2016	53	3,854	6,219
2017	53	3,977	4,912
Estimated 2018	55	2,700	6,400
Projected 2019	55	3,800	6,400

\*Number of participants who were reimbursed

To ensure the ongoing professional development of all District employees in 2019, the Human Resources Department will continue to offer eLearning classes in business, financial management, and information technology, 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 September 30, 2018, was 42 percent, which compares favorably with the Cook County minority labor force availability rate of 36 percent. The District’s female workforce representation, as of September 30, 2018, was 25 percent, compared to the Cook County female labor force availability rate of 41 percent, when adjusted for District-specific occupations.

<b>Percentage of District Employees Who Are Minorities or Females</b>							<b>2000 Census External Availability</b>	<b>2010 Census External Availability</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019 Proj.</b>		
Minorities	40%	40%	41%	41%	42%	42%	33%	36%
Females	26%	26%	26%	26%	25%	26%	25%	41%

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 2019, 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 2019. 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 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.

The Employee Relations Section worked with the Information Technology Department to develop an electronic transfer program for represented employees. It is planned to fully implement this process in 2019. The benefit of this program will be to reduce the use of paper and to increase the speed, transparency and accuracy of the transfer process.

**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Review employment applications and develop and administer 45 examinations to meet Civil Service requirements and current operational needs. Oversee the certification process to fill positions. Develop and maintain a targeted advertising program necessary to establish recruitment resources, administer college and campus recruitment activities, and administer diversity outreach activities.	\$ 1,823,300	3.0%
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.	\$ 5,914,600	9.8%
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. Maintain 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.	\$ 29,445,900	48.9%
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.	\$ 843,900	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.	\$ 18,426,700	30.6%
6. Implement the District's equal employment opportunity and affirmative action objectives through targeted recruitment, counseling, and complaint investigation.	\$ 389,500	0.7%
7. Provide the necessary administrative support to the District and Human Resources Department sections by maintaining centralized files; 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.	\$ 989,300	1.6%
8. Provide educational opportunities for employees through professional development, technical training, and tuition reimbursement.	\$ 2,396,400	4.0%
<b>Totals</b>	<b>\$ 60,229,600</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017	2018	2019
	Actual	Estimated	Proposed
1. Minimize the number of days between an original entrance appointment and the start date for the new employee.	32	35	32
2. Reduce the number of workers' compensation claims per 100 employees.	5.44	6.26	6.00
3. Reduce the number of lost time claims per 100 employees.	1.22	2.44	2.00

**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
7290	Examinations and Employment Activities	\$ 1,816,624	2019	13	\$ 1,823,300	\$ 104,400	6.1
			2018	13	\$ 1,718,900		
7295	Equal Employment Opportunity Activities	\$ 352,383	2019	3	\$ 389,500	\$ 36,000	10.2
			2018	3	\$ 353,500		
7310	Training and Development Activities	\$ 1,522,783	2019	39	\$ 2,396,400	\$ (35,000)	(1.4)
			2018	39	\$ 2,431,400		
7315	Retiree Benefits	\$13,364,690	2019	1	\$ 13,426,700	\$ (192,700)	(1.4) a)
			2018	1	\$ 13,619,400		
7316	Other Postemployment Benefits Trust Management and Report Preparation	\$ 5,000,000	2019	—	\$ 5,000,000	\$ —	—
			2018	—	\$ 5,000,000		
7320	Employee Benefits	\$25,184,945	2019	4	\$29,305,600	\$ 744,600	2.6 b)
			2018	4	\$28,561,000		
7325	Labor and Employee Relations	\$ 756,485	2019	7	\$ 843,900	\$ 5,300	0.6
			2018	7	\$ 838,600		
7330	Human Resources Administration	\$ 847,617	2019	10	\$ 989,300	\$ 41,300	4.4
			2018	9	\$ 948,000		
7480	Safety Program	\$ 1,206,205	2019	12	\$ 1,627,200	\$ 99,000	6.5
			2018	11	\$ 1,528,200		
7500	Risk Management Operations	\$ 4,005,782	2019	4	\$ 4,287,400	\$ 193,600	4.7 c)
			2018	4	\$ 4,093,800		
7604	Social Security and Medicare Contributions	\$ 114,787	2019	—	\$ 140,300	\$ 6,700	5.0
			2018	—	\$ 133,600		
Totals		\$54,172,301	2019	93	\$ 60,229,600	\$ 1,003,200	1.7%
			2018	91	\$ 59,226,400		

a) Decrease is due to the suspension of an Affordable Care Act fee for 2019 (\$1,112,600) and a reduction in insurance premiums for retirees (\$255,700), offset by an anticipated increase in the cost of retiree pharmacy benefits (\$804,900) and the Medicare Advantage Plan (\$352,900).

b) Increase is due to the projected growth in health insurance premiums for active employee PPO (\$1,900,500) and HMO (\$171,800), offset by an anticipated reduction in the cost of active employee pharmacy benefits (\$1,344,900).

c) Increase is due to an anticipated increase in the cost of premiums for property (\$94,800) and casualty (\$80,000) insurance.

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7290	Examinations and Employment Activities					
		Candidates	2,229	2,900	2,100	a)
		Examinations	61	50	45	
		Applications	4,272	6,500	3,500	a)
		Requisitions	290	275	280	
		Cost	\$ 1,699,889	\$ 1,599,067	\$ 1,823,300	b)
	Recruitment and Marketing Activities					
	Diversity/Outreach Recruitment	Cost	\$ 59,045	\$ 62,324	\$ —	c)
	Campus Recruitment	Cost	\$ 57,690	\$ 57,509	\$ —	c)
7295	Equal Employment Opportunity Activities					
	Provide Counseling and Investigate Complaints	Actions	1,000	1,000	1,000	
		Cost	\$ 352,383	\$ 353,500	\$ 389,500	
		Cost/Action	\$ 352.38	\$ 353.50	\$ 389.50	
7310	Training and Development Activities					
	In-House Training and Professional Development	Courses	3,977	2,300	—	d)
		Cost	\$ 837,031	\$ 799,037	\$ —	
		Cost/Course	\$ 210.47	\$ 347.41	\$ —	
	Seminars and Conferences	Cost	\$ 3,770	\$ 10,100	\$ —	
	eLearning	Courses	4,912	6,400	—	
		Cost	\$ —	\$ 25,000	\$ —	
		Cost/Course	\$ —	\$ 3.91	\$ —	
	Training and Professional Development	Training Courses	—	—	3,800	
		eLearning Courses	—	—	6,400	
		Cost	\$ —	\$ —	\$ 967,700	d)
	Apprenticeship Program	Cost	\$ —	\$ 777,363	\$ 770,000	
	Administer and Finance the Tuition Reimbursement Program for the Entire District	Participants	53	50	55	
		Cost	\$ 322,732	\$ 314,000	\$ 298,700	
		Cost/Participant	\$ 6,089.28	\$ 6,280.00	\$ 5,430.91	
	Internship Program	Cost	\$ 359,250	\$ 505,900	\$ 360,000	e)

a) Decrease is due to a declining trend in employment applicants due to low unemployment rates and fewer large scale exams planned for 2019.

b) Increase is due to the consolidation of Recruitment and Marketing Activities with the Examinations and Employment Activities (\$119,800), and the addition of a Human Resources Manager (\$97,300).

c) Starting with Budget Year 2019, Recruitment and Marketing Activities were consolidated with Examinations and Employment Activities (\$119,800).

d) Starting with Budget Year 2019, In-house Training and Professional Development, Seminars and Conferences, and eLearning are consolidated and renamed Training and Professional Development. The 2019 cost includes the addition of live instructor-led Harassment Awareness training (\$100,000).

e) Decrease is due to a change in the number of budgeted Interns and improved estimates of hours worked based on historical data (\$145,900).

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7315	Retiree Benefits					
	Health Insurance - Corporate Fund Retirees	Retirees	1,973	1,970	1,975	
		Cost	\$ 8,660,473	\$ 9,758,600	\$ 8,761,000	f)
		Cost/Retiree	\$ 4,389.49	\$ 4,953.60	\$ 4,435.95	
	Prescription Drug Retirees	Participants	1,973	1,970	1,975	
		Cost	\$ 4,704,217	\$ 3,860,800	\$ 4,665,700	g)
		Cost/Participant	\$ 2,384.30	\$ 1,959.80	\$ 2,362.38	g)
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) <sup>1</sup>	Participants	1,684	1,708	1,706	
		Cost	\$ 19,962,506	\$ 20,973,200	\$ 22,618,700	h)
		Cost/Participant	\$ 11,854.22	\$ 12,279.39	\$ 13,258.32	
	Prescription Drugs - Corporate Fund Employees <sup>1</sup>	Participants	1,684	1,708	1,706	
		Cost	\$ 3,753,215	\$ 5,806,900	\$ 4,462,000	i)
		Cost/Participant	\$ 2,228.75	\$ 3,399.82	\$ 2,615.47	i)
	Dental Insurance - Corporate Fund Employees <sup>1</sup>	Participants	1,673	1,702	1,700	
		Cost	\$ 1,143,026	\$ 1,428,900	\$ 1,351,500	
		Cost/Participant	\$ 683.22	\$ 839.54	\$ 795.00	
	Life Insurance - Corporate Fund Employees <sup>1</sup>	Employees	1,765	1,798	1,775	
		Cost	\$ 80,159	\$ 86,300	\$ 85,400	
		Cost/Employee	\$ 45.42	\$ 48.00	\$ 48.11	
	Deferred Compensation Administration	Cost	\$ 38,000	\$ 38,000	\$ 78,000	j)
	Other Benefits					
	Employee Assistance Program	Cost	\$ 51,082	\$ 42,000	\$ 42,000	
	Flexible Spending Accounts Program	Cost	\$ 36,957	\$ 42,000	\$ 43,000	
	Compensation and Classification Activities	Cost	\$ 120,000	\$ 143,700	\$ 625,000	k)

f) Decrease is due to the suspension of an Affordable Care Act fee for 2019 (\$1,112,600).

g) Increase is due to an anticipated increase in the cost of retiree pharmacy benefits (\$804,900).

h) Increase is due to the projected growth in health insurance premiums for active employee PPO (\$1,900,500) and HMO (\$171,800), offset by the reallocation of salaries from Health Insurance - Corporate Fund Employees to Compensation and Classification Activities (\$435,100) to better classify activities.

i) Decrease is due to an updated projection model based on the District's population for employee pharmacy benefits (\$1,344,900).

j) Increase is due to the cost of the request for proposal work for the Deferred Compensation Plan Consultant (\$40,000).

k) Increase is due to the reallocation of salaries from Health Insurance - Corporate Fund Employees to Compensation and Classification Activities (\$435,100) and higher severance payments due to expected retirements in 2019 (\$86,500), offset by the move of the Wellness Program (\$25,000) and Health & Welfare Consulting (\$22,500) from Compensation and Classification Activities to Health Insurance - Corporate Fund Employees to better classify activities.

<sup>1</sup> Additional funds are budgeted in the Stormwater Management Fund. The 2019 projections reflect the cost of medical, pharmacy, dental, life, and vision benefits for 27 employees transferred from the Corporate Fund to the Stormwater Management Fund in 2019 (\$292,962).



**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7325	Labor and Employee Relations					
	Labor and Employee Relations Activities	Employees Served	1,949	1,966	1,967	
		Cost	\$ 602,966	\$ 677,266	\$ 649,700	l)
	Compliance with Unemployment Compensation Requirements	Claims	12	15	15	
		Cost	\$ 21,969	\$ 59,014	\$ 60,000	
		Cost/Claim	\$ 1,830.75	\$ 3,934.27	\$ 4,000.00	
	Employee Performance Management	Cost	131,550	102,320	134,200	l)
7330	Human Resources Administration					
	Personnel Activity Administration	Employees Served	1,949	1,966	1,967	
		Cost	\$ 691,589	\$ 791,376	\$ 763,700	
		Cost/Employee	\$ 354.84	\$ 402.53	\$ 388.26	
	Medical Services Payments and Record Maintenance	Examinations	500	500	—	m)
		Cost	\$ 46,028	\$ 59,782	\$ —	m)
		Cost/Examination	\$ 92.06	\$ 119.56	\$ —	
	Pre-employment Activities	New Hires	—	—	105	m)
		Cost	\$ —	\$ —	\$ 66,000	m)
		Cost/New Hire	\$ —	\$ —	\$ 628.57	
	Civil Service Board Procedures					
	Hear and Render Decisions on Appeals from Employees, Ratify Amendments to the Personnel Rules, Hear and Render Decisions on Discharges	Actions	23	40	35	
		Cost	\$ 110,000	\$ 96,842	\$ 159,600	n)
		Cost/Action	\$ 4,782.61	\$ 2,421.05	\$ 4,560.00	
l) Starting with Budget Year 2019, salaries were reallocated from Labor and Employee Relations Activities to Employee Performance Management to better classify costs related to that activity (\$31,900).						
m) Starting with Budget Year 2019, the measurement for Medical Services Payments and Record Maintenance was changed to track the number of New Hires instead of Examinations, and Medical Services Payments and Record Maintenance was renamed Pre-employment Activities to enhance clarity.						
n) Starting with Budget Year 2019, salaries were reallocated from Personnel Activity Administration to Civil Service Board Procedures activity to better classify costs related to that activity (\$62,800).						

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7480	Safety Program					
	Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation	Cost	\$ 548,325	\$ 625,700	\$ —	o)
	Contract Review for Compliance with Safety Standards	# of Reviews	18	30	—	p)
		Cost	\$ 6,353	\$ 7,200	\$ —	
		Cost/Review	\$ 352.94	\$ 240.00	\$ —	
	Safety Equipment					
	New/Rental	Cost	\$ 100,655	\$ 138,750	\$ —	q)
	Replacement	Cost	\$ 2,195	\$ 23,750	\$ —	
	Maintenance	Cost	\$ 9,445	\$ 79,200	\$ —	
	Medical Health Surveillance					
	First Aid Assistance	Cost	\$ 1,016	\$ 35,000	\$ —	
	Hearing Tests	People Tested	363	450	—	
		Cost	\$ 6,256	\$ 9,500	\$ —	
		Cost/Test	\$ 17.23	\$ 21.11	\$ —	
	Respiratory Evaluations	People Tested	38	60	—	
		Cost	\$ 2,088	\$ 5,000	\$ —	
		Cost/Test	\$ 54.95	\$ 83.33	\$ —	
	Safety Training					
	CPR and First Aid	People Trained	389	250	—	
		Cost	\$ 40,678	\$ 38,600	\$ —	
		Cost/Trainee	\$ 104.57	\$ 154.40	\$ —	
	Confined Spaces	People Trained	112	100	—	
		Cost	\$ 9,177	\$ 9,400	\$ —	
		Cost/Trainee	\$ 81.94	\$ 94.00	\$ —	
<p>o) Starting with Budget Year 2019, Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, First Aid Assistance and Safety Training activities were grouped and renamed Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, Safety Training, and Professional Development. Hearing Tests, Respiratory Evaluations, Fire Prevention and Protection, and Hazardous Materials Abatement were grouped together and renamed Payment for External Services to Support Safety Activities to improve the classification of activities.</p> <p>p) Starting with Budget Year 2019, the Safety Program measures were changed to track the number of classes and the number of attendees instead of the number of reviews, people trained, and people tested to enhance clarity and better reflect current operations.</p> <p>q) Starting with Budget Year 2019, the Safety Equipment categories of New/Rental, Replacement, and Maintenance were grouped and renamed Safety Equipment Purchase, Rental, and Maintenance to better reflect current operations. Decrease in cost is due to modified requirements to the annual schedule for maintenance of safety equipment (\$35,100).</p>						

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
	Lockout/Tagout	People Trained	196	500	—	r)
		Cost	\$ 4,235	\$ 4,800	\$ —	
		Cost/Trainee	\$ 21.61	\$ 9.60	\$ —	
	General Safety	People Trained	7,822	7,500	—	
		Cost	\$ 381,369	\$ 423,800	\$ —	
		Cost/Trainee	\$ 48.76	\$ 56.51	\$ —	
	Professional Safety	Cost	\$ 17,471	\$ 16,200	\$ —	
	Industrial Hygiene/Right to Know	People Trained	350	650	—	
		Cost	\$ 25,942	\$ 28,400	\$ —	
		Cost/Trainee	\$ 74.12	\$ 43.69	\$ —	
	Fire Prevention and Protection	Cost	\$ —	\$ 22,200	\$ —	
	Hazardous Materials Abatement	Cost	\$ 51,000	\$ 60,700	\$ —	
	Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, Safety Training, and Professional Development	Cost	\$ —	\$ —	\$ 1,318,100	
	Safety Training	# of Classes	—	—	1,100	s)
		# of Attendees	—	—	8,000	
	Safety Equipment Purchase, Rental, and Maintenance	Cost	\$ —	\$ —	\$ 178,000	t)
	Payment for External Services to Support Safety Activities	Cost	\$ —	\$ —	\$ 131,100	
7500	Risk Management Operations					
	Administration and Professional Development (formerly Administration)	Cost	\$ 437,910	\$ 448,007	\$ 481,300	
	Asset Appraisal and Other Services	Cost	\$ 273,565	\$ 315,493	\$ —	u)
	Broker Services	Cost	\$ 236,200	\$ 250,000	\$ —	u)
	Third Party Services	Cost	\$ —	\$ —	\$ 551,500	u)
	Insurance Premiums (such as property insurance)	Cost	\$ 3,058,107	\$ 3,080,300	\$ 3,254,600	v)
7604	Social Security and Medicare Contributions	Cost	\$ 114,787	\$ 133,600	\$ 140,300	
	Totals		\$ 54,172,301	\$ 59,226,400	\$ 60,229,600	

- r) Starting with Budget Year 2019, Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, First Aid Assistance and Safety Training activities were grouped and renamed Occupational Safety and Health Administration (OSHA) Compliance, OSHA Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, Safety Training, and Professional Development. Hearing Tests, Respiratory Evaluations, Fire Prevention and Protection, and Hazardous Materials Abatement were grouped together and renamed Payment for External Services to Support Safety Activities to improve the classification of activities.
- s) Starting with Budget Year 2019, the Safety Program measures were changed to track the number of classes and the number of attendees instead of the number of reviews, people trained, and people tested to enhance clarity and better reflect current operations.
- t) Starting with Budget Year 2019, the Safety Equipment categories of New/Rental, Replacement, and Maintenance were grouped and renamed Safety Equipment Purchase, Rental, and Maintenance to better reflect current operations. Decrease in cost is due to modified requirements to the annual schedule for maintenance of safety equipment (\$35,100).
- u) Starting with Budget Year 2019, Asset Appraisal and Other Services, and Broker Services were grouped and renamed Third Party Services, and salaries were reallocated from Asset Appraisal and Other Services to Administration and Professional Development to improve the classification of activities (\$24,600).
- v) Increase is due to an anticipated increase in the cost of premiums for property (\$94,800) and casualty (\$80,000) insurance.

101 25000	Fund: Corporate Department: Human Resources	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,591,181	\$ 6,489,600	\$ 6,489,600	\$ 5,643,100	\$ 6,709,300	\$ 6,709,300	\$ 6,802,900
601060	Compensation Plan Adjustments	199,621	213,700	213,700	139,000	314,600	314,600	315,800
601070	Social Security and Medicare Contributions	114,787	133,600	133,600	125,100	138,500	138,500	140,300
601090	Employee Claims	21,969	60,000	74,000	74,000	60,000	60,000	60,000
601100	Tuition and Training Payments	492,329	553,600	553,600	495,100	709,800	709,800	709,800
601250	Health and Life Insurance Premiums	42,900,978	46,455,800	46,441,800	42,435,800	46,804,400	46,804,400	46,804,400
601300	Personal Services, N.O.C.	359,250	505,900	505,900	252,900	360,000	360,000	360,000
100	TOTAL PERSONAL SERVICES	49,680,114	54,412,200	54,412,200	49,165,000	55,096,600	55,096,600	55,193,200
612010	Travel	2,478	5,800	5,800	4,700	5,200	5,200	5,200
612030	Meals and Lodging	7,825	18,200	18,200	16,300	17,300	17,300	17,300
612040	Postage, Freight, and Delivery Charges	—	200	400	300	—	—	—
612050	Compensation for Personally-Owned Automobiles	523	2,200	2,000	800	1,100	1,100	1,100
612080	Motor Vehicle Operating Services	24	—	—	—	100	100	100
612250	Court Reporting Services	7,327	12,000	12,500	12,000	11,500	11,500	11,500
612260	Medical Services	90,281	97,300	103,800	92,200	121,100	121,100	121,100
612290	Insurance Premiums	3,058,107	3,080,300	3,080,300	3,062,600	3,471,100	3,471,100	3,471,100
612330	Rental Charges	7,925	26,700	26,700	13,500	21,500	21,500	21,500
612430	Payments for Professional Services	1,040,556	1,107,300	1,100,300	1,014,700	979,900	979,900	1,004,900
612490	Contractual Services, N.O.C.	54,781	46,400	46,400	43,100	72,100	72,100	72,100
612780	Safety Repairs and Services	60,445	135,100	135,100	125,400	107,500	107,500	107,500
200	TOTAL CONTRACTUAL SERVICES	4,330,272	4,531,500	4,531,500	4,385,600	4,808,400	4,808,400	4,833,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	61,413	58,300	55,200	43,100	30,500	30,500	30,500
623720	Books, Maps, and Charts	1,615	2,500	4,600	4,600	500	500	500
623780	Safety and Medical Supplies	95,424	193,500	193,000	127,800	166,500	166,500	166,500
623990	Materials and Supplies, N.O.C.	3,463	3,400	4,900	3,600	5,500	5,500	5,500
300	TOTAL MATERIALS AND SUPPLIES	161,915	257,700	257,700	179,100	203,000	203,000	203,000
634820	Computer Software	—	25,000	25,000	14,200	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	—	25,000	25,000	14,200	—	—	—
<b>TOTAL HUMAN RESOURCES</b>		<b>\$ 54,172,301</b>	<b>\$ 59,226,400</b>	<b>\$ 59,226,400</b>	<b>\$ 53,743,900</b>	<b>\$ 60,108,000</b>	<b>\$ 60,108,000</b>	<b>\$ 60,229,600</b>

NOTES: 1. Amounts may not add up due to rounding.

2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.

Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

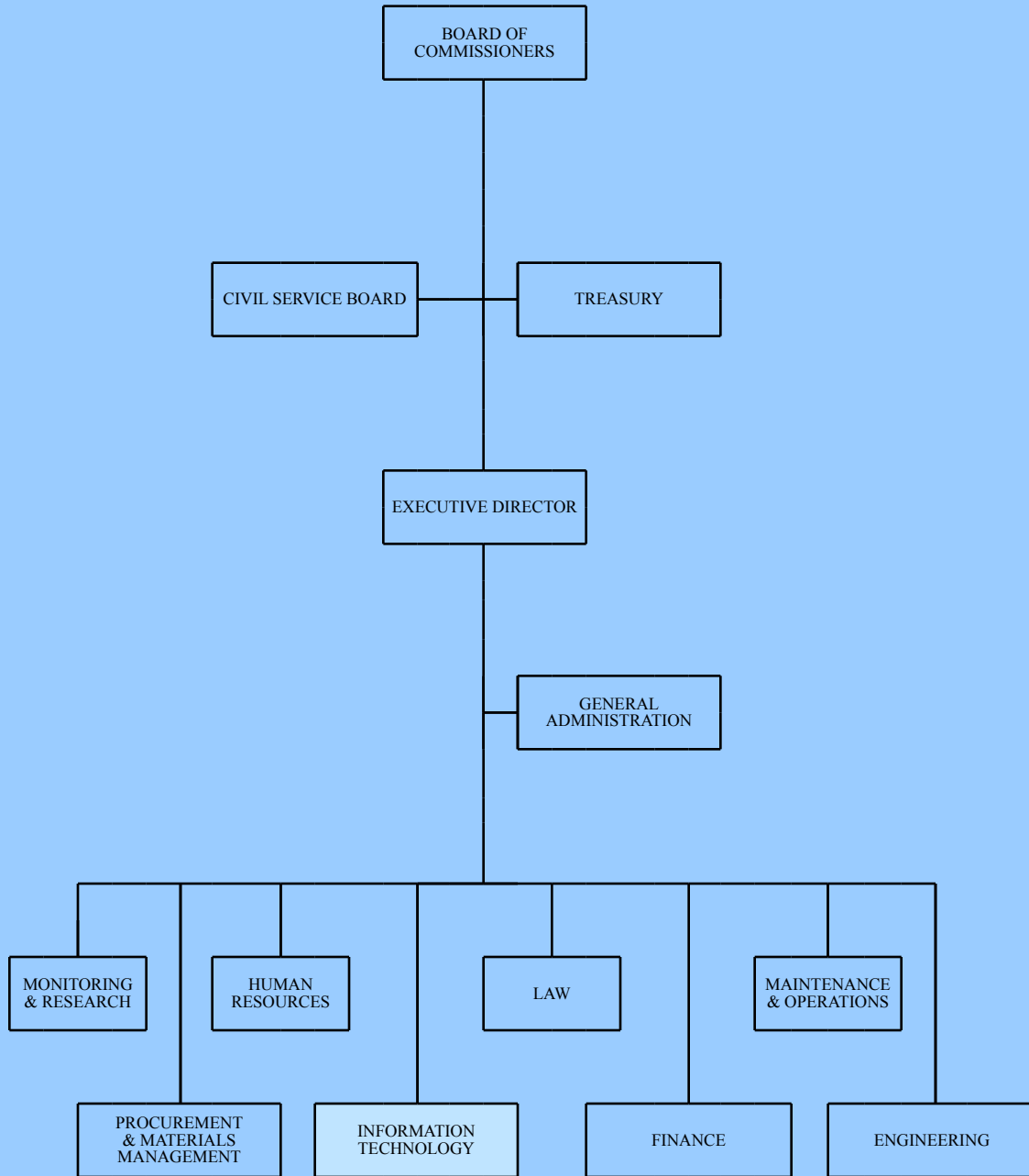
Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>252</b>	<b>Executive Unit</b>					
EX10	Director of Human Resources	1	1		1	
HP20	Assistant Director of Human Resources	1	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	
HP11	Administrative Specialist	1	1		1	
TOTAL	Executive Unit	7	7	632,697.10	7	629,182.16
<b>254</b>	<b>Employee Selection Section</b>					
HP19	Human Resources Manager #1	—	—		1	
HP19	Human Resources Manager #2 (New Grade HP18)	1	1		—	
HP18	Human Resources Manager	—	—		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	1	—		—	
HP16	Senior Human Resources Analyst	1	2		2	
HP16	Senior Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	—		—	
HP15	Associate Human Resources Analyst #2 (Human Resources Analyst) (New Grade HP14)	1	1		1	
HP14	Human Resources Analyst	4	5		5	
HP13	Senior Administrative Specialist	2	2		2	
HP11	Administrative Specialist	3	3		2	
TOTAL	Employee Selection Section	14	14	1,328,447.53	14	1,426,678.16
<b>255</b>	<b>Employee Development Section</b>					
HP19	Human Resources Manager #2 (New Grade HP18)	1	1		1	
HP17	Senior Human Resources Analyst #2 (New Grade HP16)	1	1		—	
HP16	Senior Human Resources Analyst	—	—		1	
HP14	Human Resources Analyst	2	2		2	
HP12	Human Resources Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	1	1		1	
TM01	Intern	12	20		20	

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PR1025	Apprentice	1	13		13	
TOTAL	Employee Development Section	19	39	1,917,061.96	39	1,892,657.74
<b>256</b>	<b>Classification, Compensation, &amp; Benefits Section</b>					
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	—		—	
HP14	Human Resources Analyst	2	3		3	
HP11	Administrative Specialist	1	1		1	
HP11	Administrative Specialist #1	—	—		1	
HP11	Administrative Specialist #4	1	1		1	
TOTAL	Classification, Compensation, & Benefits Section	8	8	834,702.67	9	918,923.03
<b>257</b>	<b>Risk Management Section</b>					
HP19	Risk Manager #2 (New Grade HP18)	—	—		1	
HP17	Claims Administrator #2 (New Grade HP16)	—	—		1	
HP17	Senior Risk Analyst #2 (New Grade HP16)	—	—		1	
HP11	Administrative Specialist	—	—		1	
TOTAL	Risk Management Section	—	—	—	4	472,801.48
<b>258</b>	<b>Employee Relations Section</b>					
HP18	Human Resources Manager	1	1		1	
HP16	Senior Human Resources Analyst	2	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	820,659.01	8	837,165.30
<b>259</b>	<b>Safety Section (formerly Risk Management Section)</b>					
HP19	Risk Manager #2 (New Grade HP18)	1	1		—	
HP18	Safety Manager	—	—		1	
HP17	Claims Administrator #2 (New Grade HP16)	1	1		—	
HP17	Senior Risk Analyst #2 (New Grade HP16)	1	1		—	

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP17	Senior Safety Specialist #2 (New Grade HP16)	1	1		1	
HP15	Safety Coordinator #2 (Safety Specialist) (New Grade HP14)	4	3		3	
HP14	Safety Specialist	5	6		6	
HP11	Administrative Specialist	2	2		1	
TOTAL	Safety Section (formerly Risk Management Section)	15	15	1,529,378.70	12	1,225,426.35
TOTAL	Human Resources	71	91	7,062,946.97	93	7,402,834.22
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.						

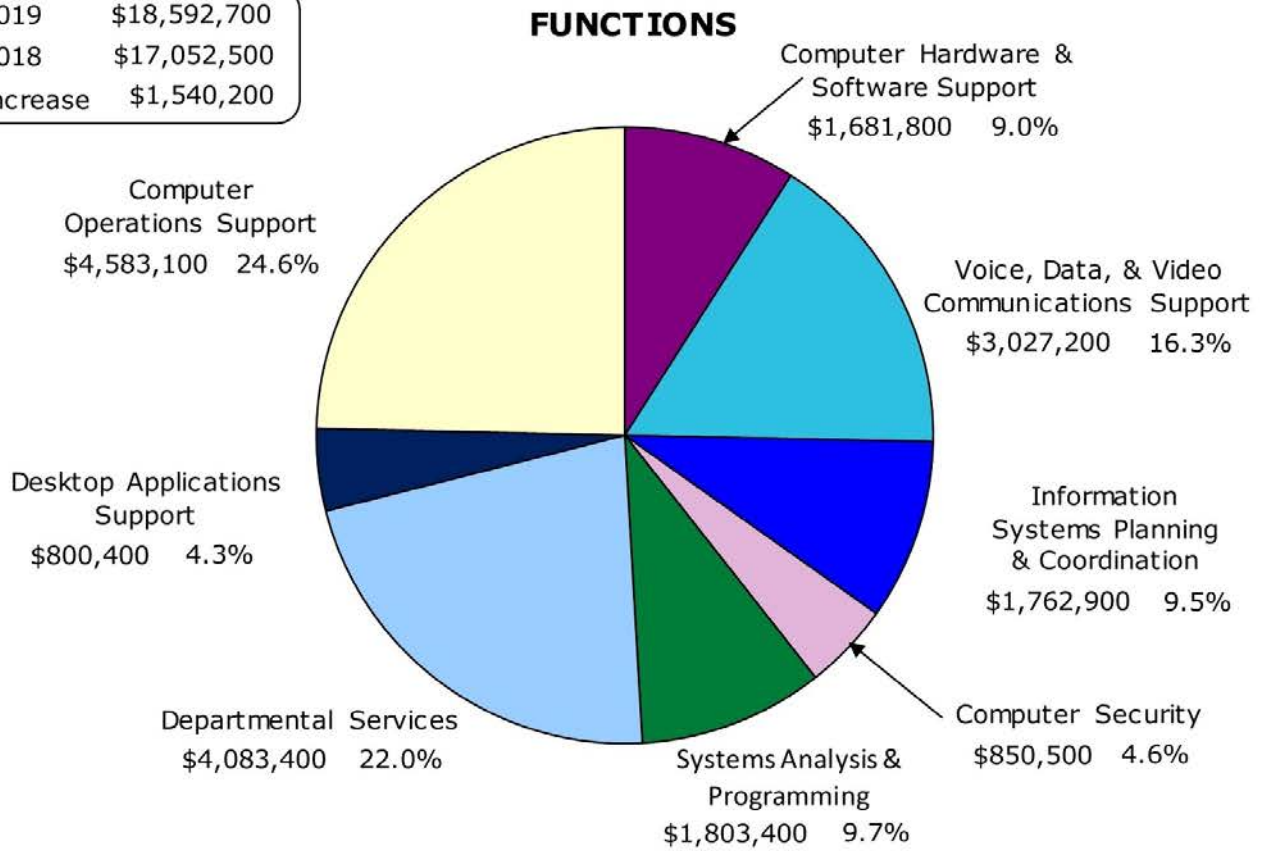
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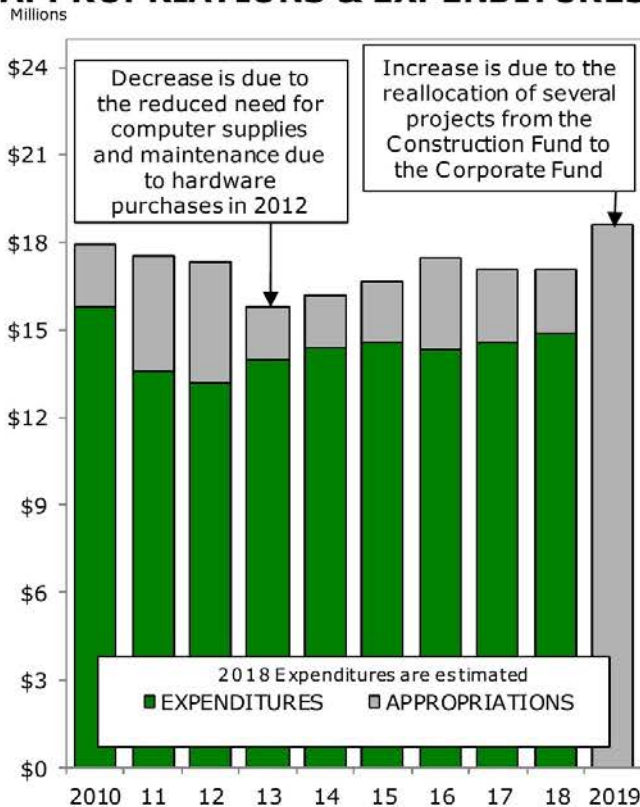


# INFORMATION TECHNOLOGY

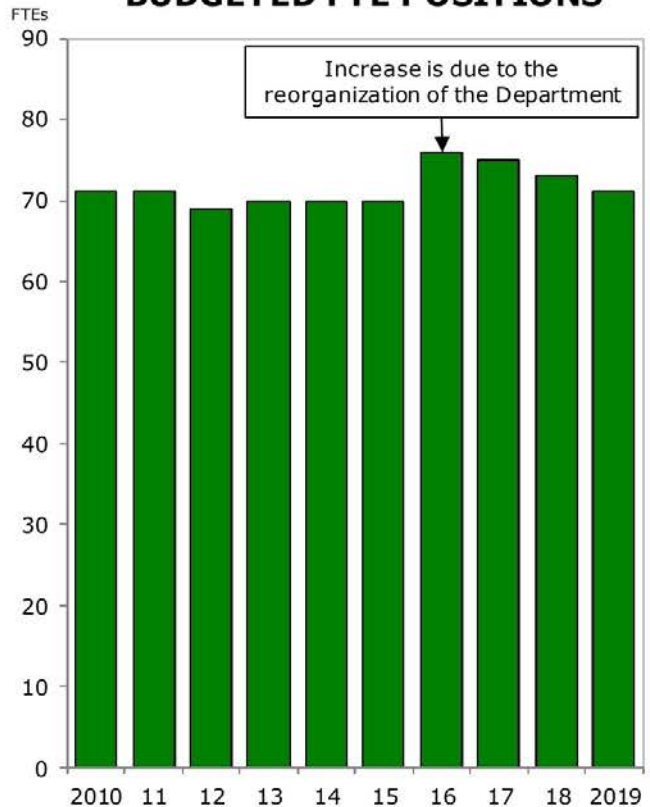
2019	\$18,592,700
2018	\$17,052,500
Increase	\$1,540,200



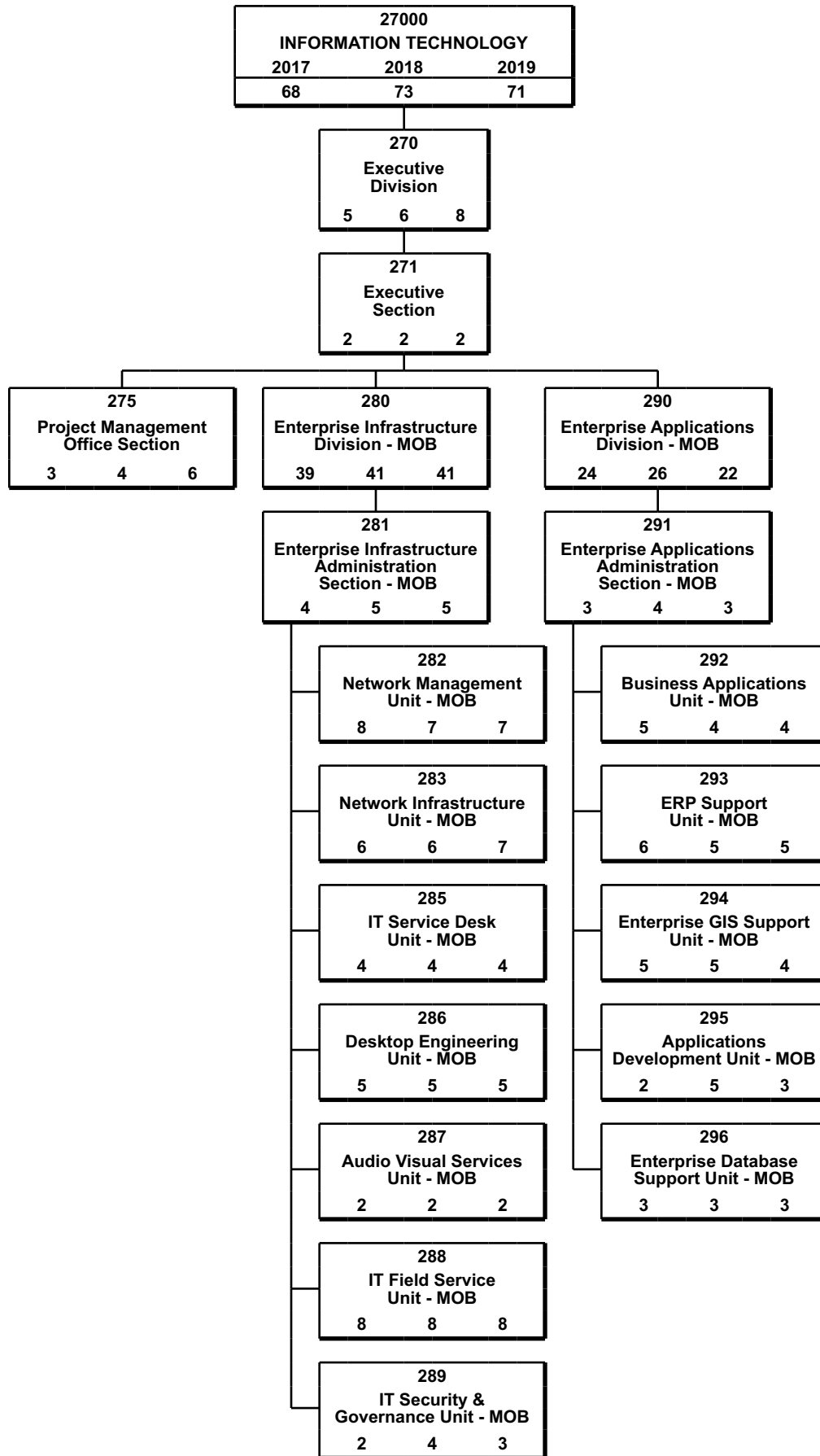
## APPROPRIATIONS & EXPENDITURES



## 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 2018 Accomplishments

- Continued updating the District's Main Office Building Complex networking hardware, increasing stability and efficiency;
- Continued the implementation of the IT Infrastructure Strategy, including the replacement of networking equipment at the Main Office Building, Stickney Water Reclamation Plant, and the Egan Water Reclamation Plant;
- 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;
- Continued the implementation of the IT service catalog;
- Completed phase one of the implementation of single sign-on technology in the effort to streamline user passwords;
- Continued the upgrade of the District's voicemail system;
- Implemented the replacement of antiquated communication lines.

### Budget Highlights

The 2019 appropriation for the ITD is \$18,592,700, an increase of \$1,540,200, or 9.0 percent, from 2018. The staffing level has decreased from 73 to 71 positions, which includes the addition of a Senior Project Manager, a Project Manager, and a Network Analyst, offset by the drop of an Applications Administrator, a GIS Analyst, an Applications Analyst, an IT Security Analyst, and an Assistant Director of Information Technology.

Significant features of the 2019 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 in the effort to reduce telecommunications cost;
- Develop a new application for issuing local sewer permits;
- Develop a new application for tracking combined sewer overflow events;
- Complete the implementation of the IT service catalog, which will increase transparency, by detailing the services offered by the ITD;
- Continue the upgrade of the District's desk phone system, transforming the District's phone system to digital from analog;
- Implement additional cyber security protection, including email filtering and advanced intrusion detection;
- Evaluate additional consolidation of infrastructure and software technologies to streamline administration, leading to reduced costs and optimized performance;
- Complete post-implementation reviews with stakeholders to assess the effectiveness of existing applications;
- Complete the upgrade of the District's website.

### 2019 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 Citizen Incident Reporting System, the Stormwater Inundation Mapping Application, and the Stormwater Management Reporting Application.

#### • Excellence

The ITD will continue to assist the Public Affairs Section in improving the delivery and maintenance of the District's website content, [www.mwrd.org](http://www.mwrd.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 complete a project to upgrade 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 [www.mwrd.org](http://www.mwrd.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 Forum<sup>sm</sup>, which is the only water and wastewater agency-focused organization for IT executives in the industry. The Water and Wastewater Chief Information Officer Forum<sup>sm</sup> 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 resource planning system to increase utilization and maximize effectiveness by reducing the amount of customization and leveraging standard built-in functionality.

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 the information with current business systems to support various business decisions. Also in 2019, 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.

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, Apple 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. <b>COMPUTER HARDWARE AND SOFTWARE SUPPORT:</b> 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.	\$ 1,681,800	9.0%
2. <b>VOICE, DATA, AND VIDEO COMMUNICATIONS SUPPORT:</b> The Enterprise Infrastructure Division maintains the District's wide area network as well as the Main Office Building Complex local area networks. Staff is responsible for planning, installing, and maintaining voice, data, and video communications for the entire District.	\$ 3,027,200	16.3%
3. <b>INFORMATION SYSTEMS PLANNING AND COORDINATION:</b> Provides a strategic perspective used to align the ITD with the stated goals and objectives of the District and its departments. Staff is responsible for services such as strategic planning of technology and communications as well as disaster recovery planning.	\$ 1,762,900	9.5%
4. <b>SYSTEMS ANALYSIS AND PROGRAMMING:</b> 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.	\$ 1,803,400	9.7%
5. <b>COMPUTER OPERATIONS SUPPORT:</b> The ITD operates two computer rooms which house the District's Sun and ALPHA systems, storage area networks, network servers, and ancillary equipment.	\$ 4,583,100	24.6%
6. <b>DEPARTMENTAL SERVICES:</b> The ITD provides direct consulting, planning, and maintenance assistance to all departments as well as the administration of storage area networks/thin clients and necessary networking. Additional services include support of department-specific software such as 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.	\$ 4,083,400	22.0%
7. <b>COMPUTER SECURITY:</b> The ITD is responsible for the security of all District information systems, disaster recovery system, and data, which includes monitoring and enforcing compliance with software licensing agreements, District security directives, and the disaster recovery plan. Staff is also responsible for auditing remaining workstations to verify compliance.	\$ 850,500	4.6%
8. <b>DESKTOP APPLICATIONS SUPPORT:</b> The assigned staff will continue to provide applications and technical support to approximately 1,970 computer system users.	\$ 800,400	4.3%
<b>Totals</b>	<b>\$ 18,592,700</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017 Actual	2018 Estimated	2019 Proposed
1. Call Center - Timeframe: Response time to call center requests for assistance.	< 24 Hrs.	< 24 Hrs.	< 24 Hrs.
2. Call Center - Total Repeats: Reduce number of repeat calls for service.	Reduced 10%	Reduce 20%	Reduce 20%
3. Project Schedule: Ensure project completion consistent with Request For Proposal/Budget requests.	On Time	On Time	On Time
4. Project Budget: Ensure the completion of ITD projects at or below budget.	At Budget	At Budget	At Budget
5. Customer Satisfaction: Ensure user satisfaction with ITD systems, applications, and infrastructure. On a scale of one to five, where five is the highest.	3	4	4

**27000 INFORMATION TECHNOLOGY**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
7381	Systems Analysis and Programming	\$ 1,534,352	2019	16	\$ 1,803,400	\$ (102,700)	(5.4)	
			2018	17	\$ 1,906,100			
7382	Desktop Applications Support	\$ 891,511	2019	5	\$ 800,400	\$ (133,400)	(14.3)	
			2018	6	\$ 933,800			
7383	Voice, Data, and Video Communications Support	\$ 1,964,692	2019	10	\$ 3,027,200	\$ 837,700	38.3	a)
			2018	9	\$ 2,189,500			
7384	Central Computer Hardware and Proprietary Software Support	\$ 1,397,869	2019	8	\$ 1,681,800	\$ (137,700)	(7.6)	
			2018	9	\$ 1,819,500			
7385	Computer Operations, Maintenance, and Support	\$ 3,915,022	2019	7	\$ 4,583,100	\$ 127,200	2.9	
			2018	7	\$ 4,455,900			
7387	Computer Security	\$ 313,826	2019	3	\$ 850,500	\$ 277,300	48.4	b)
			2018	4	\$ 573,200			
7388	Information Systems Planning	\$ 684,685	2019	6	\$ 999,100	\$ 170,700	20.6	c)
			2018	5	\$ 828,400			
7389	Information Systems Coordination	\$ 416,613	2019	4	\$ 763,800	\$ 247,300	47.9	d)
			2018	3	\$ 516,500			
7800	Information Technology Services	\$ 3,332,460	2019	12	\$ 3,961,800	\$ 252,100	6.8	e)
			2018	13	\$ 3,709,700			
7604	Social Security and Medicare Contributions	\$ 105,834	2019	—	\$ 121,600	\$ 1,700	1.4	
			2018	—	\$ 119,900			
Totals		\$14,556,864	2019	71	\$ 18,592,700	\$ 1,540,200	9%	
			2018	73	\$ 17,052,500			

a) Increase is due to the addition of telemetry services (\$595,600), the addition of network fiber cable runs (\$150,000), and the addition of a Network Analyst position (\$81,700).

b) Increase is due to the addition of security consulting services (\$320,000), offset by the elimination of one FTE position (\$64,000).

c) Increase is due to the addition of general information technology consulting services (\$75,000) and the addition of information technology project management consulting (\$75,000).

d) Increase is due to the addition of one FTE position (\$110,100), higher severance payments due to expected retirements in 2019 (\$78,400), and the addition of telecommunication expense management services (\$50,000).

e) Increase is due to the addition of Cross-Media Electronic Reporting Rule software (\$100,000), the addition of a learning management platform (\$97,000), and upgrades and improvements to the internet-based Publicly owned treatment works Administration and Compliance System (\$50,000).

**27000 INFORMATION TECHNOLOGY**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7380	Information Technology and Telecommunications					
7381	Systems Analysis and Programming	Application Modules Supported	80	90	90	
		Cost	\$ 1,534,352	\$ 1,906,100	\$ 1,803,400	
		Cost/Module	\$ 19,179.40	\$ 21,178.89	\$ 20,037.78	
7382	Desktop Applications Support	# of Service Calls	12,126	13,002	13,002	
		Cost	\$ 891,511	\$ 933,800	\$ 800,400	
		Cost/Service Call	\$ 73.52	\$ 71.82	\$ 61.56	
7383	Voice, Data, and Video Communications Support	Cost	\$ 1,964,692	\$ 2,189,500	\$ 3,027,200	a)
7384	Central Computer Hardware and Proprietary Software Support	Cost	\$ 1,397,869	\$ 1,819,500	\$ 1,681,800	
7385	Computer Operations, Maintenance, and Support	Cost	\$ 3,915,022	\$ 4,455,900	\$ 4,583,100	
7387	Computer Security	Cost	\$ 313,826	\$ 573,200	\$ 850,500	b)
7388	Information Systems Planning	Cost	\$ 684,685	\$ 828,400	\$ 999,100	c)
7389	Information Systems Coordination	Cost	\$ 416,613	\$ 516,500	\$ 763,800	d)
7800	Information Technology Services	# of Users	1,949	2,000	1,970	
		Cost	\$ 3,332,460	\$ 3,709,700	\$ 3,961,800	e)
		Cost/User	\$ 1,709.83	\$ 1,854.85	\$ 2,011.07	
7604	Social Security and Medicare Contributions	Cost	\$ 105,834	\$ 119,900	\$ 121,600	
		Totals	\$ 14,556,864	\$ 17,052,500	\$ 18,592,700	

- a) Increase is due to the addition of telemetry services (\$595,600), the addition of network fiber cable runs (\$150,000), and the addition of a Network Analyst position (\$81,700).
- b) Increase is due to the addition of security consulting services (\$320,000), offset by the elimination of one FTE position (\$64,000).
- c) Increase is due to the addition of general information technology consulting services (\$75,000) and the addition of information technology project management consulting (\$75,000).
- d) Increase is due to the addition of one FTE position (\$110,100), higher severance payments due to expected retirements in 2019 (\$78,400), and the addition of telecommunication expense management services (\$50,000).
- e) Increase is due to the addition of Cross-Media Electronic Reporting Rule software (\$100,000), the addition of a learning management platform (\$97,000), and upgrades and improvements to the internet-based Publicly owned treatment works Administration and Compliance System (\$50,000).



101 27000	Fund: Corporate Department: Information Technology	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 7,504,043	\$ 8,514,700	\$ 8,514,700	\$ 7,768,000	\$ 8,516,000	\$ 8,516,000	\$ 8,352,500
601060	Compensation Plan Adjustments	185,067	154,700	154,700	107,600	228,800	228,800	234,400
601070	Social Security and Medicare Contributions	105,834	119,900	119,900	108,600	123,300	123,300	121,600
601100	Tuition and Training Payments	31,967	66,000	66,000	44,000	38,000	38,000	38,000
100	TOTAL PERSONAL SERVICES	7,826,911	8,855,300	8,855,300	8,028,200	8,906,100	8,906,100	8,746,500
612010	Travel	446	800	900	900	2,000	2,000	2,000
612030	Meals and Lodging	890	2,400	1,800	700	5,000	5,000	5,000
612040	Postage, Freight, and Delivery Charges	790	500	1,500	1,400	1,500	1,500	1,500
612050	Compensation for Personally-Owned Automobiles	834	2,100	2,100	1,200	1,500	1,500	1,500
612210	Communication Services	948,399	1,177,600	1,177,600	1,000,000	1,575,200	1,575,200	1,575,200
612330	Rental Charges	293,970	325,500	325,500	325,400	475,500	475,500	475,500
612430	Payments for Professional Services	99,973	602,500	580,500	309,600	915,200	940,200	1,280,800
612490	Contractual Services, N.O.C.	—	49,600	17,800	9,800	10,000	10,000	10,000
612810	Computer Equipment Maintenance	237,365	364,200	312,200	182,800	340,100	340,100	340,100
612820	Computer Software Maintenance	3,839,570	4,216,900	4,260,900	3,579,100	4,303,700	4,333,700	4,333,700
612840	Communications Equipment Maintenance (Includes Software)	684,050	735,900	735,900	733,300	777,700	777,700	779,200
200	TOTAL CONTRACTUAL SERVICES	6,106,286	7,478,000	7,416,700	6,144,200	8,407,400	8,462,400	8,804,500
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	9,763	18,700	18,700	16,600	15,500	15,500	15,500
623800	Computer Software	76,921	118,400	172,600	122,000	99,700	99,700	99,700
623810	Computer Supplies	410,474	431,500	431,500	415,200	555,300	555,300	556,200
623850	Communications Supplies	89,803	120,600	134,200	119,500	162,800	162,800	156,300
300	TOTAL MATERIALS AND SUPPLIES	586,960	689,200	757,000	673,300	833,300	833,300	827,700
634810	Computer Equipment	36,706	—	7,100	5,700	7,000	7,000	7,000
634820	Computer Software	—	30,000	—	—	182,000	207,000	207,000
634840	Communications Equipment (Includes Software)	—	—	16,400	14,700	16,500	16,500	—
400	TOTAL MACHINERY AND EQUIPMENT	36,706	30,000	23,500	20,400	205,500	230,500	214,000
TOTAL INFORMATION TECHNOLOGY		\$ 14,556,864	\$ 17,052,500	\$ 17,052,500	\$ 14,866,100	\$ 18,352,300	\$ 18,432,300	\$ 18,592,700

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.

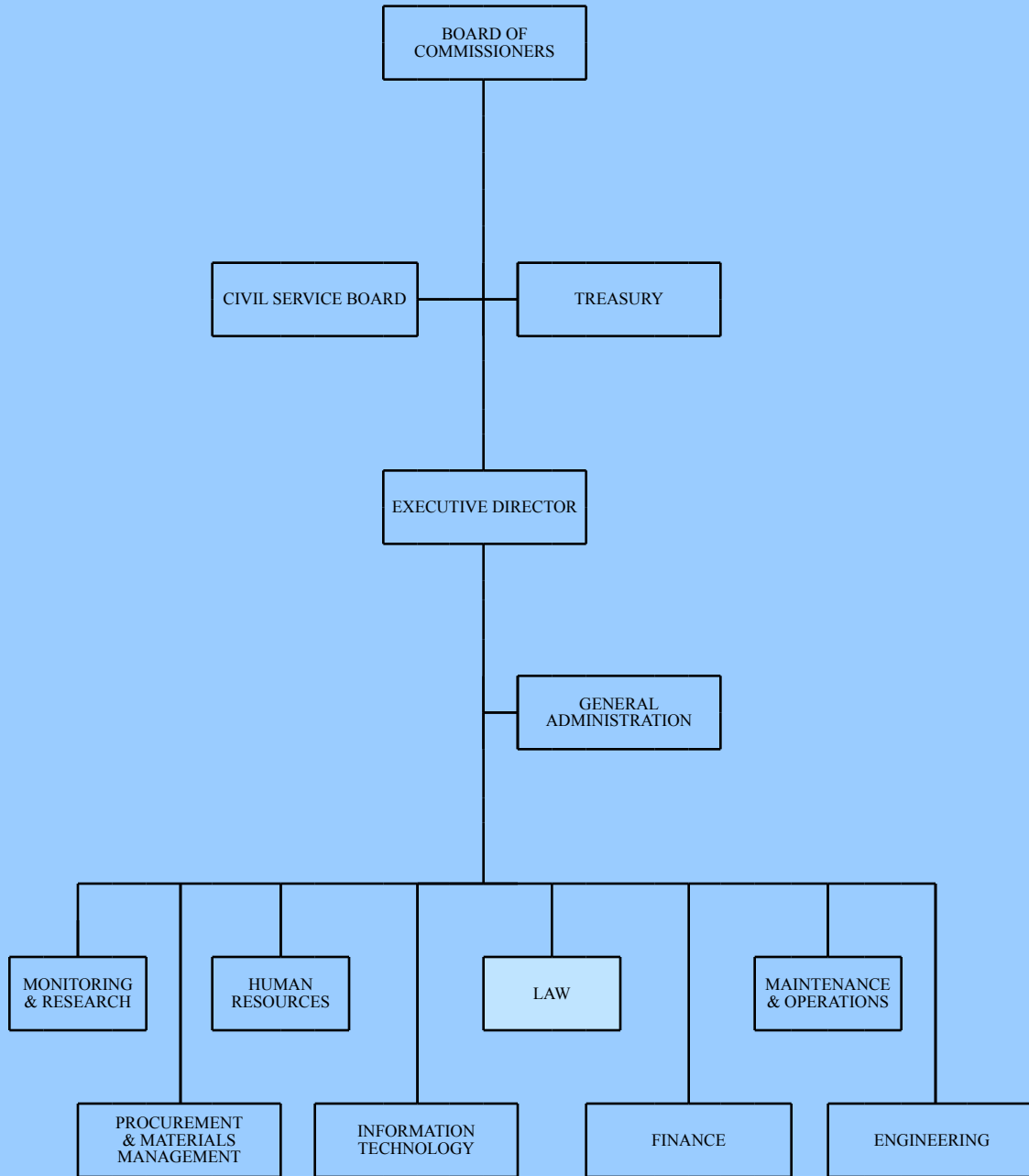
Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>270</b>	<b>Executive Division</b>					
<b>271</b>	<b>Executive Section</b>					
EX17	Director of Information Technology	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Section	2	2	339,787.74	2	346,583.50
<b>275</b>	<b>Project Management Office Section</b>					
HP19	Project Management Office Manager	1	1		1	
HP18	Senior Project Manager	—	—		1	
HP16	Applications Administrator	—	1		—	
HP16	Applications Administrator #2 (Project Manager)	—	—		1	
HP16	Project Manager	—	—		2	
HP16	Senior Business Analyst	1	1		—	
HP14	Business Analyst	1	1		1	
TOTAL	Project Management Office Section	3	4	419,261.57	6	665,579.04
TOTAL	Executive Division	5	6	759,049.31	8	1,012,162.54
<b>280</b>	<b>Enterprise Infrastructure Division - MOB</b>					
<b>281</b>	<b>Enterprise Infrastructure Administration Section - MOB</b>					
HP20	Assistant Director of Information Technology	1	1		1	
HP19	Information Technology Manager	2	3		3	
HP11	Administrative Specialist	1	1		1	
TOTAL	Enterprise Infrastructure Administration Section - MOB	4	5	637,118.05	5	664,987.38
<b>282</b>	<b>Network Management Unit - MOB</b>					
HP18	Senior Network Engineer #1	1	—		—	
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		1	
TOTAL	Network Management Unit - MOB	8	7	928,696.45	7	952,714.80

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>283</b>	<b>Network Infrastructure Unit - MOB</b>					
HP18	Senior Network Engineer	1	1		1	
HP16	Network Engineer	4	4		4	
HP14	Network Analyst	—	—		1	
NR1541	Telecommunications Specialist	1	1		—	
NR1541	Telecommunications Specialist #1	—	—		1	
TOTAL	Network Infrastructure Unit - MOB	6	6	691,673.81	7	794,580.35
<b>285</b>	<b>IT Service Desk Unit - MOB</b>					
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	293,749.84	4	287,621.07
<b>286</b>	<b>Desktop Engineering Unit - MOB</b>					
HP18	Senior Desktop Engineer	1	1		1	
HP17	Computer Systems Administrator #2 (Desktop Engineer) (New Grade HP16)	3	3		2	
HP16	Desktop Engineer	—	—		1	
HP15	Computer Systems Coordinator #2 (Desktop Analyst) (New Grade HP14)	1	1		1	
TOTAL	Desktop Engineering Unit - MOB	5	5	665,672.94	5	638,765.22
<b>287</b>	<b>Audio Visual Services Unit - MOB</b>					
HP16	A/V Administrator	1	1		1	
HP14	A/V Analyst	1	1		1	
TOTAL	Audio Visual Services Unit - MOB	2	2	188,759.01	2	197,490.72
<b>288</b>	<b>IT Field Service Unit - MOB</b>					
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	2		1	
HP15	Computer Systems Coordinator #2 (IT Support Analyst II) (New Grade HP13)	1	1		2	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2017	2018		2019	
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 I) (New Grade HP11)	1	1		—	
HP13	IT Support Analyst II	—	1		4	
HP11	IT Support Analyst I	2	2		—	
TOTAL	IT Field Service Unit - MOB	8	8	832,290.40	8	815,914.31
<b>289</b>	<b>IT Security &amp; Governance Unit - MOB</b>					
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		—	
TOTAL	IT Security & Governance Unit - MOB	2	4	474,311.52	3	401,808.23
TOTAL	Enterprise Infrastructure Division - MOB	39	41	4,712,272.02	41	4,753,882.08
<b>290</b>	<b>Enterprise Applications Division - MOB</b>					
<b>291</b>	<b>Enterprise Applications Administration Section - MOB</b>					
HP20	Assistant Director of Information Technology	—	1		—	
HP19	Information Technology Manager	2	2		1	
HP19	Information Technology Manager #1	—	—		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Enterprise Applications Administration Section - MOB	3	4	526,793.02	3	391,450.85
<b>292</b>	<b>Business Applications Unit - MOB</b>					
HP18	Senior Applications Administrator	1	1		1	
HP17	Webmaster #1	1	1		1	
HP16	Applications Administrator	2	1		1	
HP14	Applications Analyst	1	1		1	
TOTAL	Business Applications Unit - MOB	5	4	491,535.47	4	512,454.70
<b>293</b>	<b>ERP Support Unit - MOB</b>					
HP18	Senior Applications Administrator	1	1		—	
HP18	Senior Applications Administrator #1	—	—		1	
HP17	Senior Systems Programmer #1	2	2		2	
HP16	Applications Administrator	1	1		1	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Applications Analyst	2	1		1	
TOTAL	ERP Support Unit - MOB	6	5	645,851.37	5	663,725.31
	<b>294 Enterprise GIS Support Unit - MOB</b>					
HP18	Senior Applications Administrator	1	1		1	
HP16	Applications Administrator #2 (GIS Analyst) (New Grade HP14)	2	2		1	
HP14	GIS Analyst	2	2		2	
TOTAL	Enterprise GIS Support Unit - MOB	5	5	570,701.40	4	478,189.54
	<b>295 Applications Development Unit - MOB</b>					
HP18	Senior Applications Developer	1	1		1	
HP16	Applications Administrator	—	1		—	
HP16	Applications Developer	—	1		1	
HP14	Applications Analyst	1	2		1	
TOTAL	Applications Development Unit - MOB	2	5	464,394.10	3	335,794.65
	<b>296 Enterprise Database Support Unit - MOB</b>					
HP18	Senior Database Administrator	1	1		1	
HP16	Database Administrator	2	2		2	
TOTAL	Enterprise Database Support Unit - MOB	3	3	386,785.19	3	394,520.80
TOTAL	Enterprise Applications Division - MOB	24	26	3,086,060.55	22	2,776,135.85
TOTAL	Information Technology	68	73	8,557,381.88	71	8,542,180.47

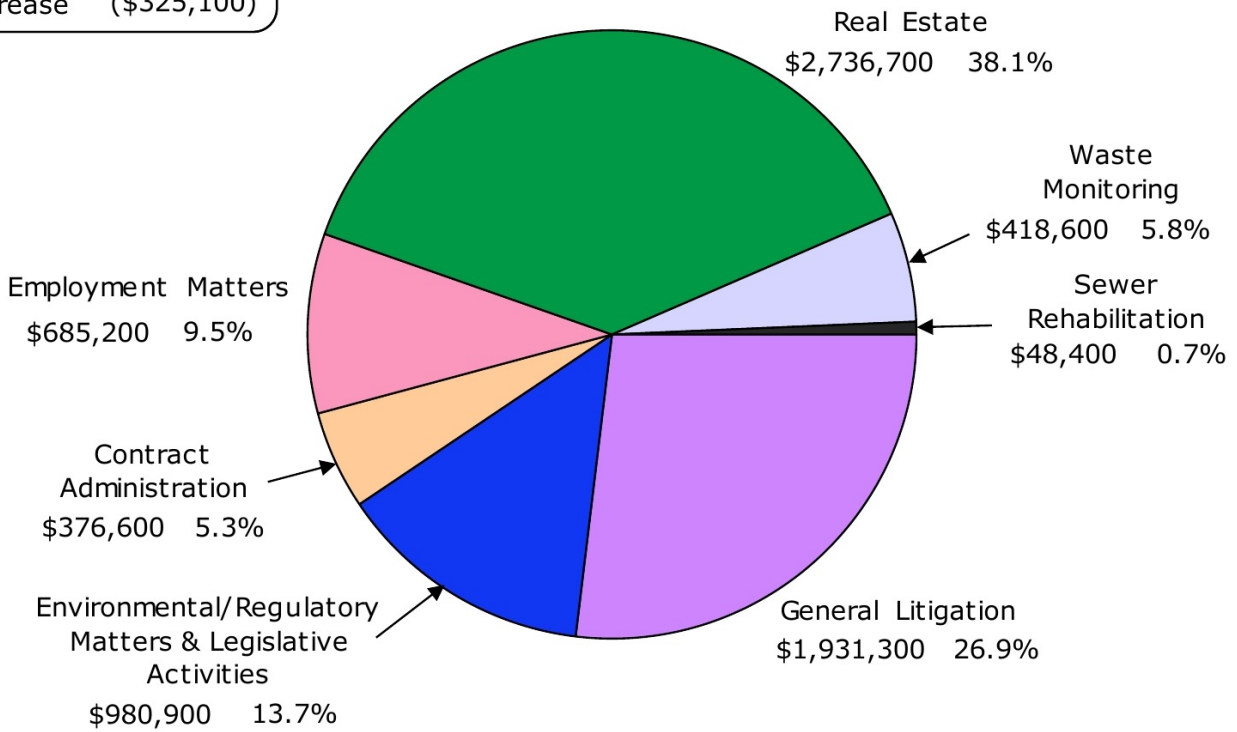
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules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



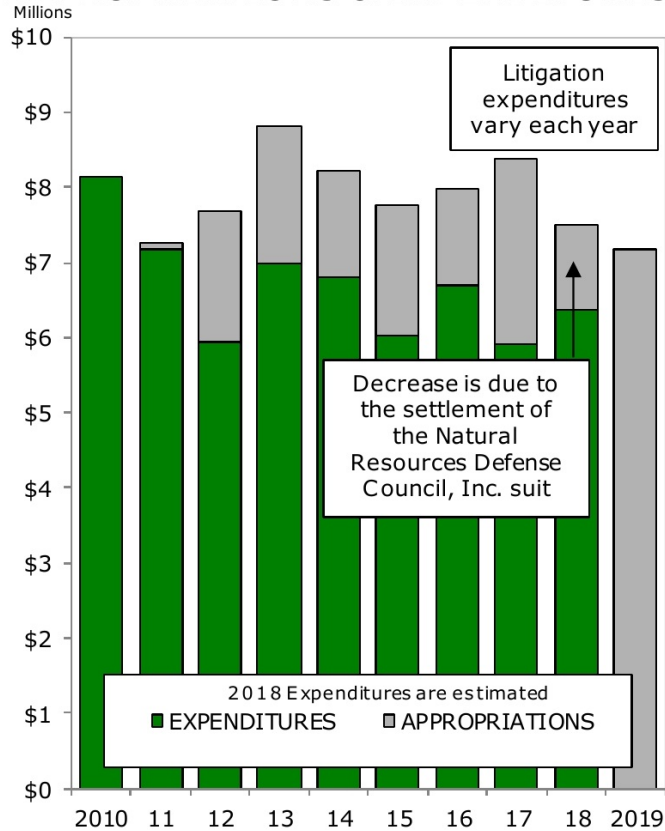
# LAW

## FUNCTIONS

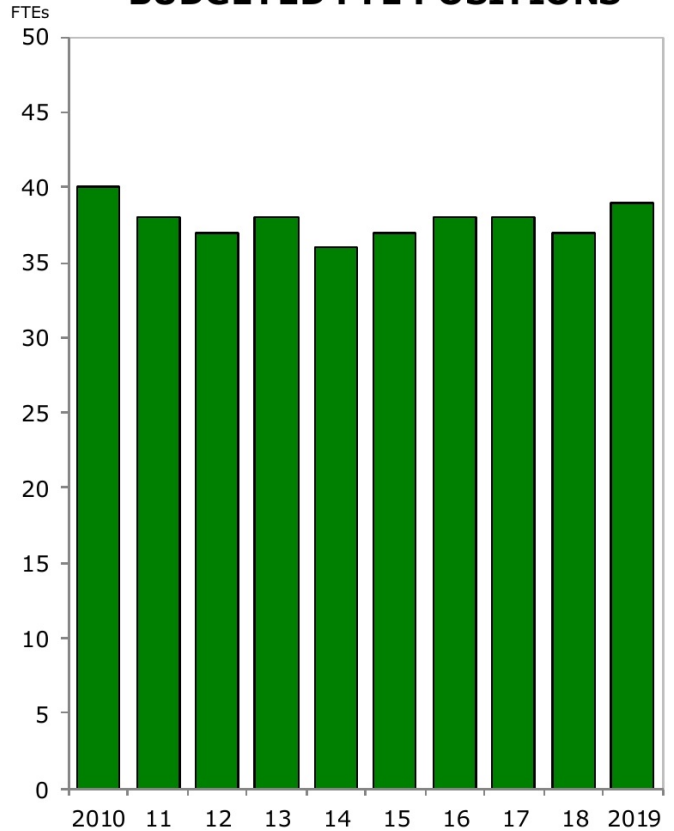
2019	\$7,177,700
2018	\$7,502,800
Decrease	(\$325,100)



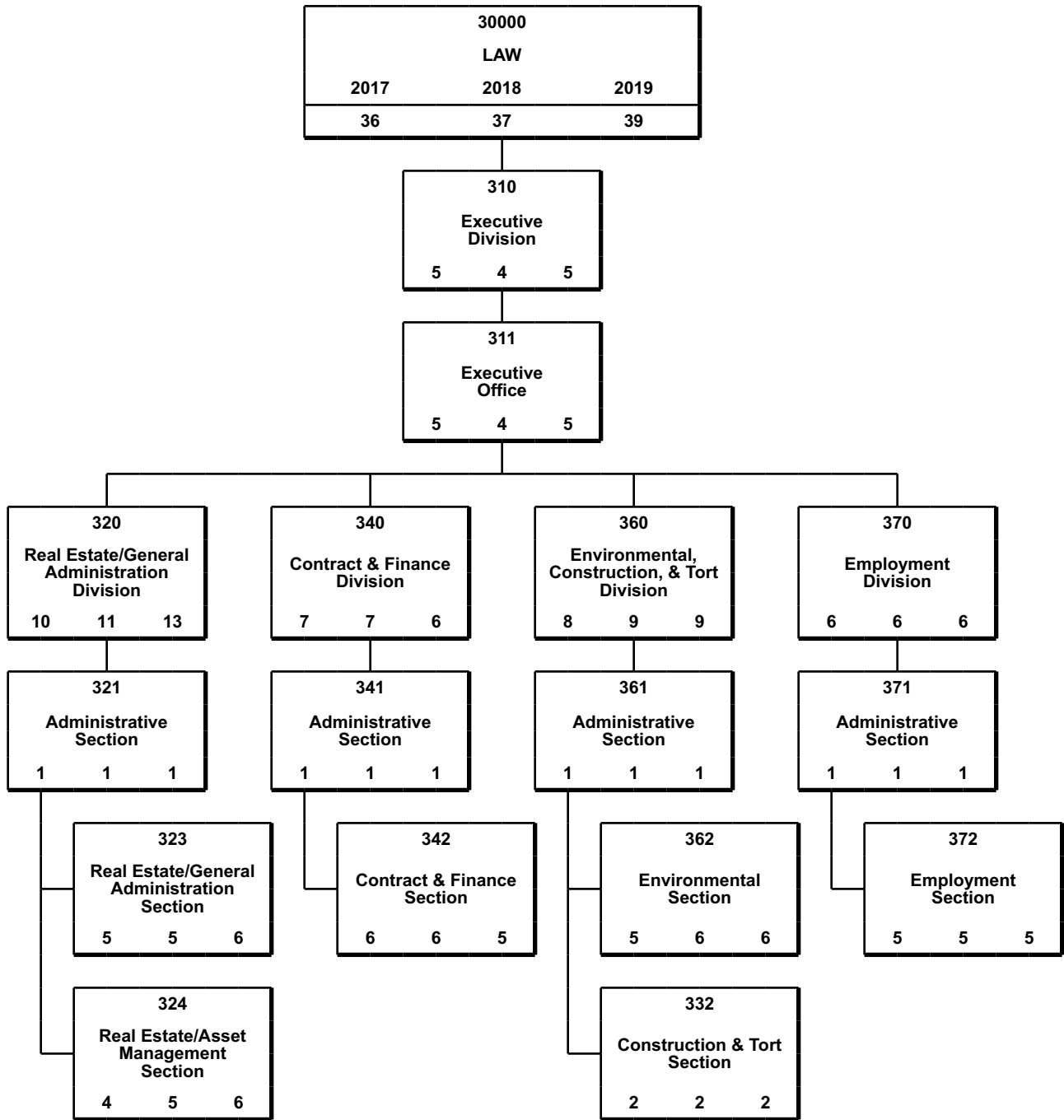
## APPROPRIATIONS & EXPENDITURES



## 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;
- Representing the District's legislative interests with the Illinois General Assembly, including drafting, introducing, testifying on, and passing legislation as necessary, and protecting the District's interests against adversarial legislation.

### Summary of 2018 Accomplishments

- Processed 416 Freedom of Information Act requests;
- Drafted and implemented Procedural Rules for the Watershed Management Ordinance;
- Assisted with the drafting and negotiation of numerous Intergovernmental Agreements with local municipalities to assist in stormwater management efforts;
- Defended an appeal of the District's Lake Michigan diversion allotment;
- Successfully negotiated a lease in which a public entity agreed to demolish an existing dilapidated building in exchange for leasing the site for public recreational purposes;
- Developed and implemented an updated Cook County Multi-Project Labor Agreement for District construction projects;
- Handled eight lawsuits in the U.S. District Court for the Northern District of Illinois. In representing all named defendants, staff attorneys successfully navigated the discovery process, which involved extensive motion practice, multiple court appearances and depositions, extensive written and e-discovery, and detailed correspondence with opposing counsel;
- Defended a proposed class action lawsuit alleging an unconstitutional taking of private property during severe rain events;
- Worked cooperatively with the Finance and Monitoring & Research Departments to collect outstanding user charges, record liens, and prosecute collection lawsuits as needed;
- Obtained full or partial dismissals in 75 percent of federal employment lawsuits including 50 percent dismissed entirely;
- Prevailed in two evidentiary hearings before the Civil Service Board, obtaining rulings upholding the District's disciplinary actions and charges;
- Developed and implemented a new Request for Qualification process for procurement of professional legal services;
- With the assistance of the Finance and Monitoring & Research Departments, brought an enforcement action against a user for multiple violations under the District's Sewage and Waste Control Ordinance. The enforcement action resulted in a settlement requiring the user to implement best management practices, including substantial investment in its facilities infrastructure and wastewater pretreatment process;
- In furtherance of the Board of Commissioners' policy direction, provided legal research, drafting, review, and guidance to the Human Resources Department in implementing the District's first paid parental leave policy;
- In conjunction with the Engineering Department, obtained numerous temporary and permanent easements and fee simple titles on nearly 400 parcels of land pertaining to regional stormwater projects, including Addison Creek Reservoir, Addison Creek Channel Improvements, Midlothian Creek, Lyons Levee, and the Plainfield Road Corridor Study, and created a list of Land Acquisition Procedures to streamline the land acquisition process.

### Budget Highlights

The 2019 appropriation for the Law Department is \$7,177,700, a decrease of \$325,100, or 4.3 percent, from 2018. The staffing level has increased from 37 to 39 positions, which includes the addition of one Deputy General Counsel position, one Investigator position, one Senior Administrative Specialist position, and two Senior Attorney positions, offset by the drop of two Assistant Attorney positions and the transfer of one Public Affairs Specialist to the Stormwater Management Fund. The significant features of the 2019 budget are:

- Generate real estate lease and easement income at approximately \$21,500,000;
- Continue to work cooperatively with the Finance and Monitoring & Research Departments to develop a more efficient process by which to seek collection of past-due user charges from tax-exempt users.

**2019 Initiatives in Support of the Strategic Business Plan Include the Following:**

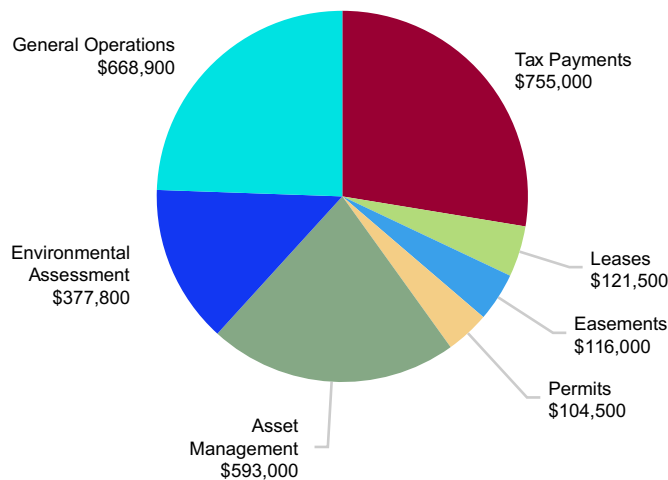
• **Add Value**

The Law Department continues to 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 Real Estate/General Administration Division plays an integral role in acquiring land rights necessary for the District's regional Stormwater Management projects.

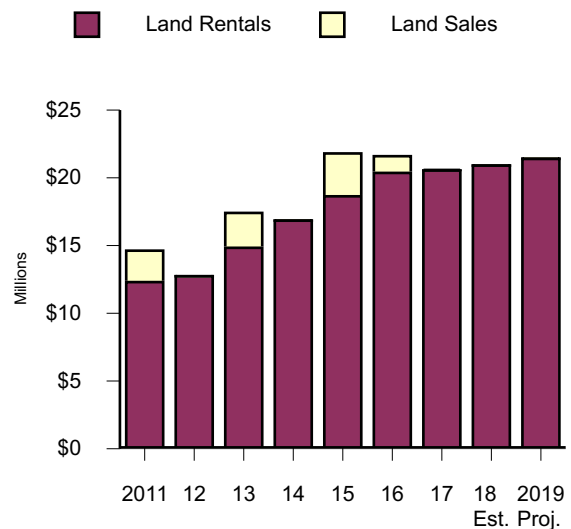
The Law Department evaluates a variety of contracts and agreements for the acquisition of equipment, labor, software, construction, and professional services. The different categories include sole source, furnish and deliver, emergency matters, as well as maintenance. The dollar amounts of the agreements 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.

**2019 Real Estate Program Budget**



Total \$2,736,700

**Real Estate Income  
Land Sales, Leases, Easements, & Permits**



**Land Sale Details**  
 2011 - 315.3 acres sold in Will County  
 2013 - 326.4 acres sold in Will County  
 2014 - 5.9 acres sold in Cook County  
 2015 - 4.2 acres sold to the IL State Toll Highway Authority  
 2016 - 4.4 acres sold to the City of Chicago  
 2017 - .05 acres sold to the Wm. Wrigley Jr. Company

- **Excellence**

The Law Department employs multiple 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 2019, 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 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 Commissioners, technical staff, and financial professionals in connection with various renewable energy initiatives.

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 2019, the Law Department will continue to work with numerous local governments, 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 25 public bodies, including 11 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.

In furtherance of the District's leadership role in the Local Governmental Law Consortium, the Law Department hosted a Freedom of Information Act and Open Meetings Act panel discussion forum comprised of panelists including the District's Freedom Of Information Act Officer and representatives from the Office of the Illinois Attorney General, the City of Chicago Chief Assistant Corporation Counsel, the Citizen Advocacy Center and the Better Government Association. The forum was moderated by District staff, with introductory remarks by President Mariyana Spyropoulos, and was attended by 31 attorneys, representing 12 governmental agencies and public access organizations. Building on the success of this program, plans are underway for the Law Department to host another continuing legal education event in 2019.

- **Technology**

A Geographic Information System mapping component is available 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 became 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.	\$ 1,931,300	26.9%
2. Handle all environmental matters and monitor all state legislation and legislative activities.	\$ 980,900	13.7%
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.	\$ 685,200	9.5%
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 2019.	\$ 2,736,700	38.1%
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.	\$ 418,600	5.8%
6. Review proposed contracts, execute awarded contracts, review bond surety and insurance matters, and process Freedom of Information Act requests.	\$ 376,600	5.3%
7. Upon referral from the Engineering Department, the Law Department conducts administrative hearings on sewer rehabilitation to enforce compliance with the Watershed Management Ordinance.	\$ 48,400	0.7%
<b>Totals</b>	<b>\$ 7,177,700</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2017 Actual	2018 Estimated	2019 Proposed
1. Revise lease procedures and policies to enhance the marketability of District real estate while increasing the use of Green Infrastructure.	Millions	\$20.6	\$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	—	50%	100%
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%	80%	100%

**30000 LAW**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 46,133	2019	1	\$ 48,400	\$ 1,600	3.4
			2018	1	\$ 46,800		
4660	Waste Monitoring	\$ 408,903	2019	3	\$ 418,600	\$ (26,900)	(6.0)
			2018	3	\$ 445,500		
7350	General Legal Matters	\$ 3,245,263	2019	21	\$ 3,893,900	\$ (291,000)	(7.0)
			2018	21	\$ 4,184,900		
7360	Real Estate Operations	\$ 2,152,593	2019	14	\$ 2,736,700	\$ (15,900)	(0.6)
			2018	12	\$ 2,752,600		
7604	Social Security and Medicare Contributions	\$ 67,312	2019	—	\$ 80,100	\$ 7,100	9.7
			2018	—	\$ 73,000		
Totals		\$ 5,920,204	2019	39	\$ 7,177,700	\$ (325,100)	(4.3)%
			2018	37	\$ 7,502,800		

a) Decrease is due to the reduction in outside professional services for special counsel on environmental matters (\$400,700), the transfer of a Public Affairs Specialist to the Stormwater Management Fund (\$99,300), and the drop of an Assistant Attorney (\$62,600), offset by the addition of a Senior Attorney and a Deputy General Counsel (\$319,600).

**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017	2018	2019	
			Actual	Budgeted	Estimated	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Cases	18	20	20	
		Cost	\$ 46,133	\$ 46,800	\$ 48,400	
		Cost/Case	\$ 2,562.94	\$ 2,340.00	\$ 2,420.00	
4660	Waste Monitoring					
	Provide Legal Representation and Administrative Support for:					
4662	User Charge Ordinance - Tax-Exempt Users	Cases	15	7	30	a)
		Cost	\$ 45,701	\$ 52,500	\$ 53,600	
		Cost/Case	\$ 3,046.73	\$ 7,500.00	\$ 1,786.67	
4663	User Charge - Large Commercial/Industrial Users	Cases	26	21	21	
		Cost	\$ 214,049	\$ 240,800	\$ 218,200	
		Cost/Case	\$ 8,232.65	\$ 11,466.67	\$ 10,390.48	
4667	Sewage and Waste Control Ordinance - Significant Industrial Users	Cases	12	13	13	
		Cost	\$ 149,153	\$ 152,200	\$ 146,800	
		Cost/Case	\$ 12,429.42	\$ 11,707.69	\$ 11,292.31	
7350	General Litigation					
	Provide Prosecution and Defense Services to Protect the Interests of the District:					
7351	Legislative	Cost	\$ 147,198	\$ 190,800	\$ 199,800	
7352	Financial Matters	Cost	\$ 155,110	\$ 168,000	\$ 173,400	
7353	Environmental and Regulatory Matters	Cost	\$ 657,699	\$ 740,600	\$ 781,100	
7354	Contract Administration	Cost	\$ 332,945	\$ 372,100	\$ 376,600	
7355	Litigation	Cost	\$ 606,779	\$ 1,196,500	\$ 757,700	b)
7356	Employment Matters	Cost	\$ 609,488	\$ 744,100	\$ 685,200	
7359	General Legal Services	Cost	\$ 736,044	\$ 772,800	\$ 920,100	c)
7360	Real Estate Operations					
	Provide Administration of All District Land:					
7361	Real Estate Leases - Administration of Leases and Granting of Leases	Leases	172	180	177	
		Cost	\$ 110,279	\$ 116,600	\$ 121,500	
		Cost/Lease	\$ 641.16	\$ 647.78	\$ 686.44	
7362	Real Estate Easements - Administration of Easements and Granting of New Easements	Easements	387	382	391	
		Cost	\$ 108,899	\$ 112,800	\$ 116,000	
		Cost/Easement	\$ 281.39	\$ 295.29	\$ 296.68	
7363	Real Estate Permits - Administration of Permits and Granting of New Permits	Permits	75	73	78	
		Cost	\$ 97,813	\$ 101,600	\$ 104,500	
		Cost/Permit	\$ 1,304.17	\$ 1,391.78	\$ 1,339.74	
a) Increase is due to a change in collection procedures to address uncollectible accounts in a more systematic manner. b) Decrease is due to the reduction in outside professional services for special counsel on environmental matters (\$400,700). c) Increase is due to the addition of a Deputy General Counsel (\$197,900).						

**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
7367	Real Estate Asset Management - Administer Plan to Increase Revenue by Lease/Sale of Real Estate Holdings	Cost	\$ 426,475	\$ 447,400	\$ 593,000	d)
7368	Real Estate Environmental Assessment - Administer Activities Related to Environmental Assessment and Remediation of Real Estate Holdings	Cost	\$ 186,744	\$ 455,400	\$ 377,800	e)
7369	Other Real Estate Operations, Including Development of Agenda, Providing Information, Tax Litigation, and Support Services to the Board of Commissioners	Cost	\$ 533,383	\$ 628,800	\$ 668,900	
	Payment of Real Estate Taxes	Cost	\$ 689,000	\$ 890,000	\$ 755,000	f)
7604	Social Security and Medicare Contributions	Cost	\$ 67,312	\$ 73,000	\$ 80,100	
	Totals		\$ 5,920,204	\$ 7,502,800	\$ 7,177,700	

d) Increase is due to the addition of a Senior Administrative Specialist and an Investigator (\$133,000).  
 e) Decrease is due to the reduction in legal fees for environmental assessments (\$99,600).  
 f) Decrease is due to the reduction of the assessed value of Will County properties (\$135,000).



101 30000	Fund: Corporate Department: Law	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 4,682,750	\$ 5,083,100	\$ 5,083,100	\$ 4,808,600	\$ 5,485,500	\$ 5,485,500	\$ 5,493,700
601060	Compensation Plan Adjustments	111,951	139,300	139,300	136,300	139,700	139,700	140,400
601070	Social Security and Medicare Contributions	67,312	73,000	73,000	68,700	80,000	80,000	80,100
601100	Tuition and Training Payments	10,819	14,000	14,000	12,000	14,000	14,000	14,000
100	TOTAL PERSONAL SERVICES	4,872,831	5,309,400	5,309,400	5,025,600	5,719,200	5,719,200	5,728,200
612010	Travel	4,284	5,000	5,000	4,500	5,000	5,000	5,000
612030	Meals and Lodging	9,320	13,000	13,000	11,500	13,000	13,000	13,000
612040	Postage, Freight, and Delivery Charges	368	1,000	1,000	800	1,000	1,000	1,000
612050	Compensation for Personally-Owned Automobiles	3,776	5,100	5,100	3,500	5,100	5,100	5,100
612090	Reprographic Services	1,632	17,000	17,000	1,500	17,000	17,000	17,000
612250	Court Reporting Services	10,074	50,000	59,000	13,000	27,000	27,000	27,000
612430	Payments for Professional Services	237,587	1,090,300	1,081,300	500,000	500,000	500,000	500,000
612490	Contractual Services, N.O.C.	81,746	103,800	103,800	102,000	107,800	107,800	107,800
200	TOTAL CONTRACTUAL SERVICES	348,787	1,285,200	1,285,200	636,800	675,900	675,900	675,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	2,993	5,500	5,500	3,500	5,200	5,200	5,200
623720	Books, Maps, and Charts	9,509	12,300	12,300	11,000	13,000	13,000	13,000
623990	Materials and Supplies, N.O.C.	—	400	400	100	400	400	400
300	TOTAL MATERIALS AND SUPPLIES	12,502	18,200	18,200	14,600	18,600	18,600	18,600
667130	Taxes on Real Estate	686,083	890,000	890,000	700,000	755,000	755,000	755,000
700	TOTAL FIXED AND OTHER CHARGES	686,083	890,000	890,000	700,000	755,000	755,000	755,000
TOTAL LAW		\$ 5,920,204	\$ 7,502,800	\$ 7,502,800	\$ 6,377,000	\$ 7,168,700	\$ 7,168,700	\$ 7,177,700

NOTES: 1. Amounts may not add up due to rounding.

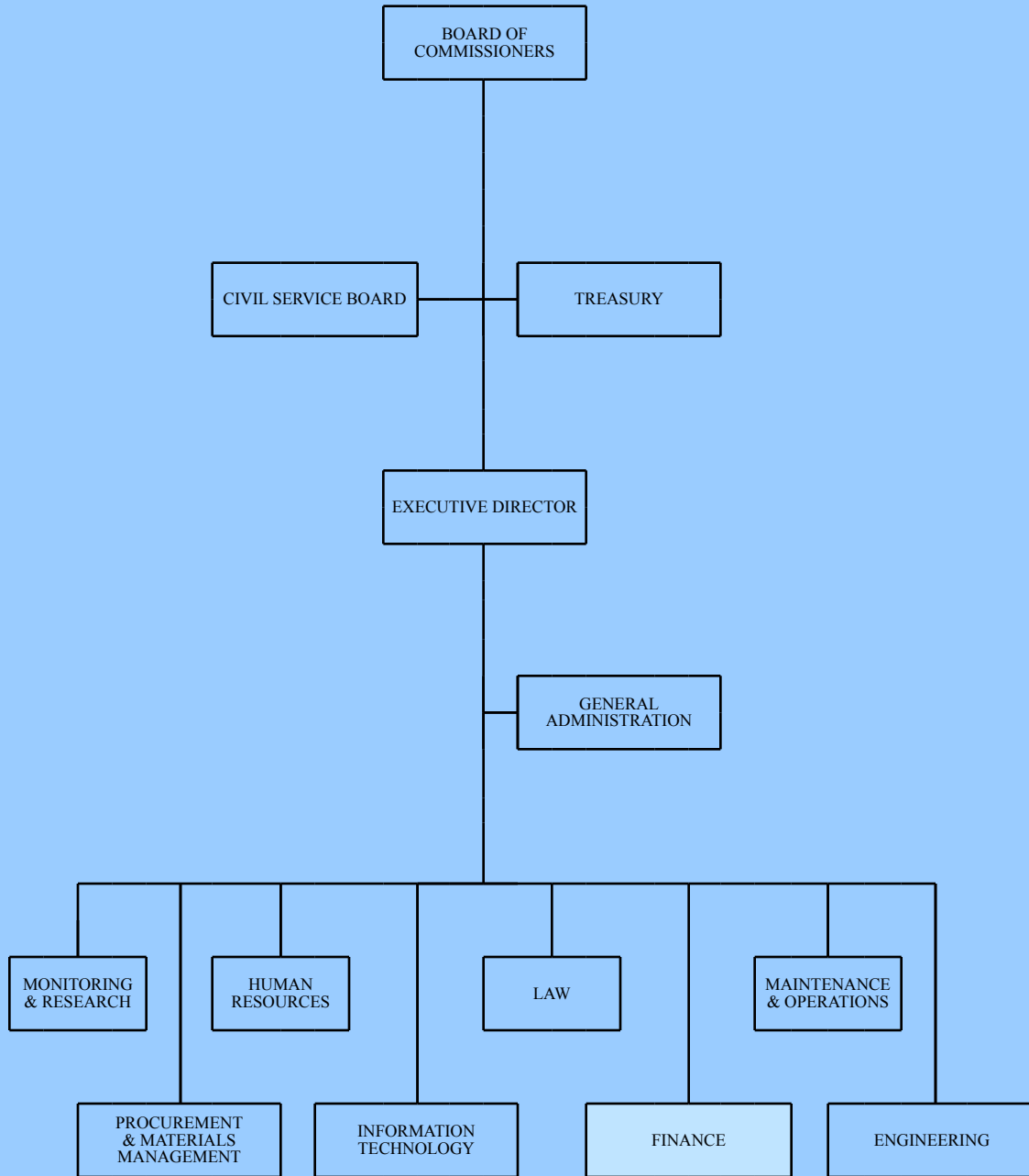
2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.

Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>310</b>	<b>Executive Division</b>					
<b>311</b>	<b>Executive Office</b>					
EX12	General Counsel	1	1		1	
HP23	Deputy General Counsel	1	—		1	
HP22	Head Assistant Attorney	1	1		1	
EX06	Secretary to Officer	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Executive Office	5	4	667,135.78	5	889,090.42
TOTAL	Executive Division	5	4	667,135.78	5	889,090.42
<b>320</b>	<b>Real Estate / General Administration Division</b>					
<b>321</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	166,444.29	1	179,480.47
<b>323</b>	<b>Real Estate / General Administration Section</b>					
HP18	Senior Attorney	1	1		1	
HP15	Senior Legal Assistant	2	2		2	
HP13	Investigator	—	1		1	
HP13	Investigator #1	—	—		1	
HP13	Investigator #2 (Legal Assistant)	1	—		—	
HP11	Administrative Specialist	1	1		1	
TOTAL	Real Estate / General Administration Section	5	5	518,543.96	6	611,405.35
<b>324</b>	<b>Real Estate / Asset Management Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	1	1		2	
HP16	Assistant Attorney	—	1		—	
HP13	Legal Assistant	1	1		1	
HP13	Senior Administrative Specialist	1	1		2	
TOTAL	Real Estate / Asset Management Section	4	5	578,310.19	6	700,602.42
TOTAL	Real Estate / General Administration Division	10	11	1,263,298.44	13	1,491,488.24

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>340</b>	<b>Contract &amp; Finance Division</b>					
<b>341</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	233,060.93	1	237,722.10
<b>342</b>	<b>Contract &amp; Finance Section</b>					
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		—	
TOTAL	Contract & Finance Section	6	6	829,235.30	5	744,000.04
TOTAL	Contract & Finance Division	7	7	1,062,296.23	6	981,722.14
<b>360</b>	<b>Environmental, Construction, &amp; Tort Division</b>					
<b>361</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	233,060.93	1	208,602.08
<b>362</b>	<b>Environmental Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		3	
HP16	Assistant Attorney	—	1		—	
HP13	Legal Assistant	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Environmental Section	5	6	661,631.79	6	723,248.66
<b>332</b>	<b>Construction &amp; Tort Section</b>					
HP20	Principal Attorney	2	2		2	
TOTAL	Construction & Tort Section	2	2	376,422.23	2	349,821.35
TOTAL	Environmental, Construction, & Tort Division	8	9	1,271,114.95	9	1,281,672.09

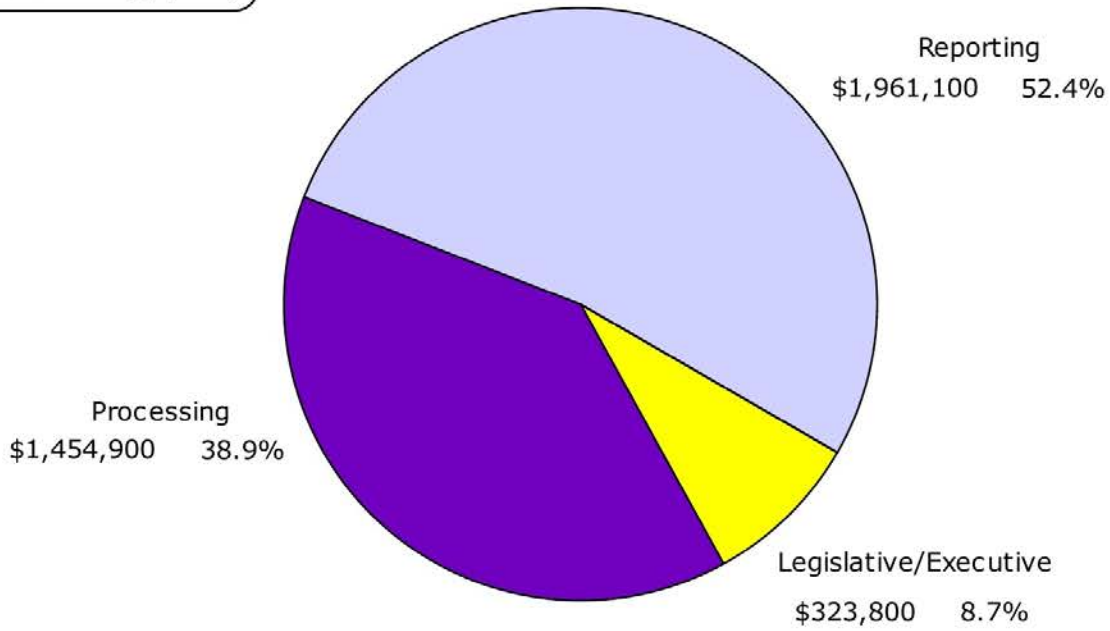
Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>370</b>	<b>Employment Division</b>					
<b>371</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL	Administrative Section	1	1	233,060.94	1	237,722.10
<b>372</b>	<b>Employment Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		2	
HP13	Legal Assistant	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Employment Section	5	5	611,464.98	5	639,392.42
TOTAL	Employment Division	6	6	844,525.92	6	877,114.52
TOTAL	Law	36	37	5,108,371.32	39	5,521,087.41
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.						



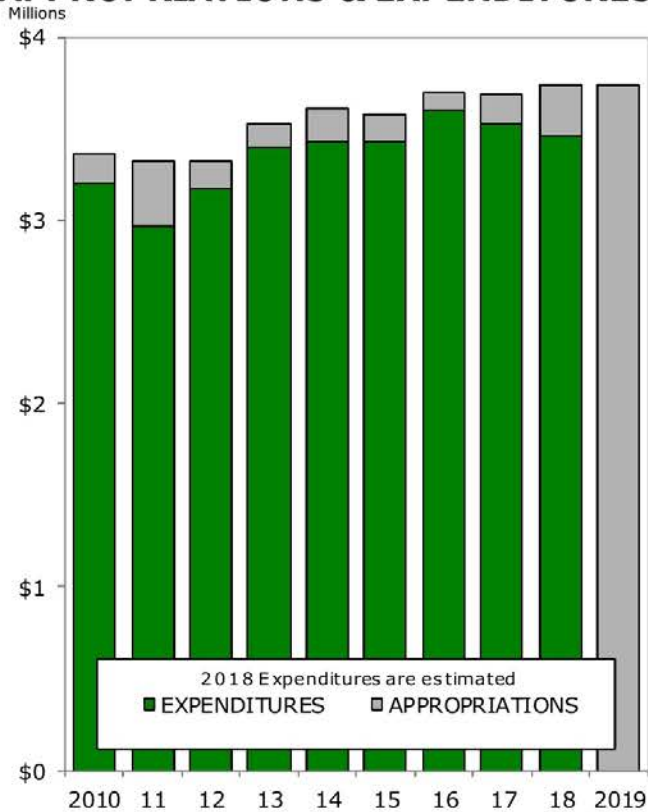
# FINANCE

## FUNCTIONS

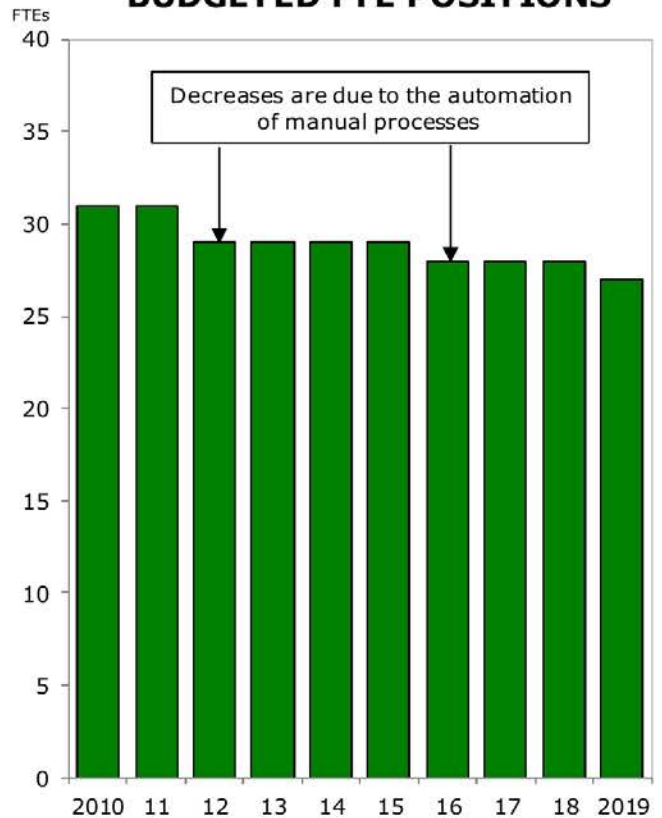
2019	\$3,739,800
2018	\$3,743,900
Decrease	(\$4,100)



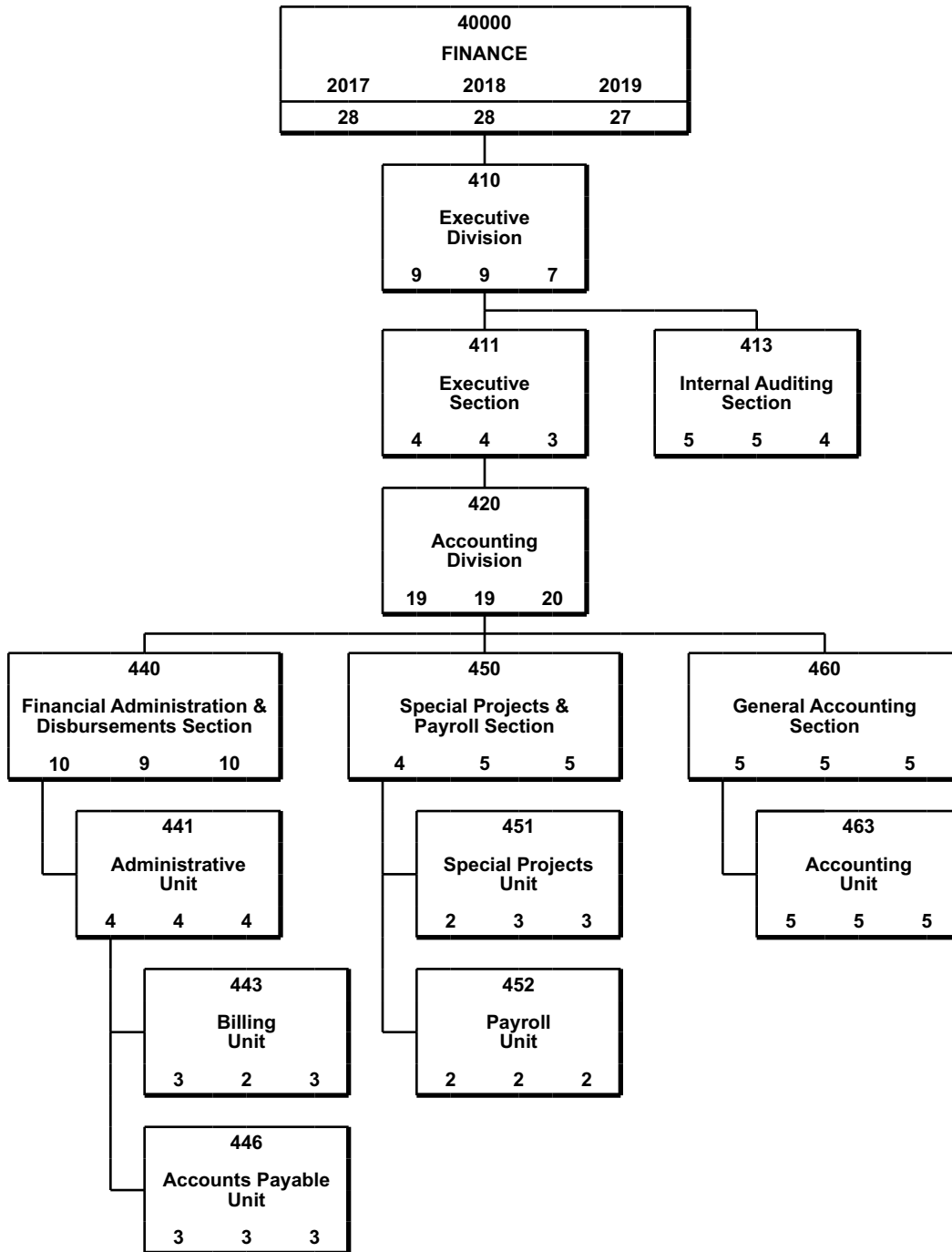
## APPROPRIATIONS & EXPENDITURES



## 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:

- Auditing and reporting District financial information and auditing of operational performance, compliance, and internal controls;
- Processing District financial transactions including vendor payments, payroll, billing, and collection activities;
- Creating Board of Commissioner agenda and minutes and maintaining 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 2018 Accomplishments

- The District was presented with the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for the 2017 Comprehensive Annual Financial Report (CAFR) for the 43rd consecutive year;
- The District received an unmodified opinion on the fair presentation, in all material aspects, of the District's 2017 financial statements from external auditors. This achievement aids in maintaining the District's excellent bond credit rating;
- Completed the 2018 CAFR using the newly implemented CAFR publishing solution, resulting in a more efficient report process;
- Implemented Government Accounting Standards Board (GASB) pronouncement 75, Accounting and Financial Reporting for Postemployment Benefits other than Pensions, to improve transparency of Other Postemployment Benefits obligations;
- Completed 13 internal audit projects and provided complex financial reviews of all prospective tenant lease applications. Additionally, Internal Audit completed a request for proposal for court reporting services. Internal Audit reviewed and assessed various District processes and provided recommendations to improve efficiencies and mitigate risk. Audits also assessed compliance with various District processes and suggested best practice improvements when applicable. Routine internal audits included reviews and monitoring of internal system controls, employee expense reimbursements, procurement card expenditures, and contract compliance. Specialized reviews included residency compliance, statutory spending compliance, utilization of vendor cash discounts, and condition assessment ratings of capitalized infrastructure assets;
- Modified the WorkForce automated time management system to implement a new parental leave benefit with the addition of a new pay code and added a reimbursement column to the manager approval screen;
- 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 2019 appropriation for the Finance Department is \$3,739,800, a decrease of \$4,100, or 0.1 percent, from 2018. The staffing level has decreased from 28 to 27 positions, which includes the drop of one Secretary to Officer position.

Significant features of the 2019 Budget are:

- Increase compliance, efficiency, and accuracy with the implementation of a cloud based travel and expense management software with the ability to capture expenses electronically;
- Early implementation of GASB pronouncement 87, Leases, to improve accounting and financial reporting for leases by governments.

### 2019 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. The Finance Department plans to 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 GASB 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 33 percent of staff in the last five 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 solutions for data collection and monitoring for GASB pronouncement 87, Leases;
- Implement cloud based travel and expense management software with the ability to capture expenses electronically;
- Improve the Accounts Payable System by increasing the number of vendors paid via the Automated Clearing House;
- Provide online 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.	\$ 1,454,900	38.9%
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.	\$ 1,961,100	52.4%
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.	\$ 323,800	8.7%
<b>Totals</b>	<b>\$ 3,739,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017 Actual	2018 Estimated	2019 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%

PROGRAMS BY PRIORITY:		2017 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
4663	User Charge Ordinance - Large Commercial/Industrial Users	\$ —	2019 3	\$ 280,900	\$ 280,900	100.0	a)
			2018 —	\$ —			
7394	Transaction Processing	\$ 1,317,114	2019 11	\$ 1,174,000	\$ (149,100)	(11.3)	
			2018 13	\$ 1,323,100			
7396	Reporting	\$ 1,716,219	2019 11	\$ 1,914,600	\$ (10,000)	(0.5)	
			2018 12	\$ 1,924,600			
7398	Legislative/Executive	\$ 453,759	2019 2	\$ 323,800	\$ (126,400)	(28.1)	b)
			2018 3	\$ 450,200			
7604	Social Security and Medicare Contributions	\$ 42,562	2019 —	\$ 46,500	\$ 500	1.1	
			2018 —	\$ 46,000			
<b>Totals</b>		<b>\$ 3,529,654</b>	2019 27	<b>\$ 3,739,800</b>	<b>\$ (4,100)</b>	<b>(0.1)%</b>	
			2018 28	<b>\$ 3,743,900</b>			

a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$280,900).

b) Decrease is due to the drop of one Secretary to Officer position (\$101,800) and the reallocation of salaries to more accurately reflect current activities (\$26,500).

**40000 FINANCE**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
4660	Waste Monitoring					
4663	User Charge Ordinance - Large Commercial/Industrial Users	Cost	\$ —	\$ —	\$ 280,900	a)
7390	Accounting and Auditing					
7394	Transaction Processing	Transactions	73,680	77,700	77,700	
		Cost	\$ 1,317,114	\$ 1,323,100	\$ 1,174,000	
		Cost/Transaction	\$ 17.88	\$ 17.03	\$ 15.11	
7396	Reporting	Cost	\$ 1,716,219	\$ 1,924,600	\$ 1,914,600	
7398	Legislative/Executive	Cost	\$ 453,759	\$ 450,200	\$ 323,800	b)
7604	Social Security and Medicare Contributions	Cost	\$ 42,562	\$ 46,000	\$ 46,500	
		Totals	\$ 3,529,654	\$ 3,743,900	\$ 3,739,800	

a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$280,900).

b) Decrease is due to the drop of one Secretary to Officer position (\$101,800) and the reallocation of salaries to more accurately reflect current activities (\$26,500).

101 40000	Fund: Corporate Department: Finance	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 3,052,435	\$ 3,217,600	\$ 3,207,700	\$ 3,002,700	\$ 3,101,900	\$ 3,101,900	\$ 3,187,300
601060	Compensation Plan Adjustments	21,234	41,500	41,500	20,000	111,900	111,900	115,400
601070	Social Security and Medicare Contributions	42,562	46,000	46,000	41,900	45,300	45,300	46,500
601100	Tuition and Training Payments	29,993	30,000	39,900	39,900	30,000	30,000	30,000
100	TOTAL PERSONAL SERVICES	3,146,224	3,335,100	3,335,100	3,104,500	3,289,100	3,289,100	3,379,200
612010	Travel	770	12,800	12,300	3,000	11,000	11,000	11,000
612030	Meals and Lodging	2,459	13,600	13,600	7,500	6,100	6,100	6,100
612040	Postage, Freight, and Delivery Charges	40	100	100	100	500	500	500
612050	Compensation for Personally-Owned Automobiles	416	—	—	—	100	100	100
612090	Reprographic Services	2,298	2,300	2,300	2,300	2,500	2,500	2,500
612250	Court Reporting Services	59,378	50,000	50,000	50,000	50,000	50,000	50,000
612340	Discount Lost	2,651	1,500	2,000	2,000	3,000	3,000	3,000
612430	Payments for Professional Services	304,426	306,700	306,600	280,000	282,800	257,800	257,800
612490	Contractual Services, N.O.C.	1,015	1,500	1,500	1,100	2,000	2,000	2,000
612800	Repairs to Office Furniture and Equipment	—	4,900	5,000	5,000	5,000	5,000	5,000
200	TOTAL CONTRACTUAL SERVICES	373,452	393,400	393,400	351,000	363,000	338,000	338,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	9,934	13,400	13,400	7,000	20,600	20,600	20,600
623720	Books, Maps, and Charts	44	1,500	1,500	1,500	1,500	1,500	1,500
623990	Materials and Supplies, N.O.C.	—	500	500	500	500	500	500
300	TOTAL MATERIALS AND SUPPLIES	9,978	15,400	15,400	9,000	22,600	22,600	22,600
TOTAL FINANCE		\$ 3,529,654	\$ 3,743,900	\$ 3,743,900	\$ 3,464,500	\$ 3,674,700	\$ 3,649,700	\$ 3,739,800

NOTES: 1. Amounts may not add up due to rounding.

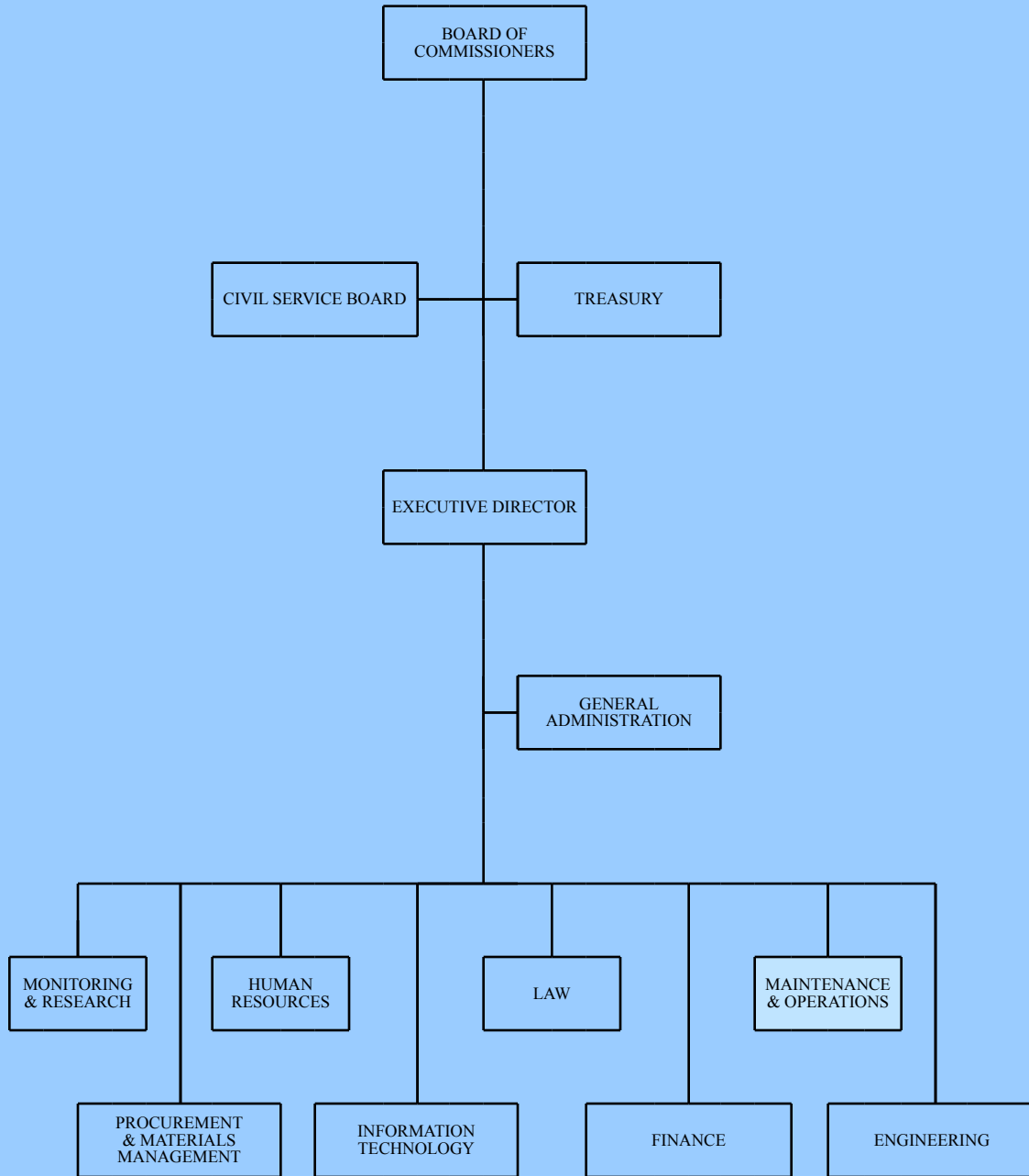
2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.

Additionally, Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.

Fund: Corporate Dept: Finance		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>410</b>	<b>Executive Division</b>					
<b>411</b>	<b>Executive Section</b>					
EX13	Clerk/Director of Finance	1	1		1	
HP21	Comptroller #4	1	1		1	
EX06	Secretary to Officer	2	2		1	
TOTAL	Executive Section	4	4	658,384.72	3	534,573.98
<b>413</b>	<b>Internal Auditing Section</b>					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	1	2		2	
HP16	Financial Analyst	2	1		1	
HP12	Accounting Associate	1	1		—	
TOTAL	Internal Auditing Section	5	5	598,957.91	4	539,645.39
TOTAL	Executive Division	9	9	1,257,342.63	7	1,074,219.37
<b>420</b>	<b>Accounting Division</b>					
<b>440</b>	<b>Financial Administration &amp; Disbursements Section</b>					
<b>441</b>	<b>Administrative Unit</b>					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP17	Supervising Accountant #2 (Financial Analyst) (New Grade HP16)	2	1		1	
HP16	Financial Analyst	—	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	4	4	508,937.37	4	519,116.27
<b>443</b>	<b>Billing Unit</b>					
HP12	Accounting Associate	3	2		3	
TOTAL	Billing Unit	3	2	135,834.65	3	221,880.37
<b>446</b>	<b>Accounts Payable Unit</b>					
HP13	Accounting Clerk III #2 (Accounting Associate) (New Grade HP12)	1	1		1	
HP12	Accounting Associate	2	2		2	
TOTAL	Accounts Payable Unit	3	3	231,649.01	3	212,838.65
TOTAL	Financial Administration & Disbursements Section	10	9	876,421.03	10	953,835.29

Fund: Corporate Dept: Finance		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>450</b>	<b>Special Projects &amp; Payroll Section</b>					
<b>451</b>	<b>Special Projects Unit</b>					
HP19	Accounting Manager #2 (New Grade HP18)	1	1		1	
HP16	Financial Analyst	1	1		1	
HP14	Budget & Management Analyst	—	1		1	
TOTAL	Special Projects Unit	2	3	334,132.91	3	341,302.05
<b>452</b>	<b>Payroll Unit</b>					
HP16	Financial Analyst	1	1		2	
HP12	Accounting Associate	1	1		—	
TOTAL	Payroll Unit	2	2	185,447.20	2	230,029.44
TOTAL	Special Projects & Payroll Section	4	5	519,580.11	5	571,331.49
<b>460</b>	<b>General Accounting Section</b>					
<b>463</b>	<b>Accounting Unit</b>					
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)	1	1		1	
HP12	Accounting Associate	1	1		1	
TOTAL	Accounting Unit	5	5	580,263.43	5	603,915.04
TOTAL	General Accounting Section	5	5	580,263.43	5	603,915.04
TOTAL	Accounting Division	19	19	1,976,264.57	20	2,129,081.82
TOTAL	Finance	28	28	3,233,607.20	27	3,203,301.19
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix.						

**NOTE PAGE**

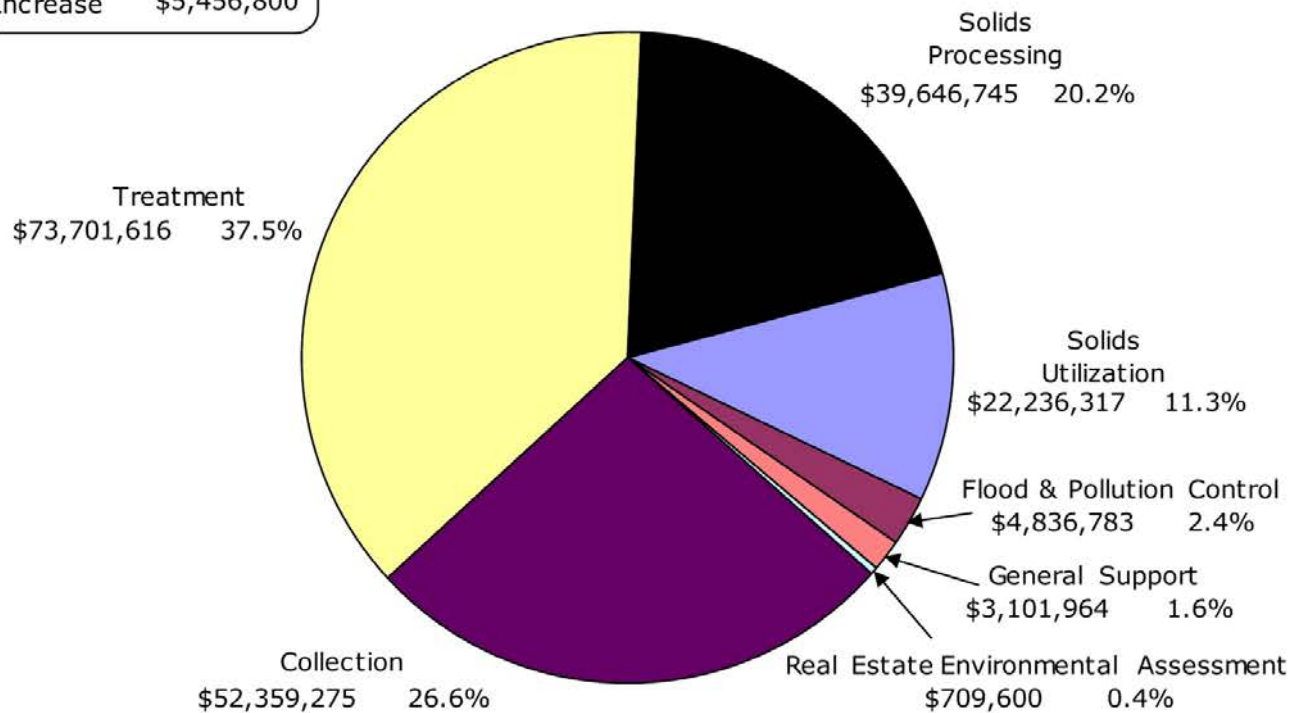




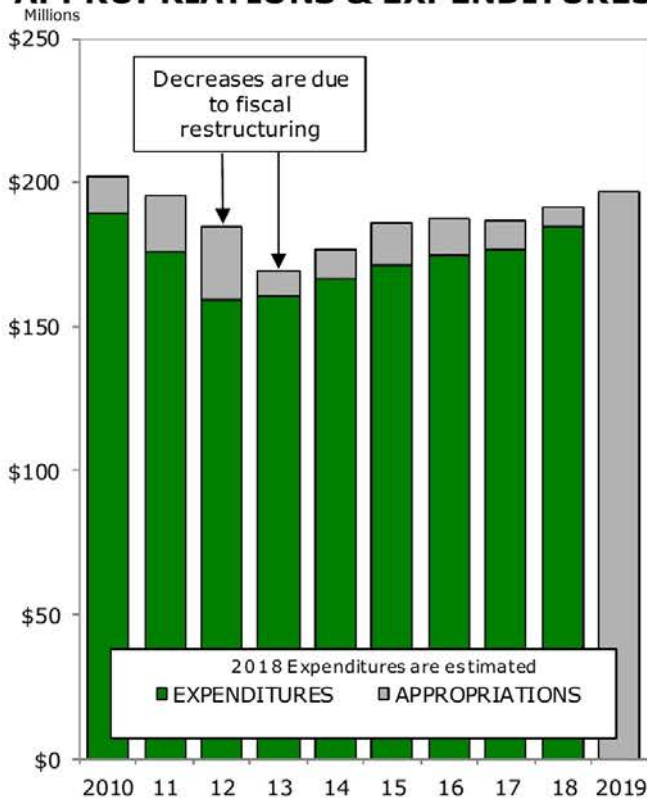
# MAINTENANCE & OPERATIONS – ALL DIVISIONS

2019	\$196,592,300
2018	\$191,135,500
Increase	\$5,456,800

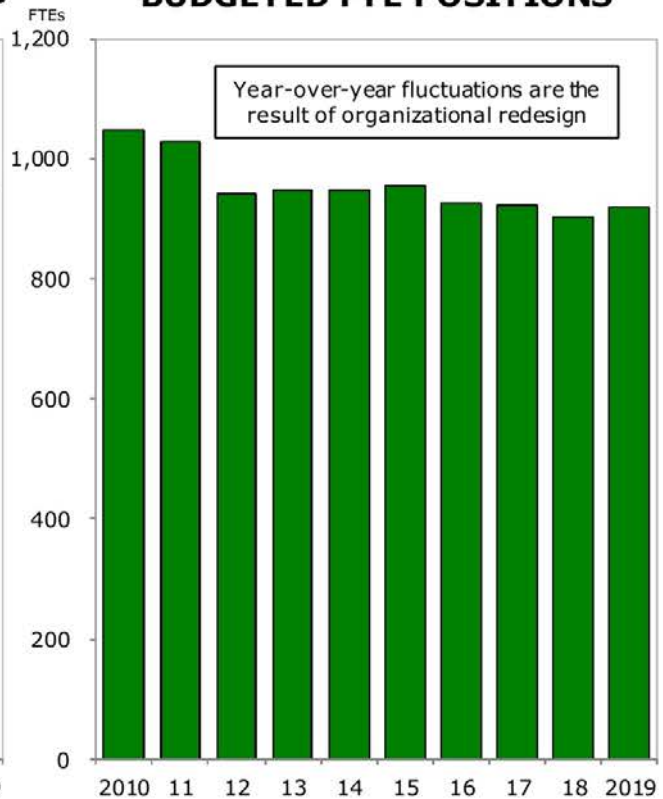
## FUNCTIONS



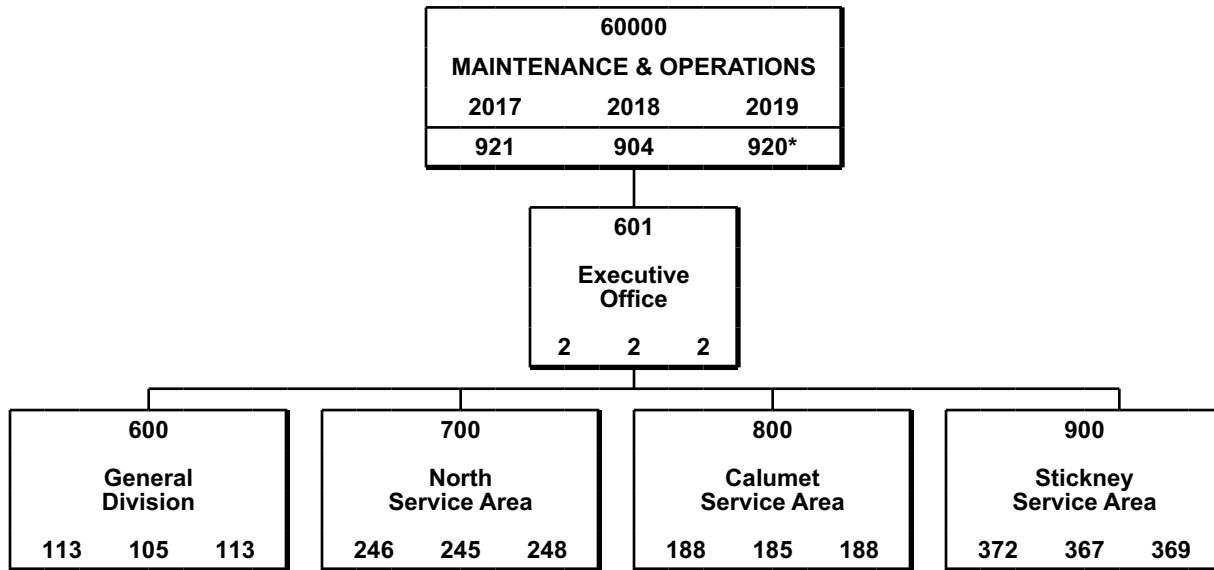
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



## MAINTENANCE & OPERATIONS - ALL DIVISIONS



\* The 2019 position total for the Maintenance & Operations Department is 920. 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. Three of the divisions, referred to as the Calumet Service Area, the North Service Area, and the Stickney Service Area, collectively maintain and operate the collection systems and treatment plants within the District's 882.1 square mile service area, serving a population of 5.25 million people. The fourth division, referred to as the General Division, maintains and operates the Lockport Powerhouse, the waterways, the collection systems, and nine solids management areas. The department's primary responsibilities include:

- Collecting and treating approximately 492.6 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, which is the byproduct of wastewater treatment, for beneficial reuse.

### Summary of 2018 Accomplishments

- Created a pilot-scale bagging program for marketing the District's Class A Exceptional Quality (EQ) compost and completed other improvements for marketing EQ biosolids, such as updating the website and creating online ordering forms;
- Received a commendation from the National Biosolids Partnership for establishing an elite biosolids program that has met and exceeded national standards for the last 10 years;
- Installed drainage water management and denitrifying bioreactor systems at the District's Fulton County site to assist the Monitoring & Research Department's demonstration of nutrient runoff recapture as a means of enhancing watershed health;
- Began installation of a second turbo blower at the Hanover Park Water Reclamation Plant (WRP), which will improve aeration process efficiency and reduce electrical energy costs;
- Rehabilitated six main sewage pump motors at the O'Brien WRP. The work was accomplished by District staff who cleaned and re-varnished the motors, conducted electrical testing, and corrected all abnormalities revealed during inspection;
- Completed performance testing of ANITA™ Mox system for sidestream deammonification process at the Egan WRP, which will treat post-dewatering process centrate and thereby minimize its pumping to the O'Brien WRP for treatment;
- Completed installation of an upgraded sludge concentration conveyor at the Calumet WRP, which will ensure efficient debris removal from sludge screenings and decrease future maintenance costs;
- Began installation of programmable fire alarm panels and network components at the Calumet WRP, which will replace existing obsolete equipment and improve the ability to maintain critical life-safety systems;
- Completed installation of 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;
- Introduced high strength organic material to Aeration Battery D at the Stickney WRP, to enhance the biological phosphorus removal process.

### Budget Highlights

The 2019 appropriation for the M&O Corporate Fund is \$196,592,300, an increase of \$5,456,800, or 2.9 percent, from 2018. The Corporate Fund staffing level has increased from 904 to 920 positions. The increase is due to the addition of two Associate Process Control Engineers, two Electrical Mechanics, two Engineering Technician V positions, one Machinist, two Maintenance Laborer Class A positions, one Maintenance Laborer Class A Shift, one Master Mechanic, one Operating Engineer II, and one Systems Dispatcher, and the transfer in of four positions from the Monitoring & Research Department including one Associate Electrical Engineer, one Associate Mechanical Engineer, one Senior Electrical Engineer, and one Senior Mechanical Engineer and one Associate Civil Engineer from the Engineering Department, offset by the drop of one Assistant Engineer of Treatment Plant Operations II and one Engineering Technician IV. Four of the added positions will not be filled until four existing positions, one Maintenance Laborer Class A Shift, two Maintenance Laborer Class B positions, and one Master Mechanic I, are vacated. An additional 27 positions are funded in the Stormwater Management Fund. The total 2019 position count is 947, compared to the total 2018 position count of 931.

The Strategic Business Plan (SBP) guides and informs the M&O Department’s activities. From a large-scale project to a routine task, each activity links to the plan. In 2019, M&O will continue to advance the SBP, its six goals, and accompanying strategies.

**2019 Initiatives in Support of the Strategic Business Plan Include the Following:**

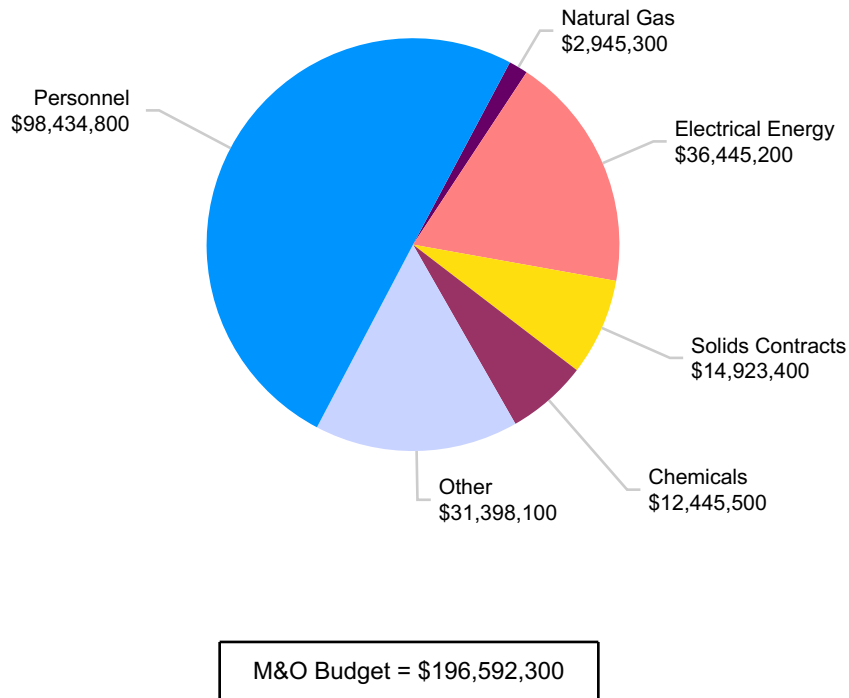
• **Add Value**

The Lockport Powerhouse was built in 1907 and marks the southwestern extent of the District-managed Chicago Area Waterway System (CAWS). It was recognized by the National Park Service with a listing on the National Register of Historic Places on March 10, 2004. However, its value is not just as a site with architectural or historic merit. The facility is integral to managing the CAWS and reducing the risk of flooding throughout the District’s service area. The Lockport Powerhouse enables the District to control the levels of the canal.

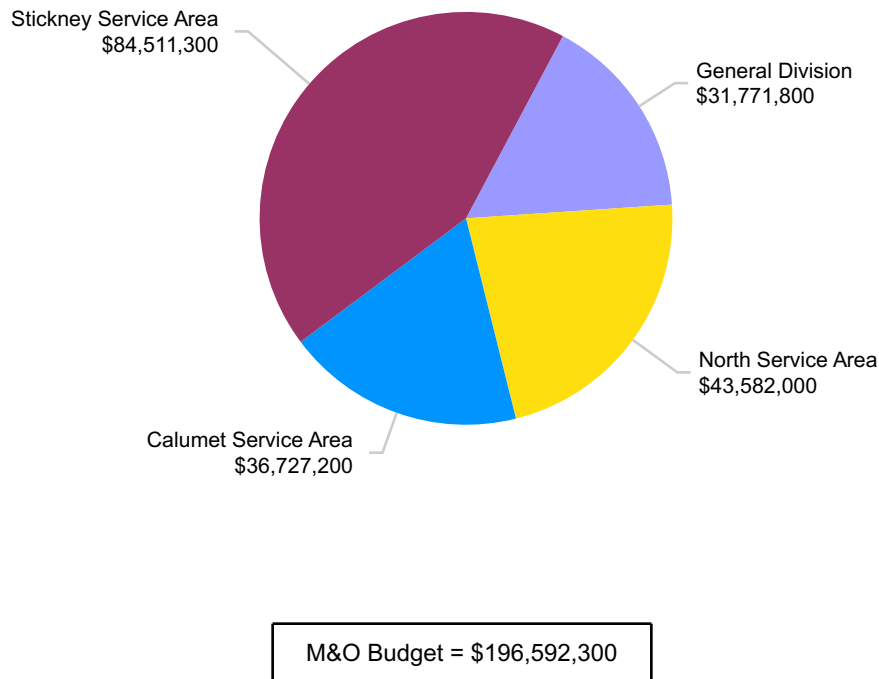
In addition to its role in managing the waterways, the Lockport Powerhouse also adds value by providing financial benefits from hydroelectric power generation. The water flowing through the facility is harnessed by two turbines to provide a safe and environmentally friendly hydroelectric energy source that is sold back to Commonwealth Edison. By the end of December 2017, the Lockport Powerhouse generated 37,583,707 kilowatt hours of power and \$1.3 million in revenue. Projected generation for 2018 and 2019 is 40,000,000 kilowatt-hours annually, with a projected annual value of approximately \$1.3 million for 2018 and \$1.2 million for 2019.

The District actively looks for opportunities to leverage existing resources, including real estate, a strategy specified in the SBP. In support of that strategy, M&O is 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. Beginning in 2018, two drainage water management systems and three denitrifying bioreactor systems covering 82 acres of farmland were installed. The systems are part of a project to demonstrate and study the recapture of nutrient runoff as a means of enhancing watershed health.

**2019 Appropriations by Major Line Item**



### 2019 Appropriations by Service Area



- Excellence**

Creating and maintaining a culture of excellence is no small task. The District’s commitment to this goal was once again made apparent when the National Association for Clean Water Agencies recently honored the organization for successfully meeting the highest standards in producing clean water. In recognition of decades of complete and consistent compliance of National Pollutant Discharge Elimination System permits, the District received Platinum Peak Performance awards at five of its WRPs, a distinction provided to treatment plants that have reached this status for five consecutive years. The following facilities have earned Platinum status: the Calumet WRP for 26 years; the Lemont WRP for 21 years, the Kirie WRP for 13 years, the O’Brien WRP for 12 years, and the Hanover Park WRP for 10 years. In addition, the Egan WRP earned a gold award for the fourth straight year, and the Stickney WRP earned a silver award for meeting 99.94 percent compliance. For 2017, the year most recently considered, the District achieved an overall compliance rate of 99.99 percent. These awards represent the District’s enduring excellence in the face of more stringent regulatory requirements, aging infrastructure, changing weather patterns, and new demands for waterway activity.

The SBP clearly establishes the strategies necessary to achieve excellence, with process optimization as one of the central themes. Using the SBP 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 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 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.

When considering the electrical energy required to run a wastewater treatment plant, and the substantial costs involved, both the demand side and the supply side of the equation need to be managed effectively. On the supply side, the District is driving down energy costs by purchasing electrical energy at discounted rates through a competitive auction. The District also participates in a voluntary energy curtailment program and expects to receive a \$2.1 million rebate for the 2018-2019 period. The program requests participants to reduce electrical energy usage voluntarily when the region’s electrical energy grid is on the verge of a brownout or blackout due to high usage.

Since joining the curtailment program in 1997, the District has received approximately \$13.0 million in total revenue for reducing electrical energy usage at designated times. Historically, the District has used a curtailment service provider (CSP) to register for the program. On average, a CSP charges 10 percent of the total compensation. Fortunately, the District no longer needs the services of a CSP because on May 3, 2018, the Board of Commissioners approved the District’s membership in Pennsylvania-New Jersey-Maryland Interconnection, a regional transmission organization that coordinates the movement of wholesale electrical energy in several states, including Illinois. As a member, the District can register assets to participate in the base residual auction without assistance of a CSP. For the 2021-2022 calendar year (the earliest available), the District will commit to curtail 36.887 megawatt hours. The committed amount will be pooled with other members’ commitments and sold at the demand response auction. Each participating member will receive an equal dollar value per megawatt hour. Energy curtailment is a smart choice for the District as it saves money and helps the environment by reducing energy usage, which reduces the emission of greenhouse gases. Curtailment also follows the SBP strategy that calls for the responsible use of resources in the delivery of services.

Excellence can also be achieved by organizing departments and work groups to allow for greater operational efficiency. Putting this idea into practice, the oversight of the biosolids pelletization facility will be transferred from the Stickney Service Area to the General Division’s Solids Management Section in 2019. The facility, which operates under a 20-year contract issued by the District, employs indirect drying technology to convert biosolids into EQ organic fertilizer pellets and soil conditioner, which are then sold to a number of industries. Because the facility is a key component of the Biosolids Management Program, it makes sense to move responsibility for the facility and its contractual obligations to the section and staff charged with running the program.

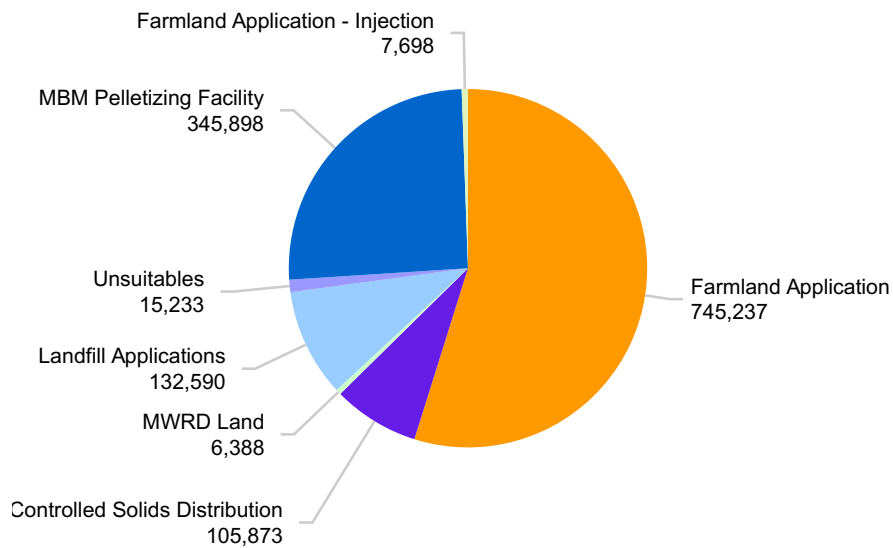
• **Resource Recovery**

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.

Biosolids are produced 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 successfully lobbied the State of Illinois to recognize EQ biosolids in the same manner as the United States Environmental Protection Agency: as a product safe for distribution and sale. As proof of their quality and inherent value, the District’s compost and air-dried biosolids products are registered with the Illinois Department of Agriculture as soil amendments, which affords the District the ability to create a commercial market for these products within its service area.

The chart below 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 undoubtedly evolve over time.

**Resource Recovery: Biosolids Reuse (in Dry Tons)  
2008 - 2017**



**Total: 1,358,917 Dry Tons**

The District has made strides in developing the biosolids market through several initiatives including a pilot program to distribute bags of composts at different venues, attendance at trade and landscaping events to showcase the EQ product, and a mutually beneficial arrangement with the Illinois Tollway to provide compost for their extensive landscaping work. In order to receive the necessary bulking agents to create high-quality composted biosolids, the District has developed a yard waste acceptance program, two major elements of which are an Intergovernmental Agreement with the City of Chicago and the District's Resource Recovery Ordinance.

Over 99 percent of all compost distributions in 2018 were made at no cost to non-profit organizations, golf courses, and public entities. In order to encourage increased compost use among local residents and businesses, the same no-charge policy was extended to all compost users in October 2018. By encouraging bulk compost users to pick up material from the District's compost generation sites, the cost to transport biosolids was reduced by approximately \$200,000 in 2018. Transportation savings will continue to increase in 2019 and beyond as interest in the District's compost grows. In 2018, the District also collected over \$10,000 from the receipt of clean feedstock for the composting program. A similar amount is anticipated for 2019.

All of these programs, actions, and initiatives are designed to cultivate a local customer base, improve product performance, and advance the goal of Resource Recovery.

Regulations regarding the amount of phosphorus contained in treated effluent have become increasingly strict. 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, in partnership with Ostara Nutrient Recovery Technology Inc. (Ostara), 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 uses patented fluid bed reactors (43-foot high stainless steel vats) to extract phosphorus and ammonia from the waste stream by adding appropriate doses of magnesium chloride and caustic to form a precipitation reaction. The result is fertilizer pellets rich in phosphorus, nitrogen, and magnesium that are dried and bagged for sale. It is a solution that benefits the environment while providing a revenue stream to the District from the sale of the high value fertilizer back to Ostara. The production estimate is approximately four to seven tons of pellets per day. However, as with any new process, the assumptions and estimates will be reevaluated as additional experience is acquired. Currently, other chemical options, such as using magnesium oxide to reduce consumption of the more costly sodium hydroxide and magnesium chloride, are being explored with process optimization as the goal.

This nutrient recovery facility, the largest of its kind, 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 CAWS. Moreover, it serves as an example of the District's commitment to evaluating projects along multiple dimensions: financial, societal, and environmental. With initiatives like this, the District is charting a trajectory from a traditional utility to a Utility of the Future.

- **Develop Employees**

Understanding that a skilled workforce creates a strong organization, M&O is committed to providing training opportunities to all of its employees. Illustrating that point, a Senior Engineer from the Kirie WRP visited the water treatment facility of Aarhus Vand, an independent regional waste and wastewater enterprise located in southern Denmark that is owned by the municipality of Aarhus. The Danish facility is in the process of expanding and renovating to become 150 percent energy self-sufficient. The knowledge and experience gained by the employee will be of great value.

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 2019, 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**

In 2018, the District entered into an agreement with Siga Sec Global, Inc. (Siga) for a pilot project at the Lockport Powerhouse to install cyber security equipment to monitor gate movements and analyze data for anomalies. Siga was referred to the District by Current Innovation, NFP, which is a non-profit water entity based in Chicago and launched in 2016 as a public-private partnership of the City of Chicago, the District, and World Business Chicago. Siga develops anomaly detection and cyber security solutions for supervisory control and data acquisition systems, with the purpose of protecting and monitoring mission-critical operational assets. Siga has agreed to conduct this pilot study at no cost to the District. Pilot testing of the technology will allow the District to verify its stated benefits and determine if it is a viable option for full-scale implementation or use at other District facilities. Siga has completed the data collection phase and will be providing an analysis and summary of its findings in early 2019. Reports based on the retrieved data will be developed and may eventually provide an additional layer of monitoring and detection for greater cyber security. This project is consistent with the District's SBP, particularly with respect to nurturing strategic partnerships and pursuing technology solutions for optimized performance.

Also in 2018, at the request of M&O, the District renewed its membership in the DuPage River Salt Creek Workgroup (DRSCW), an action which underscores the District's commitment to leading partnerships. The DRSCW is a non-profit organization that was formed in 2005 by a group of local communities, WRPs, and environmental organizations to address water quality concerns and implement targeted watershed projects in the Salt Creek and the East and West Branch DuPage River Watersheds. In addition to establishing valuable partnerships, membership in the DRSCW affords other benefits. For instance, it will allow the District's Egan and Hanover Park WRPs an extended period, perhaps as long as 11 years from the date of permit issuance, to implement a total phosphorus effluent limit while priority instream projects are completed in the watersheds. If the District does not participate in the DRSCW, these WRPs may be required to meet the same total phosphorus limit in 36-54 months from the date of permit issuance, at a significant cost and with little or no benefit to aquatic life. Membership will also assist the District in meeting National Pollutant Discharge Elimination System permit requirements for the Egan and Hanover Park WRPs through the collaborative development of nutrient assessment and reduction plans in the Salt Creek and West Branch DuPage River Watersheds. In general, membership will grant the District access to valuable resources and tools for addressing water quality issues at a watershed level.

- **Technology**

Two projects are currently underway to install disc filter technology at the Egan and Hanover Park WRPs. The disc filters will replace the existing gravity filter beds, which have degraded over time. Gravity filtration is a physical process to separate solids from liquids. It is used for filtering treated wastewater effluent in tertiary treatment, which involves the removal of residual suspended solids. Tertiary treatment is performed before disinfection to improve chlorination or ultraviolet disinfection. Following a thorough investigation by M&O and the District's project vetting committee, disc filter technology was identified as the preferred replacement option. There are several advantages to disc filter technology, including the high-quality effluent it provides, its smaller physical footprint, its reduced energy demand, and its relatively simple operation and maintenance requirements. These projects, which are funded in the District's Capital Improvements Bond Fund, exemplify the organization's commitment to designing an operating budget and a capital improvement program that work together to fulfill the SBP.



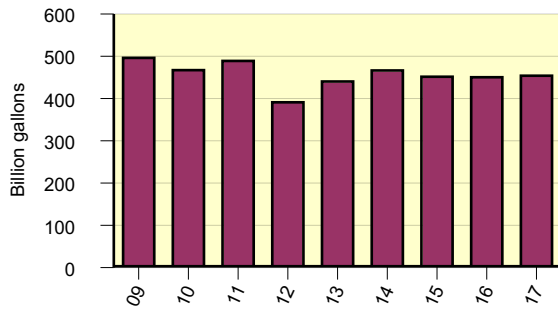
**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

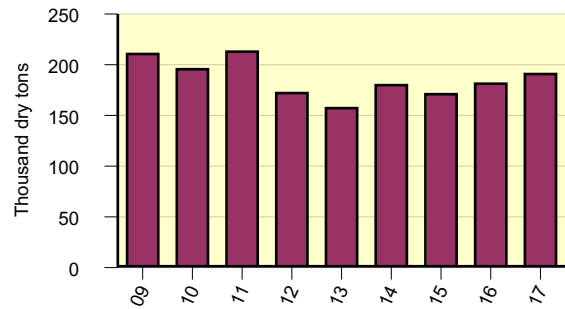
OBJECTIVES BY PRIORITY:

	Cost	Percent
1. <b>COLLECTION &amp; TREATMENT:</b> The M&O Department will collect and treat approximately 492.6 billion gallons of wastewater through its seven treatment facilities and through a contract agreement with the Fox River Water Reclamation District.	\$ 126,060,891	64.1%
2. <b>SOLIDS PROCESSING:</b> The M&O Department will remove and process approximately 182,600 dry tons of concentrated sewage through various systems, including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 39,646,745	20.2%
3. <b>SOLIDS UTILIZATION:</b> The M&O Department will utilize approximately 99,800 dry tons of biosolids for application at final utilization sites, such as farm applications and daily and final cover at sanitary landfills.	\$ 22,236,317	11.3%
4. <b>FLOOD &amp; POLLUTION CONTROL:</b> 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.	\$ 4,836,783	2.4%
5. <b>GENERAL SUPPORT:</b> 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.	\$ 3,101,964	1.6%
6. <b>REAL ESTATE ENVIRONMENTAL ASSESSMENT:</b> The M&O Department inspects and evaluates District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 709,600	0.4%
<b>Totals</b>	<b>\$ 196,592,300</b>	<b>100.0%</b>

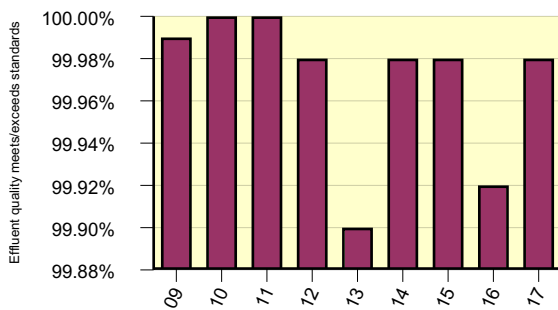
**Collection & Treatment**



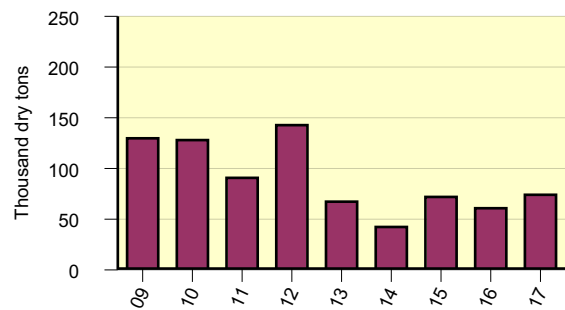
**Solids Processing**



**NPDES Permit Compliance**



**Solids Utilization**



**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$ 45,098,039	2019	246 \$ 52,359,275	\$ 800,468	1.6
			2018	244 \$ 51,558,807		
1100	Surface Interceptor Systems	\$ 4,061,806	2019	27 \$ 3,802,100	\$ (148,500)	(3.8)
			2018	27 \$ 3,950,600		
1200	Tunnel and Reservoir System	\$ 10,340,307	2019	43 \$ 13,953,300	\$ 474,700	3.5
			2018	43 \$ 13,478,600		
1300	Pumping Station Facilities	\$ 14,081,661	2019	74 \$ 15,265,400	\$ (167,300)	(1.1)
			2018	74 \$ 15,432,700		
1900	Collection - Indirect Costs	\$ 16,614,265	2019	102 \$ 19,338,475	\$ 641,568	3.4
			2018	100 \$ 18,696,907		
2000	Treatment	\$ 65,316,889	2019	384 \$ 72,336,716	\$ 2,203,561	3.1
			2018	378 \$ 70,133,155		
2000	Pre-Treatment	\$ 3,812,181	2019	29 \$ 3,453,500	\$ 98,000	2.9
			2018	29 \$ 3,355,500		
2100	Primary Treatment	\$ 3,441,404	2019	37 \$ 3,504,100	\$ 93,600	2.7
			2018	36 \$ 3,410,500		
2200	Secondary Treatment	\$ 23,071,525	2019	95 \$ 21,214,600	\$ (497,400)	(2.3)
			2018	94 \$ 21,712,000		
2300	Tertiary Treatment	\$ 2,560,671	2019	17 \$ 4,095,000	\$ (117,400)	(2.8)
			2018	18 \$ 4,212,400		
2900	Treatment - Indirect Costs	\$ 32,431,108	2019	206 \$ 40,069,516	\$ 2,626,761	7.0
			2018	201 \$ 37,442,755		
3000	Solids Processing	\$ 34,051,350	2019	204 \$ 39,646,745	\$ 1,515,065	4.0
			2018	200 \$ 38,131,680		
3100	Thickening	\$ 5,921,273	2019	39 \$ 6,420,800	\$ 499,100	8.4
			2018	39 \$ 5,921,700		
3200	Stabilization	\$ 5,971,832	2019	43 \$ 6,165,800	\$ 143,600	2.4
			2018	43 \$ 6,022,200		
3300	Dewatering	\$ 10,630,203	2019	42 \$ 13,526,700	\$ (17,500)	(0.1)
			2018	41 \$ 13,544,200		
3900	Solids Processing - Indirect Costs	\$ 11,528,042	2019	80 \$ 13,533,445	\$ 889,865	7.0
			2018	77 \$ 12,643,580		

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

**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
4000	Flood & Pollution Control	\$ 4,487,433	2019 23	\$ 4,836,783	\$ 21,118	0.4
			2018 23	\$ 4,815,665		
4200	Waterways Control and Stormwater Reservoirs	\$ 2,375,265	2019 18	\$ 2,330,500	\$ (164,900)	(6.6)
			2018 17	\$ 2,495,400		
4210	Maintenance of Waterways	\$ 162,617	2019 —	\$ 315,400	\$ 84,300	36.5
			2018 —	\$ 231,100		
4300	Stormwater Management	\$ 164,285	2019 —	\$ 31,900	\$ (500)	(1.5)
			2018 —	\$ 32,400		
4400	Aeration Facilities	\$ 1,006,503	2019 2	\$ 1,051,700	\$ 37,000	3.6
			2018 2	\$ 1,014,700		
4900	Flood & Pollution Control - Indirect Costs	\$ 778,763	2019 3	\$ 1,107,283	\$ 65,218	6.3
			2018 4	\$ 1,042,065		
5000	Solids Utilization	\$ 22,463,922	2019 42	\$ 22,236,317	\$ 686,717	3.2
			2018 38	\$ 21,549,600		
5100	Solids Drying	\$ 5,369,720	2019 10	\$ 6,269,300	\$ 158,400	2.6
			2018 9	\$ 6,110,900		
5200	Solids Distribution	\$ 10,320,993	2019 8	\$ 10,849,400	\$ 241,000	2.3
			2018 7	\$ 10,608,400		
5900	Solids Utilization - Indirect Costs	\$ 6,773,209	2019 24	\$ 5,117,617	\$ 287,317	5.9
			2018 22	\$ 4,830,300		
7000	General Support (excluding program numbers 7368 & 7604)	\$ 2,918,228	2019 19	\$ 3,101,964	\$ 82,371	2.7
			2018 19	\$ 3,019,593		
7368	Real Estate Environmental Assessment	\$ 979,665	2019 2	\$ 709,600	\$ 53,900	8.2
			2018 2	\$ 655,700		
7604	Social Security and Medicare Contributions	\$ 1,249,621	2019 —	\$ 1,364,900	\$ 93,600	7.4
			2018 —	\$ 1,271,300		
Totals		\$ 176,565,147	2019 920	\$ 196,592,300	\$ 5,456,800	2.9% *
			2018 904	\$ 191,135,500		

\* The 2019 position total for the M&O Department is 947, 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		2017 Actual	2018 Budgeted	2019 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	457,104	503,700	492,550
		Cost	\$ 110,414,928	\$ 121,691,962	\$ 124,695,991
		Cost/Mil. Gallons	\$ 241.55	\$ 241.60	\$ 253.16
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	192,104	188,500	182,600
		Cost	\$ 34,051,350	\$ 38,131,680	\$ 39,646,745
		Cost/Dry Ton	\$ 177.25	\$ 202.29	\$ 217.12
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	\$ 534,053	\$ 978,400	\$ 894,800
	Generate Electrical Energy at Lockport Powerhouse to Obtain Approximately \$1.2 million in Revenue	kWh	37,583,707	40,000,000	40,000,000
		Cost	\$ 556,239	\$ 139,700	\$ 501,800
		Cost/kWh	\$ 0.0148	\$ 0.0035	\$ 0.0125
		* Revenue Generated	\$ 1,323,132	\$ 1,000,000	\$ 1,200,000
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion	41,632	60,152	60,152
		Cost	\$ 447,544	\$ 309,800	\$ 408,200
		Cost/Mil. Gal./Year	\$ 10.75	\$ 5.15	\$ 6.79
	Operation of Detention Reservoirs	Reservoirs	36	37	37
		Cost	\$ 837,429	\$ 1,067,500	\$ 525,700
		Cost/Reservoir	\$ 23,261.92	\$ 28,851.35	\$ 14,208.11
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	\$ 162,617	\$ 231,100	\$ 315,400
4300	Stormwater Management	Cost	\$ 164,285	\$ 32,400	\$ 31,900
4400	Aeration Facilities	Cost	\$ 1,006,503	\$ 1,014,700	\$ 1,051,700
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 778,763	\$ 1,042,065	\$ 1,107,283
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	75,375	100,000	99,800
		Cost	\$ 18,191,073	\$ 17,169,900	\$ 17,507,417
		Cost/Dry Ton	\$ 241.34	\$ 171.70	\$ 175.43
5271	Pelletizer Disposal	Dry Tons	37,143	40,000	80,000
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ 4,272,849	\$ 4,379,700	\$ 4,728,900
		Cost/Dry Ton	\$ 115.04	\$ 109.49	\$ 59.11
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	\$ 2,918,228	\$ 3,019,593	\$ 3,101,964
7368	Real Estate Environmental Assessment	Cost	\$ 979,665	\$ 655,700	\$ 709,600
7604	Social Security and Medicare Contributions	Cost	\$ 1,249,621	\$ 1,271,300	\$ 1,364,900
	Departmental Totals		\$ 176,565,147	\$ 191,135,500	\$ 196,592,300

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						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 85,103,264	\$ 88,536,900	\$ 88,517,900	\$ 86,700,700	\$ 91,677,700	\$ 91,677,700	\$ 92,220,500
601060	Compensation Plan Adjustments	4,713,807	5,102,100	5,102,100	4,949,600	4,829,400	4,829,400	4,844,100
601070	Social Security and Medicare Contributions	1,249,621	1,271,300	1,290,300	1,283,600	1,336,500	1,336,500	1,364,900
601080	Salaries of Nonbudgeted Employees	6,927	29,900	29,900	—	5,300	5,300	5,300
601100	Tuition and Training Payments	197,837	239,200	220,300	198,800	201,900	201,900	201,900
100	TOTAL PERSONAL SERVICES	91,271,456	95,179,400	95,160,500	93,132,700	98,050,800	98,050,800	98,636,700
612010	Travel	14,735	30,300	30,300	24,100	23,300	23,300	29,300
612030	Meals and Lodging	58,039	71,000	74,500	74,500	55,300	55,300	62,300
612050	Compensation for Personally-Owned Automobiles	108,549	144,900	126,100	104,300	108,500	108,500	108,500
612080	Motor Vehicle Operating Services	653	900	900	600	1,700	1,700	1,700
612150	Electrical Energy	35,900,800	38,601,900	38,426,900	38,240,900	34,393,400	36,645,200	36,445,200
612160	Natural Gas	2,928,497	2,796,300	3,063,800	2,851,100	2,945,300	2,945,300	2,945,300
612170	Water and Water Services	1,858,821	1,795,000	2,085,300	2,034,600	2,113,700	2,109,700	2,109,700
612210	Communication Services	554,338	882,700	860,300	763,900	—	—	—
612240	Testing and Inspection Services	118,984	276,300	232,300	182,700	166,700	166,700	166,700
612330	Rental Charges	155,665	169,700	164,700	151,500	161,500	161,500	161,500
612410	Governmental Service Charges	3,560,199	3,473,800	3,719,200	3,505,700	3,474,100	3,474,100	3,650,100
612420	Maintenance of Grounds and Pavements	828,992	1,013,500	898,900	866,300	1,430,900	1,430,900	1,430,900
612430	Payments for Professional Services	543,957	535,400	535,400	436,300	489,500	489,500	489,500
612490	Contractual Services, N.O.C.	404,189	673,500	501,800	408,400	645,100	645,100	645,100
612520	Waste Material Disposal Charges	10,284,686	10,894,000	10,868,200	9,919,300	10,926,400	10,823,400	10,823,400
612530	Farming Services	24,700	24,700	20,000	20,000	154,700	34,700	24,000
612590	Sludge Disposal	3,600,138	3,700,000	4,025,000	3,575,000	6,193,300	4,100,000	4,100,000
612600	Repairs to Collection Facilities	3,075,735	3,249,300	3,118,600	2,880,800	3,486,100	3,486,100	3,486,100
612620	Repairs to Waterway Facilities	43,619	46,700	46,700	44,600	47,900	47,900	47,900
612650	Repairs to Process Facilities	4,648,489	5,528,900	5,611,000	5,290,300	5,582,800	5,582,800	5,982,800
612670	Repairs to Railroads	266,937	368,700	322,500	291,300	266,900	266,900	266,900
612680	Repairs to Buildings	612,100	1,059,100	996,000	774,000	1,085,000	1,085,000	1,015,000
612760	Repairs to Material Handling and Farming Equipment	280,002	313,600	351,300	292,700	315,900	315,900	315,900
612780	Safety Repairs and Services	280,374	324,400	287,300	253,100	334,500	334,500	334,500
612790	Repairs to Marine Equipment	53,685	65,000	66,600	64,000	65,000	65,000	65,000
612820	Computer Software Maintenance	5,311	7,500	9,300	9,200	7,500	7,500	7,500

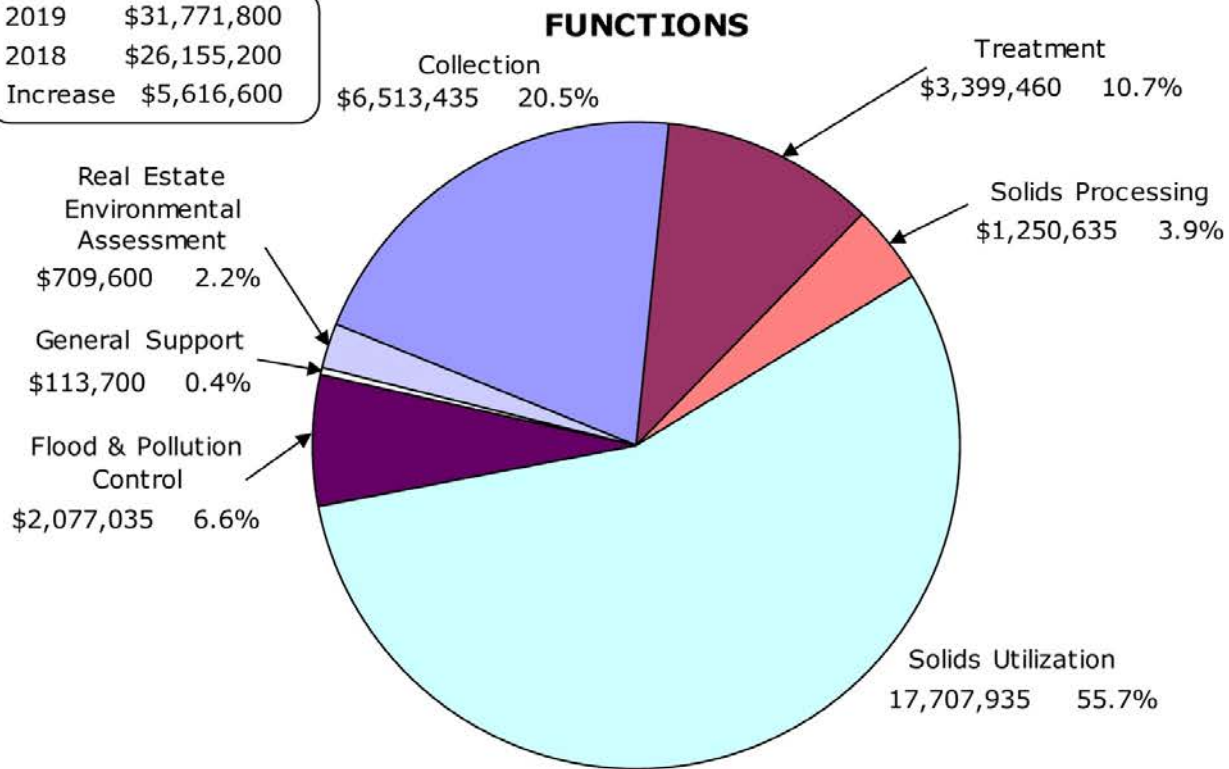
101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612840	Communications Equipment Maintenance (Includes Software)	—	5,000	5,000	4,500	—	—	—
612860	Repairs to Vehicle Equipment	114,985	166,300	158,300	142,100	140,600	140,600	140,600
612990	Repairs, N.O.C.	8,668	25,000	21,200	11,400	28,000	28,000	28,000
200	TOTAL CONTRACTUAL SERVICES	70,335,845	76,243,400	76,627,400	73,217,200	74,643,600	74,575,100	74,883,400
623030	Metals	27,671	35,600	32,100	25,500	30,500	30,500	30,500
623070	Electrical Parts and Supplies	1,751,074	2,006,900	2,821,900	2,633,500	2,638,400	2,735,400	2,694,700
623090	Plumbing Accessories and Supplies	520,477	785,600	779,000	691,300	823,800	827,800	827,800
623110	Hardware	15,423	8,000	8,000	7,300	8,300	8,300	8,300
623130	Buildings, Grounds, Paving Materials, and Supplies	125,640	172,800	169,800	122,400	148,300	148,300	145,900
623170	Fiber, Paper, and Insulation Materials	5,545	9,900	9,900	8,200	11,100	11,100	11,100
623190	Paints, Solvents, and Related Materials	4,864	6,600	6,600	6,500	13,000	13,000	13,000
623250	Vehicle Parts and Supplies	168,088	151,200	164,800	158,300	168,000	168,000	168,000
623270	Mechanical Repair Parts	2,203,088	2,454,100	3,822,900	3,643,600	3,823,100	3,823,100	3,611,600
623300	Manhole Materials	10,266	6,900	6,900	6,100	25,000	25,000	25,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	43,120	48,900	46,400	45,300	38,800	38,800	38,800
623530	Farming Supplies	4,610	3,700	3,700	3,400	4,000	4,000	4,000
623560	Processing Chemicals	9,134,723	12,878,200	10,208,200	9,821,000	12,445,500	12,445,500	12,445,500
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	23,141	25,600	23,600	21,100	25,600	28,600	28,600
623660	Cleaning Supplies	3,776	1,700	4,200	3,300	2,200	2,200	2,200
623680	Tools and Supplies	375,583	210,300	229,800	223,700	244,600	247,600	247,600
623700	Wearing Apparel	1,404	1,300	1,300	600	2,600	4,100	4,100
623780	Safety and Medical Supplies	42,819	70,100	60,600	55,700	53,700	53,700	41,700
623800	Computer Software	3,724	24,700	23,100	19,300	39,100	39,100	39,100
623810	Computer Supplies	10,902	37,700	36,500	34,900	170,000	170,000	170,000
623820	Fuel	255,334	338,700	359,900	322,300	317,600	317,600	332,200
623840	Gases	841	1,100	1,100	700	600	600	600
623850	Communications Supplies	—	5,500	5,500	4,700	24,300	24,300	15,000
623860	Lubricants	6,993	21,400	11,200	6,900	7,700	7,700	7,700
623990	Materials and Supplies, N.O.C.	58,890	188,600	178,600	157,900	117,500	117,500	117,500
300	TOTAL MATERIALS AND SUPPLIES	14,797,997	19,495,100	19,015,600	18,023,500	21,183,300	21,291,800	21,030,500
634600	Equipment for Collection Facilities	45,129	44,200	44,200	44,200	60,000	60,000	60,000

101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
634650	Equipment for Process Facilities	108,984	148,400	217,800	156,000	166,700	186,700	176,700
634760	Material Handling and Farming Equipment	—	—	—	—	337,000	387,000	350,000
634790	Marine Equipment	—	—	—	—	80,000	80,000	80,000
634810	Computer Equipment	—	—	—	—	250,000	140,000	140,000
634860	Vehicle Equipment	—	—	—	—	1,199,000	1,199,000	1,199,000
634970	Testing and Laboratory Equipment	5,737	25,000	33,000	30,600	—	—	—
634990	Machinery and Equipment, N.O.C.	—	—	12,000	11,300	36,000	36,000	36,000
400	TOTAL MACHINERY AND EQUIPMENT	159,850	217,600	307,000	242,100	2,128,700	2,088,700	2,041,700
TOTAL MAINTENANCE & OPERATIONS		\$176,565,148	\$ 191,135,500	\$ 191,110,500	\$184,615,500	\$196,006,400	\$ 196,006,400	\$ 196,592,300

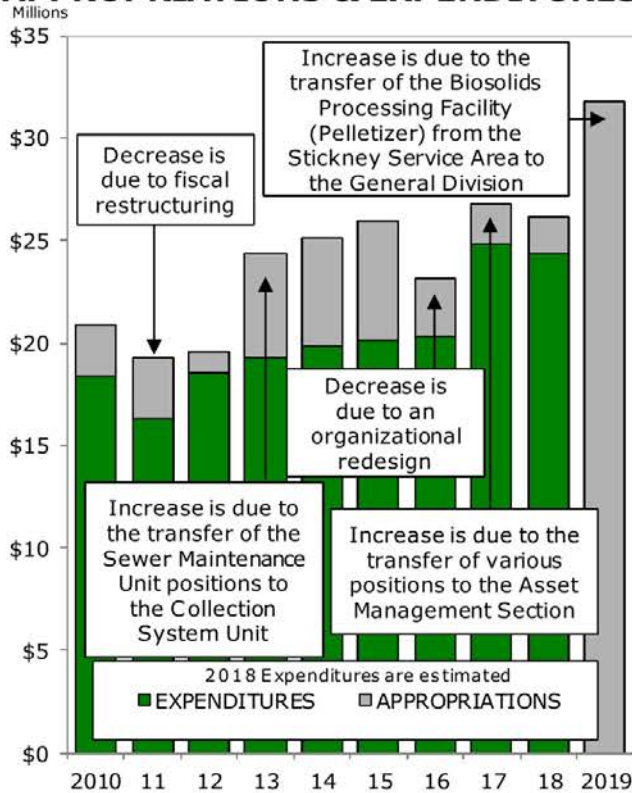
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may exceed Adjusted Appropriation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

# MAINTENANCE & OPERATIONS – GENERAL DIVISION

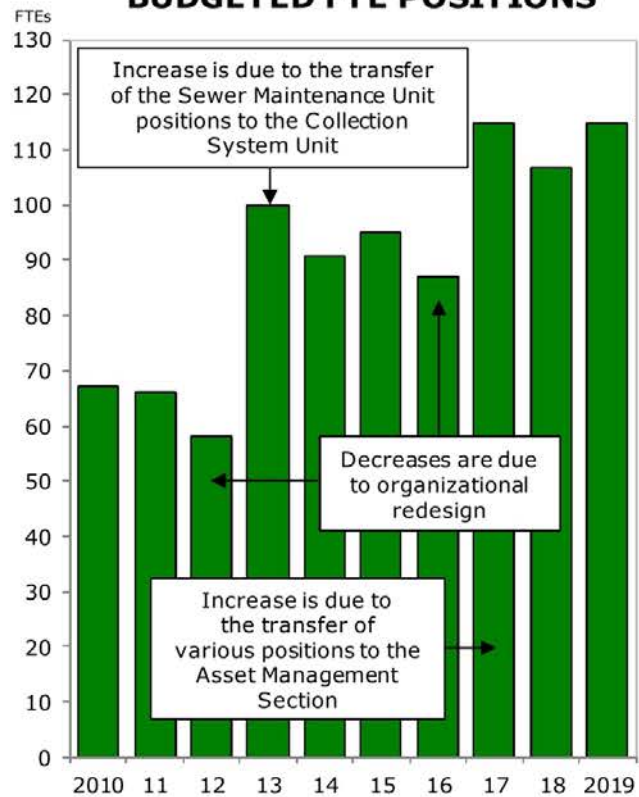
2019	\$31,771,800
2018	\$26,155,200
Increase	\$5,616,600



## APPROPRIATIONS & EXPENDITURES

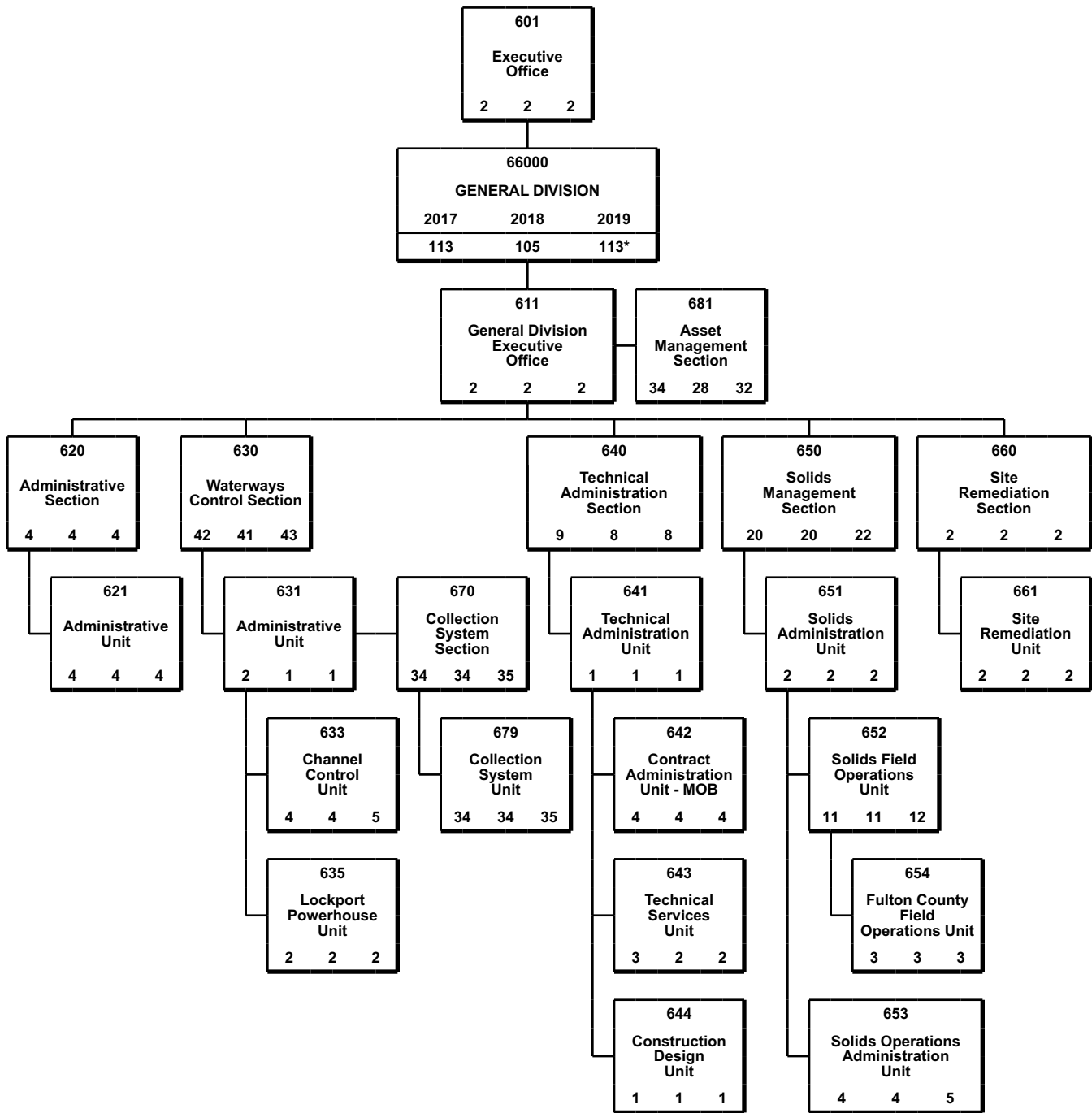


## BUDGETED FTE POSITIONS





# MAINTENANCE & OPERATIONS - GENERAL DIVISION



\* In 2019, 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.

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. <b>COLLECTION &amp; TREATMENT:</b> 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.	\$ 9,912,895	31.2%
2. <b>SOLIDS PROCESSING:</b> 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.	\$ 1,250,635	3.9%
3. <b>SOLIDS UTILIZATION:</b> The General Division provides management and coordination of biosolids processing and utilization of District-wide activities.	\$ 17,707,935	55.7%
4. <b>FLOOD &amp; POLLUTION CONTROL:</b> 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 electrical energy resulting in approximately \$1.2 million in revenue.	\$ 2,077,035	6.6%
5. <b>GENERAL SUPPORT:</b> 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.	\$ 113,700	0.4%
6. <b>REAL ESTATE ENVIRONMENTAL ASSESSMENT:</b> The General Division inspects and evaluates District properties for compliance with the United States Environmental Protection Agency and the Illinois Environmental Protection Agency requirements.	\$ 709,600	2.2%
<b>Totals</b>	<b>\$ 31,771,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2017 Actual	2018 Estimated	2019 Proposed
1. The operation of the Lockport Powerhouse will generate the equivalent of \$1.2 million worth of electrical energy revenue in 2019.	kWh Generated	37,583,707	40,000,000	40,000,000
	<i>* Revenue Generated</i>	<i>\$ 1,323,132</i>	<i>\$ 1,300,000</i>	<i>\$ 1,200,000</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	41,632	60,152	60,152
3. The Solids Management Section will oversee the utilization of 99,000 dry tons of biosolids in 2019. (North Service Area's 800 dry tons of solids remain in that division.)	Dry Tons	74,677	99,000	99,000
<i>* Revenue generated not included in total costs.</i>				

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 5,279,232	2019 44	\$ 6,513,435	\$ 789,765	13.8	
			2018 43	\$ 5,723,670			
1100	Surface Interceptor Systems	\$ 2,676,316	2019 20	\$ 2,819,000	\$ 68,600	2.5	
			2018 20	\$ 2,750,400			
1200	Tunnel and Reservoir System	\$ 908,601	2019 7	\$ 990,600	\$ 351,300	55.0	a)
			2018 7	\$ 639,300			
1300	Pumping Station Facilities	\$ 407,597	2019 6	\$ 697,900	\$ 47,300	7.3	
			2018 6	\$ 650,600			
1900	Collection - Indirect Costs	\$ 1,286,718	2019 11	\$ 2,005,935	\$ 322,565	19.2	b)
			2018 10	\$ 1,683,370			
2000	Treatment	\$ 2,436,561	2019 23	\$ 3,210,760	\$ 388,140	13.8	
			2018 19	\$ 2,822,620			
2000	Pre-Treatment	\$ 104,879	2019 1	\$ 138,200	\$ 28,100	25.5	c)
			2018 1	\$ 110,100			
2100	Primary Treatment	\$ 127,440	2019 2	\$ 170,600	\$ 23,200	15.7	d)
			2018 1	\$ 147,400			
2200	Secondary Treatment	\$ 319,978	2019 3	\$ 409,400	\$ 83,500	25.6	e)
			2018 2	\$ 325,900			
2300	Tertiary Treatment	\$ 70,906	2019 1	\$ 62,200	\$ (2,200)	(3.4)	
			2018 1	\$ 64,400			
2900	Treatment - Indirect Costs	\$ 1,813,358	2019 16	\$ 2,430,360	\$ 255,540	11.8	f)
			2018 14	\$ 2,174,820			
3000	Solids Processing	\$ 1,214,020	2019 9	\$ 1,250,635	\$ 39,665	3.3	
			2018 9	\$ 1,210,970			
3100	Thickening	\$ 224,307	2019 2	\$ 259,800	\$ 16,500	6.8	
			2018 2	\$ 243,300			
3200	Stabilization	\$ 87,311	2019 1	\$ 118,800	\$ 32,000	36.9	g)
			2018 1	\$ 86,800			
3300	Dewatering	\$ 96,777	2019 1	\$ 71,400	\$ 1,700	2.4	
			2018 1	\$ 69,700			
3900	Solids Processing - Indirect Costs	\$ 805,625	2019 5	\$ 800,635	\$ (10,535)	(1.3)	
			2018 5	\$ 811,170			

a) Increase is due to the anticipated award of 19-656-11, Services to Inspect & Maintain TARP Electrical Control Structures (\$250,000) and the higher demand for 19-654-11, Limitorque - TARP Sluice Gate & Actuators (\$96,800).

b) Increase is due to the planned award to furnish and deliver a diesel step van truck (\$320,000).

c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$28,000).

d) Increase is due to the net transfer in of one FTE position from the Monitoring & Research Department (\$22,200).

e) Increase is due to the net transfer in of one FTE position from the Monitoring & Research Department (\$80,400).

f) Increase is due to the net transfer in of two FTE positions from the Monitoring & Research Department (\$245,200).

g) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$32,300).

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
4000	Flood & Pollution Control	\$ 2,174,600	2019	12	\$ 2,077,035	\$ (8,135)	(0.4)
			2018	12	\$ 2,085,170		
4200	Waterways Control and Stormwater Reservoirs	\$ 1,537,836	2019	10	\$ 1,402,800	\$ (134,000)	(8.7)
			2018	9	\$ 1,536,800		
4210	Maintenance of Waterways	\$ 162,617	2019	—	\$ 203,900	\$ 81,700	66.9
			2018	—	\$ 122,200		
4300	Stormwater Management	\$ 164,285	2019	—	\$ 31,900	\$ (500)	(1.5)
			2018	—	\$ 32,400		
4400	Aeration Facilities	\$ 113,204	2019	1	\$ 143,100	\$ 40,000	38.8
			2018	1	\$ 103,100		
4900	Flood & Pollution Control - Indirect Costs	\$ 196,658	2019	1	\$ 295,335	\$ 4,665	1.6
			2018	2	\$ 290,670		
5000	Solids Utilization	\$12,475,138	2019	24	\$17,707,935	\$ 4,402,465	33.1
			2018	21	\$13,305,470		
5100	Solids Drying	\$ 5,117,953	2019	5	\$ 5,735,300	\$ 148,000	2.6
			2018	4	\$ 5,587,300		
5200	Solids Distribution	\$ 5,676,749	2019	7	\$ 9,952,000	\$ 3,993,300	67.0
			2018	6	\$ 5,958,700		
5900	Solids Utilization - Indirect Costs	\$ 1,680,436	2019	12	\$ 2,020,635	\$ 261,165	14.8
			2018	11	\$ 1,759,470		
7000	General Support (excludes program numbers 7368 and 7604)	\$ 150,707	2019	1	\$ 113,700	\$ (70,600)	(38.3)
			2018	1	\$ 184,300		
7368	Real Estate Environmental Assessment	\$ 979,665	2019	2	\$ 709,600	\$ 53,900	8.2
			2018	2	\$ 655,700		
7604	Social Security and Medicare Contributions	\$ 169,974	2019	—	\$ 188,700	\$ 21,400	12.8
			2018	—	\$ 167,300		
Totals		\$24,879,897	2019	115	\$31,771,800	\$ 5,616,600	21.5%*
			2018	107	\$26,155,200		

h) Increase is due to the anticipated delivery of a pontoon boat in 2019 (\$80,000).

i) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$39,900).

j) Increase is due to the transfer of the multi-year 98-RFP-10, Pelletizing Facility from the Stickney Service Area to the General Division (\$4,100,000).

k) Increase is due to the transfer of city water services from the Stickney Service Area to the General Division (\$155,500) and the addition of a Maintenance Laborer Class A position (\$79,200).

l) Decrease is due to the reduced demand for compost probes (\$65,100).

\* The 2019 position total for the General Division is 115, with 18 positions budgeted in the Stormwater Management Fund.

**66000 M&O - GENERAL DIVISION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
1000-2900	Collection & Treatment					
	Technical and Administrative Support for Collection and Treatment Activities	Cost	\$ 7,715,793	\$ 8,546,290	\$ 9,724,195	a)
3000	Solids Processing					
	Technical and Administrative Support for Solids Removal and Processing	Cost	\$ 1,214,020	\$ 1,210,970	\$ 1,250,635	
4000	Flood & Pollution Control					
4200	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution	Cost	\$ 534,053	\$ 1,087,300	\$ 894,800	b)
	Generate Electrical Energy at Lockport Powerhouse to Obtain Approximately \$1.2 million in Revenue	kWh	37,583,707	40,000,000	40,000,000	
		Cost	\$ 556,239	\$ 139,700	\$ 166,900	c)
		Cost/kWh	\$ 0.0148	\$ 0.0035	\$ 0.0042	
		<i>* Revenue Generated</i>	\$ 1,323,132	\$ 1,000,000	\$ 1,200,000	
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year	41,632	60,152	60,152	
		Cost	\$ 447,544	\$ 309,800	\$ 341,100	
		Cost/Mil. Gal./Year	\$ 10.75	\$ 5.15	\$ 5.67	
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	\$ 162,617	\$ 122,200	\$ 203,900	d)
4300	Stormwater Management	Cost	\$ 164,285	\$ 32,400	\$ 31,900	
4400	Aeration Facilities	Cost	\$ 113,204	\$ 103,100	\$ 143,100	e)
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 196,658	\$ 290,670	\$ 295,335	
5000	Solids Drying/Utilization					
	Management and Coordination of the Solids Utilization Program	Dry Tons	74,677	99,000	99,000	
		Cost	\$ 12,475,138	\$ 13,305,470	\$ 13,607,935	f)
		Cost/Dry Ton	\$ 167.05	\$ 134.40	\$ 137.45	
5271	Pelletizer Disposal	Dry Tons	—	—	40,000	
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ —	\$ —	\$ 4,100,000	g)
		Cost/Dry Ton	\$ —	\$ —	\$ 102.50	

- a) Increase is due to the net transfer in of three FTEs from the Monitoring and Research Department (\$400,200), the planned award to furnish and deliver a diesel step van truck (\$320,000), the anticipated award of 19-656-11, Services to Inspect & Maintain TARP Electrical Control Structures (\$250,000), and the addition of an Engineering Technician V position (\$80,900).
- b) Decrease is due to the transfer of telemetry services to the Information Technology Department (\$272,600), offset by the addition of a Systems Dispatcher position (\$117,900).
- c) Increase is due to addition of a Systems Dispatcher (\$23,600).
- d) Increase is due to the anticipated delivery of a pontoon boat in 2019 (\$80,000).
- e) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$39,900).
- f) Increase is due to the transfer of city water services from the Stickney Service Area to the General Division (\$155,500), higher demand for 19-691-11, Truck Hauling of Processed Solids (\$98,000), and a compost bagging machine (\$50,000).
- g) Increase is due to the transfer of a multi-year 98-RFP-10, Pelletizing Facility from the Stickney Service Area to the General Division (\$4,100,000).

**66000 M&O - GENERAL DIVISION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
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	\$ 150,707	\$ 184,300	\$ 113,700	h)
7368	Real Estate Environmental Assessment	Cost	\$ 979,665	\$ 655,700	\$ 709,600	
7604	Social Security and Medicare Contributions	Cost	\$ 169,974	\$ 167,300	\$ 188,700	
Division Totals			\$ 24,879,897	\$ 26,155,200	\$ 31,771,800	
<p>h) Decrease is due to reduced demand for compost probes (\$65,100).</p> <p>* Revenue generated not included in total costs.</p>						

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 11,677,399	\$ 11,816,900	\$ 11,814,400	\$ 11,659,400	\$ 12,676,600	\$ 12,676,600	\$ 12,802,200
601060	Compensation Plan Adjustments	493,328	665,300	427,900	366,000	676,900	676,900	679,300
601070	Social Security and Medicare Contributions	169,974	167,300	169,800	168,000	185,900	185,900	188,700
601080	Salaries of Nonbudgeted Employees	—	19,700	19,700	—	3,800	3,800	3,800
601100	Tuition and Training Payments	14,881	16,800	16,800	13,000	43,000	43,000	43,000
100	TOTAL PERSONAL SERVICES	12,355,582	12,686,000	12,448,600	12,206,400	13,586,200	13,586,200	13,717,000
612010	Travel	2,203	3,400	3,400	2,400	2,900	2,900	2,900
612030	Meals and Lodging	10,917	9,700	9,200	8,300	7,500	7,500	7,500
612050	Compensation for Personally-Owned Automobiles	17,346	7,100	7,100	6,800	9,500	9,500	9,500
612080	Motor Vehicle Operating Services	166	300	300	200	300	300	300
612150	Electrical Energy	66,741	75,600	75,600	73,000	71,400	71,400	71,400
612160	Natural Gas	7,408	8,600	8,600	7,900	8,000	8,000	8,000
612170	Water and Water Services	64,768	53,200	52,200	45,700	210,100	206,100	206,100
612210	Communication Services	164,760	276,300	192,900	143,700	—	—	—
612240	Testing and Inspection Services	6,359	13,800	13,800	13,600	6,100	6,100	6,100
612330	Rental Charges	14,830	8,600	8,600	8,400	8,600	8,600	8,600
612410	Governmental Service Charges	19,138	18,600	18,400	16,900	18,400	18,400	18,400
612420	Maintenance of Grounds and Pavements	659,089	679,700	681,200	677,000	668,300	668,300	668,300
612430	Payments for Professional Services	525,957	516,400	516,400	417,700	470,500	470,500	470,500
612490	Contractual Services, N.O.C.	192,107	222,500	220,700	168,900	227,500	227,500	227,500
612520	Waste Material Disposal Charges	8,829,928	9,402,000	9,402,000	8,556,700	9,413,000	9,310,000	9,310,000
612590	Sludge Disposal	—	—	—	—	6,193,300	4,100,000	4,100,000
612600	Repairs to Collection Facilities	895,224	940,100	819,800	819,800	1,187,200	1,187,200	1,187,200
612620	Repairs to Waterway Facilities	43,619	46,700	46,700	44,600	47,900	47,900	47,900
612650	Repairs to Process Facilities	11,436	14,300	14,300	12,700	14,800	14,800	14,800
612680	Repairs to Buildings	10,718	40,400	26,400	13,800	23,000	23,000	23,000
612760	Repairs to Material Handling and Farming Equipment	223,023	239,900	238,600	228,500	239,500	239,500	239,500
612780	Safety Repairs and Services	14,986	14,000	14,000	10,900	16,500	14,400	14,400
612790	Repairs to Marine Equipment	53,685	65,000	66,600	64,000	65,000	65,000	65,000
612820	Computer Software Maintenance	5,311	7,500	9,300	9,200	7,500	7,500	7,500
612860	Repairs to Vehicle Equipment	33,647	49,500	57,900	56,400	54,500	54,500	54,500

101 66000	Fund: Corporate Department: Maintenance & Operations Division: General	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612990	Repairs, N.O.C.	1,474	3,500	4,700	2,000	3,500	3,500	3,500
200	TOTAL CONTRACTUAL SERVICES	11,874,838	12,716,700	12,508,700	11,409,100	18,974,800	16,772,400	16,772,400
623070	Electrical Parts and Supplies	10,880	10,600	20,600	7,400	17,000	17,000	17,000
623090	Plumbing Accessories and Supplies	4,819	11,000	11,000	10,600	11,000	15,000	15,000
623110	Hardware	1,703	2,000	1,500	1,400	2,000	2,000	2,000
623130	Buildings, Grounds, Paving Materials, and Supplies	36,390	47,000	41,000	29,500	34,000	34,000	34,000
623250	Vehicle Parts and Supplies	79,674	67,000	66,000	64,700	82,000	82,000	82,000
623270	Mechanical Repair Parts	63,302	91,600	92,100	82,800	157,800	157,800	157,800
623300	Manhole Materials	10,266	6,900	6,900	6,100	25,000	25,000	25,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	5,970	7,000	7,000	6,200	4,000	4,000	4,000
623530	Farming Supplies	4,610	3,700	3,700	3,400	4,000	4,000	4,000
623560	Processing Chemicals	254,724	197,000	210,500	184,600	247,000	247,000	247,000
623660	Cleaning Supplies	1,116	500	500	500	500	500	500
623680	Tools and Supplies	16,405	15,800	15,800	14,400	15,300	18,300	18,300
623700	Wearing Apparel	1,229	700	700	600	2,000	3,500	3,500
623780	Safety and Medical Supplies	5,082	8,000	9,600	8,600	8,000	8,000	8,000
623810	Computer Supplies	30	400	400	100	1,400	1,400	1,400
623820	Fuel	139,970	184,400	228,600	195,600	172,200	172,200	179,100
623860	Lubricants	906	1,500	2,000	2,000	1,500	1,500	1,500
623990	Materials and Supplies, N.O.C.	12,401	97,400	97,400	93,900	32,300	32,300	32,300
300	TOTAL MATERIALS AND SUPPLIES	649,477	752,500	815,300	712,400	817,000	825,500	832,400
634760	Material Handling and Farming Equipment	—	—	—	—	—	50,000	50,000
634790	Marine Equipment	—	—	—	—	80,000	80,000	80,000
634810	Computer Equipment	—	—	—	—	110,000	—	—
634860	Vehicle Equipment	—	—	—	—	320,000	320,000	320,000
634970	Testing and Laboratory Equipment	—	—	23,000	22,600	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	—	—	23,000	22,600	510,000	450,000	450,000
<b>TOTAL GENERAL DIVISION</b>		<b>\$ 24,879,897</b>	<b>\$ 26,155,200</b>	<b>\$ 25,795,600</b>	<b>\$ 24,350,500</b>	<b>\$ 33,888,000</b>	<b>\$ 31,634,100</b>	<b>\$ 31,771,800</b>

NOTES: 1. Amounts may not add up due to rounding.

2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.

Additionally, Estimated Expenditure may exceed Adjusted Appropriation 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				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>601</b>	<b>Executive Office</b>					
EX14	Director of Maintenance & Operations	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Office	2	2	369,474.75	2	376,864.32
<b>611</b>	<b>General Division Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	General Division Executive Office	2	2	291,036.06	2	242,050.14
<b>620</b>	<b>Administrative Section</b>					
<b>621</b>	<b>Administrative Unit</b>					
HP18	Supervising Budget & Management Analyst	1	1		1	
HP16	Senior Budget & Management Analyst	1	1		1	
HP14	Budget & Management Analyst	2	2		2	
TOTAL	Administrative Unit	4	4	453,557.51	4	479,163.36
TOTAL	Administrative Section	4	4	453,557.51	4	479,163.36
<b>630</b>	<b>Waterways Control Section</b>					
<b>631</b>	<b>Administrative Unit</b>					
HP20	Managing Civil Engineer	1	—		—	
HP20	Managing Engineer	—	1		1	
HP11	Administrative Specialist	1	—		—	
TOTAL	Administrative Unit	2	1	188,211.11	1	200,508.16
<b>633</b>	<b>Channel Control Unit</b>					
NR6271	Systems Dispatcher	4	4		5	
TOTAL	Channel Control Unit	4	4	459,596.80	5	597,688.00
<b>634</b>	<b>Channel Maintenance Unit</b>					
(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)						
HP18	Principal Engineer	—	—		—	
			(*1)		(*1)	
HP17	Senior Civil Engineer	—	—		—	
		(*1)				

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Civil Engineer	— (*1)	— (*1)		— (*1)	
TOTAL	Channel Maintenance Unit	—	—	—	—	—
TOTAL	Stormwater Management Fund Positions	(*2)	(*2)		(*2)	
<b>635</b>	<b>Lockport Powerhouse Unit</b>					
NR7394	Powerhouse Mechanic Leadman	1	1		1	
NR7393	Powerhouse Mechanic	1	1		1	
TOTAL	Lockport Powerhouse Unit	2	2	238,097.60	2	247,728.00
<b>636</b>	<b>Boat Operations Unit</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP14	Engineering Technician V	— (*1)	— (*1)		— (*2)	
HP14	Engineering Technician V #4	— (*1)	— (*1)		—	
HP12	Engineering Technician IV	— (*1)	— (*1)		— (*2)	
HP12	Engineering Technician IV #4	— (*1)	— (*1)		—	
NR8650	Maintenance Laborer Class A Shift	— (*2)	— (*2)		— (*2)	
TOTAL	Boat Operations Unit	—	—	—	—	—
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
<b>639</b>	<b>Channel Maintenance Unit (formerly Stickney Service Area Channel Maintenance Unit)</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP14	Engineering Technician V	— (*1)	— (*1)		— (*1)	
HP14	Engineering Technician V #4	— (*1)	— (*1)		— (*1)	
NR8650	Maintenance Laborer Class A Shift	— (*2)	— (*2)		— (*2)	
TOTAL	Channel Maintenance Unit (formerly Stickney Service Area Channel Maintenance Unit)	—	—	—	—	—
TOTAL	Stormwater Management Fund Positions	(*4)	(*4)		(*4)	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>670</b>	<b>Collection System Section</b>					
<b>679</b>	<b>Collection System Unit</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP15	Associate Civil Engineer	1	1		—	
HP15	Associate Civil Engineer #1	—	—		1	
HP14	Engineering Technician V	4	5		6	
HP12	Engineering Technician IV	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	34	34	2,953,305.42	35	3,140,078.41
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Collection System Section	34	34	2,953,305.42	35	3,140,078.41
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL	Waterways Control Section	42	41	3,839,210.93	43	4,186,002.57
TOTAL	Stormwater Management Fund Positions	(*18)	(*18)		(*18)	
<b>640</b>	<b>Technical Administration Section</b>					
<b>641</b>	<b>Technical Administration Unit</b>					
HP20	Managing Civil Engineer	1	—		—	
HP20	Managing Engineer	—	1		1	
TOTAL	Technical Administration Unit	1	1	196,576.59	1	200,508.18
<b>642</b>	<b>Contract Administration Unit - MOB</b>					
HP18	Principal Civil Engineer	1	—		—	
HP18	Principal Engineer	—	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Contract Administration Unit - MOB	4	4	477,810.03	4	498,300.72
<b>643</b>	<b>Technical Services Unit</b>					
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP11	Administrative Specialist	1	—		—	
TOTAL	Technical Services Unit	3	2	237,958.12	2	242,717.39
<b>644</b>	<b>Construction Design Unit</b>					
HP18	Principal Civil Engineer	1	—		—	
HP18	Principal Engineer	—	1		1	
TOTAL	Construction Design Unit	1	1	155,928.59	1	159,047.07
TOTAL	Technical Administration Section	9	8	1,068,273.33	8	1,100,573.36
<b>650</b>	<b>Solids Management Section</b>					
<b>651</b>	<b>Solids Administration Unit</b>					
HP20	Managing Civil Engineer	1	—		—	
HP20	Managing Engineer	—	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Solids Administration Unit	2	2	257,115.91	2	270,788.81
<b>652</b>	<b>Solids Field Operations Unit</b>					
HP18	Principal Engineer	1	1		1	
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP15	Associate Civil Engineer	—	—		1	
HP14	Engineering Technician V	3	3		3	
HP14	Engineering Technician V #4	2	2		2	
HP12	Engineering Technician IV	3	3		3	
HP11	Engineering Technician III	1	1		1	
TOTAL	Solids Field Operations Unit	11	11	1,098,655.46	12	1,246,411.62

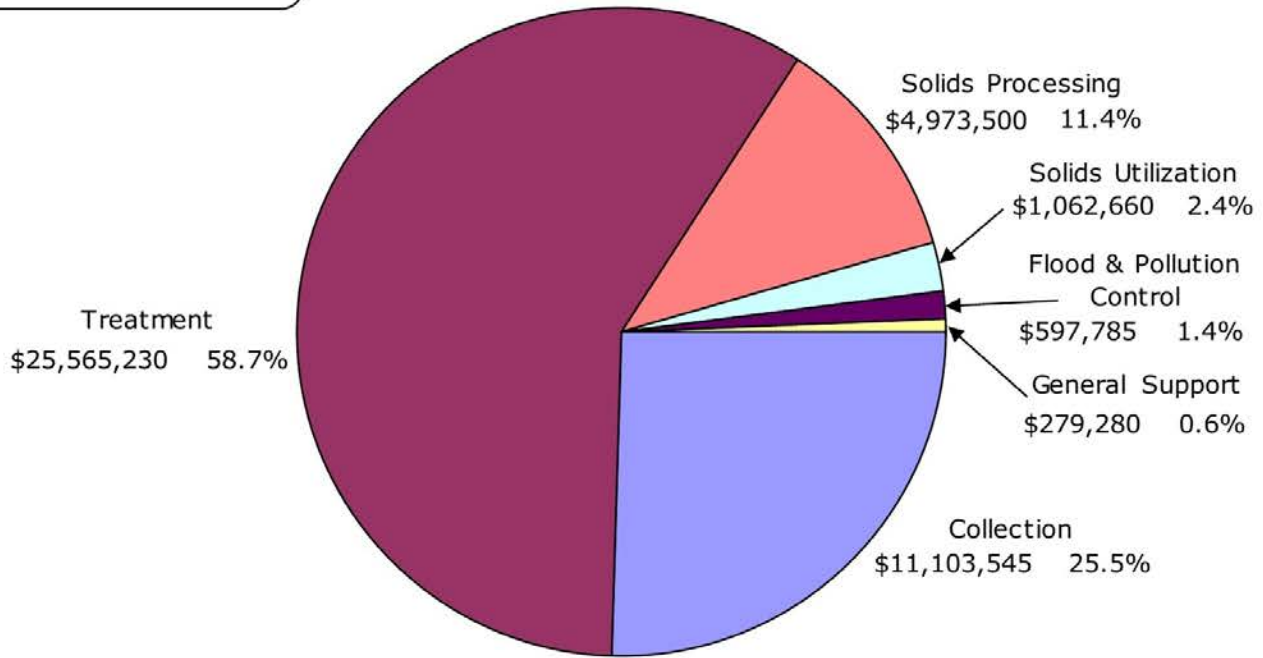
Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>653</b>	<b>Solids Operations Administration Unit</b>					
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP12	Engineering Technician IV #4	1	1		1	
NR8651	Maintenance Laborer Class A	—	—		1	
NR8652	Maintenance Laborer Class B	1	1		—	
NR8652	Maintenance Laborer Class B #1	—	—		1	
TOTAL	Solids Operations Administration Unit	4	4	403,931.80	5	493,447.46
<b>654</b>	<b>Fulton County Field Operations Unit</b>					
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	221,226.39	3	215,342.39
TOTAL	Solids Management Section	20	20	1,980,929.56	22	2,225,990.28
<b>660</b>	<b>Site Remediation Section</b>					
<b>661</b>	<b>Site Remediation Unit</b>					
HP20	Engineer of Site Remediation	1	1		1	
HP17	Site Remediation Specialist	1	1		1	
TOTAL	Site Remediation Unit	2	2	323,818.21	2	330,294.66
TOTAL	Site Remediation Section	2	2	323,818.21	2	330,294.66
<b>681</b>	<b>Asset Management Section</b>					
HP20	Managing Engineer	1	1		1	
HP18	Principal Electrical Engineer	3	1		1	
HP18	Principal Engineer	—	1		1	
HP18	Principal Mechanical Engineer	3	3		3	
HP17	Senior Electrical Engineer	6	4		5	
HP17	Senior Engineer	—	—		1	
HP17	Senior Mechanical Engineer	4	4		4	
HP15	Associate Electrical Engineer	6	6		7	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP15	Associate Mechanical Engineer	3	4		5	
HP15	Associate Process Control Engineer	3	—		—	
HP14	Assistant Electrical Engineer	1	—		—	
HP14	Assistant Mechanical Engineer	2	2		2	
HP14	Assistant Mechanical Engineer #2 (Engineering Technician IV) (New Grade HP12)	1	1		1	
HP14	Engineering Technician V	—	1		1	
HP11	Administrative Specialist	1	—		—	
TOTAL	Asset Management Section	34	28	3,490,252.87	32	4,092,628.36
TOTAL	Maintenance & Operations General Division	115	107	11,816,553.22	115	13,033,567.05
TOTAL	Stormwater Management Fund Positions	(*18)	(*18)		(*18)	
<p>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 &amp; 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>						

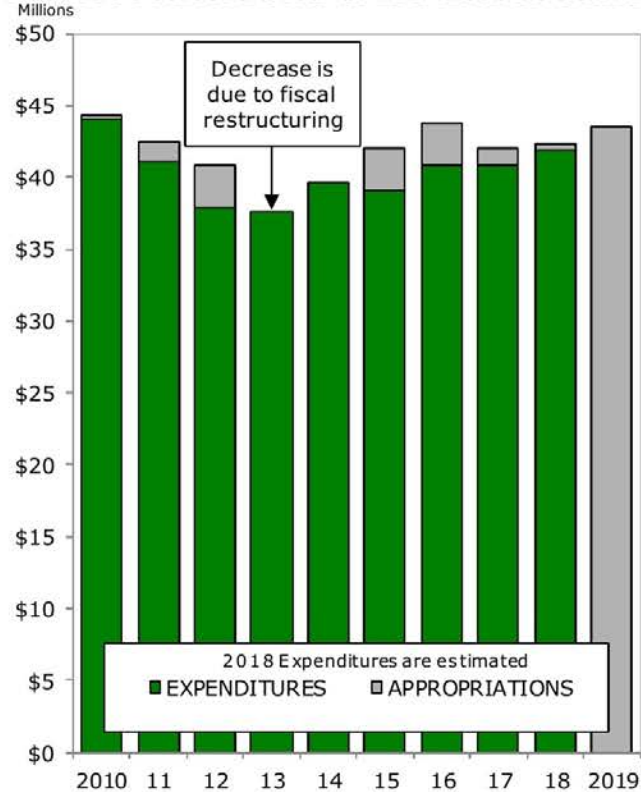
# MAINTENANCE & OPERATIONS – NORTH SERVICE AREA

2019	\$43,582,000
2018	\$42,258,700
Increase	\$1,323,300

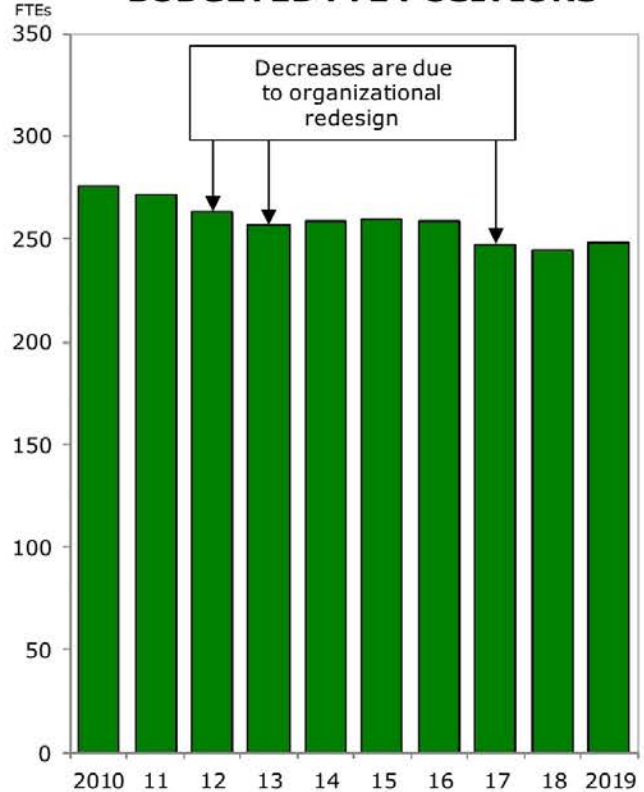
## FUNCTIONS



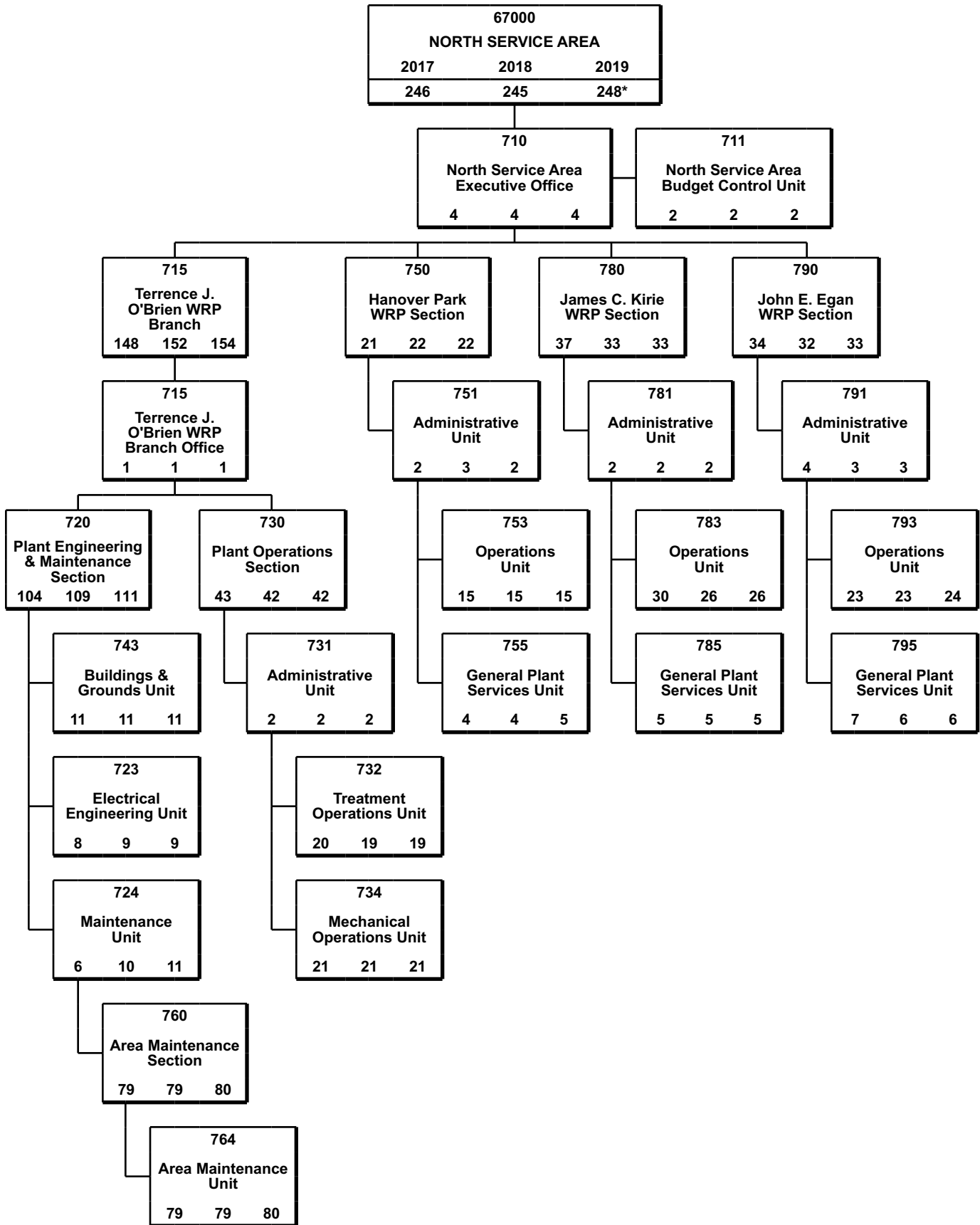
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS

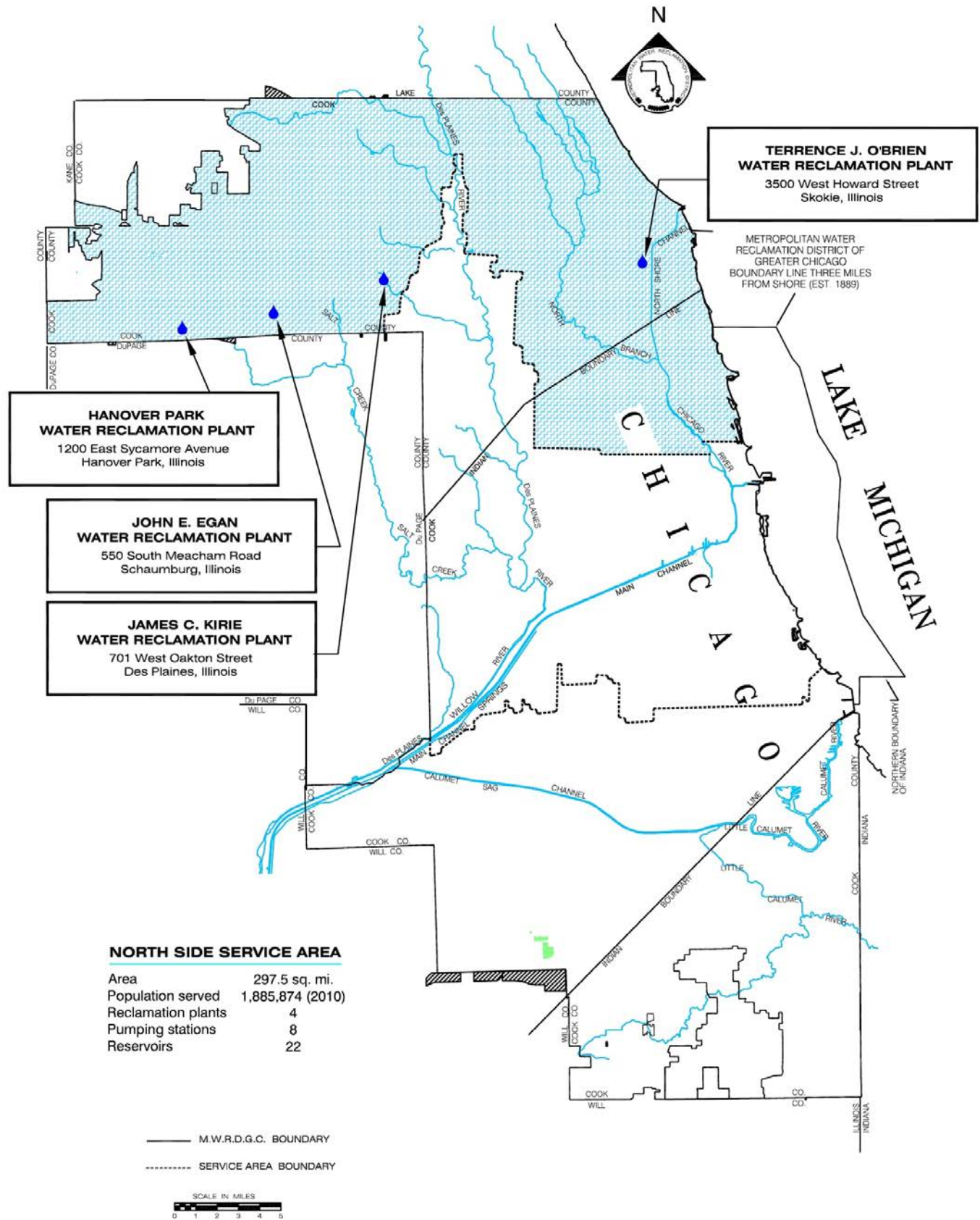


# MAINTENANCE & OPERATIONS - NORTH SERVICE AREA



\* In 2019, there are no positions funded by the Stormwater Management Fund.





**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 115.6 billion gallons of wastewater through its treatment facilities and a contract agreement with the Fox River Water Reclamation District.				\$36,668,775	84.2%	
	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 in milligrams per liter:						
CBOD - Carbonaceous Biochemical Oxygen Demand						
SS - Suspended Solids						
2. SOLIDS PROCESSING: The North Service Area will remove 60,600 dry tons and process 15,600 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and centrifuge cake in lagoons at CALSMA** and LASMA**.				\$ 4,973,500	11.4%	
3. SOLIDS UTILIZATION: The North Service Area will provide support to utilize 800 dry tons of biosolids for the Fischer Farm in Hanover Park and other agricultural applications.				\$ 1,062,660	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.				\$ 597,785	1.4%	
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.				\$ 279,280	0.6%	
				<b>Totals</b>	<b>\$43,582,000</b>	<b>100.0%</b>
**CALSMA - Calumet Solids Management Area and LASMA - Lawndale Avenue Solids Management Area						

MEASURABLE GOALS:		2017	2018	2019
	Unit of Measure	Actual	Estimated	Proposed
1. The North Service Area will collect and treat approximately 115.6 billion gallons of wastewater in 2019.	Billion Gallons	114.8	115.6	115.6
2. The North Service Area will remove 60,600 dry tons and process 15,600 dry tons of concentrated sewage.	Dry Tons Process Solids	15,893	15,600	15,600
3. The North Service Area will obtain 100 percent permit compliance in 2019 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 800 dry tons of biosolids in 2019.	Dry Tons	698	800	800

**67000 M&O - NORTH SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$10,119,650	2019	67 \$ 11,103,545	\$ 41,095	0.4
			2018	67 \$ 11,062,450		
1100	Surface Interceptor Systems	\$ 361,919	2019	3 \$ 323,400	\$ 9,200	2.9
			2018	3 \$ 314,200		
1200	Tunnel and Reservoir System	\$ 1,567,973	2019	14 \$ 1,514,800	\$ 36,600	2.5
			2018	14 \$ 1,478,200		
1300	Pumping Station Facilities	\$ 4,408,862	2019	25 \$ 4,723,100	\$ 34,400	0.7
			2018	25 \$ 4,688,700		
1900	Collection - Indirect Costs	\$ 3,780,896	2019	25 \$ 4,542,245	\$ (39,105)	(0.9)
			2018	25 \$ 4,581,350		
2000	Treatment	\$23,252,320	2019	153 \$ 25,205,230	\$ 735,280	3.0
			2018	151 \$ 24,469,950		
2000	Pre-Treatment	\$ 948,077	2019	7 \$ 818,000	\$ 23,000	2.9
			2018	7 \$ 795,000		
2100	Primary Treatment	\$ 634,595	2019	6 \$ 605,300	\$ (12,900)	(2.1)
			2018	6 \$ 618,200		
2200	Secondary Treatment	\$ 8,132,062	2019	44 \$ 8,082,100	\$ (99,000)	(1.2)
			2018	44 \$ 8,181,100		
2300	Tertiary Treatment	\$ 1,397,460	2019	11 \$ 1,905,000	\$ 134,500	7.6
			2018	11 \$ 1,770,500		
2900	Treatment - Indirect Costs	\$12,140,126	2019	85 \$ 13,794,830	\$ 689,680	5.3
			2018	83 \$ 13,105,150		

a) Increase is due to the addition of two FTE positions (\$210,100), the purchase of a Distributed Control System multi-network for the Kirie, Egan, and Hanover Park WRPs (\$140,000), the purchase of chain and sprockets for the Hanover Park and Kirie WRPs (\$72,900), the purchase of Endress Hauser repair parts and service for the O'Brien and Kirie WRPs (\$62,000), increased payments to Fox River Water Reclamation District (\$44,000), and increased need for Allis Chalmers pump parts (\$32,500).

**67000 M&O - NORTH SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
3000	Solids Processing	\$ 3,485,923	2019 24	\$ 4,973,500	\$ 480,325	10.7
			2018 23	\$ 4,493,175		
3100	Thickening	\$ 706,089	2019 5	\$ 806,600	\$ 35,400	4.6
			2018 5	\$ 771,200		
3200	Stabilization	\$ 761,823	2019 6	\$ 745,300	\$ (5,300)	(0.7)
			2018 6	\$ 750,600		
3300	Dewatering	\$ 972,164	2019 6	\$ 1,556,000	\$ 299,200	23.8
			2018 6	\$ 1,256,800		
3900	Solids Processing - Indirect Costs	\$ 1,045,847	2019 7	\$ 1,865,600	\$ 151,025	8.8
			2018 6	\$ 1,714,575		
4000	Flood & Pollution Control	\$ 744,474	2019 2	\$ 597,785	\$ (21,090)	(3.4)
			2018 2	\$ 618,875		
4200	Waterways Control and Stormwater Reservoirs	\$ 481,537	2019 2	\$ 292,800	\$ (23,900)	(7.5)
			2018 2	\$ 316,700		
4400	Aeration Facilities	\$ 178,199	2019 —	\$ 172,900	\$ (5,600)	(3.1)
			2018 —	\$ 178,500		
4900	Flood & Pollution Control - Indirect Costs	\$ 84,738	2019 —	\$ 132,085	\$ 8,410	6.8
			2018 —	\$ 123,675		
5000	Solids Utilization	\$ 2,661,549	2019 1	\$ 1,062,660	\$ 36,535	3.6
			2018 1	\$ 1,026,125		
5200	Solids Distribution	\$ 184,176	2019 —	\$ 178,600	\$ (3,300)	(1.8)
			2018 —	\$ 181,900		
5900	Solids Utilization - Indirect Costs	\$ 2,477,373	2019 1	\$ 884,060	\$ 39,835	4.7
			2018 1	\$ 844,225		
7000	General Support (excluding program number 7604)	\$ 201,263	2019 1	\$ 279,280	\$ 30,255	12.1
			2018 1	\$ 249,025		
7604	Social Security and Medicare Contributions	\$ 331,337	2019 —	\$ 360,000	\$ 20,900	6.2
			2018 —	\$ 339,100		
Totals		\$40,796,516	2019 248	\$43,582,000	\$ 1,323,300	3.1%*
			2018 245	\$42,258,700		

b) Increase is due to the increased demand for soda ash for the post digestion centrifuge process (\$182,000) and increased need for polymer to reflect the current operational capabilities at the Egan WRP (\$90,100).

c) Increase is due to the addition of landscaping services (\$75,000).

\* The 2019 position total for the North Service Area is 248, with no positions budgeted in the Stormwater Management Fund.

**67000 M&O - NORTH SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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	84,714	89,000	85,000	
		Cost	\$ 18,728,208	\$ 19,572,500	\$ 20,300,806	a)
		Cost/Mil. Gallons	\$ 221.08	\$ 219.92	\$ 238.83	
	John E. Egan Water Reclamation Plant	Mil. Gallons	8,725	10,200	10,200	
		Cost	\$ 5,623,400	\$ 5,677,650	\$ 5,558,737	
		Cost/Mil. Gallons	\$ 644.52	\$ 556.63	\$ 544.97	
	Hanover Park Water Reclamation Plant	Mil. Gallons	3,951	3,500	3,700	
		Cost	\$ 2,701,783	\$ 2,680,800	\$ 2,658,740	
		Cost/Mil. Gallons	\$ 683.82	\$ 765.94	\$ 718.58	
	James C. Kirie Water Reclamation Plant	Mil. Gallons	15,298	14,000	14,500	
		Cost	\$ 5,852,695	\$ 6,098,450	\$ 6,199,492	
		Cost/Mil. Gallons	\$ 382.58	\$ 435.60	\$ 427.55	
	Fox River Water Reclamation District	Mil. Gallons	2,069	2,000	2,150	
		Cost	\$ 465,884	\$ 1,503,000	\$ 1,591,000	
		Cost/Mil. Gallons	\$ 225.17	\$ 751.50	\$ 740.00	
3000	Solids Processing					
	Remove 60,600 Dry Tons of Solids, Transfer 45,000 Dry Tons to the Stickney WRP and Process 15,600 Dry Tons from Concentrated Sewage Through Various Systems	Dry Tons	15,893	13,500	15,600	b)
		Cost	\$ 3,485,923	\$ 4,493,175	\$ 4,973,500	c)
		Cost/Dry Ton	\$ 219.34	\$ 332.83	\$ 318.81	
	a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$378,700) and the scheduled replacement of ultraviolet bulbs for disinfection (\$367,200).					
	b) Increase is due to an updated estimate for solids processing to reflect current operational capabilities at the Egan WRP.					
	c) Increase is due to the increased demand for soda ash for the post digestion centrifuge process (\$182,000), an increased need for polymer to reflect the current operational capabilities at the Egan WRP (\$114,900), and landscaping services (\$75,000).					

**67000 M&O - NORTH SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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	\$ 481,537	\$ 316,700	\$ 292,800	
		Cost/Reservoir	\$ 21,888.05	\$ 14,395.45	\$ 13,309.09	
4400	Aeration Facilities	Cost	\$ 178,199	\$ 178,500	\$ 172,900	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 84,738	\$ 123,675	\$ 132,085	
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	698	1,000	800	d)
		Cost	\$ 2,661,549	\$ 1,026,125	\$ 1,062,660	
		Cost/Dry Ton	\$ 3,813.11	\$ 1,026.13	\$ 1,328.33	
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	\$ 201,263	\$ 249,025	\$ 279,280	
7604	Social Security and Medicare Contributions	Cost	\$ 331,337	\$ 339,100	\$ 360,000	
	Division Totals		\$ 40,796,516	\$ 42,258,700	\$ 43,582,000	

d) Decrease is due to an updated estimate of solids utilization that includes wet weather patterns.

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 22,635,492	\$ 23,691,800	\$ 23,686,300	\$ 23,333,100	\$ 24,285,900	\$ 24,285,900	\$ 24,470,800
601060	Compensation Plan Adjustments	1,418,077	1,443,100	1,355,100	1,268,100	1,354,500	1,354,500	1,361,200
601070	Social Security and Medicare Contributions	331,337	339,100	344,600	342,800	351,600	351,600	360,000
601080	Salaries of Nonbudgeted Employees	6,927	—	—	—	—	—	—
601100	Tuition and Training Payments	35,419	38,400	43,700	43,700	42,900	42,900	42,900
100	TOTAL PERSONAL SERVICES	24,427,252	25,512,400	25,429,700	24,987,700	26,034,900	26,034,900	26,234,900
612010	Travel	4,205	5,900	11,400	11,400	8,000	8,000	14,000
612030	Meals and Lodging	19,097	15,400	28,600	31,400	16,200	16,200	23,200
612050	Compensation for Personally-Owned Automobiles	17,611	30,300	25,300	22,200	19,000	19,000	19,000
612080	Motor Vehicle Operating Services	110	200	100	100	1,000	1,000	1,000
612150	Electrical Energy	7,831,673	7,709,800	7,534,800	7,412,300	7,088,800	7,088,800	7,088,800
612160	Natural Gas	540,130	460,900	635,900	614,100	475,500	475,500	475,500
612170	Water and Water Services	77,378	56,200	71,600	61,200	75,800	75,800	75,800
612210	Communication Services	137,230	174,500	196,900	149,700	—	—	—
612240	Testing and Inspection Services	29,891	39,300	43,300	33,200	42,200	42,200	42,200
612330	Rental Charges	1,839	10,400	5,400	3,100	3,000	3,000	3,000
612410	Governmental Service Charges	3,352,900	3,262,500	3,510,000	3,300,700	3,262,500	3,262,500	3,438,500
612420	Maintenance of Grounds and Pavements	7,500	35,000	35,200	19,200	112,600	112,600	112,600
612490	Contractual Services, N.O.C.	3,929	9,400	4,000	4,000	3,400	3,400	3,400
612520	Waste Material Disposal Charges	519,210	506,400	504,900	484,800	514,800	514,800	514,800
612530	Farming Services	24,700	24,700	20,000	20,000	154,700	34,700	24,000
612600	Repairs to Collection Facilities	61,042	66,800	32,200	25,700	74,100	74,100	74,100
612650	Repairs to Process Facilities	1,058,187	1,199,200	1,349,200	1,148,000	1,138,700	1,138,700	1,138,700
612680	Repairs to Buildings	126,908	178,000	190,600	151,000	278,700	278,700	208,700
612760	Repairs to Material Handling and Farming Equipment	9,597	21,700	23,000	16,000	24,400	24,400	24,400
612780	Safety Repairs and Services	55,574	85,000	85,000	65,400	85,000	85,000	85,000
612860	Repairs to Vehicle Equipment	7,593	38,700	30,300	16,400	8,000	8,000	8,000
200	TOTAL CONTRACTUAL SERVICES	13,886,303	13,930,300	14,337,700	13,589,900	13,386,400	13,266,400	13,374,700
623030	Metals	9,097	15,100	11,600	10,000	10,000	10,000	10,000
623070	Electrical Parts and Supplies	684,655	679,800	1,194,800	1,089,800	1,151,900	1,251,900	1,211,200
623090	Plumbing Accessories and Supplies	133,922	156,400	148,400	136,400	155,400	155,400	155,400
623110	Hardware	11,207	—	—	—	—	—	—

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623130	Buildings, Grounds, Paving Materials, and Supplies	18,560	29,700	26,700	19,900	20,100	20,100	20,100
623190	Paints, Solvents, and Related Materials	1,377	2,500	500	500	1,400	1,400	1,400
623250	Vehicle Parts and Supplies	12,775	8,700	16,700	16,200	12,000	12,000	12,000
623270	Mechanical Repair Parts	485,177	501,800	656,800	613,900	681,400	681,400	681,400
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	13,829	20,900	16,400	16,400	13,800	13,800	13,800
623560	Processing Chemicals	801,647	1,143,500	1,207,500	1,111,200	1,315,700	1,315,700	1,315,700
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	22,902	25,600	21,600	19,300	25,600	25,600	25,600
623660	Cleaning Supplies	82	—	—	—	—	—	—
623680	Tools and Supplies	105,308	73,200	82,200	82,200	66,900	66,900	66,900
623700	Wearing Apparel	175	—	—	—	—	—	—
623780	Safety and Medical Supplies	21,535	18,100	12,600	12,600	24,000	24,000	12,000
623800	Computer Software	124	1,600	—	—	21,000	21,000	21,000
623810	Computer Supplies	6,486	8,600	8,800	8,600	25,000	25,000	25,000
623820	Fuel	15,570	14,000	19,400	17,600	13,000	13,000	13,700
623840	Gases	281	—	—	—	—	—	—
623850	Communications Supplies	—	—	—	—	24,300	24,300	15,000
623860	Lubricants	4,852	3,100	3,900	3,800	3,000	3,000	3,000
623990	Materials and Supplies, N.O.C.	9,160	6,500	6,500	6,200	6,500	6,500	6,500
300	TOTAL MATERIALS AND SUPPLIES	2,358,719	2,709,100	3,434,400	3,164,600	3,571,000	3,671,000	3,609,700
634600	Equipment for Collection Facilities	45,129	44,200	44,200	44,200	60,000	60,000	60,000
634650	Equipment for Process Facilities	73,376	62,700	134,100	93,000	87,700	107,700	97,700
634760	Material Handling and Farming Equipment	—	—	—	—	37,000	37,000	—
634810	Computer Equipment	—	—	—	—	140,000	140,000	140,000
634860	Vehicle Equipment	—	—	—	—	65,000	65,000	65,000
634970	Testing and Laboratory Equipment	5,737	—	—	—	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	124,242	106,900	178,300	137,200	389,700	409,700	362,700
TOTAL NORTH SERVICE AREA		\$ 40,796,516	\$ 42,258,700	\$ 43,380,100	\$ 41,879,400	\$ 43,382,000	\$ 43,382,000	\$ 43,582,000

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 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				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>710</b>	<b>North Service Area Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP20	Managing Engineer	1	1		1	
HP14	Engineering Technician V	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	North Service Area Executive Office	4	4	615,526.81	4	641,326.26
<b>711</b>	<b>North Service Area Budget Control Unit</b>					
HP16	Senior Budget & Management Analyst	—	1		1	
HP14	Budget & Management Analyst	2	1		1	
TOTAL	North Service Area Budget Control Unit	2	2	206,290.59	2	205,945.55
<b>715</b>	<b>Terrence J. O'Brien Water Reclamation Plant Branch</b>					
<b>715</b>	<b>Terrence J. O'Brien Water Reclamation Plant Branch Office</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
TOTAL	Terrence J. O'Brien Water Reclamation Plant Branch Office	1	1	213,312.56	1	217,578.83
<b>720</b>	<b>Plant Engineering &amp; Maintenance Section</b>					
<b>743</b>	<b>Buildings &amp; Grounds Unit</b>					
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	722,990.34	11	756,986.34
<b>723</b>	<b>Electrical Engineering Unit</b>					
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	8	9	896,236.11	9	914,822.32

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>724</b>	<b>Maintenance Unit</b>					
HP19	Master Mechanic II	1	1		—	
HP19	Master Mechanic	—	—		1	
HP17	Assistant Master Mechanic	4	4		4	
HP17	Senior Electrical Engineer	—	2		2	
HP15	Associate Process Control Engineer	—	—		1	
HP14	Assistant Electrical Engineer	—	1		1	
HP12	Engineering Technician IV	—	1		1	
HP11	Administrative Specialist	—	1		1	
HP09	Administrative Clerk	1	—		—	
TOTAL	Maintenance Unit	6	10	1,224,321.29	11	1,347,462.32
<b>760</b>	<b>Area Maintenance Section</b>					
<b>764</b>	<b>Area Maintenance Unit</b>					
PR5933	Architectural Ironworker	2	2		2	
PR5353	Bricklayer	1	1		1	
PR5153	Carpenter	2	2		2	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	
PR7424	Electrical Instrument & Testing Mechanic Leadman	1	1		1	
PR7423	Electrical Instrument & Testing Mechanic	12	12		12	
PR7347	Electrical Mechanic Foreman	1	1		1	
PR7349	Electrical Mechanic Sub-Foreman	1	1		1	
PR7343	Electrical Mechanic	13	13		14	
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	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
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	5	5		5	
TOTAL	Area Maintenance Unit	79	79	7,847,008.00	80	8,117,657.60
TOTAL	Area Maintenance Section	79	79	7,847,008.00	80	8,117,657.60
TOTAL	Plant Engineering & Maintenance Section	104	109	10,690,555.74	111	11,136,928.58
<b>730</b>	<b>Plant Operations Section</b>					
<b>731</b>	<b>Administrative Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP12	Engineering Technician IV	1	1		1	
TOTAL	Administrative Unit	2	2	245,440.20	2	260,957.04
<b>732</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	6	8		8	
HP14	Treatment Plant Operator II #4	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	20	19	1,592,212.04	19	1,706,588.35
<b>734</b>	<b>Mechanical Operations Unit</b>					
HP17	Chief Operating Engineer I	1	1		1	
HP16	Assistant Chief Operating Engineer	1	1		1	
NR6810	Fireman-Oiler	6	6		6	
NR6832	Operating Engineer II	8	8		8	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6831	Operating Engineer I	5	5		5	
TOTAL	Mechanical Operations Unit	21	21	2,101,092.77	21	2,164,207.90
TOTAL	Plant Operations Section	43	42	3,938,745.01	42	4,131,753.29
TOTAL	Terrence J. O'Brien Water Reclamation Plant Branch	148	152	14,842,613.31	154	15,486,260.70
<b>750</b>	<b>Hanover Park Water Reclamation Plant Section</b>					
<b>751</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	—	1		1	
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		—	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	3	391,978.86	2	273,386.17
<b>753</b>	<b>Operations Unit</b>					
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		—	
HP17	Senior Mechanical Engineer	—	—		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	6	6		6	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	5	5		5	
NR6810	Fireman-Oiler	1	1		1	
TOTAL	Operations Unit	15	15	1,398,899.27	15	1,433,814.74
<b>755</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	1	1		1	
NR8651	Maintenance Laborer Class A	1	1		2	
NR8652	Maintenance Laborer Class B	2	2		1	
NR8652	Maintenance Laborer Class B #1	—	—		1	
TOTAL	General Plant Services Unit	4	4	289,555.44	5	379,466.80
TOTAL	Hanover Park Water Reclamation Plant Section	21	22	2,080,433.57	22	2,086,667.71

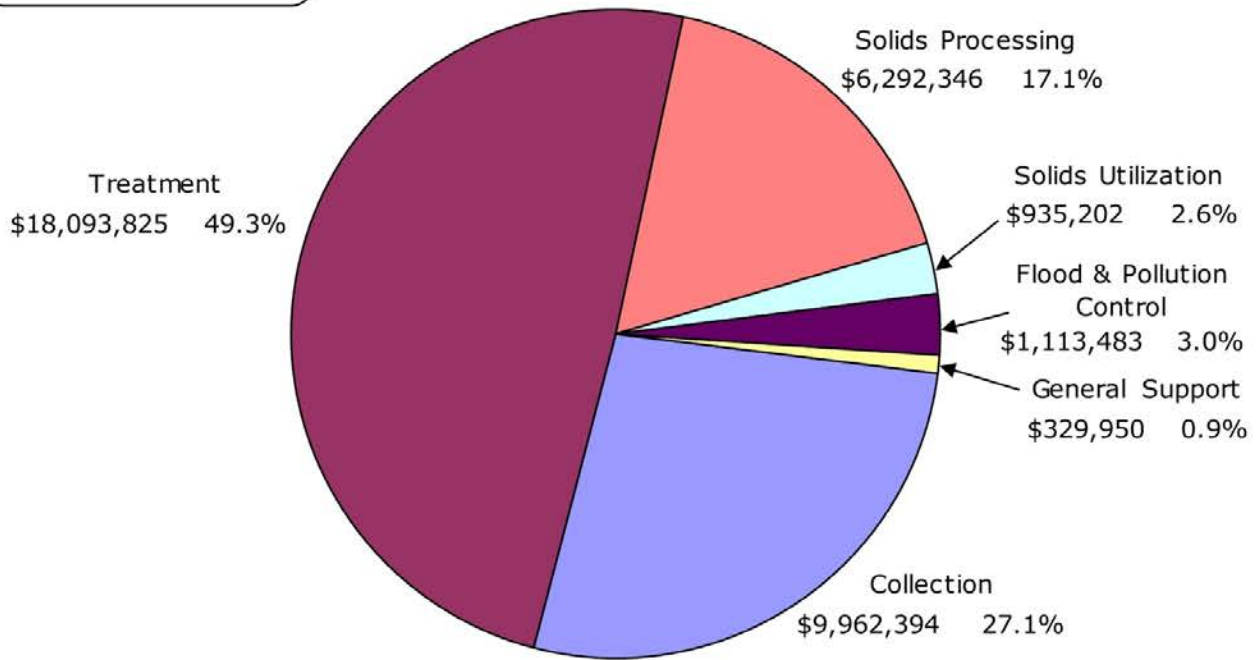
Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>780</b>	<b>James C. Kirie Water Reclamation Plant Section</b>					
<b>781</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	242,818.18	2	242,577.09
<b>783</b>	<b>Operations Unit</b>					
HP18	Principal Engineer	1	—		—	
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	5	6		6	
HP14	Treatment Plant Operator II #4	2	1		1	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	2		2	
NR8650	Maintenance Laborer Class A Shift	4	4		3	
NR8650	Maintenance Laborer Class A Shift #1	3	—		1	
NR6831	Operating Engineer I	6	6		6	
TOTAL	Operations Unit	30	26	2,456,923.90	26	2,536,324.93
<b>785</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	—	1		1	
HP14	Engineering Technician V #4	1	—		—	
NR8651	Maintenance Laborer Class A	3	3		3	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL	General Plant Services Unit	5	5	385,282.86	5	398,823.29
TOTAL	James C. Kirie Water Reclamation Plant Section	37	33	3,085,024.94	33	3,177,725.31
<b>790</b>	<b>John E. Egan Water Reclamation Plant Section</b>					
<b>791</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP18	Principal Engineer	2	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	4	3	420,586.51	3	422,866.44
<b>793</b>	<b>Operations Unit</b>					
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	—	1		1	
HP16	Treatment Plant Operator III #4	1	—		—	
HP14	Treatment Plant Operator II	7	7		7	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	2		2	
NR8650	Maintenance Laborer Class A Shift	—	—		1	
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	23	23	2,111,176.84	24	2,245,645.56
<b>795</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	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	6	449,134.40	6	467,292.80
TOTAL	John E. Egan Water Reclamation Plant Section	34	32	2,980,897.75	33	3,135,804.80
TOTAL	Maintenance & Operations North Service Area	246	245	23,810,786.97	248	24,733,730.33
Note: There are no positions budgeted for the Stormwater Management Fund for 2019.						
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.						

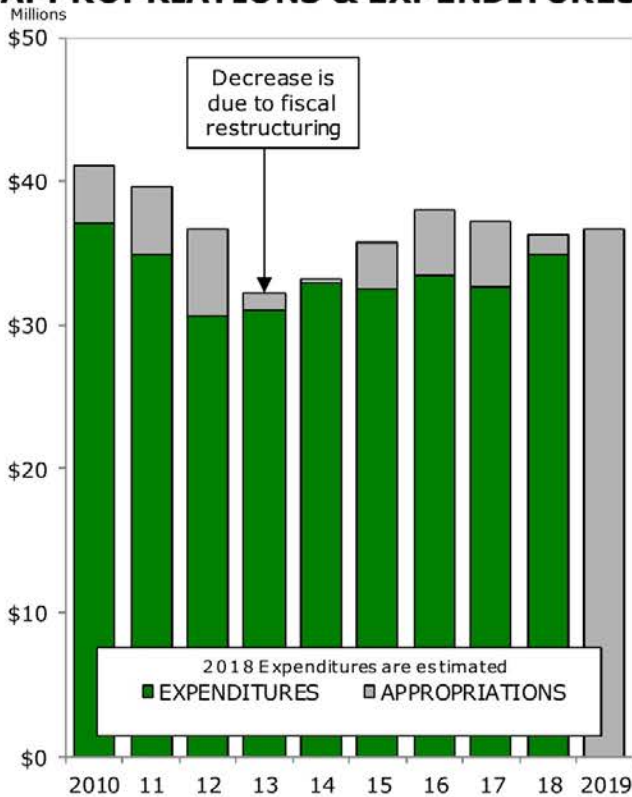
# MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

2019	\$36,727,200
2018	\$36,295,300
Increase	\$431,900

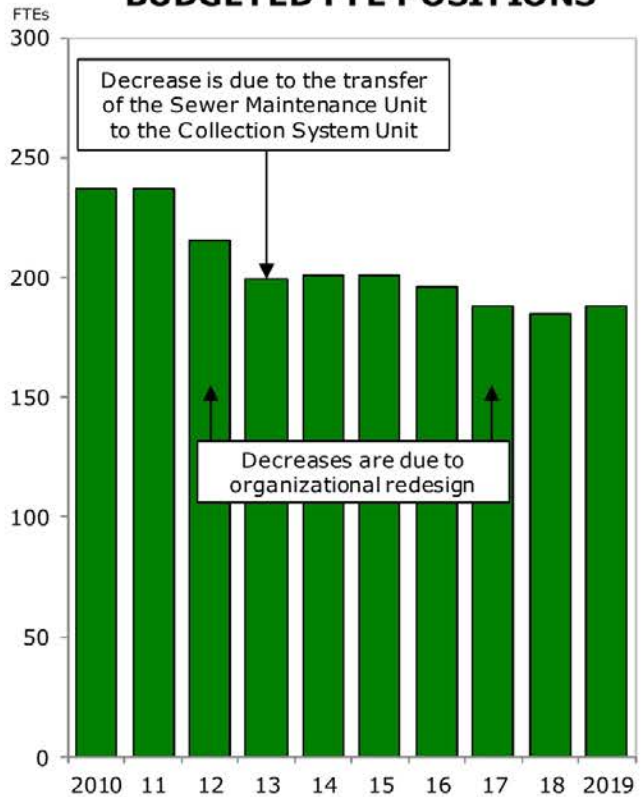
## FUNCTIONS



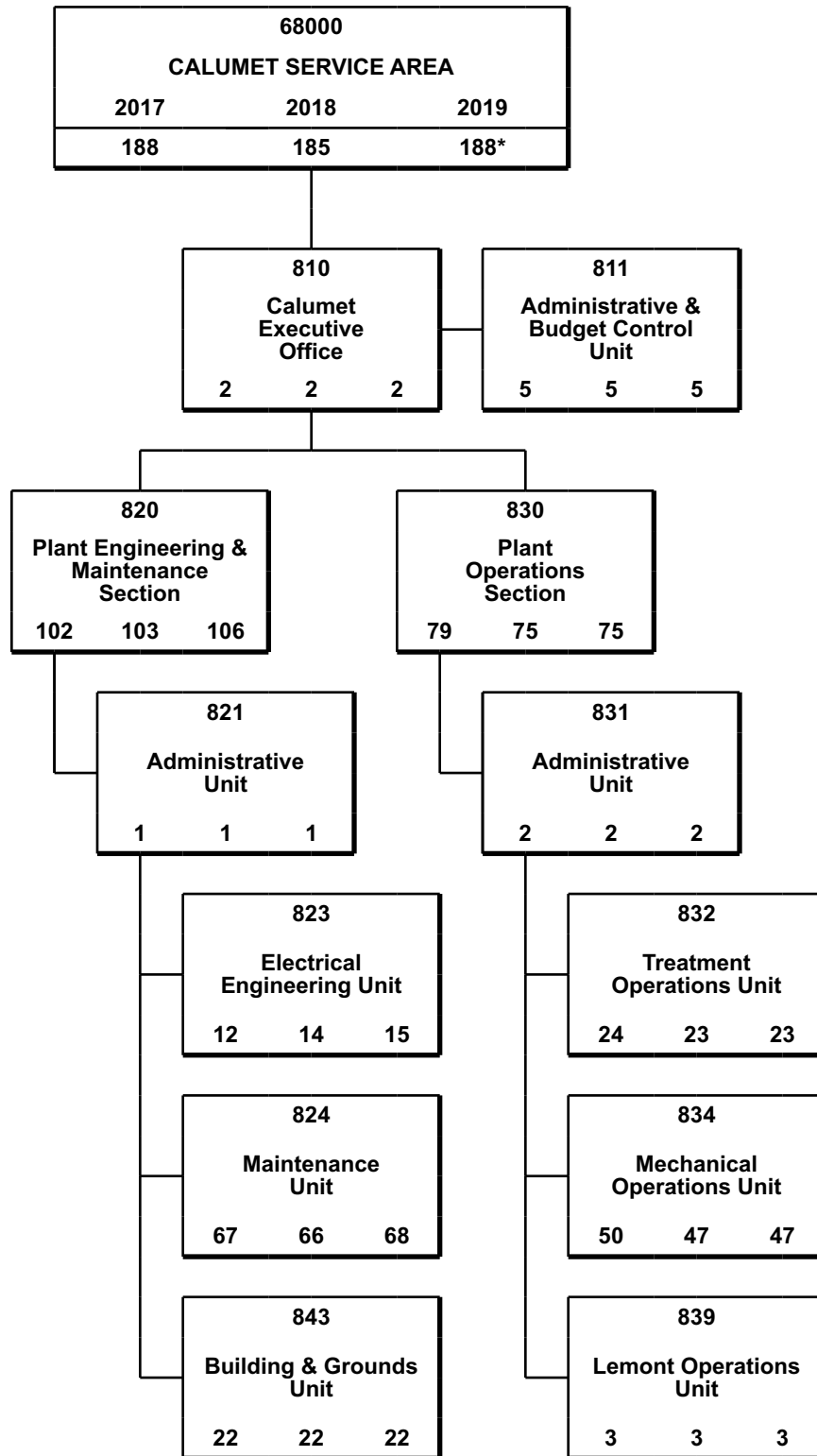
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS

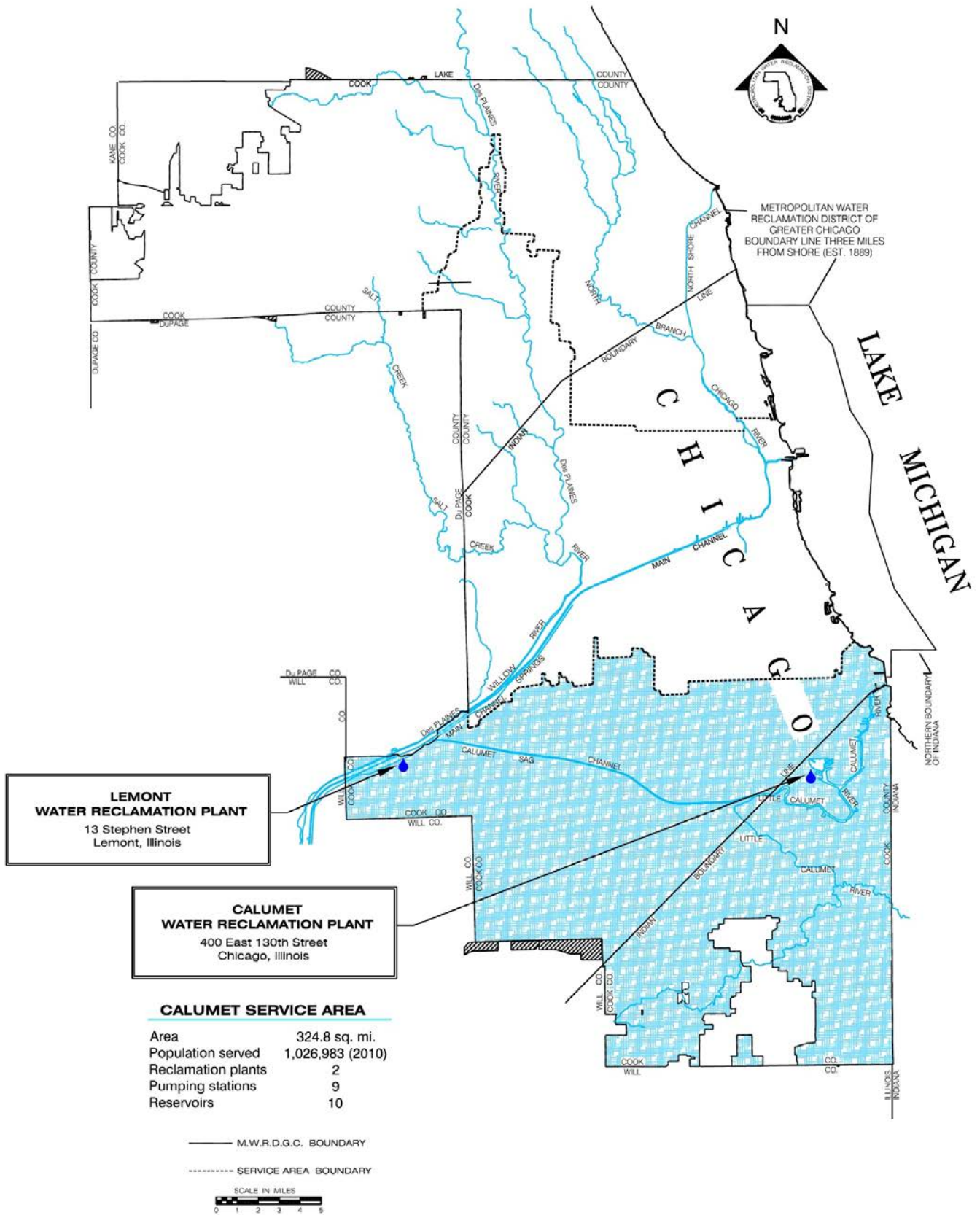


# MAINTENANCE & OPERATIONS - CALUMET SERVICE AREA



\* In 2019, there are no positions funded by the Stormwater Management Fund.





**LEMONT WATER RECLAMATION PLANT**  
 13 Stephen Street  
 Lemont, Illinois

**CALUMET WATER RECLAMATION PLANT**  
 400 East 130th Street  
 Chicago, Illinois

**CALUMET SERVICE AREA**

Area	324.8 sq. mi.
Population served	1,026,983 (2010)
Reclamation plants	2
Pumping stations	9
Reservoirs	10

—— M.W.R.D.G.C. BOUNDARY

----- SERVICE AREA BOUNDARY



**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.		\$28,056,219	76.4%
	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 in milligrams per liter:			
CBOD - Carbonaceous Biochemical Oxygen Demand			
SS - Suspended Solids			
2. SOLIDS PROCESSING: The Calumet Service Area will remove and process 30,000 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.		\$ 6,292,346	17.1%
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.		\$ 935,202	2.6%
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.		\$ 1,113,483	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.		\$ 329,950	0.9%
<b>Totals</b>		<b>\$36,727,200</b>	<b>100.0%</b>

MEASURABLE GOALS:		2017	2018	2019
	Unit of Measure	Actual	Estimated	Proposed
1. The Calumet Service Area will collect and treat approximately 101 billion gallons of wastewater in 2019.	Billion Gallons	95	101	101
2. The Calumet Service Area will remove and process solids from 30,000 dry tons of concentrated sewage.	Dry Tons Process Solids	29,261	30,000	30,000
3. The Calumet Service Area will obtain 100 percent permit compliance in 2019 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 2019.	Dry Tons	17,077	29,000	29,000

**68000 M&O - CALUMET SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 9,653,815	2019	56 \$ 9,962,394	\$ (263,160)	(2.6)	
			2018	55 \$ 10,225,554			
1100	Surface Interceptor Systems	\$ 607,125	2019	4 \$ 465,800	\$ (200,000)	(30.0)	a)
			2018	4 \$ 665,800			
1200	Tunnel and Reservoir System	\$ 3,292,782	2019	10 \$ 2,928,400	\$ (278,200)	(8.7)	b)
			2018	10 \$ 3,206,600			
1300	Pumping Station Facilities	\$ 2,426,246	2019	15 \$ 2,609,700	\$ (18,800)	(0.7)	
			2018	15 \$ 2,628,500			
1900	Collection - Indirect Costs	\$ 3,327,662	2019	27 \$ 3,958,494	\$ 233,840	6.3	c)
			2018	26 \$ 3,724,654			
2000	Treatment	\$14,489,932	2019	83 \$ 17,821,025	\$ 196,510	1.1	
			2018	83 \$ 17,624,515			
2000	Pre-Treatment	\$ 623,801	2019	4 \$ 494,800	\$ 15,500	3.2	
			2018	4 \$ 479,300			
2100	Primary Treatment	\$ 849,252	2019	11 \$ 1,070,400	\$ 16,600	1.6	
			2018	11 \$ 1,053,800			
2200	Secondary Treatment	\$ 5,403,066	2019	22 \$ 5,490,600	\$ (114,300)	(2.0)	
			2018	22 \$ 5,604,900			
2300	Tertiary Treatment	\$ 1,046,539	2019	5 \$ 2,112,800	\$ (250,000)	(10.6)	d)
			2018	6 \$ 2,362,800			
2900	Treatment - Indirect Costs	\$ 6,567,274	2019	41 \$ 8,652,425	\$ 528,710	6.5	e)
			2018	40 \$ 8,123,715			

a) Decrease is due to the transfer of telemetry services (\$196,500) to the Information Technology Department.

b) Decrease is due to a reduced demand for electrical energy at the Tunnel and Reservoir Plan Pumping Station (\$303,400), offset by the reallocation of salaries to more accurately reflect current activities (\$34,300).

c) Increase is due to the replacement of one dump truck and two stake body trucks (\$90,000), the addition of one FTE position (\$84,800), and the replacement of one end loader (\$60,000).

d) Decrease is due to a reduction to 18-632-11, Sodium Hypochlorite (\$255,600) based on the need for fewer chemicals than originally anticipated in the disinfection process.

e) Increase is due to the replacement of one dump truck and two stake body trucks (\$184,500), landscaping services (\$125,000), the addition of one FTE position (\$123,500), the replacement of one end loader (\$123,000), and the upgrade of Foxboro input/output equipment (\$54,000), offset by a reduced need for boiler repair parts (\$120,000).

**68000 M&O - CALUMET SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
3000	Solids Processing	\$ 6,175,476	2019 39	\$ 6,292,346	\$ 381,935	6.5
			2018 38	\$ 5,910,411		
3100	Thickening	\$ 800,323	2019 7	\$ 924,800	\$ 21,300	2.4
			2018 7	\$ 903,500		
3200	Stabilization	\$ 1,827,325	2019 9	\$ 1,613,900	\$ (16,300)	(1.0)
			2018 9	\$ 1,630,200		
3300	Dewatering	\$ 314,113	2019 3	\$ 259,300	\$ 7,300	2.9
			2018 3	\$ 252,000		
3900	Solids Processing - Indirect Costs	\$ 3,233,715	2019 20	\$ 3,494,346	\$ 369,635	11.8
			2018 19	\$ 3,124,711		
4000	Flood & Pollution Control	\$ 1,010,749	2019 2	\$ 1,113,483	\$ 30,210	2.8
			2018 2	\$ 1,083,273		
4200	Waterways Control and Stormwater Reservoirs	\$ 204,312	2019 1	\$ 207,000	\$ 1,400	0.7
			2018 1	\$ 205,600		
4400	Aeration Facilities	\$ 715,100	2019 1	\$ 735,700	\$ 2,600	0.4
			2018 1	\$ 733,100		
4900	Flood & Pollution Control - Indirect Costs	\$ 91,337	2019 —	\$ 170,783	\$ 26,210	18.1
			2018 —	\$ 144,573		
5000	Solids Utilization	\$ 795,158	2019 6	\$ 935,202	\$ 67,835	7.8
			2018 5	\$ 867,367		
5100	Solids Drying	\$ 61,605	2019 —	\$ 52,900	\$ 1,100	2.1
			2018 —	\$ 51,800		
5200	Solids Distribution	\$ 61,605	2019 1	\$ 52,900	\$ 1,100	2.1
			2018 1	\$ 51,800		
5900	Solids Utilization - Indirect Costs	\$ 671,948	2019 5	\$ 829,402	\$ 65,635	8.6
			2018 4	\$ 763,767		
7000	General Support (excluding program number 7604)	\$ 287,544	2019 2	\$ 329,950	\$ (330)	(0.1)
			2018 2	\$ 330,280		
7604	Social Security and Medicare Contributions	\$ 248,267	2019 —	\$ 272,800	\$ 18,900	7.4
			2018 —	\$ 253,900		
Totals		\$32,660,941	2019 188	\$ 36,727,200	\$ 431,900	1.2%*
			2018 185	\$ 36,295,300		

f) Increase is due to the replacement of one dump truck and two stake body trucks (\$139,500), the addition of one FTE position (\$102,200), and the replacement of one end loader (\$93,000).

g) Increase is due to the replacement of one dump truck and two stake body trucks (\$13,500) and the replacement of one end loader (\$9,000).

\* The 2019 position total for the Calumet Service Area is 188, with no positions budgeted in the Stormwater Management Fund.

**68000 M&O - CALUMET SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Calumet and Lemont Water Reclamation Plants					
	Calumet Water Reclamation Plant	Mil. Gallons	93,816	100,000	100,000	
		Cost	\$ 23,698,417	\$ 27,388,999	\$ 27,344,144	
		Cost/Mil. Gallons	\$ 252.61	\$ 273.89	\$ 273.44	
	Lemont Water Reclamation Plant	Mil. Gallons	933	1,000	1,000	
		Cost	\$ 445,330	\$ 461,070	\$ 439,275	
		Cost/Mil. Gallons	\$ 477.31	\$ 461.07	\$ 439.28	
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	29,261	40,000	30,000	
		Cost	\$ 6,175,476	\$ 5,910,411	\$ 6,292,346	a)
		Cost/Dry Ton	\$ 211.05	\$ 147.76	\$ 209.74	
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	10	10	10	
		Cost	\$ 204,312	\$ 205,600	\$ 207,000	
		Cost/Reservoir	\$ 20,431.20	\$ 20,560.00	\$ 20,700.00	
4400	Aeration Facilities	Cost	\$ 715,100	\$ 733,100	\$ 735,700	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 91,337	\$ 144,573	\$ 170,783	b)
5000	Solids Utilization					
	Utilize Biosolids for Application at Final Utilization Sites, such as for Daily and Final Cover in Sanitary Landfills	Dry Tons	17,077	29,000	29,000	
		Cost	\$ 795,158	\$ 867,367	\$ 935,202	
		Cost/Dry Ton	\$ 46.56	\$ 29.91	\$ 32.25	
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	\$ 287,544	\$ 330,280	\$ 329,950	
7604	Social Security and Medicare Contributions	Cost	\$ 248,267	\$ 253,900	\$ 272,800	
	Division Totals		\$ 32,660,941	\$ 36,295,300	\$ 36,727,200	

a) Increase is due to the replacement of one dump truck and two stake body trucks (\$139,500), the addition of one FTE position (\$102,200), and the replacement of one end loader (\$93,000).

b) Increase is due to the replacement of one dump truck and two stake body trucks (\$13,500) and the replacement of one end loader (\$9,000).

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 16,774,746	\$ 17,605,700	\$ 17,598,700	\$ 17,180,700	\$ 18,159,200	\$ 18,159,200	\$ 18,245,700
601060	Compensation Plan Adjustments	898,280	850,100	1,175,500	1,174,300	795,200	795,200	795,800
601070	Social Security and Medicare Contributions	248,267	253,900	260,900	259,700	267,600	267,600	272,800
601100	Tuition and Training Payments	10,778	40,000	37,000	25,300	24,500	24,500	24,500
100	TOTAL PERSONAL SERVICES	17,932,071	18,749,700	19,072,100	18,640,000	19,246,500	19,246,500	19,338,800
612010	Travel	—	6,000	3,500	800	5,000	5,000	5,000
612030	Meals and Lodging	4,540	17,100	10,900	10,000	10,000	10,000	10,000
612050	Compensation for Personally-Owned Automobiles	27,792	45,000	45,000	36,000	40,000	40,000	40,000
612080	Motor Vehicle Operating Services	179	100	200	200	100	100	100
612150	Electrical Energy	9,050,447	9,330,700	9,330,700	9,272,500	8,558,300	8,558,300	8,558,300
612160	Natural Gas	802,678	597,000	689,500	597,000	565,200	565,200	565,200
612170	Water and Water Services	374,780	390,200	390,200	382,300	390,200	390,200	390,200
612210	Communication Services	152,242	196,500	322,000	322,000	—	—	—
612240	Testing and Inspection Services	31,278	66,600	62,600	39,500	66,900	66,900	66,900
612330	Rental Charges	17,000	10,000	10,000	9,300	10,000	10,000	10,000
612410	Governmental Service Charges	98,780	103,000	100,900	98,200	103,000	103,000	103,000
612420	Maintenance of Grounds and Pavements	6,091	20,000	—	—	145,000	145,000	145,000
612490	Contractual Services, N.O.C.	2,966	16,200	8,500	5,500	10,500	10,500	10,500
612520	Waste Material Disposal Charges	374,583	379,100	354,800	340,800	392,100	392,100	392,100
612600	Repairs to Collection Facilities	60,902	159,900	106,500	50,300	153,300	153,300	153,300
612650	Repairs to Process Facilities	1,279,879	1,752,900	1,703,000	1,643,400	1,748,600	1,748,600	1,748,600
612680	Repairs to Buildings	185,511	471,400	460,200	293,100	494,300	494,300	494,300
612760	Repairs to Material Handling and Farming Equipment	47,381	52,000	89,700	48,200	52,000	52,000	52,000
612780	Safety Repairs and Services	20,720	20,000	20,000	17,000	20,000	20,000	20,000
612860	Repairs to Vehicle Equipment	55,610	53,500	53,500	53,500	53,500	53,500	53,500
612990	Repairs, N.O.C.	4,228	8,000	8,000	3,500	8,000	8,000	8,000
200	TOTAL CONTRACTUAL SERVICES	12,597,586	13,695,200	13,769,700	13,223,100	12,826,000	12,826,000	12,826,000
623030	Metals	4,722	10,100	10,100	6,500	10,100	10,100	10,100
623070	Electrical Parts and Supplies	301,011	347,800	567,800	564,300	427,800	424,800	424,800
623090	Plumbing Accessories and Supplies	153,932	294,600	309,600	280,600	204,600	204,600	204,600
623110	Hardware	—	2,800	2,800	2,500	2,800	2,800	2,800
623130	Buildings, Grounds, Paving Materials, and Supplies	30,526	42,000	50,000	38,300	54,000	54,000	51,600

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623190	Paints, Solvents, and Related Materials	817	2,800	2,700	2,600	2,800	2,800	2,800
623250	Vehicle Parts and Supplies	28,541	36,000	39,000	34,500	36,000	36,000	36,000
623270	Mechanical Repair Parts	432,111	705,800	746,800	690,500	844,600	844,600	844,600
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	10,744	10,000	12,000	11,700	10,000	10,000	10,000
623560	Processing Chemicals	1,009,356	2,167,800	1,335,700	1,335,700	1,916,800	1,916,800	1,916,800
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	—	—	1,500	1,400	—	3,000	3,000
623660	Cleaning Supplies	1,394	700	3,200	2,300	1,000	1,000	1,000
623680	Tools and Supplies	69,803	38,300	33,800	33,000	38,300	38,300	38,300
623780	Safety and Medical Supplies	14,785	20,300	14,800	13,700	20,300	20,300	20,300
623810	Computer Supplies	70	300	300	—	300	300	300
623820	Fuel	26,326	38,500	42,100	42,100	45,000	45,000	47,400
623860	Lubricants	—	14,900	1,900	—	2,000	2,000	2,000
623990	Materials and Supplies, N.O.C.	11,537	32,000	22,000	20,000	32,000	32,000	32,000
300	TOTAL MATERIALS AND SUPPLIES	2,095,675	3,764,700	3,196,100	3,079,700	3,648,400	3,648,400	3,648,400
634650	Equipment for Process Facilities	35,608	85,700	83,700	63,000	79,000	79,000	79,000
634760	Material Handling and Farming Equipment	—	—	—	—	300,000	300,000	300,000
634860	Vehicle Equipment	—	—	—	—	535,000	535,000	535,000
400	TOTAL MACHINERY AND EQUIPMENT	35,608	85,700	83,700	63,000	914,000	914,000	914,000
TOTAL CALUMET SERVICE AREA		\$ 32,660,941	\$ 36,295,300	\$ 36,121,600	\$ 35,005,800	\$ 36,634,900	\$ 36,634,900	\$ 36,727,200

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: Calumet Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>810</b>	<b>Calumet Executive Office</b>					
HP22	Assistant Director of Maintenance & Operations	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Calumet Executive Office	2	2	307,879.42	2	314,036.86
<b>811</b>	<b>Administrative &amp; Budget Control Unit</b>					
HP14	Budget & Management Analyst	2	2		2	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP11	Administrative Specialist	1	1		1	
HP09	Administrative Clerk	1	1		1	
TOTAL	Administrative & Budget Control Unit	5	5	396,101.12	5	411,530.72
<b>820</b>	<b>Plant Engineering &amp; Maintenance Section</b>					
<b>821</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
TOTAL	Administrative Unit	1	1	196,576.57	1	200,508.16
<b>823</b>	<b>Electrical Engineering Unit</b>					
HP15	Associate Process Control Engineer	—	1		2	
HP14	Engineering Technician V	—	1		1	
NR6251	Chief Electrical Operator	1	1		1	
NR6233	Electrical Operator II	5	5		5	
NR6232	Electrical Operator I	6	6		6	
TOTAL	Electrical Engineering Unit	12	14	1,375,653.95	15	1,521,635.90
<b>824</b>	<b>Maintenance Unit</b>					
HP19	Master Mechanic	—	—		1	
HP18	Master Mechanic I	1	1		—	
HP18	Master Mechanic I #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	



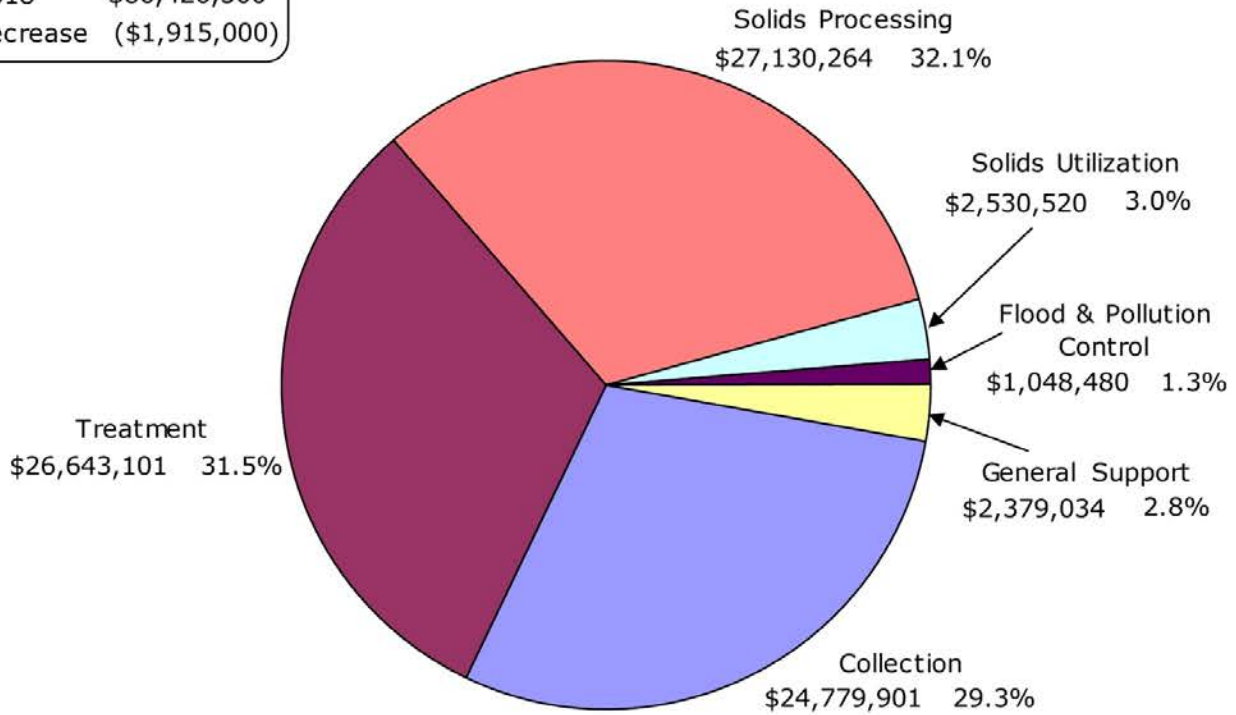
Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
PR7423	Electrical Instrument & Testing Mechanic	7	7		7	
PR7347	Electrical Mechanic Foreman	1	1		1	
PR7349	Electrical Mechanic Sub-Foreman	1	1		1	
PR7343	Electrical Mechanic	9	9		10	
PR6453	Hoisting Engineer	3	3		3	
PR6453	Hoisting Engineer #1	1	—		—	
PR7579	Machinist Foreman	1	1		1	
PR7573	Machinist	10	10		10	
PR5553	Painter	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7773	Pipefitter	9	9		9	
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	67	66	6,686,592.03	68	7,076,768.31
<b>843</b>	<b>Buildings &amp; Grounds Unit</b>					
HP14	Engineering Technician V	—	—		1	
HP12	Engineering Technician IV	2	2		1	
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	1,492,305.69	22	1,552,036.56
TOTAL	Plant Engineering & Maintenance Section	102	103	9,751,128.24	106	10,350,948.93
<b>830</b>	<b>Plant Operations Section</b>					
<b>831</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
HP18	Principal Engineer	1	1		1	
TOTAL	Administrative Unit	2	2	369,241.14	2	376,625.90

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>832</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	7	7		7	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	5	5		5	
NR8650	Maintenance Laborer Class A Shift	8	8		8	
NR8650	Maintenance Laborer Class A Shift #1	1	—		—	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL	Treatment Operations Unit	24	23	2,053,798.55	23	2,059,246.89
<b>834</b>	<b>Mechanical Operations Unit</b>					
HP17	Chief Operating Engineer I	1	1		1	
HP16	Assistant Chief Operating Engineer	2	2		2	
NR6810	Fireman-Oiler	5	5		5	
NR8650	Maintenance Laborer Class A Shift	7	7		7	
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	2	2		2	
PR6473	Truck Driver #1	1	—		—	
TOTAL	Mechanical Operations Unit	50	47	4,548,244.02	47	4,704,766.36
<b>839</b>	<b>Lemont Operations Unit</b>					
HP14	Treatment Plant Operator II	1	1		1	
HP12	Treatment Plant Operator I	2	2		2	
TOTAL	Lemont Operations Unit	3	3	268,076.88	3	278,394.49
TOTAL	Plant Operations Section	79	75	7,239,360.59	75	7,419,033.64
TOTAL	Maintenance & Operations Calumet Service Area	188	185	17,694,469.37	188	18,495,550.15
Note: There are no positions budgeted for the Stormwater Management Fund for 2019.						
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.						

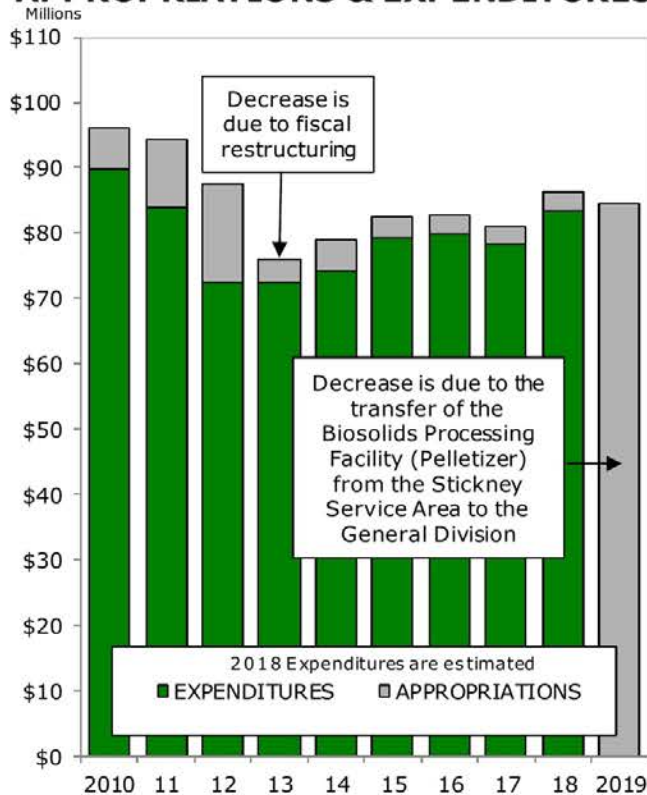
# MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA

2019	\$84,511,300
2018	\$86,426,300
Decrease	(\$1,915,000)

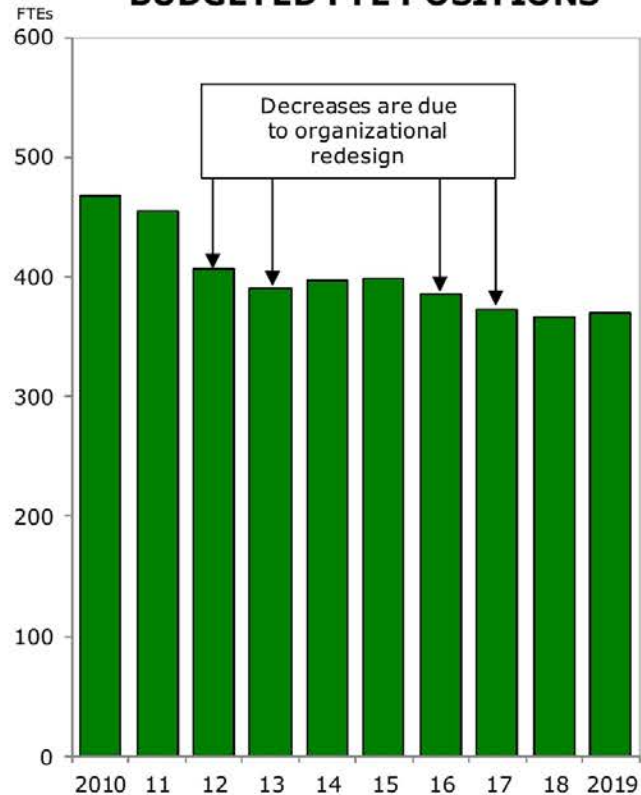
## FUNCTIONS



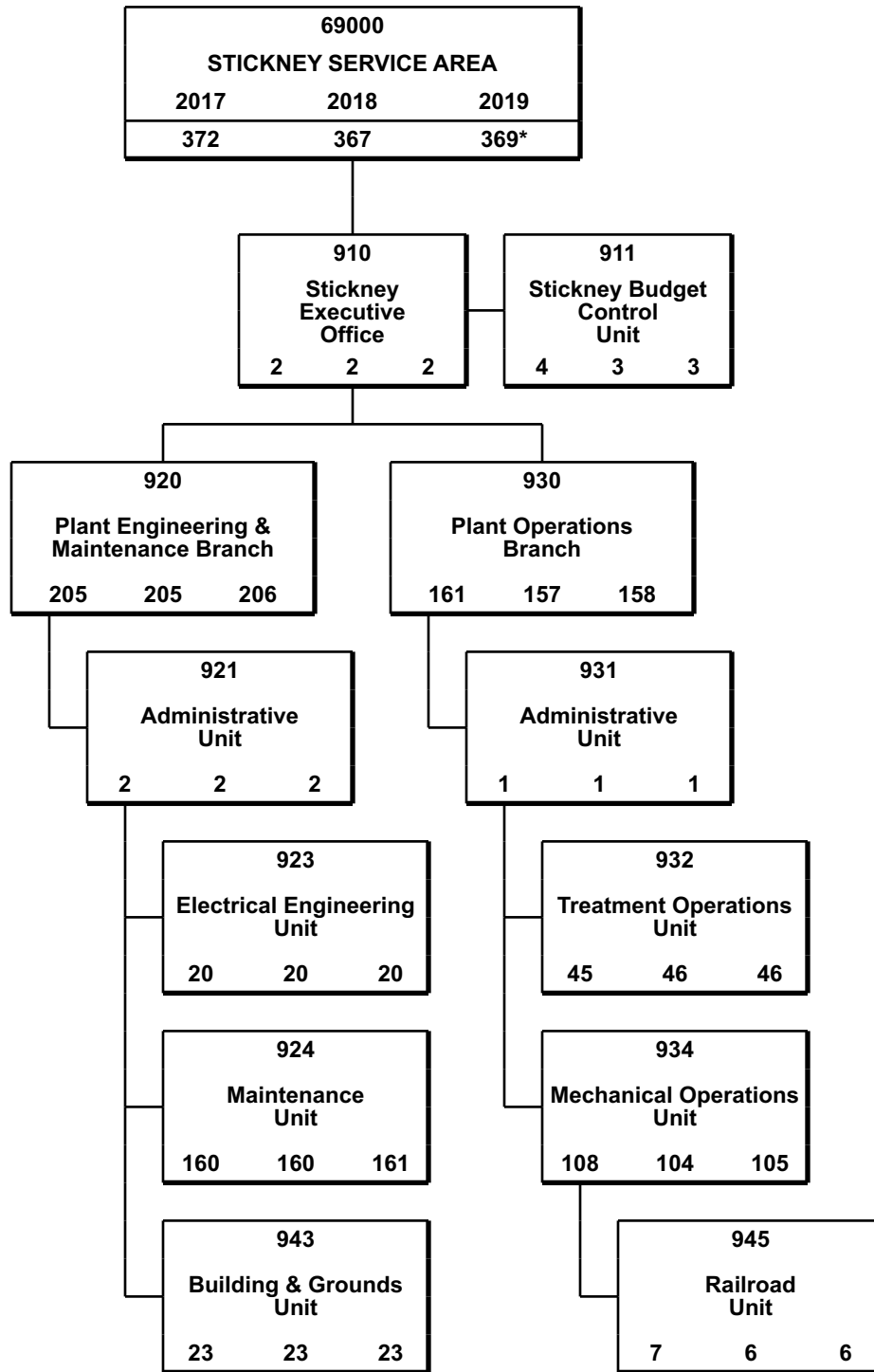
## APPROPRIATIONS & EXPENDITURES



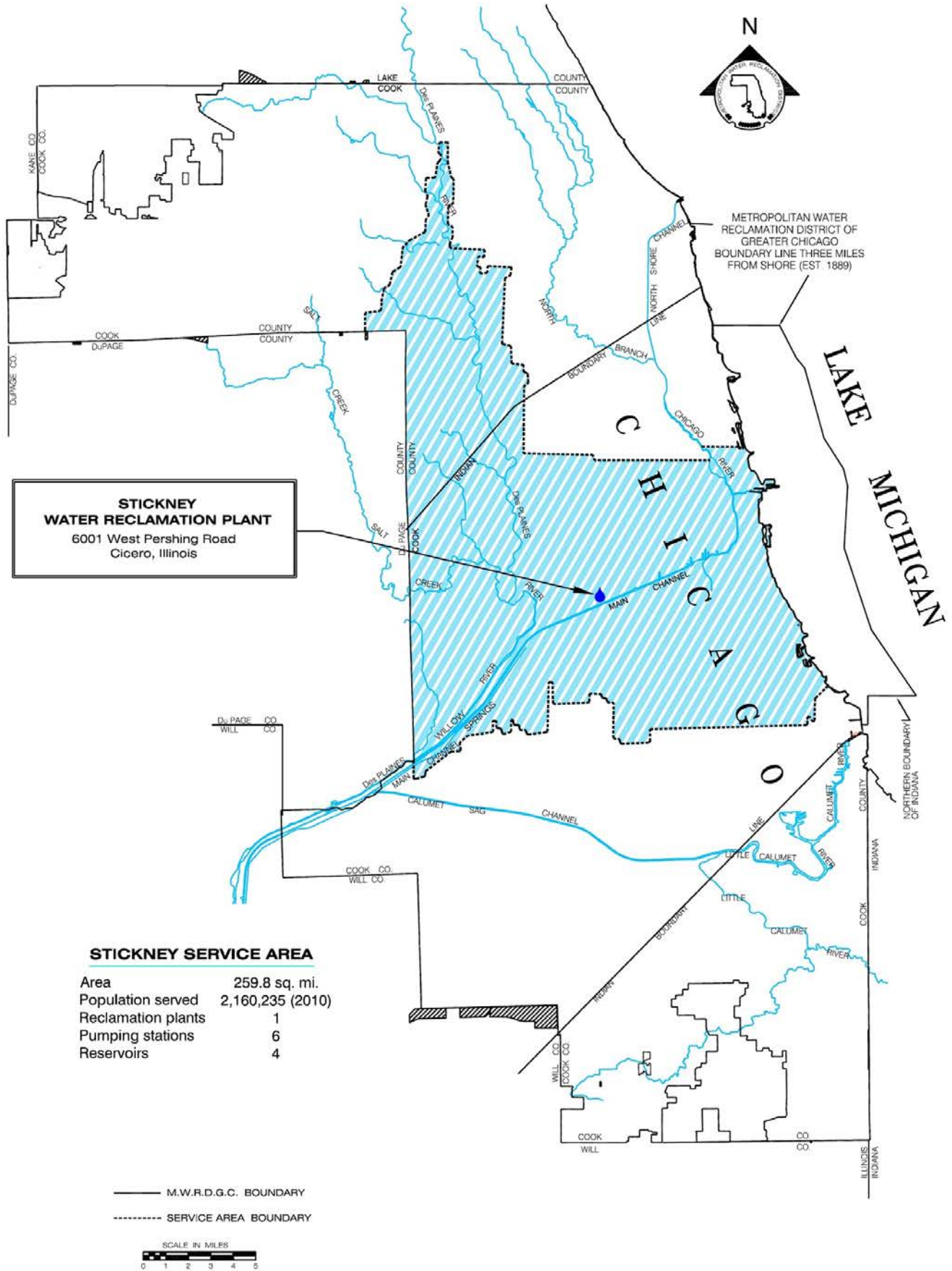
## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS - STICKNEY SERVICE AREA



\* In 2019, 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.



**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 276 billion gallons of wastewater through its treatment facilities.			\$51,423,002	60.8%
		Design:	Flows ^    CBOD *    SS *		
	Stickney Water Reclamation Plant		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 in milligrams per liter: 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 137,000 dry tons of concentrated sewage (includes 45,000 dry tons from North Service Area) through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.			\$27,130,264	32.1%
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.			\$ 2,530,520	3.0%
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.			\$ 1,048,480	1.3%
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.			\$2,379,034	2.8%
Totals				<u>\$84,511,300</u>	<u>100.0%</u>

MEASURABLE GOALS:		2017	2018	2019	
	Unit of Measure	Actual	Estimated	Proposed	
1.	The Stickney Service Area will collect and treat approximately 276 billion gallons of wastewater in 2019.	Billion Gallons	248	276	276
2.	The Stickney Service Area will remove and process solids from 137,000 dry tons of concentrated sewage, including 45,000 dry tons transferred from the North Service Area.	Dry Tons Process Solids	146,950	137,000	137,000
3.	The Stickney Service Area will obtain 100 percent permit compliance in 2019 for National Pollutant Discharge Elimination System effluent limits.	Percent	99.94%	100.00%	100.00%
4.	The Stickney Service Area will provide support to utilize 70,000 dry tons of biosolids in 2019 (does not include Pelletizer Facility Operations).	Dry Tons	57,600	70,000	70,000

**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$20,045,342	2019	79 \$ 24,779,901	\$ 232,768	0.9	
			2018	79 \$ 24,547,133			
1100	Surface Interceptor Systems	\$ 416,446	2019	— \$ 193,900	\$ (26,300)	(11.9)	
			2018	— \$ 220,200			
1200	Tunnel and Reservoir System	\$ 4,570,951	2019	12 \$ 8,519,500	\$ 365,000	4.5	a)
			2018	12 \$ 8,154,500			
1300	Pumping Station Facilities	\$ 6,838,956	2019	28 \$ 7,234,700	\$ (230,200)	(3.1)	b)
			2018	28 \$ 7,464,900			
1900	Collection - Indirect Costs	\$ 8,218,989	2019	39 \$ 8,831,801	\$ 124,268	1.4	
			2018	39 \$ 8,707,533			
2000	Treatment	\$25,138,076	2019	125 \$ 26,099,701	\$ 883,631	3.5	
			2018	125 \$ 25,216,070			
2000	Pre-Treatment	\$ 2,135,424	2019	17 \$ 2,002,500	\$ 31,400	1.6	
			2018	17 \$ 1,971,100			
2100	Primary Treatment	\$ 1,830,117	2019	18 \$ 1,657,800	\$ 66,700	4.2	
			2018	18 \$ 1,591,100			
2200	Secondary Treatment	\$ 9,216,419	2019	26 \$ 7,232,500	\$ (367,600)	(4.8)	c)
			2018	26 \$ 7,600,100			
2300	Tertiary Treatment	\$ 45,766	2019	— \$ 15,000	\$ 300	2.0	
			2018	— \$ 14,700			
2900	Treatment - Indirect Costs	\$11,910,350	2019	64 \$ 15,191,901	\$ 1,152,831	8.2	d)
			2018	64 \$ 14,039,070			

a) Increase is due to increased demand for electrical energy for the Mainstream Pumping Station and Tunnel and Reservoir Plan facilities, based on the McCook Reservoir becoming fully operational (\$401,100), offset by the transfer of telemetry services for the Tunnel and Reservoir Plan to the Information Technology Department (\$52,500).

b) Decrease is due to reduced demand for electrical energy for pumping stations and control gates at the Stickney WRP and the Racine Avenue Pumping Station (\$352,100), offset by the reallocation of salaries to more accurately reflect current activities (\$83,100) and new requests for electric parts for exciter controls (\$25,000) and Basler excitation equipment commissioning (\$10,000).

c) Decrease is due to reduced demand for electrical energy for aeration blowers (\$375,200) and electrical parts under outline agreements for Hach, Gasvoda, and Walker equipment (\$83,500), offset by the reallocation of salaries to more accurately reflect current activities (\$93,100).

d) Increase is due to the addition of 19-605-11, Personnel Carriers (\$204,000), landscaping services (\$200,000), the reallocation of salaries to more accurately reflect current activities (\$166,700), increased demand for natural gas for process and building heating (\$165,700), Emerson Distributed Control System workstations (\$130,000), water services for the Stickney WRP and Racine Avenue Pumping Station (\$96,000), replacement parts under outline agreements for Walker, Flow-Technics, and Drydon equipment (\$81,400), one medium lift gate truck (\$75,000), parts for dewatering centrifuges (\$72,100), and parts for thickening centrifuges (\$46,000), offset by a decrease due to the completion of 18-679-11, District-wide Roof Inspection Services in 2018 (\$109,900).

**69000 M&O - STICKNEY SERVICE AREA**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
3000	Solids Processing	\$23,175,931	2019	132 \$27,130,264	\$ 613,140	2.3	
			2018	130 \$26,517,124			
3100	Thickening	\$ 4,190,554	2019	25 \$ 4,429,600	\$ 425,900	10.6	e)
			2018	25 \$ 4,003,700			
3200	Stabilization	\$ 3,295,373	2019	27 \$ 3,687,800	\$ 133,200	3.7	
			2018	27 \$ 3,554,600			
3300	Dewatering	\$ 9,247,149	2019	32 \$11,640,000	\$ (325,700)	(2.7)	f)
			2018	31 \$11,965,700			
3900	Solids Processing - Indirect Costs	\$ 6,442,855	2019	48 \$ 7,372,864	\$ 379,740	5.4	g)
			2018	47 \$ 6,993,124			
4000	Flood & Pollution Control	\$ 557,610	2019	7 \$ 1,048,480	\$ 20,133	2.0	
			2018	7 \$ 1,028,347			
4200	Waterways Control and Stormwater Reservoirs	\$ 151,580	2019	5 \$ 539,400	\$ (5,800)	(1.1)	
			2018	5 \$ 545,200			
4900	Flood & Pollution Control - Indirect Costs	\$ 406,030	2019	2 \$ 509,080	\$ 25,933	5.4	
			2018	2 \$ 483,147			
5000	Solids Utilization	\$ 6,532,077	2019	11 \$ 2,530,520	\$ (3,820,118)	(60.2)	
			2018	11 \$ 6,350,638			
5100	Solids Drying	\$ 190,162	2019	5 \$ 481,100	\$ 9,300	2.0	
			2018	5 \$ 471,800			
5200	Solids Distribution	\$ 4,398,463	2019	— \$ 665,900	\$ (3,750,100)	(84.9)	h)
			2018	— \$ 4,416,000			
5900	Solids Utilization - Indirect Costs	\$ 1,943,452	2019	6 \$ 1,383,520	\$ (79,318)	(5.4)	
			2018	6 \$ 1,462,838			
7000	General Support (excluding program number 7604)	\$ 2,278,714	2019	15 \$ 2,379,034	\$ 123,046	5.5	
			2018	15 \$ 2,255,988			
7604	Social Security and Medicare Contributions	\$ 500,043	2019	— \$ 543,400	\$ 32,400	6.3	
			2018	— \$ 511,000			
Totals		\$78,227,793	2019	369 \$84,511,300	\$ (1,915,000)	(2.2)%	*
			2018	367 \$86,426,300			

e) Increase is due to the addition of rehabilitation services for dewatering centrifuges (\$400,000) and the reallocation of salaries to more accurately reflect current activities (\$80,400), offset by a decrease due to reduced demand for electrical energy for predigestion centrifuges (\$64,000).

f) Decrease is due to the reduced demand for 19-934-11 Magnesium Chloride (\$480,000), parts for dewatering centrifuges (\$190,000), and electrical energy for post digestion centrifuges (\$38,300), offset by the addition of one FTE position (\$131,800), the reallocation of salaries to more accurately reflect current activities (\$95,800) and the higher demand for 18-959-11, Furnish and Deliver Sulfuric Acid (\$49,500), Ostara parts (\$45,000), 18-935-11, Furnish and Deliver Sodium Hydroxide (\$30,000), four sludge discharge valves (\$25,000), Alfa Laval centrifuge drives (\$10,000), and pressure vessel inspection (\$10,000).

g) Increase is due to the addition of centrifuge parts (\$174,600), the reallocation of salaries to more accurately reflect current activities (\$131,400), replacement parts under the outline agreements for Walker, Flow-Technics, and Drydon equipment (\$120,400), 19-602-11, Furnish and Deliver Chains, Sprockets and Appurtenances (\$68,000), and Distributed Control System replacement parts (\$51,000), offset by the reduced demand for spare electrical and mechanical repair parts (\$161,100).

h) Decrease is due to the transition of 98-RFP-10, Design, Build, Operate and Maintain a Biosolids Processing Facility, to General Division (\$3,700,000).

\* The 2019 position total for the Stickney Service Area is 369, with an additional nine positions budgeted in the Stormwater Management Fund.



**69000 M&O - STICKNEY SERVICE AREA**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Stickney Water Reclamation Plant	Mil. Gallons	247,598	284,000	276,000	
		Cost	\$ 45,183,418	\$ 49,763,203	\$ 50,879,602	a)
		Cost/Mil. Gallons	\$ 182.49	\$ 175.22	\$ 184.35	
3000	Solids Processing					
	Remove 95,000 Dry Tons of Solids and Process 137,000 Dry Tons of Solids (Includes 45,000 Dry Tons from North Service Area) from Concentrated Sewage Through Various Systems Including Heated Digestion, Centrifuging, Concentration, and Aging Low Solids Sludge and Centrifuge Cake in Lagoons	Dry Tons	146,950	135,000	137,000	
		Cost	\$ 23,175,931	\$ 26,517,124	\$ 27,130,264	b)
		Cost/Dry Ton	\$ 157.71	\$ 196.42	\$ 198.03	
4000	Flood & Pollution Control					
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution					
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals and the Operation of Detention Reservoirs	Reservoirs	4	5	5	
		Cost	\$ 151,580	\$ 545,200	\$ 539,400	
		Cost/Reservoir	\$ 37,895.00	\$ 109,040.00	\$ 107,880.00	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 406,030	\$ 483,147	\$ 509,080	
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	57,600	70,000	70,000	
		Cost	\$ 2,259,228	\$ 1,970,938	\$ 1,901,620	
		Cost/Dry Ton	\$ 39.22	\$ 28.16	\$ 27.17	
5271	Pelletizer Disposal	Dry Tons	37,143	40,000	40,000	
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ 4,272,849	\$ 4,379,700	\$ 628,900	c)
		Cost/Dry Ton	\$ 115.04	\$ 109.49	\$ 15.72	c)
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	\$ 2,278,714	\$ 2,255,988	\$ 2,379,034	
7604	Social Security and Medicare Contributions	Cost	\$ 500,043	\$ 511,000	\$ 543,400	
	Division Totals		\$ 78,227,793	\$ 86,426,300	\$ 84,511,300	

- a) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$595,300), higher demand for water services (\$267,600), the addition of 19-605-11, Personnel Carriers (\$204,000), landscaping services (\$200,000), natural gas (\$166,800), Emerson Distributed Control System workstations (\$130,000), parts for thickening centrifuges (\$94,000), electrical parts under the outline agreements for Alfa Laval (\$84,100), and one medium lift gate truck (\$75,000), offset by a decrease due to a reduced demand for electrical energy (\$413,100), the transfer of telemetry services for the Tunnel and Reservoir Plan to the Information Technology Department (\$219,700), and electrical parts under outline agreements for Hach, Gasvoda, and Walker (\$83,500).
- b) Increase is due to the addition of rehabilitation services for dewatering centrifuges (\$400,000), the reallocation of salaries to more accurately reflect current activities (\$392,100), the addition of two FTE positions (\$206,900), replacement parts under the outline agreements for Walker, Flow-Technics, Drydon, Hach, and Emerson equipment (\$186,400), increased demand for plumbing supplies for solids heat digestion (\$96,200), parts for thickening centrifuges (\$68,000), 19-602-11, Chains, Sprockets and Appurtenances (\$68,000), 18-959-11, Furnish and Deliver Sulfuric Acid (\$49,500), Ostara parts (\$45,000), 18-935-11, Furnish and Deliver Sodium Hydroxide (\$30,000), and four sludge discharge valves (\$25,000), offset by the reduced demand for 19-934-11 Magnesium Chloride (\$480,000), electrical energy (\$251,400), spare electrical and mechanical repair parts (\$161,100), and parts for dewatering centrifuges (\$83,400).
- c) Decrease is due to the transition of 98-RFP-10, Design, Build, Operate and Maintain a Biosolids Processing Facility to General Division (\$3,700,000).

Account Number	Account Name	LINE ITEM ANALYSIS						
		Fund: Corporate		2018			2019	
		2017	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
69000	Department: Maintenance & Operations Division: Stickney Service Area							
601010	Salaries of Regular Employees	\$ 34,015,627	\$ 35,422,500	\$ 35,418,500	\$ 34,527,500	\$ 36,556,000	\$ 36,556,000	\$ 36,701,800
601060	Compensation Plan Adjustments	1,904,122	2,143,600	2,143,600	2,141,200	2,002,800	2,002,800	2,007,800
601070	Social Security and Medicare Contributions	500,043	511,000	515,000	513,100	531,400	531,400	543,400
601080	Salaries of Nonbudgeted Employees	—	10,200	10,200	—	1,500	1,500	1,500
601100	Tuition and Training Payments	136,759	144,000	122,800	116,800	91,500	91,500	91,500
100	TOTAL PERSONAL SERVICES	36,556,550	38,231,300	38,210,100	37,298,600	39,183,200	39,183,200	39,346,000
612010	Travel	8,328	15,000	12,000	9,500	7,400	7,400	7,400
612030	Meals and Lodging	23,485	28,800	25,800	24,800	21,600	21,600	21,600
612050	Compensation for Personally-Owned Automobiles	45,801	62,500	48,700	39,300	40,000	40,000	40,000
612080	Motor Vehicle Operating Services	198	300	300	100	300	300	300
612150	Electrical Energy	18,951,938	21,485,800	21,485,800	21,483,100	18,674,900	20,926,700	20,726,700
612160	Natural Gas	1,578,281	1,729,800	1,729,800	1,632,100	1,896,600	1,896,600	1,896,600
612170	Water and Water Services	1,341,896	1,295,400	1,571,300	1,545,400	1,437,600	1,437,600	1,437,600
612210	Communication Services	100,106	235,400	148,500	148,500	—	—	—
612240	Testing and Inspection Services	51,457	156,600	112,600	96,400	51,500	51,500	51,500
612330	Rental Charges	121,996	140,700	140,700	130,700	139,900	139,900	139,900
612410	Governmental Service Charges	89,380	89,700	89,900	89,900	90,200	90,200	90,200
612420	Maintenance of Grounds and Pavements	156,311	278,800	182,500	170,100	505,000	505,000	505,000
612430	Payments for Professional Services	18,000	19,000	19,000	18,600	19,000	19,000	19,000
612490	Contractual Services, N.O.C.	205,188	425,400	268,600	230,000	403,700	403,700	403,700
612520	Waste Material Disposal Charges	560,966	606,500	606,500	537,000	606,500	606,500	606,500
612590	Sludge Disposal	3,600,138	3,700,000	4,025,000	3,575,000	—	—	—
612600	Repairs to Collection Facilities	2,058,566	2,082,500	2,160,100	1,985,000	2,071,500	2,071,500	2,071,500
612650	Repairs to Process Facilities	2,298,987	2,562,500	2,544,500	2,486,200	2,680,700	2,680,700	3,080,700
612670	Repairs to Railroads	266,937	368,700	322,500	291,300	266,900	266,900	266,900
612680	Repairs to Buildings	288,964	369,300	318,800	316,100	289,000	289,000	289,000
612780	Safety Repairs and Services	189,094	205,400	168,300	159,800	213,000	215,100	215,100
612840	Communications Equipment Maintenance (Includes Software)	—	5,000	5,000	4,500	—	—	—
612860	Repairs to Vehicle Equipment	18,135	24,600	16,600	15,800	24,600	24,600	24,600
612990	Repairs, N.O.C.	2,967	13,500	8,500	5,900	16,500	16,500	16,500
200	TOTAL CONTRACTUAL SERVICES	31,977,118	35,901,200	36,011,300	34,995,100	29,456,400	31,710,300	31,910,300
623030	Metals	13,852	10,400	10,400	9,000	10,400	10,400	10,400

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623070	Electrical Parts and Supplies	754,528	968,700	1,038,700	972,000	1,041,700	1,041,700	1,041,700
623090	Plumbing Accessories and Supplies	227,804	323,600	310,000	263,700	452,800	452,800	452,800
623110	Hardware	2,513	3,200	3,700	3,400	3,500	3,500	3,500
623130	Buildings, Grounds, Paving Materials, and Supplies	40,165	54,100	52,100	34,700	40,200	40,200	40,200
623170	Fiber, Paper, and Insulation Materials	5,545	9,900	9,900	8,200	11,100	11,100	11,100
623190	Paints, Solvents, and Related Materials	2,670	1,300	3,400	3,400	8,800	8,800	8,800
623250	Vehicle Parts and Supplies	47,099	39,500	43,100	42,900	38,000	38,000	38,000
623270	Mechanical Repair Parts	1,222,498	1,154,900	2,327,200	2,256,400	2,139,300	2,139,300	1,927,800
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	12,576	11,000	11,000	11,000	11,000	11,000	11,000
623560	Processing Chemicals	7,068,996	9,369,900	7,454,500	7,189,500	8,966,000	8,966,000	8,966,000
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	239	—	500	400	—	—	—
623660	Cleaning Supplies	1,184	500	500	500	700	700	700
623680	Tools and Supplies	184,067	83,000	98,000	94,100	124,100	124,100	124,100
623700	Wearing Apparel	—	600	600	—	600	600	600
623780	Safety and Medical Supplies	1,417	23,700	23,600	20,800	1,400	1,400	1,400
623800	Computer Software	3,600	23,100	23,100	19,300	18,100	18,100	18,100
623810	Computer Supplies	4,317	28,400	27,000	26,200	143,300	143,300	143,300
623820	Fuel	73,468	101,800	69,800	67,000	87,400	87,400	92,000
623840	Gases	560	1,100	1,100	700	600	600	600
623850	Communications Supplies	—	5,500	5,500	4,700	—	—	—
623860	Lubricants	1,235	1,900	3,400	1,100	1,200	1,200	1,200
623990	Materials and Supplies, N.O.C.	25,792	52,700	52,700	37,800	46,700	46,700	46,700
300	TOTAL MATERIALS AND SUPPLIES	9,694,125	12,268,800	11,569,800	11,066,800	13,146,900	13,146,900	12,940,000
634860	Vehicle Equipment	—	—	—	—	279,000	279,000	279,000
634970	Testing and Laboratory Equipment	—	25,000	10,000	8,000	—	—	—
634990	Machinery and Equipment, N.O.C.	—	—	12,000	11,300	36,000	36,000	36,000
400	TOTAL MACHINERY AND EQUIPMENT	—	25,000	22,000	19,300	315,000	315,000	315,000
TOTAL STICKNEY SERVICE AREA		\$ 78,227,793	\$ 86,426,300	\$ 85,813,200	\$ 83,379,800	\$ 82,101,500	\$ 84,355,400	\$ 84,511,300

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				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>910</b>	<b>Stickney Executive Office</b>					
HP23	Deputy Director of Maintenance & Operations #2 (Assistant Director of Maintenance & Operations) (New Grade HP22)	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL	Stickney Executive Office	2	2	339,457.57	2	350,261.56
<b>911</b>	<b>Stickney Budget Control Unit</b>					
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	—		—	
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL	Stickney Budget Control Unit	4	3	264,746.27	3	279,954.92
<b>920</b>	<b>Plant Engineering &amp; Maintenance Branch</b>					
<b>921</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations I #2 (Managing Engineer) (New Grade HP20)	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Unit	2	2	281,393.91	2	290,456.85
<b>923</b>	<b>Electrical Engineering Unit</b>					
HP18	Principal Electrical Engineer	—	1		1	
HP15	Associate Process Control Engineer	—	1		1	
HP14	Engineering Technician V	3	1		1	
HP12	Engineering Technician IV	1	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	20	20	2,083,146.01	20	2,162,273.65
<b>924</b>	<b>Maintenance Unit</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appear below position count)					
HP19	Master Mechanic II	1	1		—	
HP19	Master Mechanic	—	—		1	
HP17	Assistant Master Mechanic	5	5		5	
HP14	Engineering Technician V	1	2		2	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	1	1		1	
PR5935	Architectural Ironworker Leadman	1	1		1	
PR5933	Architectural Ironworker	3	3		3	
PR5933	Architectural Ironworker #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	
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		26	
PR5555	Painter Leadman	1	1		1	
PR5553	Painter	3	3		3	
PR7743	Pipcoverer	2	2		2	
PR7779	Pipefitter Foreman	1	1		1	
PR7775	Pipefitter Leadman	2	2		2	
PR7773	Pipefitter	23 (*1)	23 (*1)		23 (*1)	
PR5759	Plumber Foreman	1	1		1	
PR5753	Plumber	4	4		4	
PR5955	Sheet Metal Worker Leadman	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
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	16,028,465.44	161	16,487,768.64
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
<b>943</b>	<b>Buildings &amp; Grounds Unit</b>					
HP18	Principal Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	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	
NR8652	Maintenance Laborer Class B	9	9		9	
TOTAL	Buildings & Grounds Unit	23	23	1,719,939.91	23	1,783,823.85
TOTAL	Plant Engineering & Maintenance Branch	205	205	20,112,945.27	206	20,724,322.99
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
<b>930</b>	<b>Plant Operations Branch</b>					
<b>931</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
TOTAL	Administrative Unit	1	1	179,845.65	1	191,975.35
<b>932</b>	<b>Treatment Operations Unit</b>					
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	1		1	
HP17	Senior Civil Engineer	1	—		—	
HP17	Senior Engineer	—	1		1	
HP16	Treatment Plant Operator III	6	6		6	
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		1	

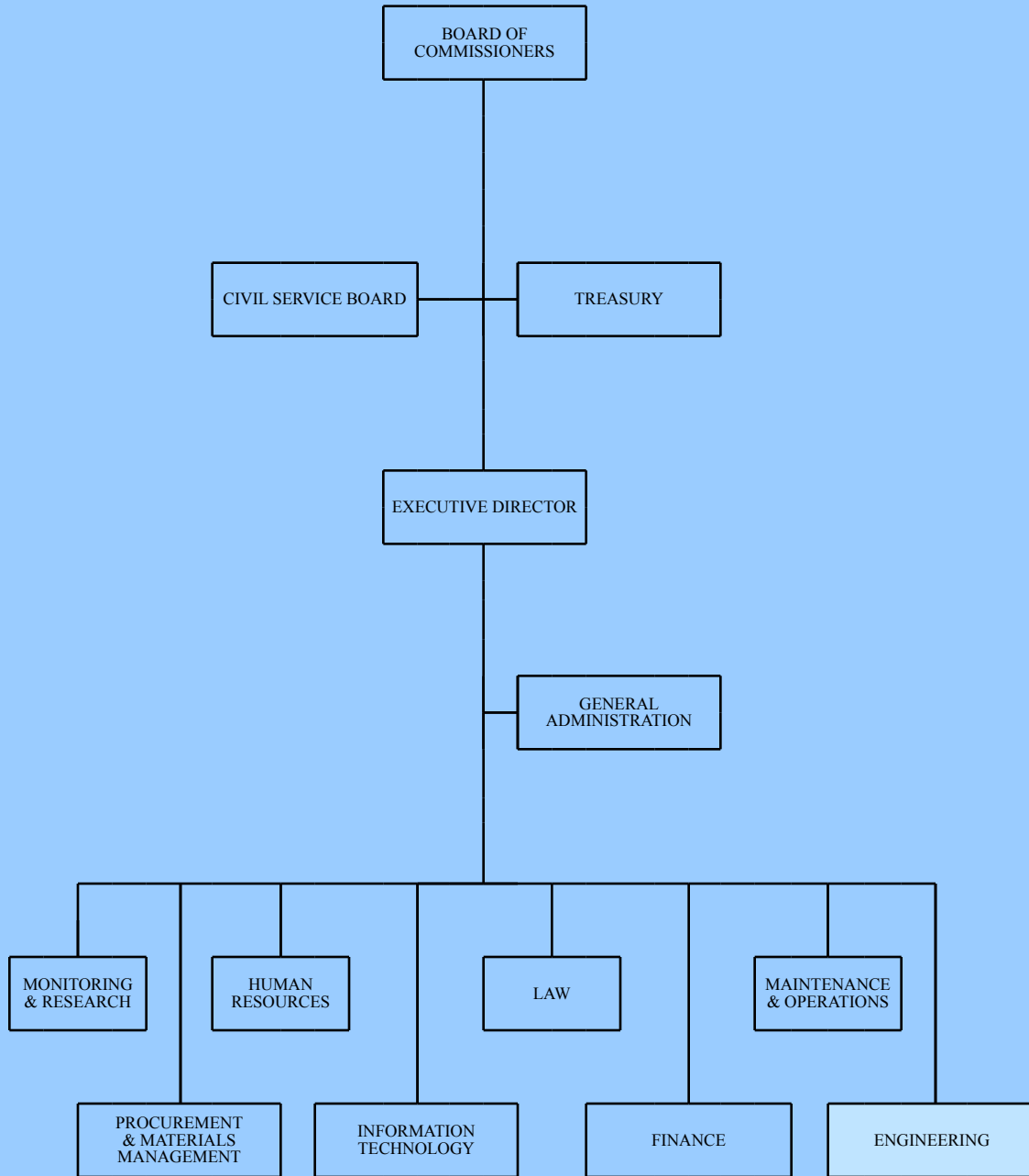
Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	15	15		15	
NR8651	Maintenance Laborer Class A	5	5		5	
TOTAL	Treatment Operations Unit	45	46	4,143,629.36	46	4,305,899.79
<b>934</b>	<b>Mechanical Operations Unit</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appear below position count)					
HP18	Chief Operating Engineer II	1	1		1	
HP17	Chief Operating Engineer I	2	2		2	
HP16	Assistant Chief Operating Engineer	6	6		6	
NR6810	Fireman-Oiler	10	11		11	
NR8650	Maintenance Laborer Class A Shift	20 (*4)	20 (*4)		20 (*4)	
NR8650	Maintenance Laborer Class A Shift #1	5 (*2)	—		—	
NR8651	Maintenance Laborer Class A	4	4		4	
NR6832	Operating Engineer II	34	34		35	
NR6831	Operating Engineer I	26 (*4)	26 (*4)		26 (*4)	
TOTAL	Mechanical Operations Unit	108	104	10,067,975.38	105	10,522,369.95
TOTAL	Stormwater Management Fund Positions	(*10)	(*8)		(*8)	
<b>945</b>	<b>Railroad Unit</b>					
HP11	Engineering Technician III	1	—		—	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	5	5		5	
TOTAL	Railroad Unit	7	6	491,961.60	6	511,888.00
TOTAL	Plant Operations Branch	161	157	14,883,411.99	158	15,532,133.09
TOTAL	Stormwater Management Fund Positions	(*10)	(*8)		(*8)	
TOTAL	Maintenance & Operations Stickney Service Area	372	367	35,600,561.10	369	36,886,672.56
TOTAL	Stormwater Management Fund Positions	(*11)	(*9)		(*9)	

Note: Nine positions budgeted in Sections 924 and 934 are funded by the Stormwater Management Fund while the operations remain in the Maintenance & Operations Department.

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

**NOTE PAGE**

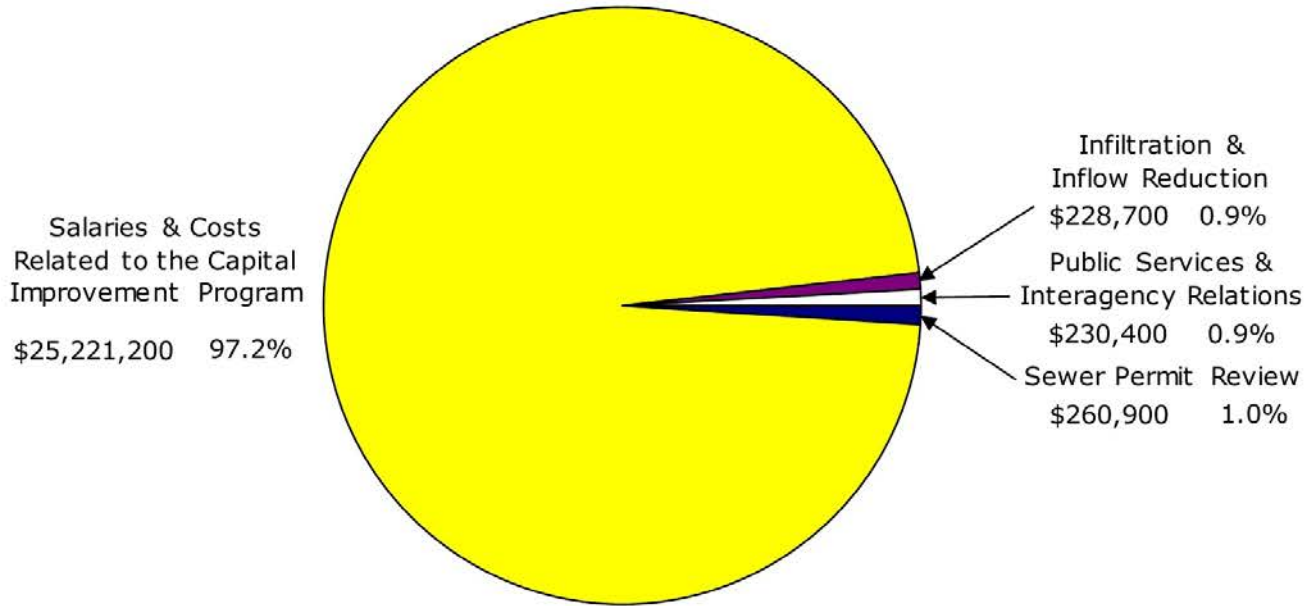




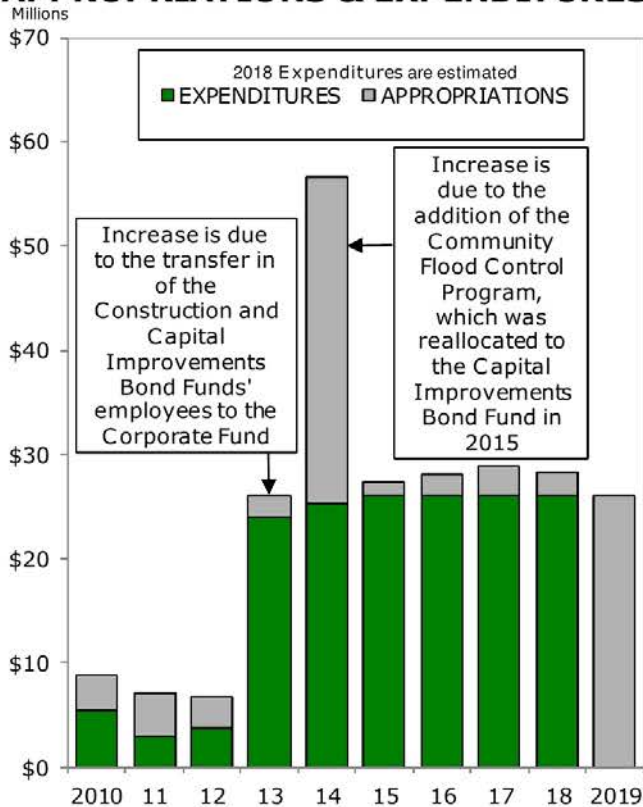
# ENGINEERING – CORPORATE FUND

2019	\$25,941,200
2018	\$28,322,100
Decrease	(\$2,380,900)

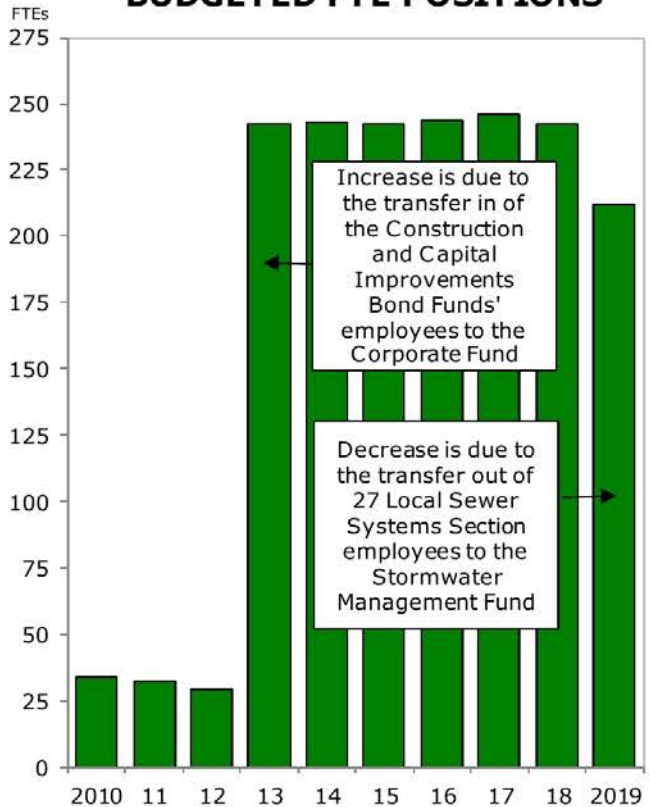
## FUNCTIONS



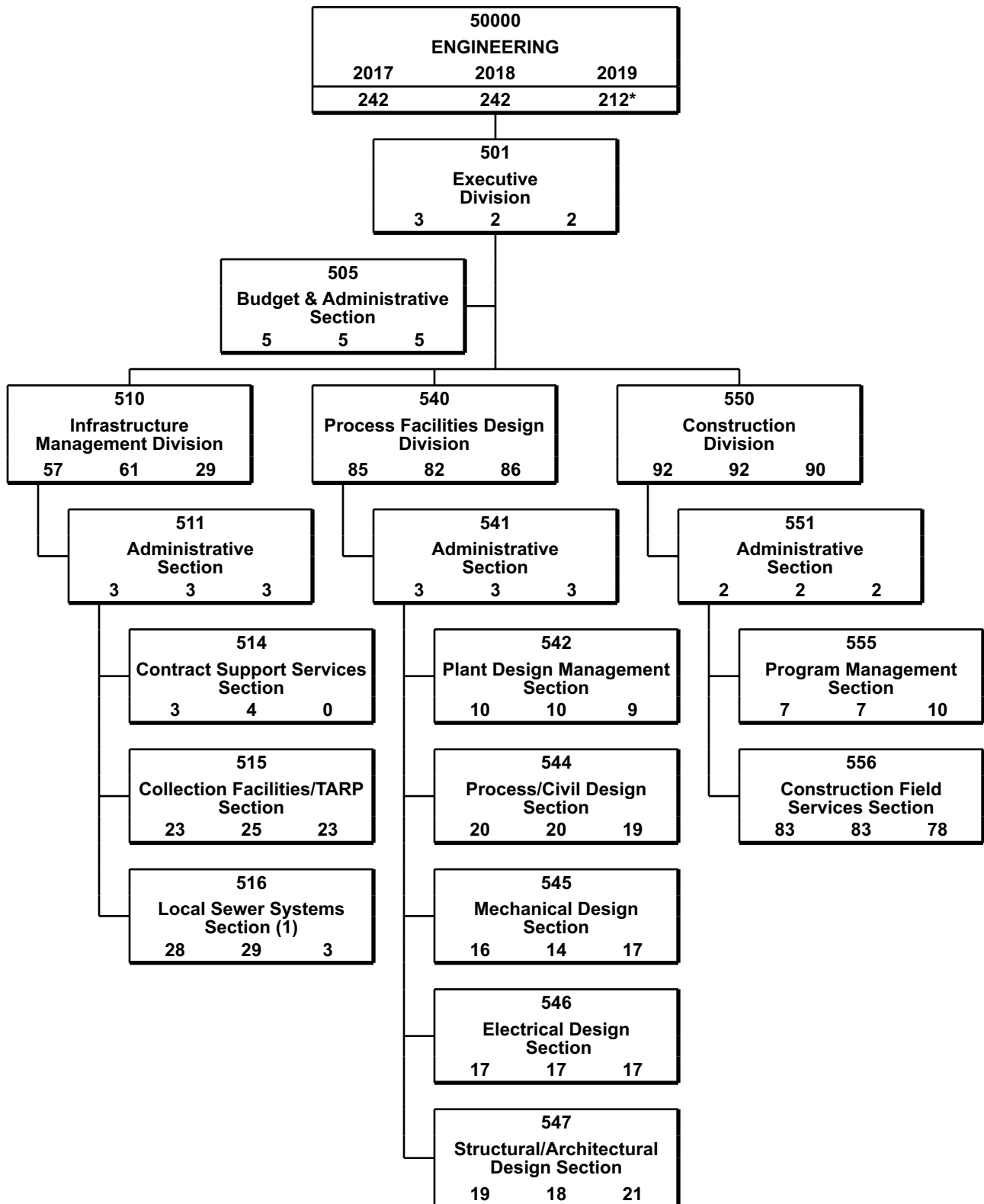
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# ENGINEERING



\* The 2019 position total for the Engineering Department - Corporate Fund is 212. There are an additional 58 positions funded by the Stormwater Management Fund while the operations remain in the Engineering Department.

(1) Effective 01/01/19, 27 positions were transferred from the Engineering Department - Corporate Fund to the Stormwater Management Fund.

## 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: the Corporate Fund, described below, the Capital Budget, described in Section V, and the Stormwater Management Fund, which is described in Section VI. The Corporate Fund finances most of the Engineering positions, with the rest financed by the Stormwater Management Fund. The Capital Budget is used to finance projects executed by the Infrastructure Management Division, Process Facilities Design Division, and the Construction Division, with the Stormwater Management Fund making up the balance of project funding by the District.

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

### Summary of 2018 Accomplishments

- The District and the Chicago District of the Army Corps of Engineers were presented with the Outstanding Civil Engineering Achievement Award (Mega Project) for the McCook Reservoir Project by the American Society of Civil Engineers - Illinois Section.

### Budget Highlights

The 2019 appropriation for the Engineering Department - Corporate Fund is \$25,941,200, a decrease of \$2,380,900, or 8.4 percent, from 2018. This decrease is largely due to the change in funding of salaries and benefits for Local Sewer Systems Section employees from the Corporate Fund to the Stormwater Management Fund. These positions administer the Watershed Management Ordinance, which is closely aligned with the objectives and strategies of the Cook County Stormwater Management Plan. Revenues generated from Watershed Management Ordinance permit review fees will offset a portion of operational costs being transferred to the Stormwater Management Fund.

The staffing level has decreased from 242 to 212 positions, which includes the transfer of 27 Local Sewer Systems Section employees to the Stormwater Management Fund and one Associate Civil Engineer to the Maintenance & Operations Department, the drop of one Administrative Clerk, one Engineering Draftsman II, and three Engineering Technician III positions, offset by the addition of one Senior Structural Engineer and two Engineering Draftsman II positions.

The 2019 Budget provides financing for Engineering Department positions, which allows approximately \$24 million in personnel costs to be utilized for direct capital project expenditures in the Construction Fund and Capital Improvements Bond Fund.

### 2019 Initiatives in Support of the Strategic Business Plan Include the Following:

#### • Develop Employees

The Engineering Department encourages staff to attend professional development conferences and seminars that present 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 fields. Staff regularly attend national and international conferences, seminars, and society meetings where they present papers and act as chairs or moderators 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 2019 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. The Engineering Department continues to pursue 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 Program 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.

**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.	\$ 260,900	1.0%
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.	\$ 230,400	0.9%
3. Reduce treatment costs by eliminating excessive infiltration/inflow of stormwater into sanitary sewers through a comprehensive rehabilitation program of local sewer systems.	\$ 228,700	0.9%
4. Ongoing maintenance projects, salaries, and employee expenses related to the Capital Improvement Program.	\$ 25,221,200	97.2%
<b>Totals</b>	<b>\$ 25,941,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	2017 Actual	2018 Estimated	2019 Proposed
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 <sup>1</sup>	—	—	10
Percentage Complete	0%	0%	9%
Annual Summary Reports Received	109	114	114
Annual Summary Reports in Compliance <sup>2</sup>	85	60	114
<p><sup>1</sup>Under 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 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. The District will work with satellite entities that have not completed the Short Term Requirements by July 10, 2019 to ensure that the work will be completed in a reasonable time frame.</p> <p><sup>2</sup>Annual 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:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$ 6,499,670	2019	38 \$ 4,896,500	\$ (2,466,900)	(33.5)	
			2018	65 \$ 7,363,400			
1530	Local Sewer Permit Activity	\$ 1,962,378	2019	2 \$ 260,900	\$ (2,001,900)	(88.5)	a)
			2018	22 \$ 2,262,800			
1560	Local Sewer Public Service Coordination	\$ 651,635	2019	1 \$ 230,400	\$ (457,000)	(66.5)	a)
			2018	6 \$ 687,400			
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 232,701	2019	1 \$ 228,700	\$ (176,200)	(43.5)	a)
			2018	3 \$ 404,900			
1700	Collection System Design	\$ 1,099,399	2019	9 \$ 1,236,200	\$ 17,300	1.4	
			2018	9 \$ 1,218,900			
1800	Collection Construction	\$ 2,553,557	2019	25 \$ 2,940,300	\$ 150,900	5.4	b)
			2018	25 \$ 2,789,400			
2000	Treatment	\$ 8,075,278	2019	75 \$ 8,804,700	\$ 81,000	0.9	
			2018	75 \$ 8,723,700			
2700	Treatment Design	\$ 2,985,072	2019	26 \$ 3,273,100	\$ 95,700	3.0	
			2018	25 \$ 3,177,400			
2800	Treatment Construction	\$ 5,090,206	2019	49 \$ 5,531,600	\$ (14,700)	(0.3)	
			2018	50 \$ 5,546,300			
3000	Solids Processing	\$ 5,800,444	2019	51 \$ 6,399,400	\$ 262,400	4.3	
			2018	51 \$ 6,137,000			
3700	Solids Processing Design	\$ 2,826,592	2019	24 \$ 3,125,100	\$ 244,200	8.5	c)
			2018	23 \$ 2,880,900			
3800	Solids Processing Construction	\$ 2,973,852	2019	27 \$ 3,274,300	\$ 18,200	0.6	
			2018	28 \$ 3,256,100			

a) Decrease is due to the transfer of 27 Local Sewer Systems Section positions from the Corporate Fund to the Stormwater Management Fund.

b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$92,300) and additional funding required for Contract 04-203-AF, Aeration Equipment 5 Year Warranty at Thornton Composite Reservoir, based on scheduled contract payments (\$27,900).

c) Increase is due to higher severance payments due to expected retirements in 2019 (\$160,000) and the net addition of one FTE position (\$55,900).

**50000 ENGINEERING**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
4000	Flood and Pollution Control	\$ 3,181,908	2019 28	\$ 3,214,300	\$ (86,000)	(2.6)	
			2018 28	\$ 3,300,300			
4216	Bridge and Road Maintenance	\$ 33,256	2019 —	\$ 49,900	\$ (55,100)	(52.5)	d)
			2018 —	\$ 105,000			
4322	Storm and Flood Ordinance Development	\$ 16,790	2019 —	\$ 18,200	\$ 1,100	6.4	
			2018 —	\$ 17,100			
4341	Planning/Design	\$ 63,411	2019 —	\$ 65,500	\$ 2,000	3.2	
			2018 —	\$ 63,500			
4342	Contract Administration	\$ 104,549	2019 1	\$ 87,200	\$ (20,700)	(19.2)	e)
			2018 1	\$ 107,900			
4343	Construction	\$ 98,310	2019 1	\$ 102,900	\$ 2,000	2.0	
			2018 1	\$ 100,900			
4700	Flood and Pollution Control Design	\$ 630,108	2019 6	\$ 679,000	\$ 6,900	1.0	
			2018 6	\$ 672,100			
4800	Flood and Pollution Control Construction	\$ 2,235,484	2019 20	\$ 2,211,600	\$ (22,200)	(1.0)	
			2018 20	\$ 2,233,800			
5000	Solids Disposal	\$ 343,833	2019 3	\$ 360,400	\$ (1,700)	(0.5)	
			2018 3	\$ 362,100			
5700	Solids Disposal Design	\$ 10,221	2019 —	\$ 10,400	\$ 200	2.0	
			2018 —	\$ 10,200			
5800	Solids Disposal Construction	\$ 333,612	2019 3	\$ 350,000	\$ (1,900)	(0.5)	
			2018 3	\$ 351,900			
7000	General Support (excluding program number 7604)	\$ 1,809,311	2019 17	\$ 1,910,200	\$ (141,800)	(6.9)	
			2018 20	\$ 2,052,000			
7604	Social Security and Medicare Contributions	\$ 350,514	2019 —	\$ 355,700	\$ (27,900)	(7.3)	
			2018 —	\$ 383,600			
Totals		\$26,060,958	2019 212	\$ 25,941,200	\$ (2,380,900)	(8.4)%	
			2018 242	\$ 28,322,100			

d) Decrease is due to a revised estimate for 13-059-1D, Biennial Bridge Inspection, based on scheduled contract payments (\$55,100).  
 e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$20,700).



**50000 ENGINEERING**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 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	545	557	624	
		Cost	\$ 966,052	\$ 1,204,100	\$ 77,500	a)
		Cost/Permit	\$ 1,772.57	\$ 2,161.76	\$ 124.20	a)
1533	Review of Other Permits	Cost	\$ 146,838	\$ 149,000	\$ 128,700	
1535	Local Sewer Construction Surveillance/Enforcement	Inspections	4,536	543	556	
		Cost	\$ 768,334	\$ 823,500	\$ 25,500	a)
		Cost/Inspection	\$ 169.39	\$ 1,516.57	\$ 45.86	a)
1537	Permit Revision	Revisions	69	76	79	
		Cost	\$ 81,154	\$ 86,200	\$ 29,200	a)
		Cost/Revision	\$ 1,176.14	\$ 1,134.21	\$ 369.62	a)
1560	Local Sewer - Public Service Coordination					
1561	Public Service	Requests	1,021	560	615	
		Cost	\$ 418,162	\$ 447,100	\$ 55,600	a)
		Cost/Request	\$ 409.56	\$ 798.39	\$ 90.41	a)
1563	Interagency Coordination	Cost	\$ 233,473	\$ 240,300	\$ 174,800	a)
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Systems	250	114	114	
		Cost	\$ 232,701	\$ 404,900	\$ 228,700	a)
		Cost/System	\$ 930.80	\$ 3,551.75	\$ 2,006.14	a)
1700	Collection System Design	Cost	\$ 1,099,399	\$ 1,218,900	\$ 1,236,200	
1800	Collection Construction	Cost	\$ 2,553,557	\$ 2,789,400	\$ 2,940,300	b)
2700	Treatment Design	Cost	\$ 2,985,072	\$ 3,177,400	\$ 3,273,100	
2800	Treatment Construction	Cost	\$ 5,090,206	\$ 5,546,300	\$ 5,531,600	
3700	Solids Processing Design	Cost	\$ 2,826,592	\$ 2,880,900	\$ 3,125,100	c)
3800	Solids Processing Construction	Cost	\$ 2,973,852	\$ 3,256,100	\$ 3,274,300	
4200	Waterways Control and Stormwater Detention Reservoirs	Cost	\$ 33,256	\$ 105,000	\$ 49,900	d)
4300	Stormwater Management	Cost	\$ 283,060	\$ 289,400	\$ 273,800	
4700	Flood and Pollution Control Design	Cost	\$ 630,108	\$ 672,100	\$ 679,000	
4800	Flood and Pollution Control Construction	Cost	\$ 2,235,484	\$ 2,233,800	\$ 2,211,600	
5700	Solids Disposal Design	Cost	\$ 10,221	\$ 10,200	\$ 10,400	
5800	Solids Disposal Construction	Cost	\$ 333,612	\$ 351,900	\$ 350,000	
7000	General Support (excluding program number 7604)	Cost	\$ 1,809,311	\$ 2,052,000	\$ 1,910,200	
7604	Social Security and Medicare Contributions	Cost	\$ 350,514	\$ 383,600	\$ 355,700	
		Totals	\$ 26,060,958	\$ 28,322,100	\$ 25,941,200	

- a) Decrease is due to the transfer of 27 Local Sewer Systems Section positions from the Corporate Fund to the Stormwater Management Fund.
- b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$92,300) and increased funding required for Contract 04-203-AF, Aeration Equipment 5 Year Warranty at Thornton Composite Reservoir, based on scheduled contract payments (\$27,900).
- c) Increase is due to higher severance payments due to expected retirements in 2019 (\$160,000) and the net addition of one FTE position (\$55,900).
- d) Decrease is due to a revised estimate for 13-059-1D, Biennial Bridge Inspection, based on scheduled contract payments (\$55,100).

101 50000	Fund: Corporate Department: Engineering	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 24,839,194	\$ 26,988,400	\$ 26,788,400	\$ 24,662,400	\$ 24,162,300	\$ 24,162,300	\$ 24,611,100
601060	Compensation Plan Adjustments	394,330	344,200	544,200	535,100	446,100	446,100	459,100
601070	Social Security and Medicare Contributions	350,514	383,600	383,600	349,500	349,600	349,600	355,700
601100	Tuition and Training Payments	101,020	124,000	124,000	59,000	118,300	118,300	118,300
100	TOTAL PERSONAL SERVICES	25,685,058	27,840,200	27,840,200	25,606,000	25,076,300	25,076,300	25,544,200
612010	Travel	6,796	12,000	12,000	12,000	10,000	10,000	10,000
612030	Meals and Lodging	16,631	25,000	33,000	33,000	17,600	17,600	17,600
612040	Postage, Freight, and Delivery Charges	935	2,000	2,000	1,500	1,500	1,500	1,500
612050	Compensation for Personally-Owned Automobiles	7,862	17,100	17,100	9,000	10,000	10,000	10,000
612080	Motor Vehicle Operating Services	186	400	400	100	200	200	200
612090	Reprographic Services	3,797	3,500	3,500	3,500	3,500	3,500	3,500
612170	Water and Water Services	4,000	3,300	3,800	3,800	4,000	4,000	4,000
612330	Rental Charges	63	100	100	—	—	—	—
612430	Payments for Professional Services	139,150	201,000	192,500	156,600	126,900	126,900	126,900
612440	Preliminary Engineering Reports and Studies	13,440	—	—	—	—	—	—
612490	Contractual Services, N.O.C.	82,128	82,100	82,100	82,100	83,100	83,100	83,100
612620	Repairs to Waterway Facilities	43,044	43,200	43,200	43,100	71,100	71,100	71,100
612970	Repairs to Testing and Laboratory Equipment	1,693	3,000	3,000	2,900	5,000	5,000	5,000
612990	Repairs, N.O.C.	8,107	8,800	8,800	8,100	10,000	10,000	10,000
200	TOTAL CONTRACTUAL SERVICES	327,831	401,500	401,500	355,700	342,900	342,900	342,900
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	33,477	60,400	64,400	59,200	42,600	42,600	42,600
623680	Tools and Supplies	4,218	10,000	6,000	5,300	8,000	8,000	8,000
623700	Wearing Apparel	6,702	6,500	6,500	6,100	—	—	—
623720	Books, Maps, and Charts	2,520	3,500	3,500	3,200	3,500	3,500	3,500
623990	Materials and Supplies, N.O.C.	1,152	—	—	—	—	—	—
300	TOTAL MATERIALS AND SUPPLIES	48,068	80,400	80,400	73,800	54,100	54,100	54,100
<b>TOTAL ENGINEERING</b>		<b>\$ 26,060,958</b>	<b>\$ 28,322,100</b>	<b>\$ 28,322,100</b>	<b>\$ 26,035,500</b>	<b>\$ 25,473,300</b>	<b>\$ 25,473,300</b>	<b>\$ 25,941,200</b>

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

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>501</b>	<b>Executive Division</b>					
EX15	Director of Engineering	1	1		1	
HP22	Assistant Director of Engineering	1	—		—	
EX06	Secretary to Officer	1	1		1	
TOTAL	Executive Division	3	2	369,474.80	2	376,864.31
<b>505</b>	<b>Budget &amp; Administrative Section</b>					
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	611,433.46	5	629,793.78
<b>510</b>	<b>Infrastructure Management Division</b>					
<b>511</b>	<b>Administrative Section</b>					
HP22	Assistant Director of Engineering	1	1		1	
HP20	Managing Civil Engineer	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Section	3	3	507,823.79	3	511,108.29
<b>514</b>	<b>Contract Support Services Section</b>					
HP14	Engineering Technician V #4	1	1		—	
HP12	Engineering Technician IV	1	1		—	
HP11	Administrative Specialist	—	1		—	
HP09	Administrative Clerk	1	1		—	
TOTAL	Contract Support Services Section	3	4	301,568.45	—	—
<b>515</b>	<b>Collection Facilities / TARP Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	
HP17	Senior Civil Engineer	6	6		6	
HP15	Associate Civil Engineer	3	3		3	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP14	Assistant Civil Engineer	3	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	2	3		1	
TOTAL	Collection Facilities / TARP Section	23	25	2,695,038.77	23	2,652,974.33
<b>516</b>	<b>Local Sewer Systems Section</b>					
	(* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP18	Principal Civil Engineer	2 (*1)	2 (*1)		1 (*2)	
HP17	Senior Civil Engineer	7 (*2)	7 (*2)		1 (*8)	
HP15	Associate Civil Engineer	6 (*3)	6 (*3)		1 (*8)	
HP14	Assistant Civil Engineer	2 (*2)	3 (*2)		— (*6)	
HP14	Assistant Mechanical Engineer	1	—		—	
HP14	Assistant Mechanical Engineer #2 (Assistant Civil Engineer)	—	1		—	
HP14	Engineering Technician V	3	3		— (*3)	
HP12	Engineering Technician IV	2 (*1)	2 (*1)		— (*4)	
HP12	Engineering Technician IV #4	1	1		— (*1)	
HP11	Administrative Specialist	1	1		— (*1)	
HP11	Engineering Technician III	1	1		— (*1)	
HP09	Administrative Clerk	2	2		— (*2)	
TOTAL	Local Sewer Systems Section	28	29	2,942,519.24	3	399,850.28
TOTAL	Stormwater Management Fund Positions	(*9)	(*9)		(*36)	
TOTAL	Infrastructure Management Division	57	61	6,446,950.25	29	3,563,932.90
TOTAL	Stormwater Management Fund Positions	(*9)	(*9)		(*36)	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>522</b>	<b>Stormwater Management Section</b> (* Number of positions budgeted and funded by the Stormwater Management Fund appears below position count)					
HP20	Managing Civil Engineer	— (*1)	— (*1)		— (*1)	
HP18	Principal Civil Engineer	— (*3)	— (*3)		— (*3)	
HP17	Senior Civil Engineer	— (*7)	— (*7)		— (*7)	
HP15	Associate Civil Engineer	— (*6)	— (*6)		— (*6)	
HP14	Assistant Civil Engineer	— (*3)	— (*3)		— (*3)	
HP14	Public Affairs Specialist	—	—		— (*1)	
HP11	Administrative Specialist	— (*1)	— (*1)		— (*1)	
TOTAL	Stormwater Management Section	—	—	—	—	—
TOTAL	Stormwater Management Fund Positions	(*21)	(*21)		(*22)	
<b>540</b>	<b>Process Facilities Design Division</b>					
<b>541</b>	<b>Administrative Section</b>					
HP22	Assistant Director of Engineering	1	1		1	
HP11	Administrative Specialist	2	2		2	
TOTAL	Administrative Section	3	3	356,337.60	3	376,606.54
<b>542</b>	<b>Plant Design Management Section</b>					
HP20	Managing Civil Engineer	1	1		—	
HP18	Principal Civil Engineer	2	2		2	
HP17	Senior Civil Engineer	3	4		4	
HP16	Computer Aided Drafting and Design Administrator	1	1		1	
HP15	Associate Civil Engineer	2	1		1	
HP12	Engineering Technician IV	1	1		1	
TOTAL	Plant Design Management Section	10	10	1,318,920.42	9	1,150,970.66
<b>544</b>	<b>Process / Civil Design Section</b>					
HP20	Managing Civil Engineer	1	1		1	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
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	6		5	
HP17	Senior Process Control Engineer	1	1		1	
HP15	Associate Civil Engineer	2	3		3	
HP15	Associate Process Control Engineer	1	1		1	
HP14	Assistant Civil Engineer	2	2		2	
HP13	Engineering Draftsman III	—	—		1	
HP13	Engineering Draftsman III #4	1	1		—	
HP12	Engineering Draftsman II	1	2		2	
HP12	Engineering Draftsman II #4	1	—		—	
TOTAL	Process / Civil Design Section	20	20	2,385,211.40	19	2,303,692.61
<b>545</b>	<b>Mechanical Design Section</b>					
HP20	Managing Mechanical Engineer	2	—		1	
HP18	Principal Mechanical Engineer	2	2		2	
HP17	Senior Mechanical Engineer	4	4		5	
HP15	Associate Mechanical Engineer	4	4		4	
HP14	Assistant Mechanical Engineer	1	1		2	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	1	1		2	
HP12	Engineering Draftsman II #4	1	1		—	
TOTAL	Mechanical Design Section	16	14	1,602,407.32	17	2,010,531.59
<b>546</b>	<b>Electrical Design Section</b>					
HP20	Managing Electrical Engineer	1	1		1	
HP18	Principal Electrical Engineer	2	2		2	
HP17	Senior Electrical Engineer	5	5		5	
HP15	Associate Electrical Engineer	5	5		5	
HP14	Assistant Electrical Engineer	1	1		1	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	2	2		2	
TOTAL	Electrical Design Section	17	17	2,061,162.13	17	2,094,475.82

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>547</b>	<b>Structural / Architectural Design Section</b>					
HP20	Managing Structural Engineer	1	1		1	
HP18	Principal Architect	1	1		1	
HP18	Principal Structural Engineer	2	2		2	
HP17	Senior Architect	2	2		2	
HP17	Senior Structural Engineer	3	3		4	
HP15	Associate Architect	3	3		3	
HP15	Associate Structural Engineer	2	2		3	
HP14	Assistant Structural Engineer	3	3		3	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	—	—		1	
HP12	Engineering Draftsman II #4	1	—		—	
TOTAL	Structural / Architectural Design Section	19	18	2,080,466.61	21	2,417,113.63
TOTAL	Process Facilities Design Division	85	82	9,804,505.48	86	10,353,390.85
<b>550</b>	<b>Construction Division</b>					
<b>551</b>	<b>Administrative Section</b>					
HP22	Assistant Director of Engineering	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Administrative Section	2	2	301,142.30	2	307,165.00
<b>555</b>	<b>Program Management Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	—	—		1	
HP17	Senior Civil Engineer	—	—		1	
HP17	Senior Electrical Engineer	1	1		—	
HP15	Associate Civil Engineer	2	2		2	
HP14	Assistant Civil Engineer	1	1		1	
HP14	Assistant Electrical Engineer	—	—		1	
HP14	Assistant Mechanical Engineer	1	1		—	
HP14	Engineering Technician V	—	—		1	
HP13	Senior Administrative Specialist	1	1		1	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
HP11	Administrative Specialist	—	—		1	
TOTAL	Program Management Section	7	7	826,463.18	10	1,170,586.68
<b>556</b>	<b>Construction Field Services Section</b>					
HP20	Managing Civil Engineer	1	1		2	
HP20	Managing Mechanical Engineer	—	1		—	
HP18	Principal Civil Engineer	4	4		3	
HP18	Principal Electrical Engineer	3	2		2	
HP17	Senior Civil Engineer	10	10		10	
HP17	Senior Electrical Engineer	3	3		4	
HP17	Senior Mechanical Engineer	2	2		1	
HP15	Associate Civil Engineer	11	11		10	
HP15	Associate Civil Engineer #2 (Engineering Technician V) (New Grade HP14)	1	—		—	
HP15	Associate Electrical Engineer	3	3		3	
HP15	Associate Mechanical Engineer	4	4		4	
HP15	Associate Structural Engineer	1	1		—	
HP14	Assistant Civil Engineer	4	4		4	
HP14	Assistant Electrical Engineer	2	2		1	
HP14	Assistant Mechanical Engineer	1	1		1	
HP14	Engineering Technician V	12	11		11	
HP14	Engineering Technician V #4	3	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP12	Engineering Technician IV	9	9		10	
HP12	Engineering Technician IV #4	1	1		—	
HP11	Engineering Technician III	7	10		9	
TOTAL	Construction Field Services Section	83	83	8,763,580.88	78	8,330,287.38
TOTAL	Construction Division	92	92	9,891,186.36	90	9,808,039.06
TOTAL	Engineering	242	242	27,123,550.35	212	24,732,020.90
TOTAL	Stormwater Management Fund Positions	(*30)	(*30)		(*58)	

Note: Fifty-eight 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.



**NOTE PAGE**

# 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.

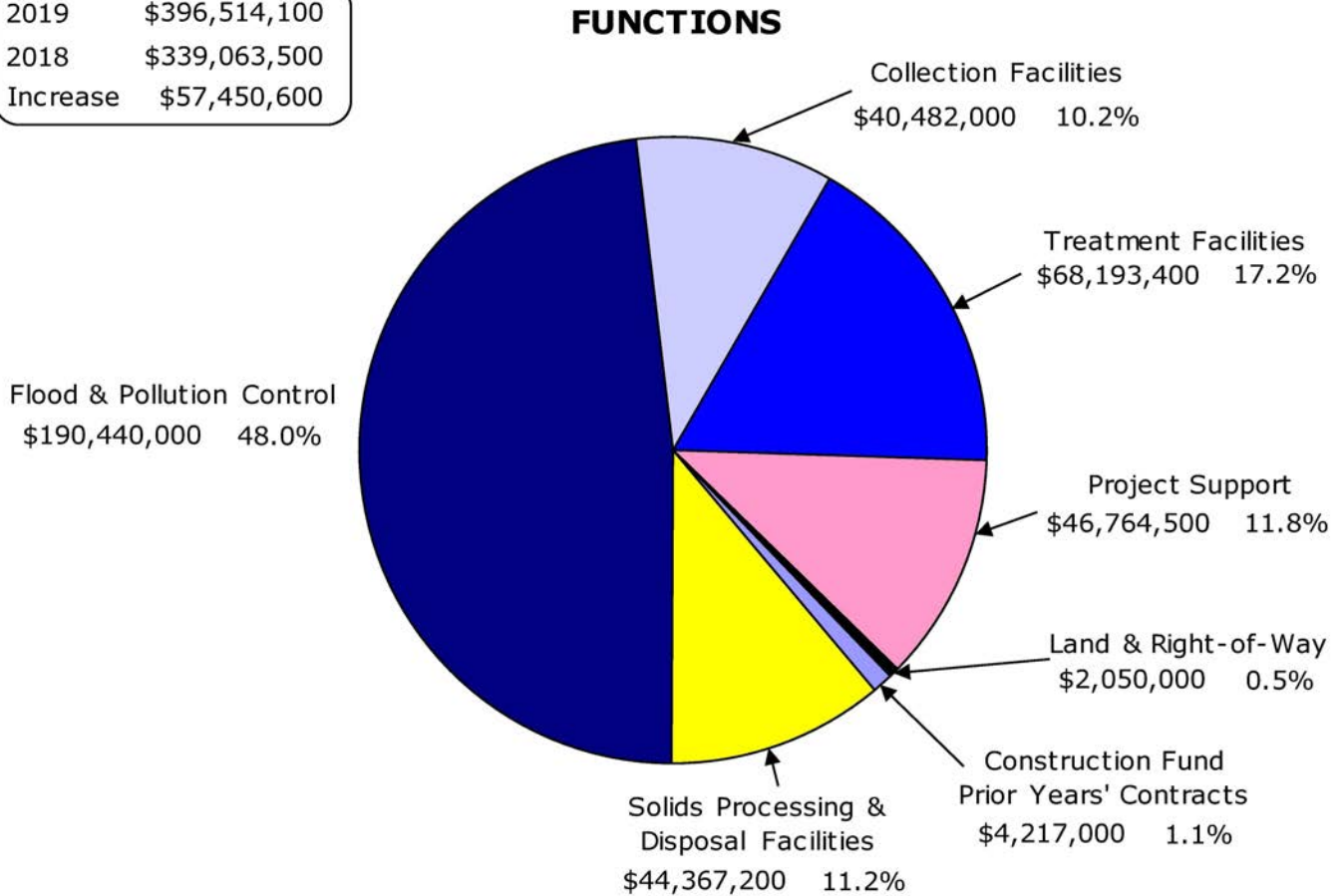
The type of funding for each fund corresponds to the estimated useful life of the project and statutory restrictions on bond sales. The Tax Cap Law imposes restrictions on the non-referendum bonding authority of the District. There are exceptions in the Tax Cap Law to allow non-referendum bonds to be 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 2019 Capital Improvement Program places the 2019 program within the context of our long-range plan. Information is provided on the levels of funding in 2019 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 2019 is presented in the Capital Improvement Program narrative.

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# CAPITAL IMPROVEMENT PROGRAM CONSTRUCTION AND CAPITAL IMPROVEMENTS BOND FUNDS

2019	\$396,514,100
2018	\$339,063,500
Increase	\$57,450,600



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 2019 appropriation for the Capital Improvement Program (Construction and Capital Improvements Bond Funds) is \$396,514,100, an increase of \$57,450,600, or 16.9 percent, from 2018. The increase is primarily due to an increase in the total value of capital projects budgeted in 2019. A total of 122 projects funded by the Construction or Capital Improvements Bond Funds will be under planning, design, or construction in 2019. There are two streambank stabilization projects, one flood control project, one channel improvement project, one levee construction project, and one reservoir project that are planned for award in 2019 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**

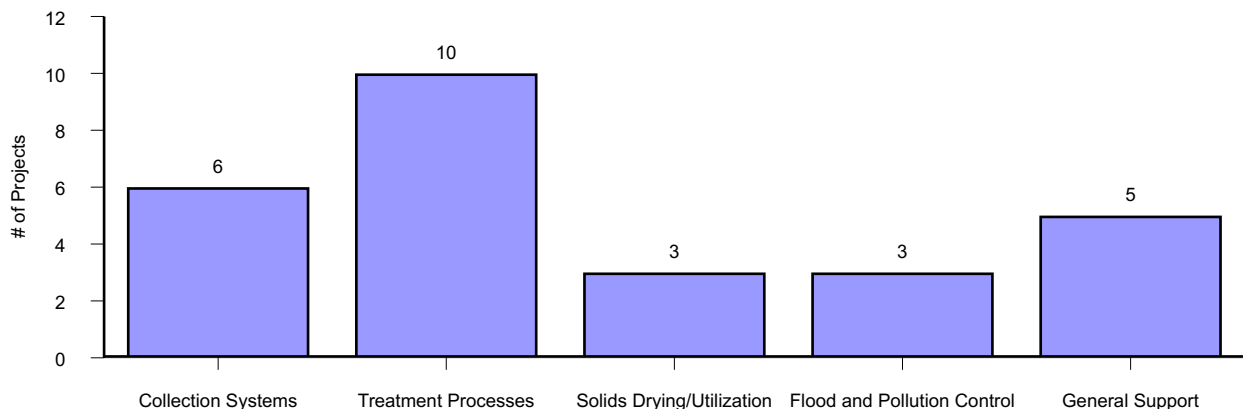
Sources of funding for the Capital Improvement Program consist of capital improvement bond sales, general property tax revenues, State Revolving Fund loans, and federal and state grants.

**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.

In 2019, there are 27 projects scheduled for award in the Construction Fund. In the exhibit below, the breakdown by objective/program is displayed.

**Construction Fund Projects Scheduled for 2019 Award**



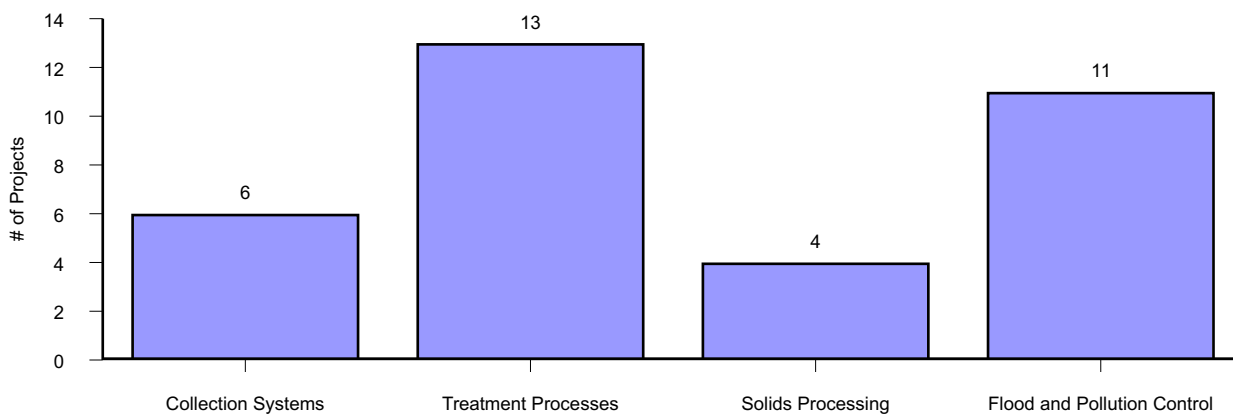
**Capital Improvements Bond Fund**

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.

In 2019, there are 34 projects scheduled for award in the Capital Improvements Bond Fund. In the exhibit below, the breakdown by objective/program is displayed.

**Capital Improvements Bond Fund Projects Scheduled for 2019 Award**



**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 \$120 to \$175 million annually in SRF loans through 2023.

**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 (WRP) 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.

An example of increased energy efficiency would be the implementation of the Digester Sludge Heating System Upgrades and Boiler Removal, CWRP (Project 18-277-3M). This includes the removal of six boilers from the Calumet WRP digester complex and installation of six steam-to-hot water heat exchangers. These boilers are old and inefficient and have required extensive maintenance. The boilers in the Central Boiler Facility (CBF) will provide steam to the steam-to-hot water heat exchangers. This change will allow more reliable operation of the CBF boilers throughout the year. Furthermore, the CBF boilers are capable of co-firing both digester gas and natural gas simultaneously. Depending on the digester gas availability, the boilers will use the digester gas primarily and the natural gas will be supplemented, as necessary. This will result in better utilization of digester gas and higher energy efficiency.

The West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP (Project 04-128-3P) will improve energy efficiency. The installation of primary settling tanks and the elimination of the Imhoff process will nearly double digester gas production. Digester gas is utilized in process and space heating throughout the Stickney WRP and is considered a renewable resource. Increased gas production will result in the reduced purchase of natural gas. Electrical energy demands will also decrease with the elimination of pumping up to 100 millions of gallons per day of recycle flow from the old grit removal process and the low-pressure compressors necessary for the removal of sludge from the Imhoff tanks. This project will be completed in late 2018.

**Overall Capital Improvement Program Costs**

The District’s 2019 Capital Improvement Program includes 2019 project awards, program support, and projects under construction at award value with total estimated cost of approximately \$871.7 million. A breakdown of these projects (in millions of dollars) is as follows:

2019 project awards	\$ 345.4
2019 program support (project support and land)	48.8
Projects currently under construction (award value)	<u>477.5</u>
Total	\$ 871.7
◆ A breakdown of projects scheduled for 2019 award by fund is as follows:	
Construction Fund projects	\$ 12.0
Capital Improvements Bond Fund projects	<u>333.4</u>
Total	\$ 345.4
◆ A breakdown of projects under construction (award value) by fund is as follows:	
Construction Fund projects	\$ 11.8
Capital Improvements Bond Fund projects	<u>465.7</u>
Total	\$ 477.5

**10-YEAR CAPITAL IMPROVEMENT PROGRAM SUMMARY  
2014 - 2023 CAPITAL PROJECT CONSTRUCTION COST**

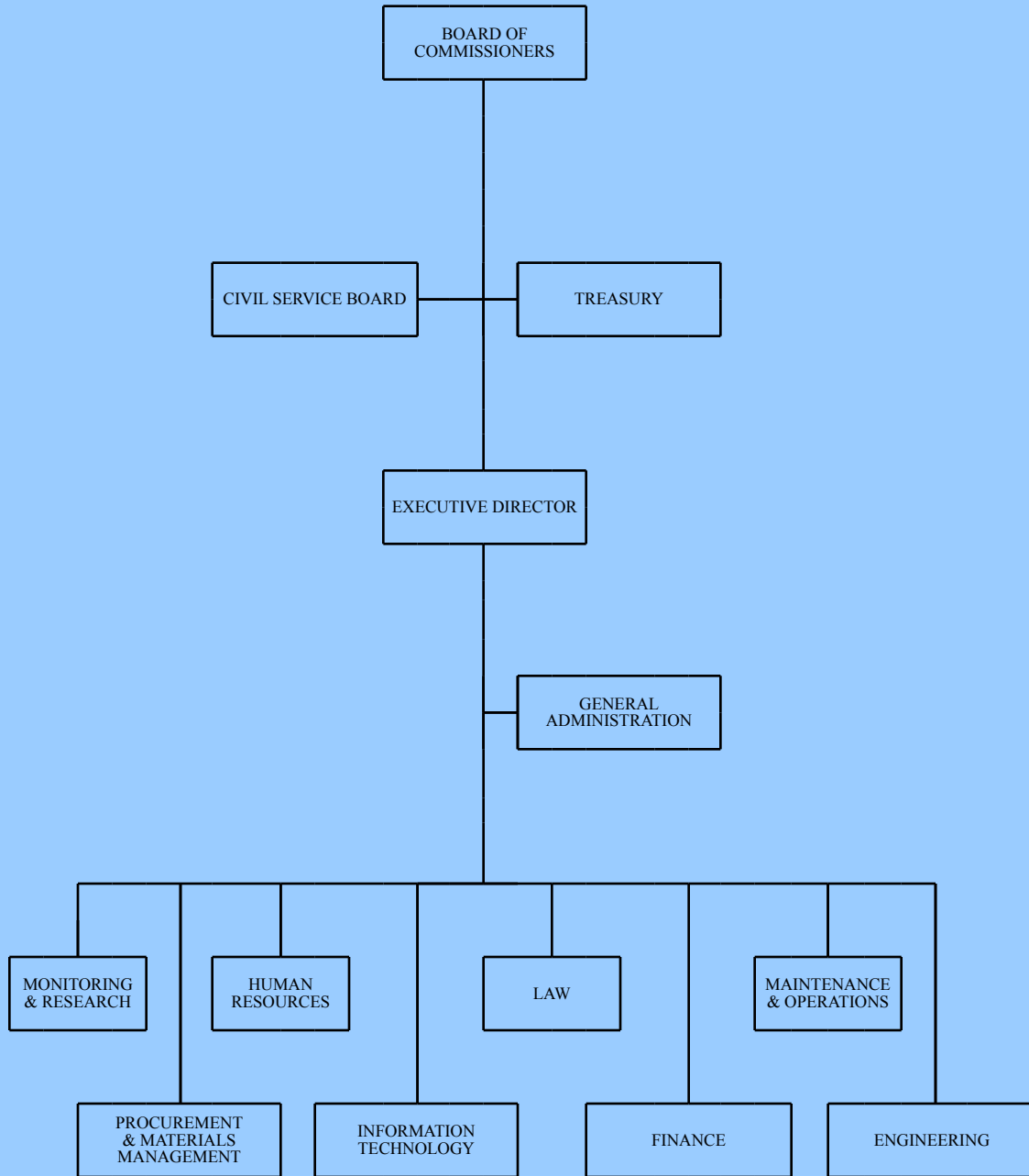
	ACTUAL CASH DISBURSEMENTS					ESTIMATED CASH DISBURSEMENTS					TOTAL
	2014	2015	2016	2017	2018*	2019	2020	2021	2022	2023	2014-2023
<u>BY CATEGORY</u>											
Water Reclamation Plants and Solids Management	\$65.99	\$144.40	\$107.01	\$104.26	\$45.52	\$23.95	\$45.32	\$34.68	\$57.48	\$40.36	\$668.97
Replacement of Facilities	40.17	26.65	36.98	43.22	15.90	18.69	40.21	24.88	24.77	24.58	\$296.06
Collection Facilities	44.66	14.94	25.51	10.52	13.86	7.23	11.37	46.88	13.89	19.84	\$208.72
Stormwater Management	5.27	5.85	7.49	5.69	21.86	75.79	106.32	96.00	71.42	77.38	\$473.07
Tunnel and Reservoir Plan	37.49	75.18	47.68	55.79	47.10	19.02	26.66	14.14	1.60	0.99	\$325.65
<b>TOTAL</b>	<b>\$193.58</b>	<b>\$267.02</b>	<b>\$224.67</b>	<b>\$219.48</b>	<b>\$144.25</b>	<b>\$144.68</b>	<b>\$229.88</b>	<b>\$216.59</b>	<b>\$169.16</b>	<b>\$163.16</b>	<b>\$1,972.47</b>
<u>BY FUND</u>											
Stormwater Management Fund	\$5.27	\$5.00	\$6.34	\$0.96	\$7.73	\$30.93	\$50.74	\$43.24	\$24.95	\$37.46	\$212.61
Construction Fund	16.57	13.34	13.47	8.83	8.91	7.47	8.21	5.27	6.98	6.98	\$96.04
Capital Improvements Bond Fund	171.74	248.68	204.86	209.69	127.61	106.27	170.94	168.08	137.23	118.71	\$1,663.82
<b>TOTAL</b>	<b>\$193.58</b>	<b>\$267.02</b>	<b>\$224.67</b>	<b>\$219.48</b>	<b>\$144.25</b>	<b>\$144.68</b>	<b>\$229.88</b>	<b>\$216.59</b>	<b>\$169.16</b>	<b>\$163.16</b>	<b>\$1,972.47</b>

- Notes: 1. All project costs are in millions of dollars.  
 2. Information regarding the distribution of funds between the sub-items in the Construction and Capital Improvements Bond Funds can be found in the Five-Year Financial Forecast.  
 3. Amounts are rounded.

\* PROJECTED CASH DISBURSEMENTS

**NOTE PAGE**





## 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 2018 Accomplishments

These projects and initiatives are consistent with the Strategic Business Plan (SBP) values of innovation and excellence, which urge resourcefulness, process improvement, and a mindset that sees challenges as opportunities:

- Continued to pilot test mainstream shortcut biological nitrogen removal approaches for low-energy nitrogen removal at the O'Brien Water Reclamation Plant (WRP);
- Completed a research study on a flow-through photobioreactor with floating media for phosphorus removal using algae treatment;
- Completed phosphorus removal feasibility studies at the Kirie, Egan, Hanover Park, and Lemont WRPs;
- Awarded projects to perform phosphorus removal feasibility studies at the Stickney, O'Brien, and Calumet WRPs;
- Installed two drainage water management systems and three denitrifying bioreactor systems in Fulton County to reduce nitrogen runoff into surface waters, a best management practice. The project was a direct outgrowth of the SBP, which specifies the use of Fulton County property to explore opportunities to revitalize the environment;
- Completed the rehabilitation of the digester gas turbine at Stickney WRP. Digester gas will be consumed in the combustor of a three-megawatt electrical energy generator, and the generated electrical energy will be delivered back to the grid and distributed throughout the plant, resulting in reduced electrical energy demand. This project also supports the SBP strategy to maximize the use of digester capacity at the Stickney WRP.

Guided by the SBP, these projects and initiatives were undertaken with the purpose of minimizing future maintenance costs, increasing system reliability, and achieving excellence:

- Procured a Global Positioning System (GPS) robotic station, two GPS controllers, and two GPS rover units, resulting in more efficient operations for the Survey Unit of the Engineering Department;
- Installed a hot water boiler system in the heavy equipment garage at the Calumet WRP. It is a cost-effective system that provides a temperature regulated environment conducive to the preservation of valuable District assets;
- Upgraded a coarse screen conveyor system at the North Branch Pumping Station, which will restore the operation of the coarse screens to full functionality;
- Installed six grit pumps in six of the eight aerated grit tanks at the Calumet WRP. The pumps were purchased in this quantity only after their performance was proved in the remaining two tanks;
- Rehabilitated a raw sewage pump rotating assembly at the O'Brien WRP, which reestablished a critical redundancy. Having a spare assembly on hand significantly reduces the downtime required to replace a sewage pump rotating assembly in the event of a failure;
- Began work to modernize two elevators in the Main Office Building by replacing direct current motors with alternating current motors with variable frequency drives to ensure more reliable performance while achieving energy efficiency;
- Replaced obsolete life-safety equipment with new programmable fire alarm panels and network components at the Calumet WRP, Mainstream Pumping Station, and Lockport Powerhouse. This project is consistent with the SBP, which underscores the need to integrate safety in all planning, operations, and activities;
- Began work to install two debris baskets at the Kirie WRP. The debris baskets, which capture large objects before they can damage critical equipment, are 38 years old and have attained their full equipment life;
- Substantially completed the rehabilitation of Blower No. 9 at the Calumet WRP. This blower is required for the aeration process in the WRP's secondary treatment facilities. Having the blower in good working order mitigates the need to operate a larger blower, which would increase energy costs.

### Budget Highlights

The 2019 appropriation for the Construction Fund is \$18,340,300, a decrease of \$7,740,300, or 29.7 percent, from 2018. There are no staff positions budgeted in the Construction Fund. The 2019 value of the Construction Fund Program includes \$5,685,000 for projects under construction and \$9,159,000 for projects scheduled for award in 2019. An additional \$3,496,300 is appropriated for purposes not specifically associated with listed project costs, including \$1,794,700 for professional engineering services in connection with initiatives sponsored by the Engineering and Monitoring & Research Departments, \$1,000,000 for capital project assessments for the DuPage River Salt Creek Workgroup, \$330,000 for the purchase of capital machinery and equipment, \$321,600 for contract contingencies, and \$50,000 for service fees associated with pilot test programs for odor monitoring.

## 2019 Initiatives in Support of the Strategic Business Plan Include the Following:

### • Add Value

- Implement the 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;
- Award a contract for the preliminary design of odor control facilities at the Stickney WRP's southwest preliminary tank and aerated grit facilities;
- 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 available resources. In 2019, 27 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 will be overseeing 11 new and nine existing Construction Fund projects in 2019 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 savings and resource recovery, or generating cost savings;
- Allocate resources to ensure the required productive or operating capacity of the District's assets is met and maintained.

### • 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 2019, a variety of projects related to resource recovery - water, energy, phosphorus, and biosolids - are included in the Construction Fund.

- Continue research projects utilizing algae technology for the recovery of phosphorus and nitrogen from wastewater;
- Continue phosphorus removal feasibility studies for the Calumet, Stickney, and O'Brien WRPs;
- Improve and expand the biosolids beneficial reuse operation by acquiring capital equipment, including one screener, one paddle aerator, and four lagoon pumps. Initiatives like these are 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 Stickney, 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;
- Become an influential and leading member of the DuPage River Salt Creek WorkGroup (DRSCW). In November 2018, the District elected to renew its membership in the DRSCW, an action which underscores the District's commitment to leading partnerships. The DRSCW is a non-profit organization that was formed in 2005 by a group of local communities, WRPs, and environmental organizations to address water quality concerns and implement targeted watershed projects in the Salt Creek and the East and West Branch DuPage River Watersheds. In addition to establishing valuable partnerships, membership in the DRSCW affords other benefits. For instance, it will allow the District's Egan and Hanover Park WRPs an extended period, perhaps as long as 11 years from the date of permit issuance, to implement a total phosphorus effluent limit while priority instream projects are completed in the watersheds. If the District does not participate in the DRSCW, these WRPs may be required to meet the same total phosphorus limit in 36-54 months from the date of permit issuance, at significant cost and with little or no benefit to aquatic life. As a member, the District will also provide funding for capital projects that are targeted to have the most significant positive impact on aquatic life in the Salt Creek and the West Branch of the DuPage River. One such project, currently under construction, provides for modifications to the Fawell Dam and habitat enhancement. The Fawell Dam is a flood control dam located on the West Branch of the DuPage River in the McDowell Grove Forest Preserve near Naperville, Illinois. The basis of the project is to remove the physical barrier created by the dam and to reduce velocities through the culverts to allow fish passage. Following modification, the dam

will continue to act as a flood control structure. Habitat enhancement will also be implemented in the river reach immediately downstream of the dam. Restoration activities may include streambank restoration, the installation of grade control riffles, flow deflectors, bank treatments, cobble and rock bed substrate, and native plantings. The capital project contributions for the five-year period beginning in 2019 and ending in 2023 are \$1,000,000 for years one through three, \$485,000 for year four, and \$480,071 for year five.

- **Technology**

The technology projects that appear in the 2019 Construction Fund budget 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.

- Install 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. The project will be undertaken to determine if this technology could achieve future effluent standards for phosphorus, as well as other discharge parameters. The technology will be evaluated for its potential to reduce operating costs and solids production and its feasibility for full-scale application. The project aligns with the SBP concept of embracing new technology as a means of advancing the District's mission;
- Implement a solution to upgrade the programmable logic controller human machine interface at the Calumet WRP. The integration of a human machine interface and programmable logic controller provides an automation solution designed to boost process efficiencies.

## Construction Fund Program

### Projects Under Construction

Project Name	Project Number	Est. Construction Cost	MWRD 2019 Appropriation	Duration (days)	Award / Est. Award Date
Industrial Waste Division and Construction Office Renovation, CWRP	16-268-2V	\$ 2,668	\$ 29	805	Nov 2016
Television Inspection and Recording of Sewers and Manholes, District-wide	13-806-2S	1,944	921	1,080	Oct 2017
Furnish and Deliver Screens, Conveyors, and Grit Classifier, Various Locations	18-608-21	316	316	303	May 2018
Rehabilitation of Blower No. 9, CWRP	18-803-21	169	38	287	May 2018
Furnish, Deliver, and Install Fire Detection Systems, Various Locations	18-604-21	535	209	572	Jun 2018
Pavement Rehabilitation, Various Locations	18-614-21	881	500	578	Jun 2018
Furnish and Deliver Reconditioned Circuit Breakers, SSA	18-914-21	164	100	558	Jun 2018
Furnish and Deliver Sludge Pumps, SWRP	18-917-21	215	215	238	Jun 2018
Elevator Rehabilitation, MOB	J15090-054	529	411	375	Jun 2018
Control and Refrigeration Equipment Replacement at the M&R Facility, SWRP	18-184-21	298	100	185	Sep 2018
Recondition Pump Motors No. 1 and No. 2, KWRP	18-704-21	280	200	481	Sep 2018
Furnish, Deliver, and Install Influent Gate Actuators, OWRP	18-708-21	293	293	180	Sep 2018
HVAC Improvements, Various Locations	18-611-23	1,851	975	540	Oct 2018
Furnish and Deliver Submersible Pump, CSA	18-601-21	161	161	175	Nov 2018
Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	18-610-21	867	595	731	Nov 2018
Replace Air Conditioning Unit at Waterways Control Center, MOB	J15090-065	14	14	63	Nov 2018
Employee Benefits Software, District-wide	17-RFP-37	45	45	170	Dec 2018
Programmable Logic Controller Human Machine Interface Migration, CSA	19-805-21	563	563	350	Dec 2018
<b>Total Projects Under Construction</b>		<b>\$ 11,793</b>	<b>\$ 5,685</b>		

<b>Awards in 2019</b>						
Project Name	Project Number	Est. Construction Cost	MWRD 2019 Appropriation	Duration (days)	Award / Est. Award Date	
Southwest Intercepting Sewer 17C Rehabilitation, SSA	18-555-2J	\$ 35	\$ 35	58	Jan 2019	
Furnish, Deliver, and Install Underground Steam and Utility Piping, CWRP	18-805-22	210	210	180	Jan 2019	
Sludge Pump Replacements, SWRP	18-916-21	865	865	364	Jan 2019	
Renovate Bathroom Stalls, MOBA	J15090-032	75	75	136	Jan 2019	
Storeroom Lighting Improvements, EWRP	J67795XX	50	50	180	Jan 2019	
Avaya Telecom Project, Final Phase, District-wide	MWD0000013IT	150	150	364	Jan 2019	
Microvi Pilot, OWRP	18-180-21	400	400	699	Feb 2019	
Furnish, Deliver, and Install Grit Screw Conveyor, CWRP	18-802-21	300	300	180	Feb 2019	
Furnish, Deliver, and Install Deep Anode Ground Bed System, CWRP	19-804-21	495	495	333	Feb 2019	
Remove and Replace Two Carrier Chillers, MOBA	MWD2010002GA	1,000	1,000	89	Feb 2019	
Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	16-708-21	750	750	305	Mar 2019	
Furnish and Deliver Excitation Control Equipment, NBPS and RAPS	19-603-21	480	480	305	Mar 2019	
Furnish and Deliver Paddle Aerator, LASMA	19-610-21	560	560	213	Mar 2019	
Replace Final Tank Channel Covers, OWRP	19-705-21	45	45	305	Mar 2019	
Rebuild Gate Houses and Sludge Concentration Building, OWRP	19-707-21	155	155	305	Mar 2019	
Furnish and Deliver Lathe, OWRP	19-716-21	170	170	305	Mar 2019	
Furnish and Deliver Automated Online Water Quality Monitoring System, OWRP	19-721-21	97	97	153	Mar 2019	
Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP	19-905-21	800	400	671	Mar 2019	
Construct Plenum Fan Array, MOBA	MWD2010001GA	310	310	152	Mar 2019	
Replace HVAC Coils, Various Locations	19-608-21	349	349	274	Apr 2019	
Railroad Track Improvements, SSA	18-913-21	1,565	825	486	May 2019	
Roof Restoration, Lockport Powerhouse	19-612-21	240	240	91	May 2019	
HVAC System Replacements, Various Locations	19-613-21	1,168	453	610	May 2019	
Furnish, Deliver, and Install Crane Braking System, MSPS	19-904-21	140	140	244	May 2019	
Rehabilitation of Overhead Bridge Crane, SSA	18-906-21	240	125	390	Jun 2019	
Furnish and Deliver Four Lagoon Pumps, CALSMA and LASMA	19-611-21	180	180	183	Jul 2019	
Collateral Channel Riverbed Restoration, SSA	18-145-2S	1,200	300	366	Aug 2019	
Total 2019 Awards		\$ 12,029	\$ 9,159			
Cumulative Projects Under Construction and 2019 Awards		\$ 23,822	\$ 14,844			

**Note: All cost figures are in thousands of dollars.**

**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 or for 2019 award.

**STICKNEY  
SERVICE  
AREA (SSA)**



**Stickney Water Reclamation Plant (SWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
13-806-2S	Television Inspection and Recording of Sewers and Manholes, District-wide	9/20	\$ 1,944,000
17-RFP-37	Employee Benefits Software, District-wide	5/19	45,000
18-184-21	Control and Refrigeration Equipment Replacement at the M&R Facility, SWRP	4/19	298,000
18-604-21	Furnish, Deliver, and Install Fire Detection Systems, Various Locations	12/19	535,000
18-608-21	Furnish and Deliver Screens, Conveyors, and Grit Classifier, Various Locations	2/19	316,000
18-610-21	Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	11/20	867,000
18-614-21	Pavement Rehabilitation, Various Locations	12/19	881,000
18-914-21	Furnish and Deliver Reconditioned Circuit Breakers, SSA	12/19	164,000
18-917-21	Furnish and Deliver Sludge Pumps, SWRP	1/19	215,000
J15090-054	Elevator Rehabilitation, MOB	6/19	529,000
J15090-065	Replace Air Conditioning Unit at Waterways Control Center, MOB	1/19	14,000
		<b>Total</b>	<b>\$ 5,808,000</b>
<b>Projects for 2019 Award</b>			
18-145-2S	Collateral Channel Riverbed Restoration, SSA		\$ 1,200,000
18-555-2J	Southwest Intercepting Sewer 17C Rehabilitation, SSA		35,000
18-906-21	Rehabilitation of Overhead Bridge Crane, SSA		240,000
18-913-21	Railroad Track Improvements, SSA		1,565,000
18-916-21	Sludge Pump Replacements, SWRP		865,000
19-608-21	Replace HVAC Coils, Various Locations		349,000
19-610-21	Furnish and Deliver Paddle Aerator, LASMA		560,000
19-611-21	Furnish and Deliver Four Lagoon Pumps, CALSMA and LASMA		180,000
19-612-21	Roof Restoration, Lockport Powerhouse		240,000

**Stickney Water Reclamation Plant (SWRP)**

		<b>Estimated Construction Cost</b>
<b>Projects for 2019 Award (continued)</b>		
19-613-21	HVAC System Replacements, Various Locations	\$ 1,168,000
19-904-21	Furnish, Deliver, and Install Crane Braking System, MSPS	140,000
19-905-21	Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP	800,000
J15090-032	Renovate Bathroom Stalls, MOBA	75,000
MWD0000013IT	Avaya Telecom Project, Final Phase, District-wide	150,000
MWD2010001GA	Construct Plenum Fan Array, MOBA	310,000
MWD2010002GA	Remove and Replace Two Carrier Chillers, MOBA	1,000,000
		Total
		<b>\$ 8,877,000</b>
Stickney Service Area Grand Total		<b>\$ 14,685,000</b>



**NORTH  
SERVICE  
AREA (NSA)**



**Terrence J. O'Brien Water Reclamation Plant (OWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
18-611-23	HVAC Improvements, Various Locations	4/20	\$ 1,851,000
18-708-21	Furnish, Deliver, and Install Influent Gate Actuators, OWRP	3/19	293,000
		Total	<b>\$ 2,144,000</b>
<b>Projects for 2019 Award</b>			
18-180-21	Microvi Pilot, OWRP		\$ 400,000
19-603-21	Furnish and Deliver Excitation Control Equipment, NBPS and RAPS		480,000
19-705-21	Replace Final Tank Channel Covers, OWRP		45,000
19-707-21	Rebuild Gate Houses and Sludge Concentration Building, OWRP		155,000
19-716-21	Furnish and Deliver Lathe, OWRP		170,000
19-721-21	Furnish and Deliver Automated Online Water Quality Monitoring System, OWRP		97,000
		Total	<b>\$ 1,347,000</b>

**John E. Egan Water Reclamation Plant (EWRP)**

**Project for 2019 Award**

J67795XX	Storeroom Lighting Improvements, EWRP		\$ 50,000
		Total	<b>\$ 50,000</b>

**James C. Kirie Water Reclamation Plant (KWRP)**

**Project Under Construction**

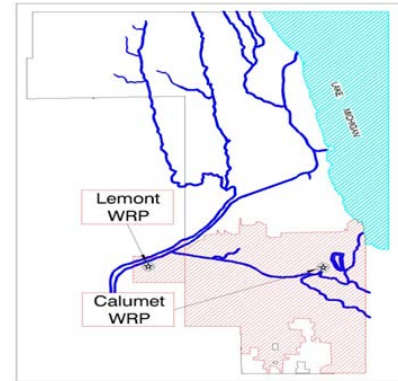
18-704-21	Recondition Pump Motors No. 1 and No. 2, KWRP	12/19	\$ 280,000
		Total	<b>\$ 280,000</b>

**Project for 2019 Award**

16-708-21	Rehabilitate Gloria Alitto Majewski Reservoir, KWRP		\$ 750,000
		Total	<b>\$ 750,000</b>

North Service Area Grand Total **\$ 4,571,000**

**CALUMET  
SERVICE  
AREA (CSA)**



**Calumet Water Reclamation Plant (CWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
16-268-2V	Industrial Waste Division and Construction Office Renovation, CWRP	1/19	\$ 2,668,000
18-601-21	Furnish and Deliver Submersible Pump, CSA	5/19	161,000
18-803-21	Rehabilitation of Blower No. 9, CWRP	2/19	169,000
19-805-21	Programmable Logic Controller Human Machine Interface Migration, CSA	11/19	563,000
		Total	<b>\$ 3,561,000</b>
<b>Projects for 2019 Award</b>			
18-802-21	Furnish, Deliver, and Install Grit Screw Conveyor, CWRP		\$ 300,000
18-805-22	Furnish, Deliver, and Install Underground Steam and Utility Piping, CWRP		210,000
19-804-21	Furnish, Deliver, and Install Deep Anode Ground Bed System, CWRP		495,000
		Total	<b>\$ 1,005,000</b>
		Calumet Service Area Grand Total	<b>\$ 4,566,000</b>
		Capital Projects Grand Total - All Service Areas	<b>\$ 23,822,000</b>

## Television Inspection and Recording of Sewer and Manholes, District-wide

<b>Project Number</b>	13-806-2S
<b>Service Area</b>	Calumet, North, and Stickney
<b>Location</b>	District-wide
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	National Power Rodding Corporation
<b>Estimated Construction Cost</b>	\$1,944,000
<b>Contract Award Date</b>	October-17
<b>Substantial Completion Date</b>	September-20
<b>Project Description</b>	To provide the District with sewer inspection services of varying methods including video inspection, water jetter system television inspection, zoom camera inspection, laser profiling, multi-sensor inspection, and manhole and Tunnel and Reservoir Plan drop shaft inspection. The contractor will also be responsible for cleaning, disposing, and hourly video inspecting services.
<b>Project Justification</b>	The purpose of this contract is to determine and monitor the state of the District's existing collection systems infrastructure.
<b>Project Status</b>	Construction



**Industrial Waste Division and Construction Office Renovation, CWRP**

**Project Number** 16-268-2V  
**Service Area** Calumet  
**Location** Calumet WRP  
**Engineering Consultant** In-house design  
**Engineering Contractor** Path Construction  
**Estimated Construction Cost** \$2,668,000  
**Contract Award Date** November-16  
**Substantial Completion Date** January-19



**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.

The 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 adapted for other uses.

**Project Status** Construction

### Rehabilitate Gloria Alitto Majewski Reservoir, KWRP

**Project Number** 16-708-21

**Service Area** North

**Location** Kirie WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$750,000

**Contract Award Date** March-19

**Substantial Completion Date** December-19



**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** Planning

**Employee Benefits Software, District-wide**

<b>Project Number</b>	17-RFP-37
<b>Service Area</b>	North, Calumet, and Stickney
<b>Location</b>	District-wide
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Benefitfocus.com, Inc.
<b>Estimated Construction Cost</b>	\$45,000
<b>Contract Award Date</b>	December-18
<b>Substantial Completion Date</b>	May-19



**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** Construction

### Collateral Channel Riverbed Restoration, SSA

**Project Number** 18-145-2S

**Service Area** Stickney

**Location** Stickney, IL

**Engineering Consultant** HBK Engineering, LLC

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,200,000

**Contract Award Date** August-19

**Substantial Completion Date** August-20

**Project Description** This project will employ a barge-based pump to transfer riverbed sediments through the combined sewer overflow outfall to the District's interceptor for transfer to the Stickney WRP. The rate will be controlled as not to upset any treatment processes or biosolids quality, with strict monitoring at the barge location and at the Stickney WRP. The process will continue until the soft sediments along the length of the Collateral Channel are removed.

**Project Justification** The purpose of this project is to remove sediments from the Collateral Channel to mitigate odors in the community and improve water quality. The Collateral Channel is in close proximity to residences and adjacent to a recently dedicated local park, which is heavily used in the warmer months when odors can be most prevalent.

**Project Status** Design



### Microvi Pilot, OWRP

<b>Project Number</b>	18-180-21
<b>Service Area</b>	North
<b>Location</b>	O'Brien WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$400,000
<b>Contract Award Date</b>	February-19
<b>Substantial Completion Date</b>	December-20



**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™ Technology 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™ Technology 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™ Technology 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.

**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** Design



**Control and Refrigeration Equipment Replacement at the M&R Facility, SWRP**

**Project Number** 18-184-21

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** EnvironAir

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$298,000

**Contract Award Date** September-18

**Substantial Completion Date** April-19

**Project Description** Raise roof curbs and install new roof-top condensing units, evaporator, control panel, and chart recorder for seven (7) environmental rooms.

**Project Justification** The refrigeration equipment for these environmental rooms is at the end of its service life and routinely require repair. These environmental rooms are used for keeping samples critical for meeting NPDES permit requirements.

**Project Status** Construction



**Southwest Intercepting Sewer 17C Rehabilitation, SSA**

**Project Number** 18-555-2J

**Service Area** Stickney

**Location** Stickney Service Area

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$35,000

**Contract Award Date** January-19

**Substantial Completion Date** February-19

**Project Description** The project entails relining 550 linear feet of ten-inch sewer pipe with cured-in-place pipe lining.

**Project Justification** During a recent inspection of Southwest Intercepting Sewer 17C, a deficiency was detected. In order to restore the structural integrity of the sewer, the sewer must be rehabilitated.

**Project Status** Planning



**Furnish and Deliver Submersible Pump, CSA**

<b>Project Number</b>	18-601-21
<b>Service Area</b>	Calumet
<b>Location</b>	Sidestream Elevated Pool Aeration Station 1
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Gasvoda & Associates, Inc.
<b>Estimated Construction Cost</b>	\$161,000
<b>Contract Award Date</b>	November-18
<b>Substantial Completion Date</b>	May-19



**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 waterways. One new pump was purchased 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. For this reason, more people are likely to visit the SEPA station and enjoy the flowing pools.

**Project Status** Construction

### Furnish, Deliver, and Install Fire Detection Systems, Various Locations

<b>Project Number</b>	18-604-21
<b>Service Area</b>	Calumet and Stickney
<b>Location</b>	Calumet WRP, Lockport Powerhouse, and Mainstream Pumping Station
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Broadway Electric, Inc.
<b>Estimated Construction Cost</b>	\$535,000
<b>Contract Award Date</b>	June-18
<b>Substantial Completion Date</b>	December-19
<b>Project Description</b>	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.
<b>Project Justification</b>	The fire panels have been in service since 1992 and the manufacturer stopped 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.
<b>Project Status</b>	Construction



## Furnish and Deliver Screens, Conveyors, and Grit Classifier, Various Locations

<b>Project Number</b>	18-608-21
<b>Service Area</b>	North and Stickney
<b>Location</b>	Hanover Park and Stickney WRPs
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	WAM North America Inc., D/B/A Enviro-Care Company and JDV Process Equipment Corporation
<b>Estimated Construction Cost</b>	\$316,000
<b>Contract Award Date</b>	May-18
<b>Substantial Completion Date</b>	February-19
<b>Project Description</b>	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.
<b>Project Justification</b>	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.
<b>Project Status</b>	Construction



## Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations

<b>Project Number</b>	18-610-21
<b>Service Area</b>	North and Stickney
<b>Location</b>	O'Brien and Stickney WRPs
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Xylem Water Solutions USA, Inc.
<b>Estimated Construction Cost</b>	\$867,000
<b>Contract Award Date</b>	November-18
<b>Substantial Completion Date</b>	November-20



**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, inspecting, machining, and welding repair of the impellers as well as fabricating 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 the West Side Pumping Station's RSP No. 3, two 200 MGD rotating assemblies removed from the Southwest Pump and Blower House's RSP Nos. 2 and 3, and one 240 MGD rotating assembly removed from the Southwest Pump and Blower House's 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** Construction

### HVAC Improvements, Various Locations

**Project Number** 18-611-23

**Service Area** Calumet and North

**Location** Egan, O'Brien, and Calumet WRPs

**Engineering Consultant** In-house design

**Engineering Contractor** Autumn Construction Services, Inc.

**Estimated Construction Cost** \$1,851,000

**Contract Award Date** October-18

**Substantial Completion Date** April-20



**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** Construction

### Pavement Rehabilitation, Various Locations

<b>Project Number</b>	18-614-21
<b>Service Area</b>	North, Calumet, and Stickney
<b>Location</b>	Calumet, Egan, Kirie, O'Brien, and Stickney WRP, CALSMA, and LASMA
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Sumit Construction Co., Inc.
<b>Estimated Construction Cost</b>	\$881,000
<b>Contract Award Date</b>	June-18
<b>Substantial Completion Date</b>	December-19
<b>Project Description</b>	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, Calumet, and Stickney Service Areas.
<b>Project Justification</b>	Roadway and parking lot pavement as old as 35 years show signs of deterioration at the North, Calumet, and Stickney 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 WRP as well. The poor condition of the pavement has a negative impact on District vehicles as well as employee vehicles. This project will extend the useful life of the roadways and parking lots and provide safe driving conditions at the WRPs.
<b>Project Status</b>	Construction





## Recondition Pump Motors No. 1 and No. 2, KWRP

**Project Number** 18-704-21

**Service Area** North

**Location** Kirie WRP

**Engineering Consultant** In-house design

**Engineering Contractor** KW Services, LLC

**Estimated Construction Cost** \$280,000

**Contract Award Date** September-18

**Substantial Completion Date** December-19



**Project Description** The purpose of this contract is for the offsite reconditioning of two 2,250 horsepower vertical shaft synchronous pump motors, two eddy current clutches, and two motor base plates. The motors are producing excessive vibration and have reached the end of their useful operational life. Following re-installation, the reconditioned motors will be reliable for an estimated additional 30 years. The District’s trades will remove and reinstall the motors/clutches and provide labor support at the site.

**Project Justification** Vibration analysis testing of raw sewage pumps No. 1 and No. 2 showed excessive vibration on the motors and clutch assemblies, beyond the acceptable industry standard. The reliability and safe operation of the raw sewage pumps are adversely impacted due to the significant wear of the motors and clutch components. The pumps have been in service for 36 years and are in need of reconditioning.

**Project Status** Construction

**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

**Engineering Contractor** Independent Mechanical Industries, Inc.

**Estimated Construction Cost** \$293,000

**Contract Award Date** September-18

**Substantial Completion Date** March-19



**Project Description** Replace seven beveled gear actuators with direct mount actuators at 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** Construction

**Furnish, Deliver, and Install Grit Screw Conveyor, CWRP**

**Project Number** 18-802-21

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$300,000

**Contract Award Date** February-19

**Substantial Completion Date** July-19



**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 the 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** Design

### Rehabilitation of Blower No. 9, CWRP

**Project Number** 18-803-21

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Howden Roots, LLC

**Estimated Construction Cost** \$169,000

**Contract Award Date** May-18

**Substantial Completion Date** February-19

**Project Description** Sole source project to rehabilitate a damaged diffuser ring and rotating assembly on Blower No. 9 at the Calumet WRP.

**Project Justification** Blower No. 9 is one of two 75,000 cubic feet per minute blowers required for the aeration process at 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** Construction



**Furnish, Deliver, and Install Underground Steam and Utility Piping, CWRP**

**Project Number** 18-805-22

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$210,000

**Contract Award Date** January-19

**Substantial Completion Date** June-19

**Project Description** Replacement of existing Ricwil pipe in the scum concentration building at the Calumet WRP. The Ricwil pipe is a host pipe which contains steam, pumped condensate return, effluent water, and low pressure air piping.

**Project Justification** The steam, pumped condensate return, effluent water, and low pressure air piping inside the Ricwil pipe has failed and/or are severely corroded. This required the steam piping to be permanently shutdown causing the scum concentration building to have no heat. This project will provide new service piping to the scum concentration building and provide heating prior to the next winter season.

**Project Status** Design



### Rehabilitation of Overhead Bridge Crane, SSA

**Project Number** 18-906-21

**Service Area** Stickney

**Location** Mainstream Pumping Station

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$240,000

**Contract Award Date** June-19

**Substantial Completion Date** June-20

**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** Design



### Railroad Track Improvements, SSA

**Project Number** 18-913-21

**Service Area** Stickney

**Location** Stickney, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,565,000

**Contract Award Date** May-19

**Substantial Completion Date** August-20



**Project Description** This project will replace four railroad grade crossings, remove one crossing, provide for track drainage improvements at 11 locations, and rehabilitate dilapidated retaining walls at six locations. One crossing within the Stickney WRP that intersects "D Street" and is connected to an abandoned track to the West Side Plant will be removed and replaced with roadway. A second crossing within the Stickney WRP, which intersects "D Street" and leads to the Roundhouse, will be replaced. Two crossings outside and to the west of the Stickney WRP will be removed and replaced. A third crossing outside and to the west of the Stickney WRP, on the main line to Lawndale Avenue Solids Management Area and located under Interstate 55, will be removed and replaced.

**Project Justification** The railroad grade crossings have developed large gaps between the rails and adjacent roadway, which have caused undesirable impact forces on the rail, ties, and ballast. There are numerous locations along the track system where poor track drainage causes the track ballast to become fouled with dirt and sediments. In addition, the retaining walls that abut the ends of the tunnel walls are in various stages of disrepair. Improvements to the railroad track are necessary to maintain track gauge, prevent derailments, restore track integrity, and ensure safe operating conditions.

**Project Status** Design

### Furnish and Deliver Reconditioned Circuit Breakers, SSA

**Project Number** 18-914-21

**Service Area** Stickney

**Location** Lockport Powerhouse and Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Wesco Distribution, Inc.

**Estimated Construction Cost** \$164,000

**Contract Award Date** June-18

**Substantial Completion Date** December-19

**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** Construction





### Sludge Pump Replacements, SWRP

**Project Number** 18-916-21

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Independent Mechanical Industries, Inc.

**Estimated Construction Cost** \$865,000

**Contract Award Date** January-19

**Substantial Completion Date** December-19

**Project Description** The purpose of the project is to install both new and previously purchased non-clog centrifugal pumps and replace various screw-centrifugal and rotary lobe pumps in sludge pumping applications throughout the Stickney WRP.

**Project Justification** Existing sludge pumps installed under a previous contract do not provide reliable pumping. Installation of various non-clog centrifugal pumps will restore reliable pumping capacity for the separated sludge streams now in place throughout the WRP.

**Project Status** Planning



### Furnish and Deliver Sludge Pumps, SWRP

**Project Number** 18-917-21

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Flow-Technics, Inc.

**Estimated Construction Cost** \$215,000

**Contract Award Date** June-18

**Substantial Completion Date** January-19



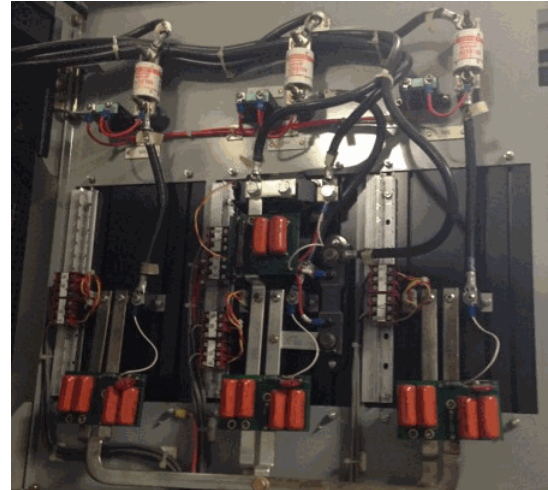
**Project Description** The purpose of the project is to purchase eight non-clog centrifugal pumps and replace various screw-centrifugal and rotary lobe pumps in sludge pumping applications throughout the WRP.

**Project Justification** Existing sludge pumps installed under another contract do not provide reliable pumping. Procurement of various non-clog centrifugal pumps will restore reliable pumping capacity for the separated sludge streams now in place throughout the plant.

**Project Status** Construction

## Furnish and Deliver Excitation Control Equipment, NBPS and RAPS

<b>Project Number</b>	19-603-21
<b>Service Area</b>	North and Stickney
<b>Location</b>	North Branch and Racine Avenue Pumping Stations
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$480,000
<b>Contract Award Date</b>	March-19
<b>Substantial Completion Date</b>	December-19



**Project Description** Furnish and deliver replacement excitation control equipment for the North Branch Pumping Station (NBPS) and the Racine Avenue Pumping Station (RAPS) main sewage pump synchronous motors. Four new pump motor exciter control systems will be installed at both the NBPS and the RAPS. Installation will be performed by District trades under the direction of an excitation control manufacturer representative and the resident engineer.

**Project Justification** The existing synchronous motor power factor controllers and voltage regulators controlling the excitation of the NBPS and the RAPS main sewage pumps are obsolete and no longer manufactured/supported. These analog excitation controllers are more than 30 years old and are prone to malfunction, which negatively impacts sewage conveyance. Excitation controls are required for making an induction motor synchronous and are critical for pump availability and operation. There are currently no spare parts and the new replacement parts do not work without modifications from the manufacturer. Since the controllers are obsolete and no longer manufactured/supported, repairs take longer and are costlier due to specialized use of parts and labor.

**Project Status** Planning

### Replace HVAC Coils, Various Locations

**Project Number** 19-608-21

**Service Area** Calumet, North, and Stickney

**Location** Calumet, Kirie, and Stickney WRPs

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$349,000

**Contract Award Date** April-19

**Substantial Completion Date** December-19

**Project Description** This project will replace deteriorated and leaking air handling coils used in the process facility air handling system at the Calumet, Kirie, and Stickney WRPs.

**Project Justification** The existing air handling coils have deteriorated and corroded due to age and hydrogen sulfide exposure. New air handling coils will restore heating capacity at the process facility building.

**Project Status** Planning



### Furnish and Deliver Paddle Aerator, LASMA

<b>Project Number</b>	19-610-21
<b>Service Area</b>	Stickney
<b>Location</b>	Lawndale Avenue Solids Management Area
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$560,000
<b>Contract Award Date</b>	March-19
<b>Substantial Completion Date</b>	September-19
<b>Project Description</b>	Furnish and deliver a paddle aerator to Lawndale Avenue Solids Management Area.
<b>Project Justification</b>	The Brown Bear 400D paddle aerator would replace the current Brown Bear, which was purchased in October 1989. The Brown Bear is vital to solids processing operations and operates five to six days per week to agitate and dry solids. The current Brown Bear has had a number of large mechanical problems recently, including transmission and pump failures.
<b>Project Status</b>	Planning



### Furnish and Deliver Four Lagoon Pumps, CALSMA and LASMA

<b>Project Number</b>	19-611-21
<b>Service Area</b>	Calumet and Stickney
<b>Location</b>	Calumet Solids Management Area and Lawndale Avenue Solids Management Area
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$180,000
<b>Contract Award Date</b>	July-19
<b>Substantial Completion Date</b>	December-19
<b>Project Description</b>	Furnish and deliver four lagoon pumps to the Calumet Solids Management Area and the Lawndale Avenue Solids Management Area.
<b>Project Justification</b>	Lagoon pumps are needed to pump lagoon thickened solids into trucks to be transported to paved drying cells for further drying. The current hourly rate for a contract lagoon pump is \$296, which would total \$284,000 over six months. The payback for the equipment is therefore less than six months.
<b>Project Status</b>	Planning



### Roof Restoration, Lockport Powerhouse

**Project Number** 19-612-21

**Service Area** Stickney

**Location** Lockport Powerhouse

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$240,000

**Contract Award Date** May-19

**Substantial Completion Date** July-19



**Project Description** This project will restore the roof of the Lockport Powerhouse.

**Project Justification** The Lockport Powerhouse's clay tile roof is approximately 110 years old and is leaking at various spots, causing damage to the structural part of the roof and powerhouse building. Improvements are necessary for damage control and for the full functionality of the powerhouse. Failure or delay may cause significant loss in revenue from electrical energy generated by the hydroelectric generators. The powerhouse building includes essential components to control the water level of the Sanitary and Ship Canal. Due to the specialized type of clay tiles and the roof's location over the high-velocity flowing water, the work cannot be done by District trades and must be contracted out to vendors who specialize in this type of roof replacement.

**Project Status** Planning

### HVAC System Replacements, Various Locations

<b>Project Number</b>	19-613-21
<b>Service Area</b>	Calumet, North, and Stickney
<b>Location</b>	Stickney, Calumet, Egan, Kirie, and Hanover Park WRPs and the North Branch Pumping Station
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,168,000
<b>Contract Award Date</b>	May-19
<b>Substantial Completion Date</b>	December-20



**Project Description** This project includes the replacement and improvement of HVAC systems in various locations. At the Stickney WRP, the air handling units in the monitoring and research building will be replaced. At the Calumet WRP, ventilation improvements will be made in the battery room, two explosion-proof dehumidifiers will be replaced in the Tunnel and Reservoir Plan pumping station, and system balancing will be performed in the administration building. At the Egan WRP, the controls will be upgraded in the administration building and two digester gas systems with appurtenances will be replaced at the digester complex. At the Kirie WRP, ventilation improvements will be made in the influent pumping station. At the Hanover Park WRP, ventilation improvements will be made and controls will be upgraded in the pump and blower building. At the North Branch Pumping Station, ventilation improvements will also be made.

**Project Justification** The need for replacement is based on age, life expectancy, and reliability. The equipment being replaced has experienced chronic failures due to equipment corrosion and leaking coils and piping. The project will minimize future maintenance costs and ensure increased reliability to protect District assets, improve air quality, and provide a safe working environment.

**Project Status** Planning



### Replace Final Tank Channel Covers, OWRP

**Project Number** 19-705-21

**Service Area** North

**Location** North Branch Pumping Station

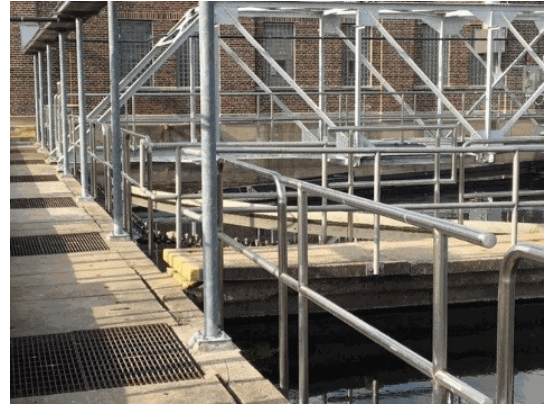
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$45,000

**Contract Award Date** March-19

**Substantial Completion Date** December-19



**Project Description** This project will replace the damaged concrete covers over channels near the final tanks at the North Branch Pumping Station.

**Project Justification** The concrete covers are blocks that are designed to be removable and are used as a walkway over the channels. Some of the blocks are damaged and need to be replaced with either new blocks or a fiberglass grating. The damaged blocks can roll or tilt, which creates a tripping hazard.

**Project Status** Planning

## Rebuild Gate Houses and Sludge Concentration Building, OWRP

**Project Number** 19-707-21

**Service Area** North

**Location** O'Brien WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$155,000

**Contract Award Date** March-19

**Substantial Completion Date** December-19

**Project Description** Tuckpointing, glass block repair, parapet repair, and roof removal and replacement are required at gate house Nos. 1 and 2. Tuckpointing and glass block repair are required at the sludge concentration building.

**Project Justification** The two gate houses have not been restored or tuckpointed since they were built in 1926. The sludge concentration building has not had tuckpointing performed in the last 30 years and needs to be maintained in order to increase its useful life.

**Project Status** Planning



### Furnish and Deliver Lathe, OWRP

**Project Number** 19-716-21

**Service Area** North

**Location** O'Brien WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$170,000

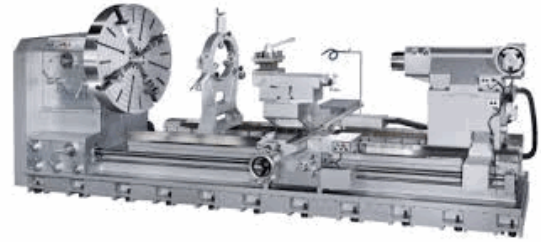
**Contract Award Date** March-19

**Substantial Completion Date** December-19

**Project Description** Furnish and deliver a new lathe to the O'Brien WRP.

**Project Justification** The lathe will replace a 40-year old unit that has reached the end of its useful life and is now incapable of producing reliable machined parts. The lathe will be used for day-to-day machining operations, such as threading specialized Tunnel and Reservoir Plan gate stem nuts. The machine will include a six-inch large spindle bore diameter to increase machining capabilities and facilitate shop fabrication of repair parts.

**Project Status** Planning



## Furnish and Deliver Automated Online Water Quality Monitoring System, OWRP

**Project Number** 19-721-21

**Service Area** North

**Location** O'Brien WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$97,000

**Contract Award Date** March-19

**Substantial Completion Date** August-19



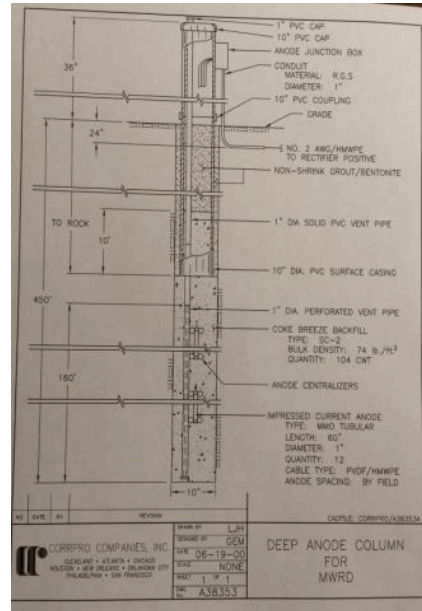
**Project Description** Furnish and deliver an automated online water quality monitoring system to the O'Brien WRP. The system is based on an innovative optical technology, and the online optical monitoring sensors in the system measure a range of important water quality parameters on a rapid cycle, with results in approximately 2-5 minutes. While these results are not currently accepted by the regulatory agencies and will not substitute for the District's current testing program, they are very important for providing real-time monitoring information to treatment plant operators. Such information will help to better optimize treatment processes and maximize operational efficiencies with reduced costs. The acquired unit will be installed at the O'Brien WRP for a trial period.

**Project Justification** The automated water quality monitoring system will provide real-time monitoring of suspended solids, turbidity, ammonia, Biochemical/Chemical Oxygen Demand, and E. coli in treatment plant effluent, and the monitoring data will be used to optimize operations which can reduce costs and the probability of permit violations. Current disinfection tests take upwards of 30 hours to perform due to the sample collection, transport, and required methodology of testing, and treatment plant operators are forced to operate plant processes more conservatively due to delayed monitoring results. If this technology is successful, treatment plant operators will be afforded the opportunity to make decisions based on more current data, decisions which can be used to better control ultraviolet dosing of the disinfection process at the O'Brien WRP. It has been reported that similar installations in Grand Rapids, Michigan and Corvallis, Oregon have saved thousands of dollars per year through better controlling disinfection processes.

**Project Status** Design

## Furnish, Deliver, and Install Deep Anode Ground Bed System, CWRP

<b>Project Number</b>	19-804-21
<b>Service Area</b>	Calumet
<b>Location</b>	Tunnel and Reservoir Plan (TARP) East and West Pumping Stations
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$495,000
<b>Contract Award Date</b>	February-19
<b>Substantial Completion Date</b>	December-19
<b>Project Description</b>	Drill four, 10-inch diameter, holes by approximately 400 feet. Furnish, deliver, and install 14 mixed metal oxide sacrificial anodes in the four holes. Fill the remainder of the holes with coke breeze and bentonite. Install new junction boxes. Connect new wires to the existing rectifier system. Install reference cells for the new deep anode ground bed cathodic protection system in the east and west TARP pumping stations. Replace conduit and cables as needed.
<b>Project Justification</b>	The purpose of the contract is to replace four deep anode ground beds (DAGBs) which are no longer functional and do not protect underground equipment. The DAGBs are a part of the cathodic protection system responsible for protection of the underground piping infrastructure, mainly suction and discharge pipe sleeves. Based on the annual cathodic protection maintenance report received in 2017, the DAGBs' cathodic protection system located at the east and west TARP pumping stations is no longer functional. The anodes inside each of the deep anode columns have completely disintegrated, and they are no longer protecting the underground piping. Installation of a new DAGB system will restore protection for the existing and new underground equipment.
<b>Project Status</b>	Planning



## Programmable Logic Controller Human Machine Interface Migration, CSA

**Project Number** 19-805-21

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Schneider Electric Systems USA, Inc.

**Estimated Construction Cost** \$563,000

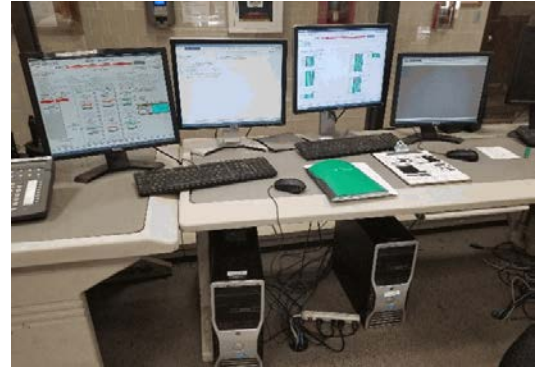
**Contract Award Date** December-18

**Substantial Completion Date** November-19

**Project Description** The proposed solution will replace the existing installed A-B programmable logic controller human machine interface (HMI) with a new H90 server and a new Wonderware historian with an information server license.

**Project Justification** The current Dell servers running the A-B HMI are obsolete. These servers are running Windows XP, which is also obsolete. The goal is to move the A-B HMI into the existing Foxboro system and remove the obsolete hardware and software.

**Project Status** Construction



**Furnish, Deliver, and Install Crane Braking System, MSPS**

**Project Number** 19-904-21

**Service Area** Stickney

**Location** Mainstream Pumping Station

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$140,000

**Contract Award Date** May-19

**Substantial Completion Date** December-19

**Project Description** This project will replace the brake system on the main hoist on the overhead bridge crane located in the south pump house at the Mainstream Pumping Station.

**Project Justification** The brake system has failed and the vertical motion of the main hoist cannot be safely stopped. Replacement of this equipment will restore the crane to safe operating condition.

**Project Status** Planning



## Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP

**Project Number** 19-905-21

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$800,000

**Contract Award Date** March-19

**Substantial Completion Date** December-20



**Project Description** This project entails the rehabilitation of a 66-inch discharge valve assembly on main raw sewage pump No. 5 at the southwest pumping station at the Stickney WRP. In-house trades will perform the removal of the valve and its installation following a full rehabilitation. The rehabilitation work will include weld repair and machining of the gate discs, fabrication and replacement of the valve stem, stem nut, disc nut, wedges, disc and valve body seats, hooks, and the hardware for the discharge valve assembly. The scope of work also includes hydraulic leak testing of the valve assembly to American Water Works Association C500-93 standard and the preparation of drawings.

**Project Justification** The Stickney WRP has six main raw sewage pumps at the southwest pumping station with a 66-inch discharge valve on each pump. The discharge valves on main sewage pump Nos. 1 through 4 were originally installed in 1938 and rehabilitated in 2008 through 2010. The discharge valves on raw sewage pump Nos. 5 and 6 were originally installed in 1958. During recent maintenance work, severe wear and damage were observed on the components of the discharge valve assembly on main sewage pump No. 5. Rehabilitation of the discharge valve is needed to avoid any catastrophic failure. Failure of the discharge valve could result in the pump being unavailable for operation, which would reduce the pumping capacity of the station. A leaking valve could also cause the sewage discharge to backflow into the wet well, necessitating the need to operate more pumps and increase electrical energy consumption.

**Project Status** Planning



### Renovate Bathroom Stalls, MOBA

**Project Number** J15090-032

**Service Area** Stickney

**Location** Main Office Building Annex

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$75,000

**Contract Award Date** January-19

**Substantial Completion Date** May-19



**Project Description** Replace 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 the 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** Pending award

### Elevator Rehabilitation, MOB

**Project Number** J15090-054

**Service Area** Stickney

**Location** Main Office Building

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$529,000

**Contract Award Date** June-18

**Substantial Completion Date** June-19

**Project Description** Modernize two Main Office Building (MOB) elevators by replacing direct current motors with alternating current motors with variable frequency drives (VFDs) to ensure better, more reliable performance while achieving energy savings.

**Project Justification** Elevator entrapments result in lost employee productivity, potentially leading to an increase in the number of Workers' Compensation claims. Modernization of the MOB elevators will address this risk by providing a more reliable vertical transportation system for District employees and visitors at the MOB. Visitors will have a better impression of the MOB while experiencing a smoother elevator ride. This is in line with the 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 VFDs are expected.

**Project Status** Construction



**Replace Air Conditioning Unit at Waterways Control Center, MOB**

**Project Number** J15090-065

**Service Area** Stickney

**Location** Main Office Building

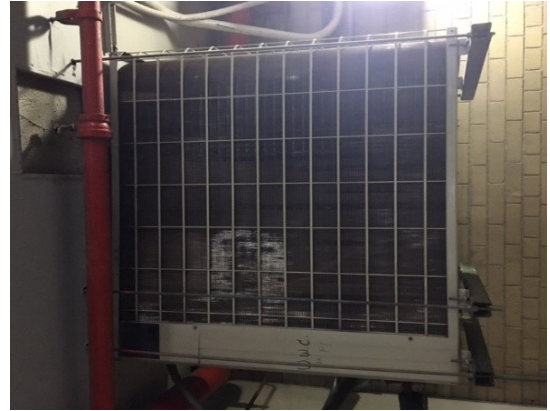
**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$14,000

**Contract Award Date** November-18

**Substantial Completion Date** January-19



**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** Construction

**Storeroom Lighting Improvements, EWRP**

**Project Number** J67795XX

**Service Area** North

**Location** The storeroom at the Egan WRP

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$50,000

**Contract Award Date** January-19

**Substantial Completion Date** June-19

**Project Description** Replace lighting in the storeroom at the Egan WRP with high-efficiency, light-emitting diode fixtures.

**Project Justification** The project is designed to expand the usable storage space in the second level of the storeroom by approximately 35 to 50 percent. That area is now inaccessible due to the low mounting height of the existing lights. The project is also recommended due to the anticipated reduction in energy consumption based on the high-efficiency value of the new lights.

**Project Status** Planning



**Avaya Telecom Project, Final Phase, District-wide**

<b>Project Number</b>	MWD0000013IT
<b>Service Area</b>	Stickney
<b>Location</b>	District-wide
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Avaya
<b>Estimated Construction Cost</b>	\$150,000
<b>Contract Award Date</b>	January-19
<b>Substantial Completion Date</b>	December-19
<b>Project Description</b>	The infrastructure hardware at the remaining North Service Area locations will be upgraded with the purpose of creating a consolidated virtual environment District-wide. The infrastructure 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, scalability, and expandability of feature sets at the sites.
<b>Project Justification</b>	The District's telecommunications infrastructure is over seven years old. The project will upgrade the old system and allow for the added benefit of more responsive redundancy in the design, a feature not available with a physical environment.
<b>Project Status</b>	Planning



### Construct Plenum Fan Array, MOBA

**Project Number** MWD2010001GA

**Service Area** Stickney

**Location** Main Office Building Annex

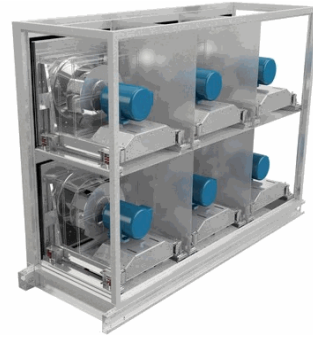
**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$310,000

**Contract Award Date** March-19

**Substantial Completion Date** July-19



**Project Description** Furnish, deliver, and construct a new air handling unit (AHU) in the 2nd floor mechanical room at the MOBA consisting of one four-fan array and one six-fan array. Fans will be modular plenum, airfoil nine-blade fans. The four-fan array will be rated at 100,000 cubic feet per minute; 1,923 revolutions per minute (RPM); 202 total horsepower. The six-fan array will be rated at 100,000 cubic feet per minute; 2,180 RPM; 168 total horsepower. The new AHU will be connected to the existing building automation system.

**Project Justification** The original AHU installed during building construction in 1985 is currently powered by an 1,800 RPM, 200 horsepower Flakt fan. This system experienced failures in 1999 and 2016. The total cost for replacing the fan and motor in 2016 was \$104,522. Construction of a second AHU with plenum fan arrays will provide a layer of redundancy for supplying airflow throughout the building. In the event of a system failure, the redundant system will be utilized to provide air flow, thus negating the need to close the building during severe outside temperatures.

**Project Status** Planning

## Remove and Replace Two Carrier Chillers, MOBA

**Project Number** MWD2010002GA

**Service Area** Stickney

**Location** Main Office Building Annex

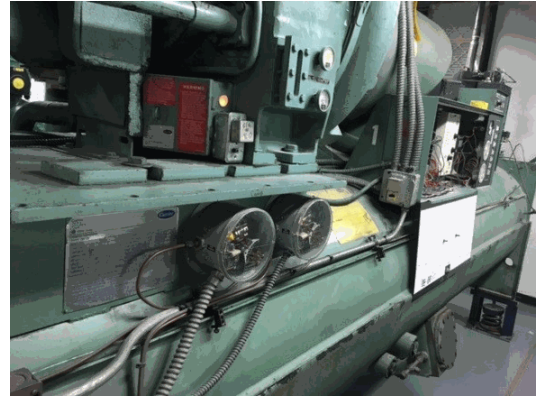
**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$1,000,000

**Contract Award Date** February-19

**Substantial Completion Date** May-19



**Project Description** Remove and replace two chiller units at the Main Office Building Annex. The new units must be energy efficient.

**Project Justification** The electric elements of the existing unit are failing, which may result in hazards. These chillers are original to the building's construction in 1985. The American Society of Heating, Refrigerating and Air-Conditioning Engineers' standard for useful life of centrifugal chillers is 23 years. These chillers have now been operational for 33 years. Failure of either existing chiller could have adverse effects on the working conditions of all employees in the Main Office Building Annex due to the inability to regulate temperature during summer months.

**Project Status** Planning

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION FACILITIES: Award projects, such as the installation of a crane braking system at the Mainstream Pumping Station, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 2,932,000	16.0%
2. TREATMENT FACILITIES: Award projects, such as the installation of a water monitoring system at the O'Brien WRP and the installation of a grit screw conveyor at the Calumet WRP, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 3,272,300	17.8%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award projects, such as the procurement of a paddle aerator and lagoon pumps for the Lawndale Avenue Solids Management Area, which will reduce costs and/or provide facility improvements.	\$ 1,790,300	9.8%
4. FLOOD AND POLLUTION CONTROL: Provide funding for construction projects addressing flood control.	\$ 2,050,000	11.2%
5. CONSTRUCTION FUND PROJECT COST: Provide funding for contracts awarded prior to 2019.	\$ 4,217,000	23.0%
6. PROJECT SUPPORT: Development, design, and administration of current and future contracts, funding support, construction materials, and utility support services.	\$ 4,078,700	22.2%
<b>Totals</b>	<b>\$ 18,340,300</b>	<b>100.0%</b>

MEASURABLE GOAL:	2017	2018	2019
	Actual	Estimated	Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	54	53	27
Number of contracts awarded	38	52	27
Number of plans available for award	38	52	27
<p>The projects proposed for each year are based upon the requirements dictated by the Capital Improvement Program. The number of actual projects awarded may not, on face value, quantify performance. There are several factors that could either increase or decrease the number of projects awarded. Some of these factors are project size, project complexity, and unforeseen obstacles. The numbers are provided only as a general indicator of performance.</p>			



**50000 CONSTRUCTION FUND**

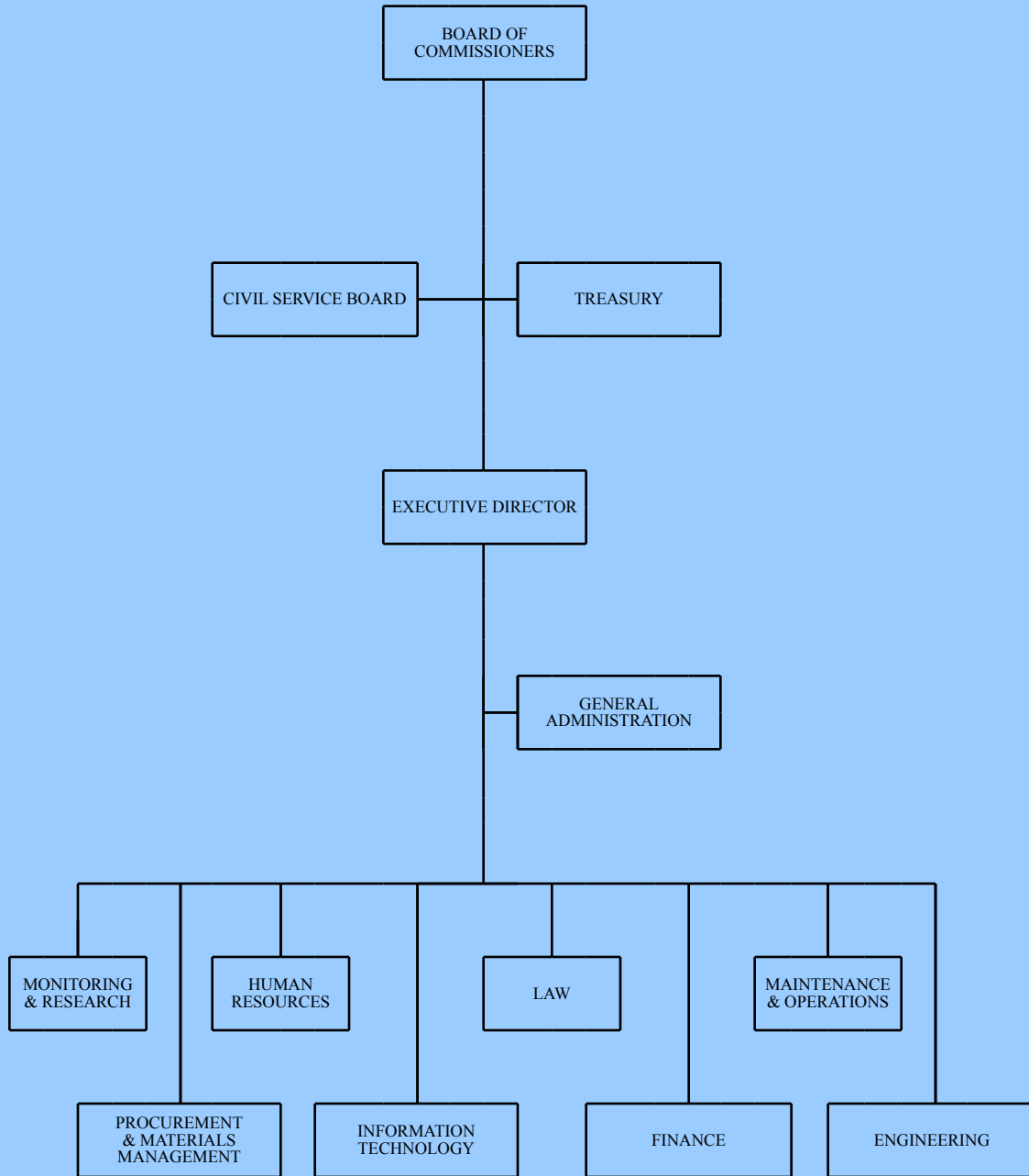
**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change		
Number	Name	Actuals	Positions	Dollars	Dollars	Percent	
1110	Interceptor Systems	\$ 328,353	2019	— \$	921,000	\$ 121,000	15.1
			2018	— \$	800,000		
1530	Local Sewer Permit Activity	\$ —	2019	— \$	—	\$ (50,000)	(100.0)
			2018	— \$	50,000		
1800	Collection Construction	\$ 1,524,017	2019	— \$	3,436,000	\$ 1,096,000	46.8
			2018	— \$	2,340,000		
2800	Treatment Construction	\$ 7,817,375	2019	— \$	5,455,300	\$ (2,566,100)	(32.0)
			2018	— \$	8,021,400		
2900	Treatment Processes	\$ —	2019	— \$	163,000	\$ 163,000	100.0
			2018	— \$	—		
3700	Solids Processing Design	\$ 40,399	2019	— \$	—	\$ (1,995,400)	(100.0)
			2018	— \$	1,995,400		
3800	Solids Processing Construction	\$ 522,666	2019	— \$	562,300	\$ (45,300)	(7.5)
			2018	— \$	607,600		
4600	Monitoring	\$ 1,649,421	2019	— \$	1,949,700	\$ (2,117,900)	(52.1)
			2018	— \$	4,067,600		
4800	Flood and Pollution Control Construction	\$ 288,059	2019	— \$	2,050,000	\$ 840,000	69.4
			2018	— \$	1,210,000		
5800	Solids Disposal Construction	\$ —	2019	— \$	1,565,000	\$ (2,385,000)	(60.4)
			2018	— \$	3,950,000		
7284	Store Operations and Issue	\$ 30,818	2019	— \$	50,000	\$ 50,000	100.0
			2018	— \$	—		
7290	Examinations and Employment Activities	\$ 48,000	2019	— \$	45,000	\$ (153,500)	(77.3)
			2018	— \$	198,500		
7367	Real Estate Asset Management	\$ 37,000	2019	— \$	—	\$ —	—
			2018	— \$	—		
7380	Information Technology and Telecommunications	\$ 559,602	2019	— \$	150,000	\$ (420,100)	(73.7)
			2018	— \$	570,100		
7390	Accounting and Auditing	\$ 14,500	2019	— \$	—	\$ (60,000)	(100.0)
			2018	— \$	60,000		
7460	Main Office Complex Building Services	\$ —	2019	— \$	1,813,000	\$ 503,000	38.4
			2018	— \$	1,310,000		
7491	Automotive Fleet Procurement	\$ 915,205	2019	— \$	180,000	\$ (720,000)	(80.0)
			2018	— \$	900,000		
7801	Information Technology Services - General Administration	\$ 17,848	2019	— \$	—	\$ —	—
			2018	— \$	—		
Totals		\$ 13,793,263	2019	— \$	18,340,300	\$ (7,740,300)	(29.7)%
			2018	— \$	26,080,600		

Projects budgeted in the Construction Fund, a pay-as-you-go capital fund, are prioritized based on operational needs, design time frames, and available funding. Year-over-year variances in program area budgets are the result of project timing within the five-year capital planning cycle.

201 50000	Fund: Construction Department: Engineering	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
612240	Testing and Inspection Services	\$ 43,366	\$ 1,016,000	\$ 1,016,000	\$ 680,000	\$ 1,270,000	\$ 1,270,000	\$ 1,303,000
612400	Intergovernmental Agreements	82,000	70,000	70,000	64,300	68,500	68,500	1,068,500
612430	Payments for Professional Services	1,650,905	3,282,100	3,282,100	2,580,700	1,357,400	1,194,400	1,131,200
612440	Preliminary Engineering Reports and Studies	—	50,000	213,000	23,000	50,000	213,000	213,000
612450	Professional Engineering Services for Construction Projects	—	1,834,400	1,671,400	11,900	—	—	—
612490	Contractual Services, N.O.C.	29,350	50,000	50,000	—	50,000	50,000	50,000
612600	Repairs to Collection Facilities	284,987	—	—	—	—	—	—
200	TOTAL CONTRACTUAL SERVICES	2,090,608	6,302,500	6,302,500	3,359,900	2,795,900	2,795,900	3,765,700
634600	Equipment for Collection Facilities	—	665,000	572,000	336,800	480,000	480,000	641,000
634620	Equipment for Waterway Facilities	202,377	110,000	163,000	143,600	—	—	17,000
634650	Equipment for Process Facilities	308,100	1,958,000	1,943,000	1,422,100	1,564,000	1,514,000	1,297,000
634760	Material Handling and Farming Equipment	—	975,000	2,140,000	2,083,600	740,000	740,000	740,000
634810	Computer Equipment	240,887	406,000	406,000	404,000	—	—	—
634820	Computer Software	35,000	85,000	85,000	45,000	—	—	45,000
634840	Communications Equipment (Includes Software)	67,459	64,100	64,100	40,900	150,000	150,000	150,000
634860	Vehicle Equipment	1,882,968	1,134,000	1,209,000	1,012,600	—	—	180,000
634990	Machinery and Equipment, N.O.C.	139,028	—	—	—	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	2,875,818	5,397,100	6,582,100	5,488,600	2,934,000	2,884,000	3,070,000
645600	Collection Facilities Structures	949,998	876,000	1,276,000	762,100	300,000	300,000	300,000
645620	Waterway Facilities Structures	—	75,000	75,000	—	—	—	—
645650	Process Facilities Structures	1,021,242	2,526,500	2,526,500	1,057,300	2,109,000	2,109,000	1,209,000
645680	Buildings	849,589	3,781,000	3,596,000	1,883,700	2,936,000	2,936,000	3,061,000
645690	Capital Projects, N.O.C.	3,065,725	2,625,000	625,000	138,500	1,388,000	1,388,000	1,388,000
645700	Preservation of Collection Facility Structures	—	1,140,000	667,200	—	2,505,000	2,805,000	2,540,000
645720	Preservation of Waterway Facility Structures	—	650,000	674,000	624,000	300,000	300,000	300,000
645750	Preservation of Process Facility Structures	618,498	832,600	1,082,600	373,400	1,232,800	1,232,800	1,414,800
645780	Preservation of Buildings	2,321,786	1,796,300	2,595,100	2,177,800	1,048,000	1,108,000	1,238,200

201 50000	Fund: Construction Department: Engineering	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
645790	Preservation of Capital Projects, N.O.C.	—	78,600	78,600	30,500	53,600	53,600	53,600
500	TOTAL CAPITAL PROJECTS	8,826,837	14,381,000	13,196,000	7,047,300	11,872,400	12,232,400	11,504,600
TOTAL CONSTRUCTION FUND		\$ 13,793,263	\$ 26,080,600	\$ 26,080,600	\$ 15,895,800	\$ 17,602,300	\$ 17,912,300	\$ 18,340,300
NOTES: 1. Amounts may not add up due to rounding. 2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated.								



## 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) preservation/rehabilitation of existing infrastructure to maintain service levels, (b) improvement of environmental quality, 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 2018 Accomplishments

The District's Capital Improvements Bond Fund is grouped into three categories: preservation of infrastructure, improvement of environmental quality, and commitment to community.

#### Preservation of Infrastructure

- Completed the rehabilitation of the Salt Creek Intercepting Sewer 2 and the Calumet Intercepting Sewer 19F;
- Completed the installation of new pumps and mechanical screens at the Calumet TARP (Tunnel and Reservoir Plan) Pump Station;
- Completed the rehabilitation of Pump 8 at the Mainstream Pumping Station;
- Awarded construction contracts to rehabilitate the Summit Conduit, rehabilitate the North Branch Pumping Station, repair structures and replace the roof at the 95th Street Pumping Station, and replace switchgear and the Motor Control Center at the O'Brien Water Reclamation Plant (WRP).

#### Improvement of Environmental Quality

- Commenced operation of an energy-efficient nitrogen removal system, ANITA™ Mox, for the centrate at the Egan WRP. ANITA™ Mox de-nitrifies the centrate rather than conveying the centrate to the O'Brien WRP;
- Completed automation of air valves to allow better control of air usage for the Enhanced Biological Phosphorus Removal process at the Stickney WRP.

#### Commitment to Community

- Completed the replacement of electrical switchgear at the Devon Instream Aeration Station to improve the health of the waterway.

#### Budget Highlights

The 2019 appropriation for the Capital Improvements Bond Fund is \$378,173,800, an increase of \$65,190,900, or 20.8 percent, from 2018. There are no staff positions budgeted in the Capital Improvements Bond Fund. The 2019 appropriation includes construction costs for capital projects to be awarded in 2019 in the amount of \$333,438,000 including funding for stormwater management capital projects. The remaining \$44,735,800 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 2019 Budget are:

#### Preservation of Infrastructure

- Continue Phase II rehabilitation of the service and connecting tunnels at the Stickney WRP;
- Continue construction to replace electrical switchgear at the Stickney WRP;
- Award contracts to rehabilitate the digester and replace gas piping at the Stickney WRP, upgrade the digester sludge heating system and remove a boiler at the Calumet WRP, rehabilitate TARP pumps at the Mainstream Pumping Station, rehabilitate the pump and blower house at the O'Brien WRP, replace Section 1 of the North Side Sludge Pipeline, rehabilitate the North Shore 1 Intercepting Sewer, rehabilitate the Upper Des Plaines 14B Intercepting Sewer, replace tailrace stop logs, headrace gates, and equipment at the Lockport Powerhouse, and rehabilitate pumps and replace the diverter gate at the Egan WRP.

#### Improvement of Environmental Quality

- Continue construction of the Des Plaines Inflow Tunnel at the McCook Reservoir;
- Continue the conversion of two gravity concentration tanks to primary sludge fermenters at the Stickney WRP;
- Continue construction of baffle plates on final settling tanks to improve effluent quality at the O'Brien WRP.

#### Commitment to Community

- Award a contract to furnish and install an odor control system at the Thornton Reservoir Gate and Construction Shafts.

**2019 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 in 2018, Stage 1 of the McCook Reservoir was fully operational and captured more than 15 billion gallons of combined sewer overflow from 37 communities in Cook County. This first stage of the reservoir provides 3.5 billion gallons of storage and benefits the health and welfare of 3.1 million area residents.

The Engineering Department has developed odor control strategies at several of the WRPs to reduce the odor emissions that affect the District's neighbors and staff. Three projects are planned to be under construction in 2019 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. A biotrickling filter and carbon polisher unit will be constructed to effectively treat the odor emissions.

**• Excellence**

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**

Four of the District's WRPs produce digester gas, also known as "biogas," which is a byproduct of the anaerobic digestion process. Biogas is used as a fuel source in boilers at the four WRPs to produce steam or hot water which is used to heat the digesters and plant buildings. However, not all of the biogas is fully utilized throughout the year. The District will evaluate technologies and opportunities for utilizing 100 percent of the biogas production at each of the WRPs to increase the quantity of resources recovered, reduce dependence on purchased energy, and reduce the District's carbon footprint. The District will also investigate pre-digestion treatment technologies and processes which may increase biogas production. Analysis of options will include a review of financial return on investment, carbon offsets, and market risks.

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. In 2018, the District sold reclaimed wastewater to Intren, LLC, a Women-owned Business Enterprise and innovative utility solutions partner of the energy industry. While the amount sold was relatively small, it was an important step to promote conservation and recycling and demonstrate the feasibility and benefits of water reuse. Additionally, Koppers, Inc., a global manufacturer and distributor located near the Stickney WRP, continues to express interest in pursuing reuse water at their plant and the District continues to look for other opportunities to supply reclaimed water.

In order to optimize aeration processes and reduce energy consumption, the Engineering Department has worked with the Monitoring & Research and Maintenance & Operations Departments to implement an ammonia control system. 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 Engineering Department Capital Improvement Program project that includes administrative and procedural requirements for the recycling and disposing of non-hazardous construction and demolition waste. The waste 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.

## Capital Improvements Bond Fund Program

<b>Awards in 2019</b>					
Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date	
Drop Shaft 5 Inspection and Rehabilitation, NSA	14-372-3S	\$ 3,500	212	Jan 2019	
Furnish, Deliver, and Install Disc Filters, EWRP	18-702-31	4,000	730	Jan 2019	
Energy Efficiency Improvements, SWRP	19-901-31	5,820	364	Jan 2019	
Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA	15-830-3D	10,120	943	Feb 2019	
Phosphorus Removal Struvite Facilities at the Fox River Water Reclamation District	18-IGA-35	2,639	659	Feb 2019	
Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP	17-134-3M	17,250	603	Mar 2019	
Digester Rehabilitation and Gas Piping Replacement, SWRP	17-140-3P	15,000	704	Mar 2019	
Installation and Removal of Cofferdam at Sluice Gate No. 2, Lockport Powerhouse Controlling Works, SSA	18-607-31	350	305	Mar 2019	
Rehabilitate One Electric Motor, SWRP	19-902-31	300	299	Mar 2019	
Furnish, Deliver, and Install Three Bar Screens, KWRP	18-703-31	1,350	713	Apr 2019	
Rehabilitation of Gravity Concentration Tank, CWRP	18-803-31	1,650	487	Apr 2019	
Phosphorus Removal Liquid Facilities at the Fox River Water Reclamation District	18-IGA-36	9,762	921	Apr 2019	
North Side Sludge Pipeline Replacement - Section 1, NSA	07-027-3S	14,327	922	May 2019	
<b>Odor Control Systems at Two TARP Shafts and Decommissioning the Thornton Transitional Reservoir, CSA</b>	15-266-4H	5,000	452	May 2019	
Modifications to TARP Structures, CSA and SSA	17-842-3H	3,500	317	May 2019	
Digester Sludge Heating System Upgrades and Boiler Removal, CWRP	18-277-3M	10,500	493	Jun 2019	
Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP	15-069-3D	10,000	903	Aug 2019	
Rehabilitation of TARP Pumps, MSPS	18-144-3M	16,500	672	Oct 2019	
Furnish, Deliver, and Install Disc Filters for Filters 3 and 4, HPWRP	19-701-31	1,400	517	Oct 2019	
Roof Replacement of the Lue-Hing M&R Complex, SWRP	17-135-3V	6,500	493	Nov 2019	
Rehabilitation of Elevator Shafts, MSPS	18-142-3H	1,500	412	Nov 2019	
Rehabilitation of Locomotive Terminal Building, SWRP	18-143-3D	2,750	532	Nov 2019	
Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP	18-248-3P	1,000	252	Nov 2019	
Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	06-360-3S	6,700	313	Dec 2019	
North Shore 1 Rehabilitation, NSA	10-047-3S	22,750	602	Dec 2019	
Stickney Effluent Reuse Line, SSA	14-107-3S	800	193	Dec 2019	
Pump Rehabilitation and Diverter Gate Installation, EWRP	16-412-3M	550	550	Dec 2019	
Utility Tunnel Cracks and Expansion Joints Rehabilitation, OWRP, KWRP, EWRP, HPWRP	17-843-3D	3,000	682	Dec 2019	
<b>Total 2019 Awards</b>		<b>\$ 178,518</b>			

**Projects Under Development**

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	16-127-3D	\$ 17,000	1,047	Jan 2020
Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-128-3D	2,000	381	Jan 2020
BioP Pilot Study, EWRP	18-414-3P	500	364	Mar 2020
39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS	24,700	690	Apr 2020
Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-130-3D	2,000	472	May 2020
Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S	5,500	402	Jun 2020
Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S	5,500	402	Jul 2020
Battery A Final Settling Tanks, Rehabilitation of Concrete, SWRP	08-174-3D	2,000	450	Aug 2020
Gate Control Equipment Upgrade at TARP Control Structures, KWRP	06-358-3M	2,200	552	Nov 2020
Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-129-3D	2,000	472	Nov 2020
Digester Rehabilitation and Gas Piping Replacement, CWRP	18-253-3P	15,000	772	Nov 2020
Palos Hills Pumping Station Force Main, CSA	11-242-3S	6,700	572	Feb 2021
Digester Rehabilitation and Gas Piping Replacement - Phase II, SWRP	18-148-3P	11,500	1,082	Feb 2021
Deammonification System, SWRP	13-101-3P	30,000	503	May 2021
Plant Improvements, HPWRP	18-540-3P	20,000	1,080	Jul 2021
<b>McCook Reservoir Expanded Stage 2 Rock Wall Stabilization, SWRP</b>	17-131-4F	5,000	1,230	Jan 2022
<b>McCook Reservoir Expanded Stage 2 Aeration and Floor Features, SSA</b>	17-132-4F	2,000	317	Jan 2026
Total Future Awards		<u>\$ 153,600</u>		
Cumulative 2019 and Future Awards		<u>\$ 332,118</u>		

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."**

	<b>Method of Financing</b>		
	State Revolving Fund Loans	General Obligation Bonds	Total
Tunnel and Reservoir Plan	\$ 16,500	\$ 15,470	\$ 31,970
Water Reclamation Plant	54,750	55,671	110,421
Expansion and Improvements	—	—	—
Solids Management	69,827	26,500	96,327
Collection Facilities	61,650	31,750	93,400
Replacement of Facilities	—	—	—
Other	—	—	—
	<u>\$ 202,727</u>	<u>\$ 129,391</u>	<u>\$ 332,118</u>



**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. Substantial Completion Date
<b>Thornton Composite Reservoir Mining, Land, and Corp Costs, CSA</b>	77-235-2F	\$ 52,806	Jun 1998	Oct 2020
<b>McCook Reservoir Stages 1 &amp; 2, SSA</b>	73-161-2H	137,500	May 1999	Oct 2023
Salt Creek Intercepting Sewer 2 Rehabilitation, SSA	06-155-3S	44,442	Dec 2015	Apr 2019
D799 Switchgear Replacement, SWRP	09-182-3E	12,771	Dec 2015	Mar 2020
A/B & C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	04-132-3D	20,906	May 2016	May 2019
Calumet Intercepting Sewer 19F Rehabilitation, CSA	11-239-3S	14,239	Jun 2016	Jan 2019
<b>McCook Reservoir Des Plaines Inflow Tunnel, SSA</b>	13-106-4F	107,831	Jun 2016	May 2020
Painting of Final Tanks, Various Locations	17-601-31	1,582	Jul 2017	Dec 2019
Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP	15-124-3P	4,095	Sep 2017	Jun 2019
Furnish, Deliver, and Install Boiler Controls, SWRP	16-901-31	1,224	Sep 2017	Mar 2019
Installation of Baffle Plates in Final Settling Tanks, OWRP	15-074-3D	1,405	Nov 2017	Aug 2019
Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP	17-902-31	2,595	Dec 2017	Jan 2021
Heavy Equipment Storage Building Site Improvements, Bulk Material Storage Building, CWRP and OWRP	17-845-3P	1,962	Apr 2018	Mar 2019
Emerson Ovation Distributed Control System, NSA	18-704-31	1,802	May 2018	Nov 2019
Rehabilitation of North Branch Pumping Station, NSA	16-079-3D	4,613	Aug 2018	Nov 2019
Summit Conduit Rehabilitation, SSA	16-126-3SR	2,900	Aug 2018	Jul 2019
Switchgear & Motor Control Center Replacement, OWRP	17-080-3E	3,577	Sep 2018	Jul 2020
Structural Repairs and Roofing Replacement at 95th Street Pumping Station, CSA	17-276-3D	5,000	Nov 2018	Sep 2020
Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	17-606-31	545	Nov 2018	Oct 2019
Furnish, Deliver, and Install Odor Control System, KWRP, HPWRP, and CWRP	17-844-3P	4,347	Dec 2018	Apr 2020
Total Projects Under Construction		\$ 426,142		

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."**

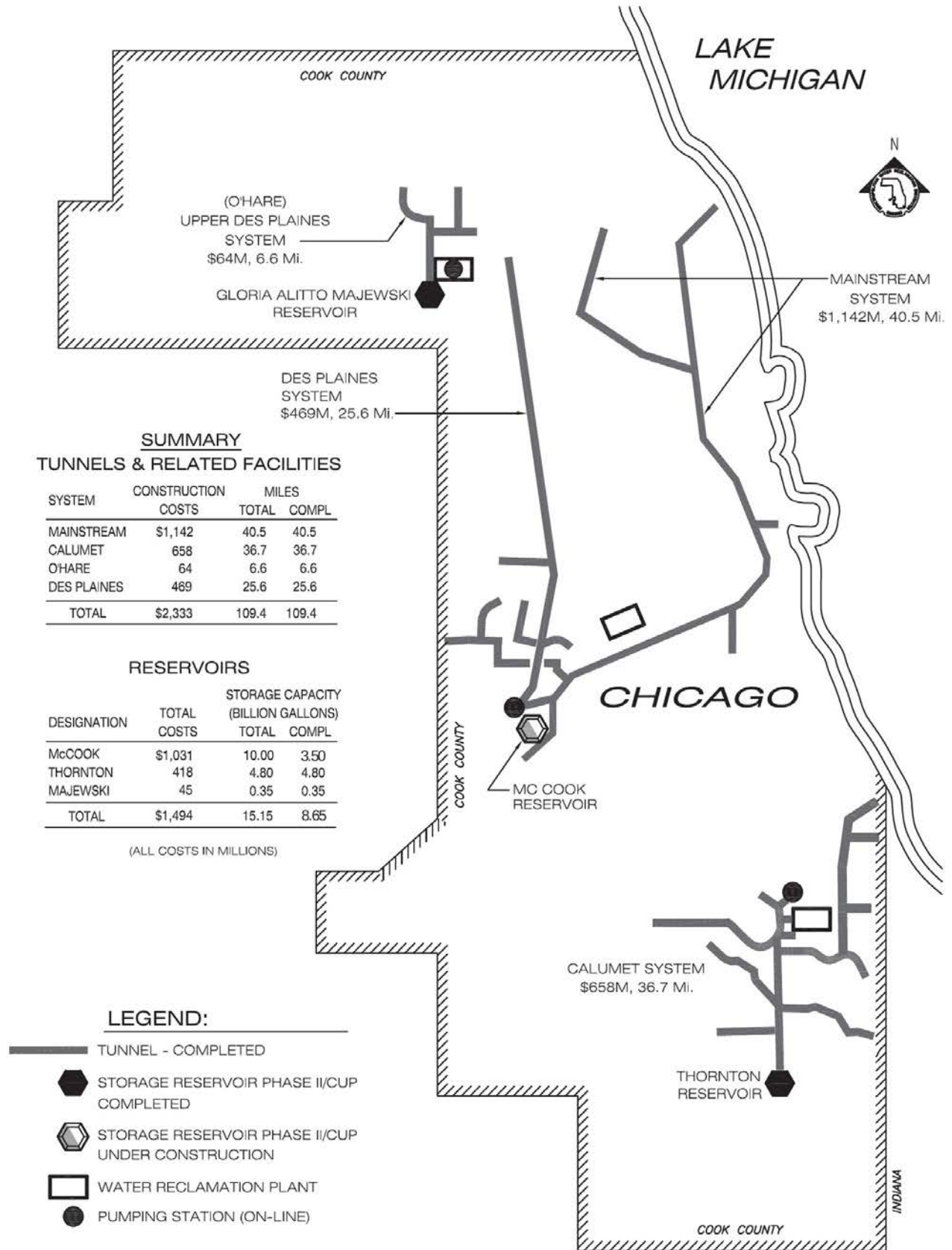
## TARP PHASE II PROJECT COSTS

Phase I of TARP was completed in 2006 and two of the Phase II reservoirs, Majewski and Thornton, are now fully 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
<b>Majewski Reservoir</b>				
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
<b>Thornton Reservoir</b>				
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	
<b>McCook Reservoir</b>				
I - Stages 1 and 2 - Army Corps of Engineers Contracts	73-161-2H	Reservoir constructed under several contracts	\$675,000,000	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	\$8,765,000	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			\$1,494,213,552	

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.



# 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 2019 award, or under development.

**Bold type indicates projects to be financed by "Unlimited Tax Bonds."**

**STICKNEY  
SERVICE  
AREA (SSA)**



**Stickney Water Reclamation Plant (SWRP)**

<b>Projects Under Construction</b>		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>73-161-2H</b>	<b>McCook Reservoir Stages 1 &amp; 2, SSA</b>	10/23	\$ 137,500,000
04-132-3D	A/B & C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP	5/19	20,905,936
06-155-3S	Salt Creek Intercepting Sewer 2 Rehabilitation, SSA	4/19	44,442,285
09-182-3E	D799 Switchgear Replacement, SWRP	3/20	12,770,509
<b>13-106-4F</b>	<b>McCook Reservoir Des Plaines Inflow Tunnel, SSA</b>	5/20	107,830,897
14-263-3F	^ Melvina Ditch Reservoir Improvements, SSA	5/21	14,245,000
15-124-3P	Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP	6/19	4,094,860
16-126-3SR	Summit Conduit Rehabilitation, SSA	7/19	2,900,000
16-901-31	Furnish, Deliver, and Install Boiler Controls, SWRP	3/19	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	6/19	8,000,000
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	2/19	3,625,000
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	5/20	4,681,000
16-IGA-20	^ Pilot Study for Investigating Technology to Address Basement Backups, CSA and SSA	12/20	400,000
17-601-31	Painting of Final Tanks, Various Locations	12/19	1,582,100
17-606-31	Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	10/19	545,000
17-902-31	Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP	1/21	2,595,000
		<b>Total</b>	<b>\$ 367,341,587</b>

**Stickney Water Reclamation Plant (SWRP)**

**Projects for 2019 Award**

		<b>Estimated Construction Cost</b>
11-186-3F	^ Addison Creek Reservoir, SSA	\$ 95,760,600
11-187-3F	^ Addison Creek Channel Improvements, SWRP	42,700,000
14-107-3S	Stickney Effluent Reuse Line, SSA	800,000
15-830-3D	Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA	10,120,000
17-134-3M	Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP	17,250,000
17-135-3V	Roof Replacement of the Lue-Hing M&R Complex, SWRP	6,500,000
17-140-3P	Digester Rehabilitation and Gas Piping Replacement, SWRP	15,000,000
17-842-3H	Modifications to TARP Structures, CSA and SSA	3,500,000
18-142-3H	Rehabilitation of Elevator Shafts, MSPS	1,500,000
18-143-3D	Rehabilitation of Locomotive Terminal Building, SWRP	2,750,000
18-144-3M	Rehabilitation of TARP Pumps, MSPS	16,500,000
18-607-31	Installation and Removal of Cofferdam at Sluice Gate No. 2, Lockport Powerhouse Controlling Works, SSA	350,000
19-901-31	Energy Efficiency Improvements, SWRP	5,820,000
19-902-31	Rehabilitate One Electric Motor, SWRP	300,000
Total		<b>\$ 218,850,600</b>

**Projects Under Development**

01-103-AS	39th Street Conduit Rehabilitation - Phase II, SSA	\$ 24,700,000
08-174-3D	Battery A Final Settling Tanks, Rehabilitation of Concrete, SWRP	2,000,000
13-101-3P	Deammonification System, 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
<b>17-131-4F</b>	<b>McCook Reservoir Expanded Stage 2 Rock Wall Stabilization, SWRP</b>	5,000,000
<b>17-132-4F</b>	<b>McCook Reservoir Expanded Stage 2 Aeration and Floor Features, SSA</b>	2,000,000
18-148-3P	Digester Rehabilitation and Gas Piping Replacement - Phase II, SWRP	11,500,000
Total		<b>\$ 98,200,000</b>
Stickney Service Area Grand Total		<b>\$ 684,392,187</b>

**NORTH SERVICE AREA (NSA)**



**Terrence J. O'Brien Water Reclamation Plant (OWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
15-074-3D	Installation of Baffle Plates in Final Settling Tanks, OWRP	8/19	\$ 1,405,000
16-079-3D	Rehabilitation of North Branch Pumping Station, NSA	11/19	4,613,450
17-080-3E	Switchgear & Motor Control Center Replacement, OWRP	7/20	3,577,000
18-704-31	Emerson Ovation Distributed Control System, NSA	11/19	1,802,000
		<b>Total</b>	<b>\$ 11,397,450</b>
<b>Projects for 2019 Award</b>			
07-027-3S	North Side Sludge Pipeline Replacement - Section 1, NSA		\$ 14,326,850
10-047-3S	North Shore 1 Rehabilitation, NSA		22,750,000
15-069-3D	Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP		10,000,000
17-843-3D	Utility Tunnel Cracks and Expansion Joints Rehabilitation, OWRP, KWRP, EWRP, HPWRP		3,000,000
18-IGA-35	Phosphorus Removal Struvite Facilities at the Fox River Water Reclamation District		2,639,400
18-IGA-36	Phosphorus Removal Liquid Facilities at the Fox River Water Reclamation District		9,761,700
		<b>Total</b>	<b>\$ 62,477,950</b>

**John E. Egan Water Reclamation Plant (EWRP)**

<b>Projects for 2019 Award</b>			
16-412-3M	Pump Rehabilitation and Diverter Gate Installation, EWRP		\$ 550,000
18-702-31	Furnish, Deliver, and Install Disc Filters, EWRP		4,000,000
		<b>Total</b>	<b>\$ 4,550,000</b>
<b>Project Under Development</b>			
11-404-3S	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA		\$ 5,500,000
18-414-3P	BioP Pilot Study, EWRP		500,000
		<b>Total</b>	<b>\$ 6,000,000</b>

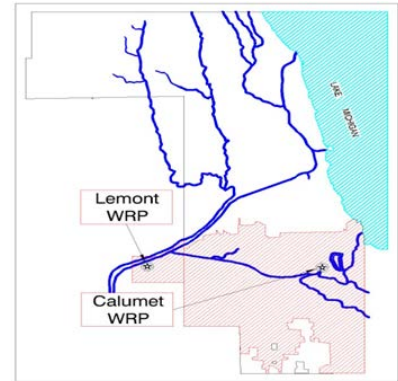
**James C. Kirie Water Reclamation Plant (KWRP)**

<b>Projects Under Construction</b>			
13-370-3F	^* Buffalo Creek Reservoir Expansion, NSA	3/20	\$ 8,597,900
		<b>Total</b>	<b>\$ 8,597,900</b>

**James C. Kirie Water Reclamation Plant (KWRP)**

		<b>Estimated Construction Cost</b>
<b>Projects for 2019 Award</b>		
06-360-3S	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	\$ 6,700,000
14-372-3S	Drop Shaft 5 Inspection and Rehabilitation, NSA	3,500,000
18-703-31	Furnish, Deliver, and Install Three Bar Screens, KWRP	1,350,000
	Total	<u>\$ 11,550,000</u>
<b>Projects Under Development</b>		
06-358-3M	Gate Control Equipment Upgrade at TARP Control Structures, KWRP	\$ 2,200,000
12-369-3S	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	5,500,000
	Total	<u>\$ 7,700,000</u>
<b>Hanover Park Water Reclamation Plant (HPWRP)</b>		
<b>Projects for 2019 Award</b>		
19-701-31	Furnish, Deliver, and Install Disc Filters for Filters 3 and 4, HPWRP	\$ 1,400,000
	Total	<u>\$ 1,400,000</u>
<b>Projects Under Development</b>		
18-540-3P	Plant Improvements, HPWRP	\$ 20,000,000
	Total	<u>\$ 20,000,000</u>
	North Service Area Grand Total	<u><u>\$ 133,673,300</u></u>

**CALUMET  
SERVICE  
AREA (CSA)**



**Calumet Water Reclamation Plant (CWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
77-235-2F	<b>Thornton Composite Reservoir Mining, Land, and Corp Costs, CSA</b>	10/20	\$ 52,805,539
11-239-3S	Calumet Intercepting Sewer 19F Rehabilitation, CSA	1/19	14,238,856
17-276-3D	Structural Repairs and Roofing Replacement at 95th Street Pumping Station, CSA	9/20	5,000,000
17-844-3P	Furnish, Deliver, and Install Odor Control System, KWRP, HPWRP, and CWRP	4/20	4,347,000
17-845-3P	Heavy Equipment Storage Building Site Improvements, Bulk Material Storage Building, CWRP and OWRP	3/19	1,961,700
		Total	<b>\$ 78,353,095</b>
<b>Projects for 2019 Award</b>			
10-882-AF	^ Streambank Stabilization Project on Tinley Creek, CSA		\$ 3,806,000
13-248-3F	^ Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA		8,800,000
15-266-4H	<b>Odor Control Systems at Two TARP Shafts and Decommissioning the Thornton Transitional Reservoir, CSA</b>		5,000,000
15-IGA-14	^* Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA		3,483,000
17-IGA-04	^ Land Acquisition for a Flood Control Project in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA		370,000
18-248-3P	Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP		1,000,000
18-277-3M	Digester Sludge Heating System Upgrades and Boiler Removal, CWRP		10,500,000
18-803-31	Rehabilitation of Gravity Concentration Tank, CWRP		1,650,000
		Total	<b>\$ 34,609,000</b>
<b>Projects Under Development</b>			
11-242-3S	Palos Hills Pumping Station Force Main, CSA		\$ 6,700,000
18-253-3P	Digester Rehabilitation and Gas Piping Replacement, CWRP		15,000,000
		Total	<b>\$ 21,700,000</b>
		Calumet Service Area Grand Total	<b>\$ 134,662,095</b>
		Capital Projects Grand Total - All Service Areas	<b>\$ 952,727,582</b>

^ 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.



### McCook Reservoir Stages 1 & 2, SSA

**Project Number** 73-161-2H

**Service Area** Stickney

**Location** Lawndale Avenue Solids Management Area

**Engineering Consultant** Army Corps of Engineers

**Engineering Contractor** Army Corps of Engineers

**Estimated Construction Cost** \$137,500,000

**Contract Award Date** May-99

**Substantial Completion Date** October-23



**Project Description** The Army Corps of Engineers is responsible for designing and constructing the reservoir features of this project. This work includes groundwater protection, soil and rock wall stabilization, aeration, connecting tunnels, associated gates, valves, shafts and controls, and other miscellaneous features.

The McCook Reservoir will provide 10 billion gallons of storage for combined sewer overflows located at the Lawndale Avenue Solids Management Area facility and will be built in two stages. As the local sponsor, the District will pay 25 percent of the total cost.

**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 McCook Reservoir will provide \$143 million per year in benefits to 3.1 million people in 37 communities.

**Project Status** Construction

### Thornton Composite Reservoir Mining, Land, and Corp Costs, CSA

**Project Number** 77-235-2F

**Service Area** Calumet

**Location** Thornton TARP

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$52,805,539

**Contract Award Date** June-98

**Substantial Completion Date** October-20



**Project Description** An agreement was entered into between the District and Material Service Corporation for the mining required for the Thornton Composite Reservoir. The terms of the agreement provide for reimbursement of the costs associated with acquisition of the north lobe of the Thornton Quarry and costs associated with the mining operation and use of the west lobe for the transitional reservoir.

**Project Justification** This project allows for the use of the Thornton Composite Reservoir to capture combined sewer overflows and for the Thornton Transitional Reservoir to capture flood waters from Thorn Creek.

**Project Status** Construction

### A/B & C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP

<b>Project Number</b>	04-132-3D
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	IHC Construction Companies, LLC and F.H. Paschen, S.N. Nielsen Joint Venture
<b>Estimated Construction Cost</b>	\$20,905,936
<b>Contract Award Date</b>	May-16
<b>Substantial Completion Date</b>	May-19



**Project Description** This project will rehabilitate approximately 200 feet of the A/B Service Tunnel north of Column Line 10, 135 feet of the C/D Service Tunnel between Column Lines 10 and 25, and 150 feet of the service tunnel connecting the A/B and C/D Service Tunnels. Significant structural deterioration has occurred since the tunnels were constructed approximately 77 years ago. (This project combines the scope of work for projects 04-132-3D and 04-133-3D.)

**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** Construction

## 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

**Engineering Contractor** Kenny Construction Company

**Estimated Construction Cost** \$44,442,285

**Contract Award Date** December-15

**Substantial Completion Date** April-19



**Project Description** This project consists of rehabilitating approximately 32,800 feet of intercepting sewer with sizes ranging from 10-inch diameter to seven-foot by seven-foot 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** Construction

## Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA

**Project Number** 06-360-3S

**Service Area** North

**Location** Wheeling, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$6,700,000

**Contract Award Date** December-19

**Substantial Completion Date** October-20



**Project Description** This project consists of rehabilitating 2,902 feet of 48-inch diameter sewer and 11,902 feet of 69-inch diameter sewer by cured-in-place pipe lining and/or the slip lining method, rehabilitating 27 manholes/structures and the abandonment of one offset manhole.

**Project Justification** The sewers were inspected by the Maintenance & Operations Department with a closed-circuit television inspection system. The video inspection tapes show cracks (circular and longitudinal), sewage solids deposits, sags, offset joints, root intrusion, infiltration, and concrete erosion. Physical inspection of the manholes revealed cracks and holes in the walls and bases of the manholes and in one offset manhole, which is part of a control structure, and 85 feet of 3.5-foot by 4.5-foot pipe.

**Project Status** Design

## North Side Sludge Pipeline Replacement - Section 1, NSA

**Project Number** 07-027-3S

**Service Area** North

**Location** Skokie, Lincolnwood, and Chicago, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$14,326,850

**Contract Award Date** May-19

**Substantial Completion Date** November-21

**Project Description** The purpose of this project is to replace Section 1 of the existing North Side Sludge Pipeline and rehabilitate 42 existing structures located in the Villages of Skokie and 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 will be removed and replaced. New automatic air release valves will be installed in the remaining existing structures to preserve the useful life of those structures.

**Project Status** Design



### D799 Switchgear Replacement, SWRP

**Project Number** 09-182-3E  
**Service Area** Stickney  
**Location** Stickney WRP  
**Engineering Consultant** In-house design  
**Engineering Contractor** Electrical Systems, Inc.



**Estimated Construction Cost** \$12,770,509

**Contract Award Date** December-15

**Substantial Completion Date** March-20

**Project Description** This project replaces the medium voltage switchgear and feeder cables in D799 at the Stickney WRP. This equipment is beyond its useful life and must be replaced. The new equipment will be arc flash resistant to comply with new electrical codes.

**Project Justification** The medium voltage switchgear and cables are over 30 years old. Failure of a tie breaker in 2009 caused the Stickney WRP facility to be out of service. Replacement of the switchgear would improve reliability, reduce the risk of failure, provide enhanced safety features, and provide for future expansion (proposed new Monitoring & Research laboratory and disinfection facility). Due to the switchgear's condition, the increased risk of failure necessitates its replacement to ensure the appropriate level of service. Recent inspection and testing revealed the potential of an incipient failure of the cables. They will be replaced to avoid a catastrophic failure.

**Project Status** Construction

### North Shore 1 Rehabilitation, NSA

**Project Number** 10-047-3S

**Service Area** North

**Location** Kenilworth, Winnetka, and Wilmette, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$22,750,000

**Contract Award Date** December-19

**Substantial Completion Date** August-21



**Project Description** This project will rehabilitate a 10,110-foot long, six-foot by nine-foot sewer, a 4,257-foot long, six-foot by eight-foot sewer, and 22 manhole structures in Kenilworth, Winnetka, and Wilmette.

**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. Construction of new manholes along the Evanston Intercepting Sewer is necessary to provide access to the sewer at pipe bends and longer segments. Rehabilitation of the North Shore 1 manholes is required because the manholes were not rehabilitated when that sewer was rehabilitated in 1998.

**Project Status** Design



### Calumet Intercepting Sewer 19F Rehabilitation, CSA

**Project Number** 11-239-3S

**Service Area** Calumet

**Location** Bremen Township and Proviso Township

**Engineering Consultant** In-house design

**Engineering Contractor** Insituform Technologies USA, LLC

**Estimated Construction Cost** \$14,238,856

**Contract Award Date** June-16

**Substantial Completion Date** January-19



**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 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** Construction

### McCook Reservoir Des Plaines Inflow Tunnel, SSA

**Project Number** 13-106-4F

**Service Area** Stickney

**Location** Lawndale Avenue Solids Management Area

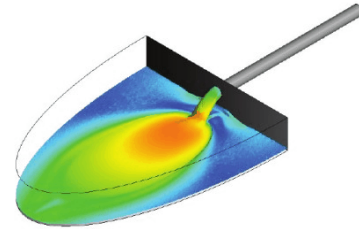
**Engineering Consultant** Black & Veatch Corporation, Inc.

**Engineering Contractor** Walsh Construction Company II, LLC

**Estimated Construction Cost** \$107,830,897

**Contract Award Date** June-16

**Substantial Completion Date** May-20



**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 duct banks, 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** Construction

### Stickney Effluent Reuse Line, SSA

**Project Number** 14-107-3S

**Service Area** Stickney

**Location** Stickney, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$800,000

**Contract Award Date** December-19

**Substantial Completion Date** July-20

**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.

This project will be used to design a force main between the Stickney WRP and Koppers, Inc., a distiller of coal tar. The force main will deliver effluent water from the Stickney WRP to the Koppers plant. The District will receive payment for effluent water delivered to the Koppers plant to be used in their industrial processes as gray water. The rate will be determined.

**Project Justification** The project will represent the first of the effluent reuse opportunities and demonstrate the feasibility and benefits of water reuse in the immediate vicinity of the Stickney WRP. The construction of the effluent line will result in an increase to the labor operating budget.

**Project Status** Design



### Drop Shaft 5 Inspection and Rehabilitation, NSA

**Project Number** 14-372-3S

**Service Area** North

**Location** Des Plaines, IL

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,500,000

**Contract Award Date** January-19

**Substantial Completion Date** August-19



**Project Description** The project consists of the following rehabilitation work at Drop Shaft No. 5: Repair drop shaft by means of slip lining, repair 100 feet of 108-inch pipe by the cured-in-place lining process, repair 100 feet of the drop shaft exit conduit by spray-on lining, and the 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 and 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** Design

## 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** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$10,000,000

**Contract Award Date** August-19

**Substantial Completion Date** January-22



**Project Description** This project consists of repairing and rehabilitating the pump and blower house building roof and facade components at the O'Brien WRP. 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 miscellaneous repairs associated or incidental to facade/roof rehabilitation project. The District's 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. In addition, the District will manage the contract budget and payments. The project goal is to rehabilitate the pump and blower house roof and facade and 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. During its 90 years of service, the building experienced maintenance repairs (reroofing, 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 wall were severely corroded. The roof steel beams that are part of the building vertical (gravity) and lateral (wind/seismic) loads resisting system appeared compromised. Additionally, corrosion of the steel can result in severe deterioration of the masonry, water infiltration, and a potential for bulging and falling masonry. The parapet wall distress, which collapsed in May 2013 during the repair, was directly related to the severely corroded steel beams supporting the wall.

**Project Status** Design

### 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

**Engineering Contractor** IHC Construction Companies, LLC



**Estimated Construction Cost** \$1,405,000

**Contract Award Date** November-17

**Substantial Completion Date** August-19

**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** Construction

## Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP

<b>Project Number</b>	15-124-3P
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Independent Mechanical Industries, Inc.
<b>Estimated Construction Cost</b>	\$4,094,860
<b>Contract Award Date</b>	September-17
<b>Substantial Completion Date</b>	June-19



**Project Description** This project will convert two of the new gravity concentration tanks into fermenters and install a pumping station to pump the fermentate directly into the West Side primary effluent conduit feeding the secondary aeration batteries. This project will also install a gas detection system for the new gravity concentration tank building.

**Project Justification** The District is pursuing 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.

**Project Status** Construction

## Odor Control Systems at Two TARP Shafts and Decommissioning the Thornton Transitional Reservoir, CSA

<b>Project Number</b>	15-266-4H
<b>Service Area</b>	Calumet
<b>Location</b>	Thornton, IL
<b>Engineering Consultant</b>	Black & Veatch Corporation, Inc.
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$5,000,000
<b>Contract Award Date</b>	May-19
<b>Substantial Completion Date</b>	July-20



**Project Description** Work associated with decommissioning of the Thornton Transitional Reservoir includes excavation of existing rock plug in Thorn Creek Connection Tunnel, installation of east and west tunnel plugs in Thorn Creek Diversion Tunnel, placement of mass concrete fill between east tunnel plug and connection tunnel, installation of lining and contact grouting in portions of the connection tunnel and diversion tunnel, removal of concrete beams, rock support, and rock in the vicinity of the existing Thornton Transitional Reservoir Portal, removal of sediment in the Thornton Transitional Reservoir, installation of flow meter, bubbler, tubes, and all appurtenances related to flow meter installation in the lower connection tunnel, demolition of the existing 25-ton crane and crane rail within the valve shaft chamber, construction shaft concrete repairs (adjacent to the valve shaft chamber), removal of cone valves, knife gates, adjacent spool pieces, pipe supports, hydraulic power unit, hydraulic lines, and all appurtenant mechanical and electrical work inside the valve chamber, installation of a new dewatering pump, air release valves, gate valves, check valves, meters, piping, fittings and all appurtenant mechanical and electrical work inside the valve chamber, and any appurtenant live tunnel connection work associated with items listed above.

**Project Justification** The District entered into an agreement with Hansen Material Service to extend the lease for use of the Thornton Transitional Reservoir, and the west lobe of the Thornton Quarry, for another five years. This allows the District to utilize the Thornton Transitional Reservoir for holding overbank floodwaters from Thorn Creek while reviewing the capacity of the Thornton Composite Reservoir during its initial years of operation. With this agreement extension through December 2020, several items related to the decommissioning of the Thornton Transitional Reservoir were removed from Project 04-203-4F, Thornton Composite Reservoir Final Preparation. The purpose of this project (15-266-4H) is to complete the items that were removed and credited from Project 04-203-4F in preparation for the decommissioning of the Thornton Transitional Reservoir in late 2020.

**Project Status** Design



## Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA

**Project Number** 15-830-3D

**Service Area** Stickney

**Location** Lockport Powerhouse



**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$10,120,000

**Contract Award Date** February-19

**Substantial Completion Date** September-21

**Project Description** This project will design, fabricate, and install tailrace stop logs for Bays 1 and 2. It will also replace headrace gates, tailrace stop logs, and associated hoist systems.

**Project Justification** Headrace gates in Bays 1 and 2 are not properly functioning. The 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** Design

## 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

**Engineering Contractor** Path Construction Company, Inc.

**Estimated Construction Cost** \$4,613,450

**Contract Award Date** August-18

**Substantial Completion Date** November-19



**Project Description** This project will 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 generally 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** Construction

### Summit Conduit Rehabilitation, SSA

**Project Number** 16-126-3SR

**Service Area** Stickney

**Location** Lyons, IL

**Engineering Consultant** In-house design

**Engineering Contractor** Spiniello Companies, Inc.

**Estimated Construction Cost** \$2,900,000

**Contract Award Date** August-18

**Substantial Completion Date** July-19



**Project Description** This project consists of the rehabilitation of 810 feet of six-foot by seven-foot semi-elliptic cast-in-place concrete sewer and inlet and 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** Construction

## Pump Rehabilitation and Diverter Gate Installation, EWRP

**Project Number** 16-412-3M

**Service Area** North

**Location** Egan WRP

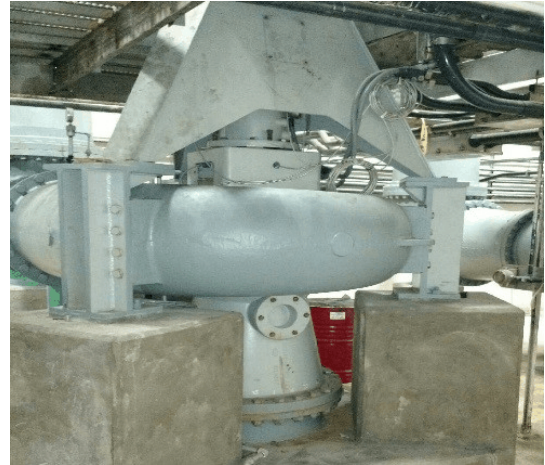
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$550,000

**Contract Award Date** December-19

**Substantial Completion Date** June-21



**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** Design

### Furnish, Deliver, and Install Boiler Controls, SWRP

**Project Number** 16-901-31

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** M.G. Electric Service, Inc.

**Estimated Construction Cost** \$1,224,000

**Contract Award Date** September-17

**Substantial Completion Date** March-19

**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** Construction



### Switchgear & Motor Control Center Replacement, OWRP

**Project Number** 17-080-3E

**Service Area** North

**Location** O'Brien WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Broadway Electric, Inc.

**Estimated Construction Cost** \$3,577,000

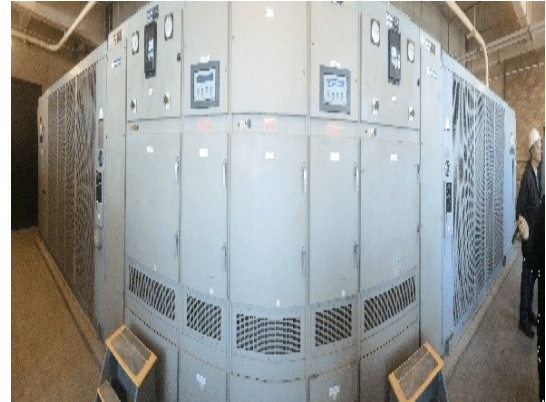
**Contract Award Date** September-18

**Substantial Completion Date** July-20

**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 and 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** Construction



## Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post-Centrifuge Building, SWRP

<b>Project Number</b>	17-134-3M
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$17,250,000
<b>Contract Award Date</b>	March-19
<b>Substantial Completion Date</b>	October-20



**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** An odor control system was evaluated for the anticipated Waste Activated Sludge Stripping to Remove Internal Phosphorus (WASSTRIP®) process, existing sludge holding tanks, overhead weir, sludge screens, and coarse screens located at the Stickney WRP. Currently, odorous air from the sludge holding tanks, overhead weir, and sludge screens is collected but not effectively treated by an ozone odor control system. Odorous air from the coarse screens and adjacent dumpster rooms is collected but not effectively treated by a carbon adsorption system. The WASSTRIP® process is forthcoming but will use existing tanks near the sludge holding tanks. Addressing these odorous sources will help the surrounding community and improve working conditions for plant staff.

**Project Status** Design

### Roof Replacement of the Lue-Hing M&R Complex, SWRP

**Project Number** 17-135-3V

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$6,500,000

**Contract Award Date** November-19

**Substantial Completion Date** April-21

**Project Description** This project will replace roof areas 1, 2, 3, 5, and 6 of the Monitoring & Research (M&R) Department's laboratory at the Stickney WRP. Scope includes a complete tear off of the existing roof membrane in the specified areas, replacement of the roof top equipment that has exceeded its useful life, removal of obsolete roof top equipment, and miscellaneous work associated with the M&R Department's east addition at the Stickney WRP.

**Project Justification** The roof has reached the end of its useful life and needs to be replaced as well as the removal of old, disconnected, and no longer used equipment for safety considerations.

**Project Status** Design





## Digester Rehabilitation and Gas Piping Replacement, SWRP

**Project Number** 17-140-3P

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$15,000,000

**Contract Award Date** March-19

**Substantial Completion Date** February-21



**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** Design

## Structural Repairs and Roofing Replacement at 95th Street Pumping Station, CSA

**Project Number** 17-276-3D

**Service Area** Calumet

**Location** 95th Street Pumping Station

**Engineering Consultant** In-house design

**Engineering Contractor** IHC Construction Companies, LLC

**Estimated Construction Cost** \$5,000,000

**Contract Award Date** November-18

**Substantial Completion Date** September-20




**Project Description** This project consists of replacing water-damaged gypsum roof panels and repairing or reinforcing corroded structural steel members at the upper and lower roof levels. It will 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 trade staff in the Maintenance & Operations Department following structural inspections. Contract 13-249-3J will reroute the roof drain discharge pipes outside the masonry walls to eliminate this source of water. Work under the proposed contract will eliminate the remaining sources of leakage and restore the lost structural capacities of corroded steel members. If the work is not performed, there will be additional roof panel failures and continued corrosion of the steel members will further reduce the safe load carrying capacity of the roof system.

**Project Status** Construction

### Painting of Final Tanks, Various Locations

<b>Project Number</b>	17-601-31	
<b>Service Area</b>	Calumet, North, and Stickney	
<b>Location</b>	Calumet, O'Brien, and Stickney WRPs	
<b>Engineering Consultant</b>	In-house design	
<b>Engineering Contractor</b>	CL Coatings, LLC	
<b>Estimated Construction Cost</b>	\$1,582,100	
<b>Contract Award Date</b>	July-17	
<b>Substantial Completion Date</b>	December-19	
<b>Project Description</b>	This project consists of painting final tanks, including rake arms and walkways, at the Calumet, O'Brien, and Stickney WRPs.	
<b>Project Justification</b>	The paint is peeling, leaving the bare metal exposed, which leads to rust and deterioration. Repairing deteriorated pipes would be more costly than painting.	
<b>Project Status</b>	Construction	

## Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations

<b>Project Number</b>	17-606-31
<b>Service Area</b>	Calumet, North, and Stickney
<b>Location</b>	District-wide
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$545,000
<b>Contract Award Date</b>	November-18
<b>Substantial Completion Date</b>	October-19



**Project Description** This project is to 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 labeled 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** Design

### 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, IL

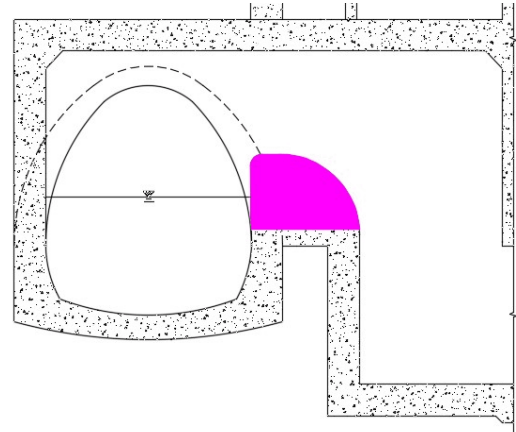
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,500,000

**Contract Award Date** May-19

**Substantial Completion Date** April-20



**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 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 Tunnel and Reservoir Plan 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** Planning

## Utility Tunnel Cracks and Expansion Joints Rehabilitation, OWRP, KWRP, EWRP, HPWRP

<b>Project Number</b>	17-843-3D
<b>Service Area</b>	North
<b>Location</b>	O'Brien, Kirie, Egan, and Hanover Park WRPs
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$3,000,000
<b>Contract Award Date</b>	December-19
<b>Substantial Completion Date</b>	October-21



**Project Description** The project consists of repairing leaking cracks and deteriorated expansion joints inside utility and service tunnels at the the O'Brien, Kirie, Egan, and Hanover Park WRPs.

**Project Justification** The service tunnels and operating galleries at the North Service Area WRPs (O'Brien WRP, Kirie WRP, Egan WRP, and Hanover Park WRP) are of varying ages ranging from approximately 50 to 90 years old. Many of these tunnels were built as a part of the original plant construction. Over time, several of the tunnel expansion joints have deteriorated and leaking cracks have developed in the tunnel walls and slabs. The tunnels/galleries and associated utilities are essential to each plant's functionality and need to remain operational indefinitely. Repairing the deteriorated expansion joints and leaking cracks will extend their useful life and prevent further damage to the utilities inside the tunnels.

**Project Status** Planning

## Furnish, Deliver, and Install Odor Control System, KWRP, HPWRP, and CWRP

**Project Number** 17-844-3P

**Service Area** Calumet and North

**Location** Kirie, Hanover Park, and Calumet WRPs

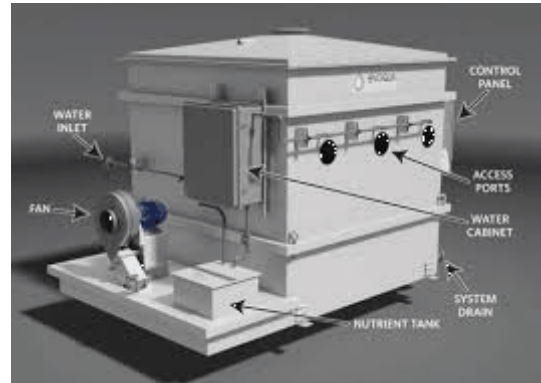
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$4,347,000

**Contract Award Date** December-18

**Substantial Completion Date** April-20



**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), coarse 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 the labor required to change media by 80 hours per year and will reduce the cost of media by \$20,000 annually.

**Project Justification** The purpose of this project is to install new odor control systems at various existing facilities within the Kirie, Hanover Park, and Calumet WRPs. These existing facilities have been emitting odorous air that has been negatively affecting District staff and neighboring communities, including an elementary school adjacent to the Hanover Park WRP. Currently, the odorous facilities either do not have an existing odor control system, or they have a system that is not effective. This project will reduce the odor emissions that affect the District's staff and neighbors.

**Project Status** Planning

## Heavy Equipment Storage Building Site Improvements, Bulk Material Storage Building, CWRP and OWRP

<b>Project Number</b>	17-845-3P
<b>Service Area</b>	Calumet and North
<b>Location</b>	Calumet and O'Brien WRPs
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Rausch Infrastructure, LLC
<b>Estimated Construction Cost</b>	\$1,961,700
<b>Contract Award Date</b>	April-18
<b>Substantial Completion Date</b>	March-19



**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 heavy equipment storage building at the Calumet WRP 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 stormwater 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** Construction



## Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP

**Project Number** 17-902-31

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** IHC Construction Companies, LLC

**Estimated Construction Cost** \$2,595,000

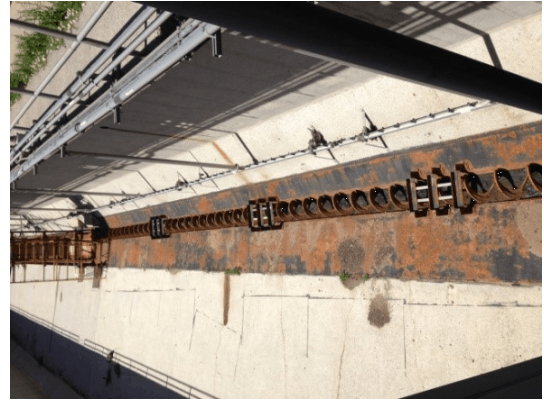
**Contract Award Date** December-17

**Substantial Completion Date** January-21

**Project Description** This project is to 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** Construction



### Rehabilitation of Elevator Shafts, MSPS

**Project Number** 18-142-3H

**Service Area** Stickney

**Location** Mainstream Pumping Station

**Engineering Consultant** To be determined

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,500,000

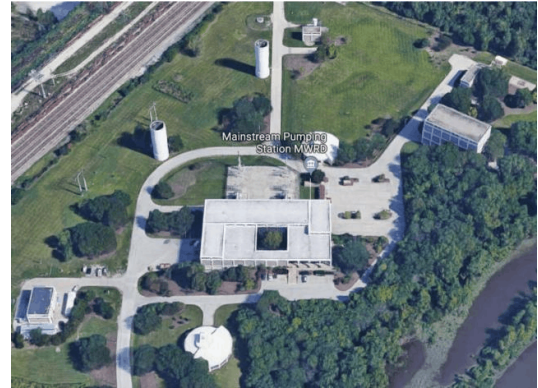
**Contract Award Date** November-19

**Substantial Completion Date** December-20

**Project Description** This project will rehabilitate six shafts at the Mainstream Pumping Station (the north elevator main and ventilation shafts, south elevator main and ventilation shafts, dewatering shaft, and discharge shaft) to address groundwater infiltration in the shafts.

**Project Justification** Groundwater infiltration currently enters the elevator shafts and causes damage to the elevator equipment necessitating costly repairs and service shutdown.

**Project Status** Planning



## Rehabilitation of Locomotive Terminal Building, SWRP

**Project Number** 18-143-3D

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined



**Estimated Construction Cost** \$2,750,000

**Contract Award Date** November-19

**Substantial Completion Date** April-21

**Project Description** This project will remove all parapets down to the roof and replace with new fascia, remove and replace existing roofing, windows, and doors (including overhead doors), remove and replace lintels where required, tuckpoint all masonry and repair masonry where required, anchor loose stones, improve ventilation in the building and provide heating, ventilation, and air conditioning for office and crew functions, and improve drainage around the building.

**Project Justification** This project will extend the useful life of the facility.

**Project Status** Design

### Rehabilitation of TARP Pumps, MSPS

**Project Number** 18-144-3M

**Service Area** Stickney

**Location** Mainstream Pumping Station

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$16,500,000

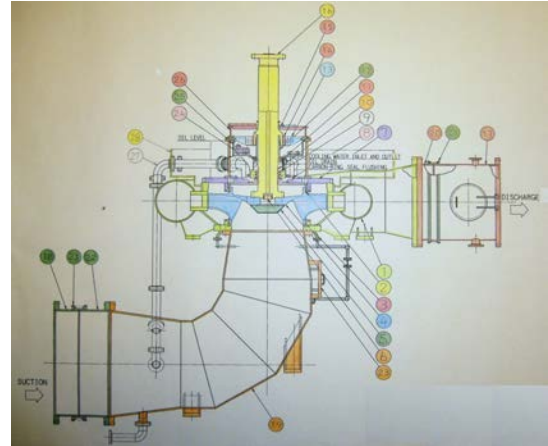
**Contract Award Date** October-19

**Substantial Completion Date** August-21

**Project Description** The purpose of this project is to completely overhaul TARP Pumps 1 and 3 in the South Pump House and Pump 5 in the North Pump House of the Mainstream Pumping Station, including the associated motors and discharge cone valves and actuators, in order to restore capacity and reliability. The complete overhaul of the pump and motor involves the furnishing and installing of new parts, refurbishing existing salvageable parts, replacing motor exciter panels, and upgrading pump control components.

**Project Justification** The overhaul will reduce the maintenance labor required, allow for better pump and motor monitoring, and improve reliability. Once the overhaul is complete, there will be a reduction in the electrical energy usage to power pumps, as the pump will operate more efficiently by being able to pump more fluid in less time. The overhaul will also extend the useful life of the pumps and motors, which have been in service since May 1985.

**Project Status** Design



## Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP

**Project Number** 18-248-3P

**Service Area** Calumet

**Location** Calumet WRP

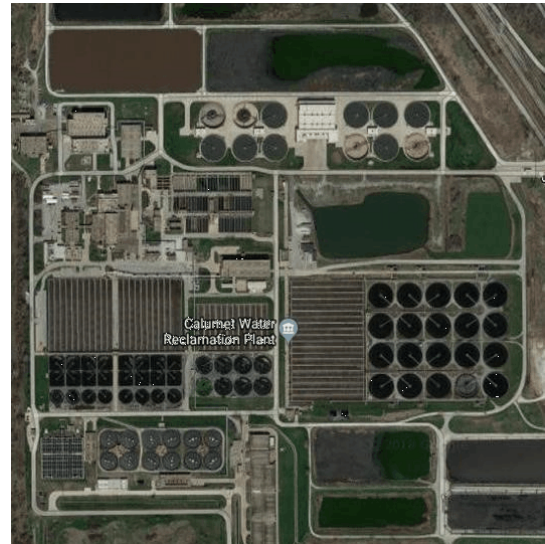
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,000,000

**Contract Award Date** November-19

**Substantial Completion Date** August-20



**Project Description** The Calumet WRP has attempted to remove phosphorus through enhanced biological phosphorus removal (EBPR). Due to the influent sewage characteristics, this has proven to be impossible without the addition of carbon to assist the process or major infrastructure changes. Before initiating major infrastructure changes at a plant of the Calumet WRP's size, the Phosphorus Task Force would like to attempt Sidestream EBPR (S2EBPR), which uses Return Activated Sludge (RAS) fermentation, to assist with EBPR at a pilot scale level. This will entail isolating two tanks in Battery A, redirecting roughly 20 percent of RAS from Battery A into these two channels, allowing this RAS to ferment, and then reintroducing the fermented RAS to the mixed liquor flow. Pumps and mixers will be installed for the pilot test, which is expected to last for approximately one year.

**Project Justification** Per the District's 2019 update to the 2015-2020 Strategic Business Plan: Goal 2 - Excellence, the District will potentially identify an approach to reduce the amount of external carbon needed for biological phosphorus (Bio-P) with this S2EBPR pilot test. If the pilot test is successful, this Bio-P approach could be used, rather than chemical phosphorus removal, to meet the current National Pollutant Discharge Elimination System permit. Chemical phosphorus removal would require the addition of ferric or alum to remove phosphorus, increasing operating costs by added chemical and from sludge processing.

By removing phosphorus from the Calumet WRP's effluent, the District will reduce phosphorus discharged to the receiving stream and mitigate eutrophication in the Gulf of Mexico, thus improving the environment.

**Project Status** Planning

## Digester Sludge Heating System Upgrades and Boiler Removal, CWRP

**Project Number** 18-277-3M

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$10,500,000

**Contract Award Date** June-19

**Substantial Completion Date** October-20



**Project Description** Removal of sludge heating boiler systems and installation of steam-to-hot water heat exchanger systems at the Digester Complex. Installation of steam and condensate piping with supports for the new system. Replacement of four sludge heat exchangers in Cluster 1 and replacement of tubes and gaskets for sludge heat exchangers in Cluster 2. Re-purposing of old compressor building for electrical equipment.

**Project Justification** This work will reduce the demands on the Maintenance & Operations Department's personnel by replacing inefficient and maintenance-intensive equipment.

**Project Status** Design

## Installation and Removal of Cofferdam at Sluice Gate No. 2, Lockport Powerhouse Controlling Works, SSA

**Project Number** 18-607-31

**Service Area** Stickney

**Location** Lockport Powerhouse Controlling Works

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$350,000

**Contract Award Date** March-2019

**Substantial Completion Date** December-2019



**Project Description** This project will install a cofferdam to allow in-house trades to repair Gate No. 2 at the Lockport Powerhouse Controlling Works.

**Project Justification** This purpose of this project is to provide a bulk head to isolate Gate No. 2 at the Lockport Powerhouse Controlling Works. The gate needs to be isolated for in-house trades to overhaul the gate guides, which have deteriorated and prevent the gate from being operated. The controlling works sluice gates prevent the level of the Sanitary and Ship Canal from rising to flood levels.

**Project Status** Design

### Furnish, Deliver, and Install Disc Filters, EWRP

**Project Number** 18-702-31

**Service Area** North

**Location** Egan WRP

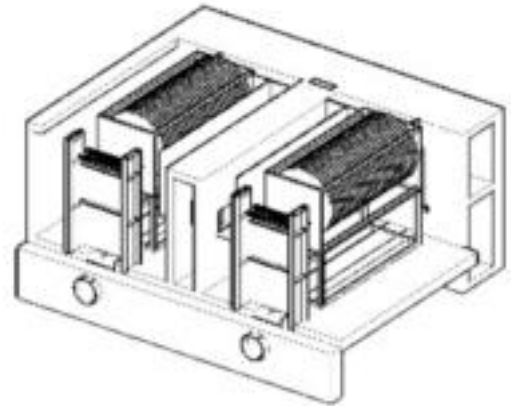
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$4,000,000

**Contract Award Date** January-19

**Substantial Completion Date** December-20



**Project Description** This project will 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 a backwash cycle. The disc filters will reduce the filter backwash from eight percent to less than five percent. The enclosed disc filters will reduce the midge flies in the filter building.

**Project Status** Design



## Furnish, Deliver, and Install Three Bar Screens, KWRP

**Project Number** 18-703-31

**Service Area** North

**Location** Kirie WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,350,000

**Contract Award Date** April-19

**Substantial Completion Date** March-21



**Project Description** This project is to 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** Planning

## Emerson Ovation Distributed Control System, NSA

<b>Project Number</b>	18-704-31
<b>Service Area</b>	North
<b>Location</b>	Egan, Kirie, and Hanover Park WRPs
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Emerson Process Management Power & Water Solutions, Inc.
<b>Estimated Construction Cost</b>	\$1,802,000
<b>Contract Award Date</b>	May-18
<b>Substantial Completion Date</b>	November-19
<b>Project Description</b>	This project consists of upgrading the Emerson Ovation Distributed Control System (DCS) at the Kirie, Egan, and Hanover Park WRPs.
<b>Project Justification</b>	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 the 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.
<b>Project Status</b>	Construction



## Rehabilitation of Gravity Concentration Tank, CWRP

**Project Number** 18-803-31

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,650,000

**Contract Award Date** April-19

**Substantial Completion Date** July-20



**Project Description** The scope of this project is to provide all the necessary labor, material, and appurtenances to rehabilitate the Cluster 1 gravity concentration tanks at the Calumet WRP. Rehabilitation includes the replacement of the scum arms, scrapers, baffles, sludge inlet piping, rake arm assembly, column assembly, drive unit, and notch weirs, as well as the rehabilitation of the distribution and collection boxes and hardware. A torque limiting system will be included on each main drive unit, and an abandoned chemical tank and associated piping will be removed. All four tanks in this cluster will be out of service for the duration of the project, which will improve efficiencies by reducing ventilation needs and allowing similar work to be performed on all tanks simultaneously.

**Project Justification** Rake arm assemblies in Cluster 1 have rotted at the water line to the point where skimming is no longer functional, and a skimmer arm on one tank has collapsed due to long-term corrosion effects. In addition, the steel notch weirs and trough baffles in these tanks have deteriorated badly and are missing in many places, resulting in loss of flow control. This rehabilitation will utilize new corrosion resistant materials and coatings that will restore the proper operation of these tanks.

**Project Status** Design

### Phosphorus Removal Struvite Facilities at the Fox River Water Reclamation District

<b>Project Number</b>	18-IGA-35
<b>Service Area</b>	North
<b>Location</b>	Fox River Water Reclamation District's Albin D. Pagorski Water Reclamation Facility
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$2,639,400
<b>Contract Award Date</b>	February-19
<b>Substantial Completion Date</b>	December-20
<b>Project Description</b>	Cost sharing agreement with the Fox River Water Reclamation District to construct new facilities to remove phosphorus from side stream solids processes.
<b>Project Justification</b>	Phosphorus removal is required for the Fox River Water Reclamation District to meet new permit standards.
<b>Project Status</b>	Planning



## Phosphorus Removal Liquid Facilities at the Fox River Water Reclamation District

<b>Project Number</b>	18-IGA-36
<b>Service Area</b>	North
<b>Location</b>	Fox River Water Reclamation District's Albin D. Pagorski Water Reclamation Facility
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$9,761,700
<b>Contract Award Date</b>	April-19
<b>Substantial Completion Date</b>	November-21
<b>Project Description</b>	Cost sharing agreement with the Fox River Water Reclamation District to construct new facilities to remove phosphorus from liquid stream (biological phosphorus removal) processes.
<b>Project Justification</b>	Process alteration and new facilities are needed to meet new National Pollutant Discharge Elimination System permit standards.
<b>Project Status</b>	Planning



### Furnish, Deliver, and Install Disc Filters for Filters 3 and 4, HPWRP

<b>Project Number</b>	19-701-31
<b>Service Area</b>	North
<b>Location</b>	Hanover Park WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,400,000
<b>Contract Award Date</b>	October-19
<b>Substantial Completion Date</b>	March-21
<b>Project Description</b>	This project is to furnish, deliver, and install disc filters at the Hanover Park WRP.
<b>Project Justification</b>	Filter beds 3 and 4 have a current capacity of 3.4 million gallons per day (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 eight percent to less than one percent. The enclosed disc filters will reduce the midge flies in the filter building.
<b>Project Status</b>	Design



### Energy Efficiency Improvements, SWRP

**Project Number** 19-901-31

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** Noresco, LLC

**Estimated Construction Cost** \$5,820,000

**Contract Award Date** January-19

**Substantial Completion Date** December-19

**Project Description** This project will consist of performing energy conservation measures identified in the Noresco Investment Grade Audit for the Stickney WRP. The scope of work includes replacing fluorescent, high pressure sodium, and metal halide lighting with light emitting diode lighting.

**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** Design



### Rehabilitate One Electric Motor, SWRP

**Project Number** 19-902-31

**Service Area** Stickney

**Location** Westside Pumping Station

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$300,000

**Contract Award Date** March-19

**Substantial Completion Date** December-19



**Project Description** This project will rewind the motor stator and refurbish the rotor and exciter windings on main sewage pump motor #3 at the Westside Pumping Station.

**Project Justification** On August 22, 2018, main sewage pump motor #3 tripped while in service. In-house trades tested the motor and found the stator winding had shorted to ground. To restore the pump to full operation, the motor stator needs to be rewound and new resistance temperature detectors need to be installed. The exciter rotor windings exhibited signs of overheating. The exciter stator and rotor windings will be tested and refurbished before they are placed back in service.

**Project Status** Planning



# SEWER DESIGN PROJECT MAP 2019



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

NORTH SIDE SLUDGE PIPELINE  
REPLACEMENT, SECTION 1, NSA  
07-027-3S \$14,326,850

39th STREET CONDUIT  
REHABILITATION PHASE II, SSA  
01-103-AS \$24,700,000

MODIFICATIONS TO TARP CONTROL  
STRUCTURES  
17-842-3H \$3,500,000

DROP SHAFT 5 INSPECTION  
AND REHABILITATION, NSA  
14-372-3S \$3,500,000

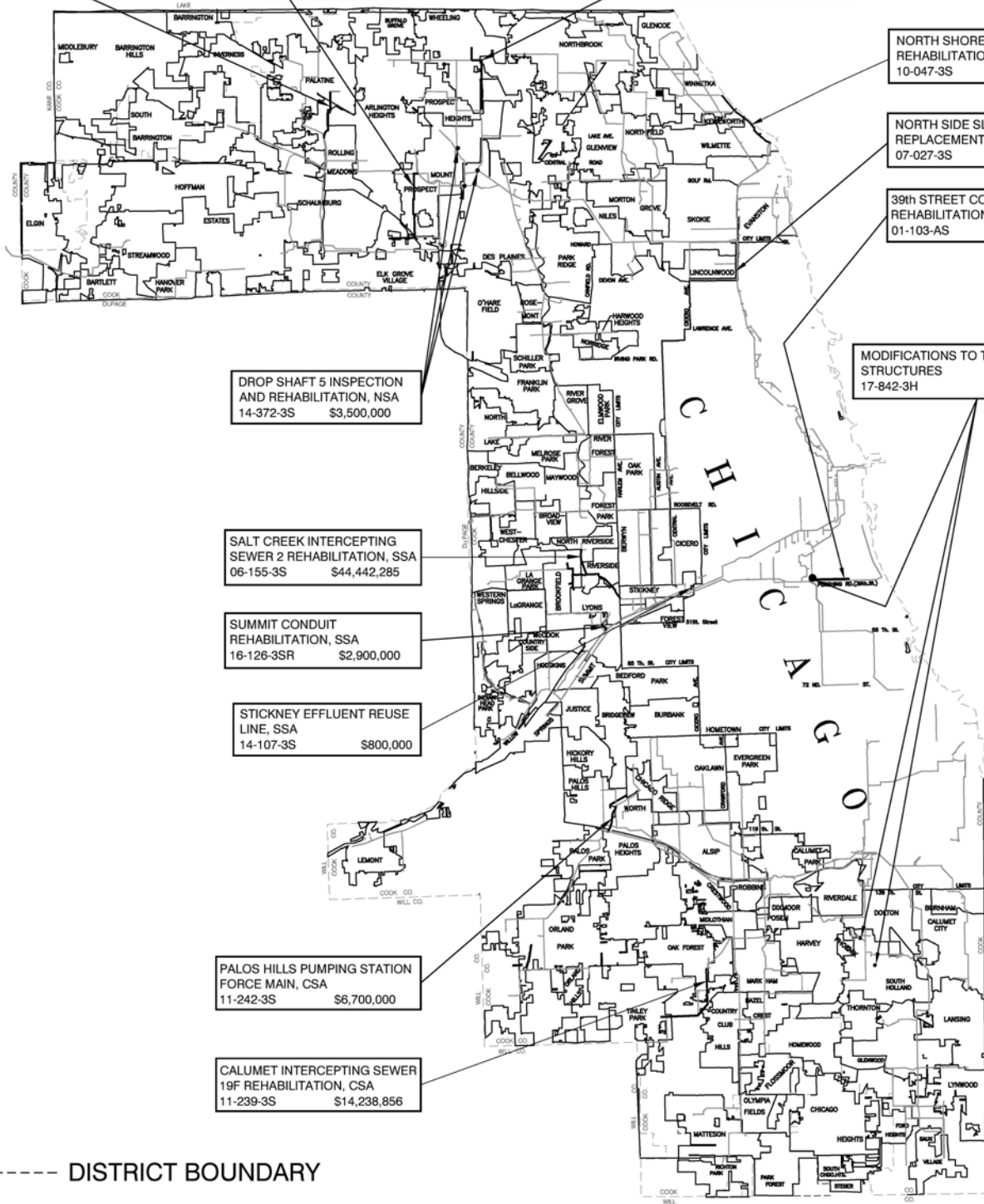
SALT CREEK INTERCEPTING  
SEWER 2 REHABILITATION, SSA  
06-155-3S \$44,442,285

SUMMIT CONDUIT  
REHABILITATION, SSA  
16-126-3SR \$2,900,000

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 \$14,238,856



----- 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:**

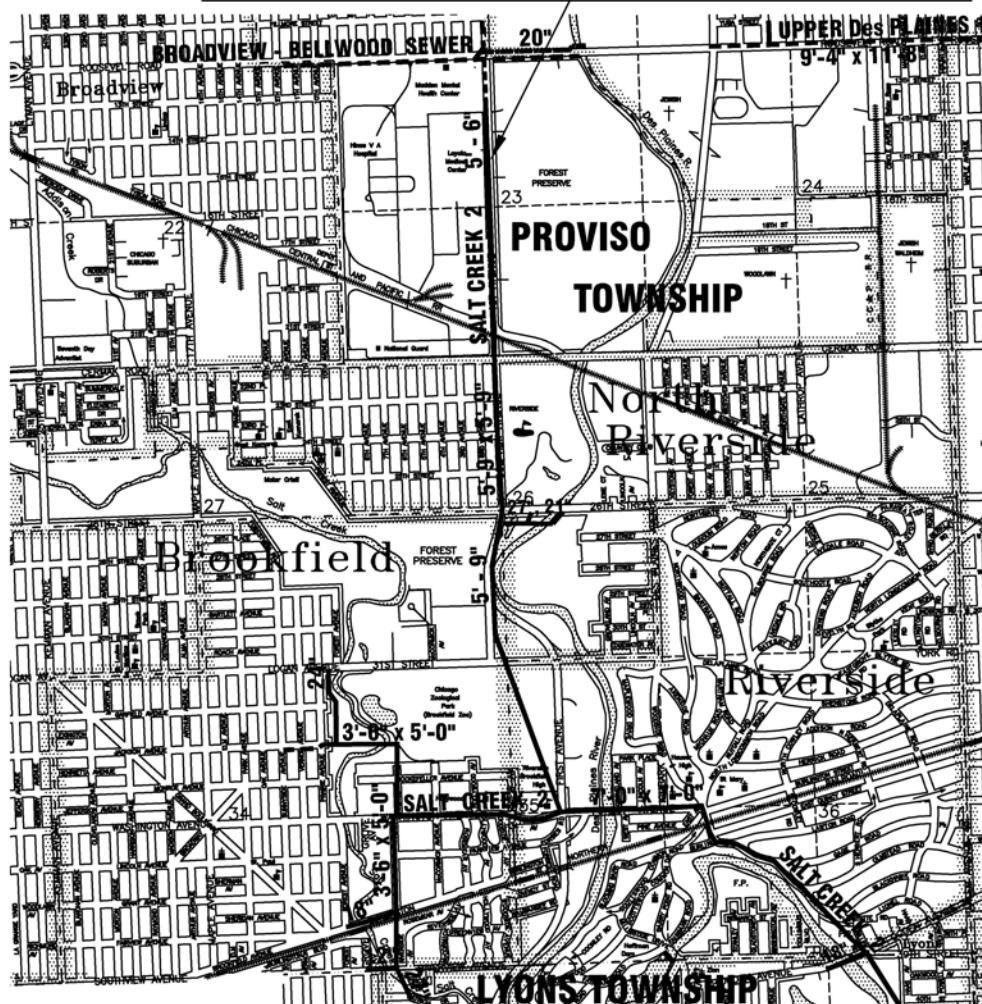
- = SEWER TO BE REHABILITATED
- = EXISTING SEWER

**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
- 282 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: \$44,442,285



LOCATION MAP

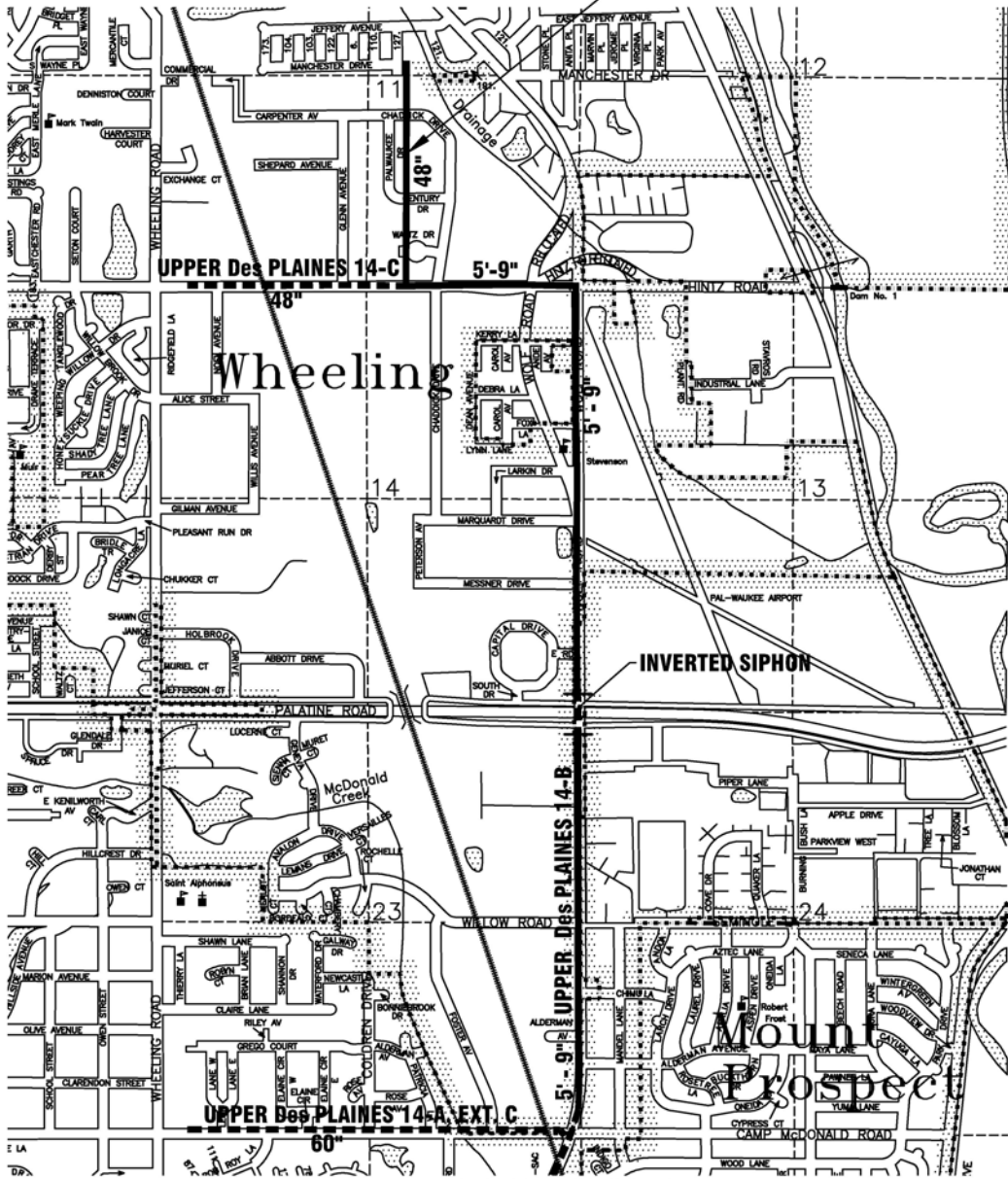
**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**SALT CREEK INTERCEPTING SEWER 2 REHABILITATION, SSA  
CONTRACT 06-155-3S**



UPPER DES PLAINES INTERCEPTING SEWER 14B  
 REHABILITATION, NSA  
 2,902 FEET OF 48-INCH SEWER  
 11,902 FEET OF 69-INCH SEWER  
 27 MANHOLES/STRUCTURES  
 1 NEW MANHOLE  
 COST: \$6,700,000



**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - - -** = EXISTING SEWER

LOCATION MAP

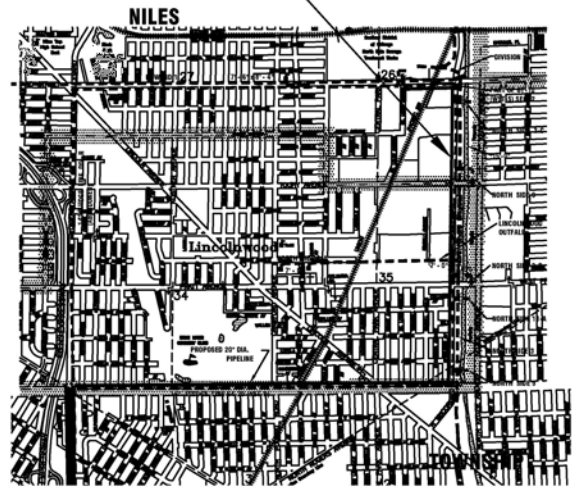
**UPPER DES PLAINES INTERCEPTING SEWER 14B REHABILITATION, NSA  
 CONTRACT 06-360-3S**



NORTH SIDE SLUDGE PIPELINE REPLACEMENT, SECTION 1, NSA  
 19,000 FEET OF 20-INCH DIAMETER FORCE MAIN  
 AIR RELIEF, BLOW OFF & CLEANOUT STRUCTURES  
 REHABILITATION OF 43 STRUCTURES  
 COST: \$14,326,850



LOCATION MAP

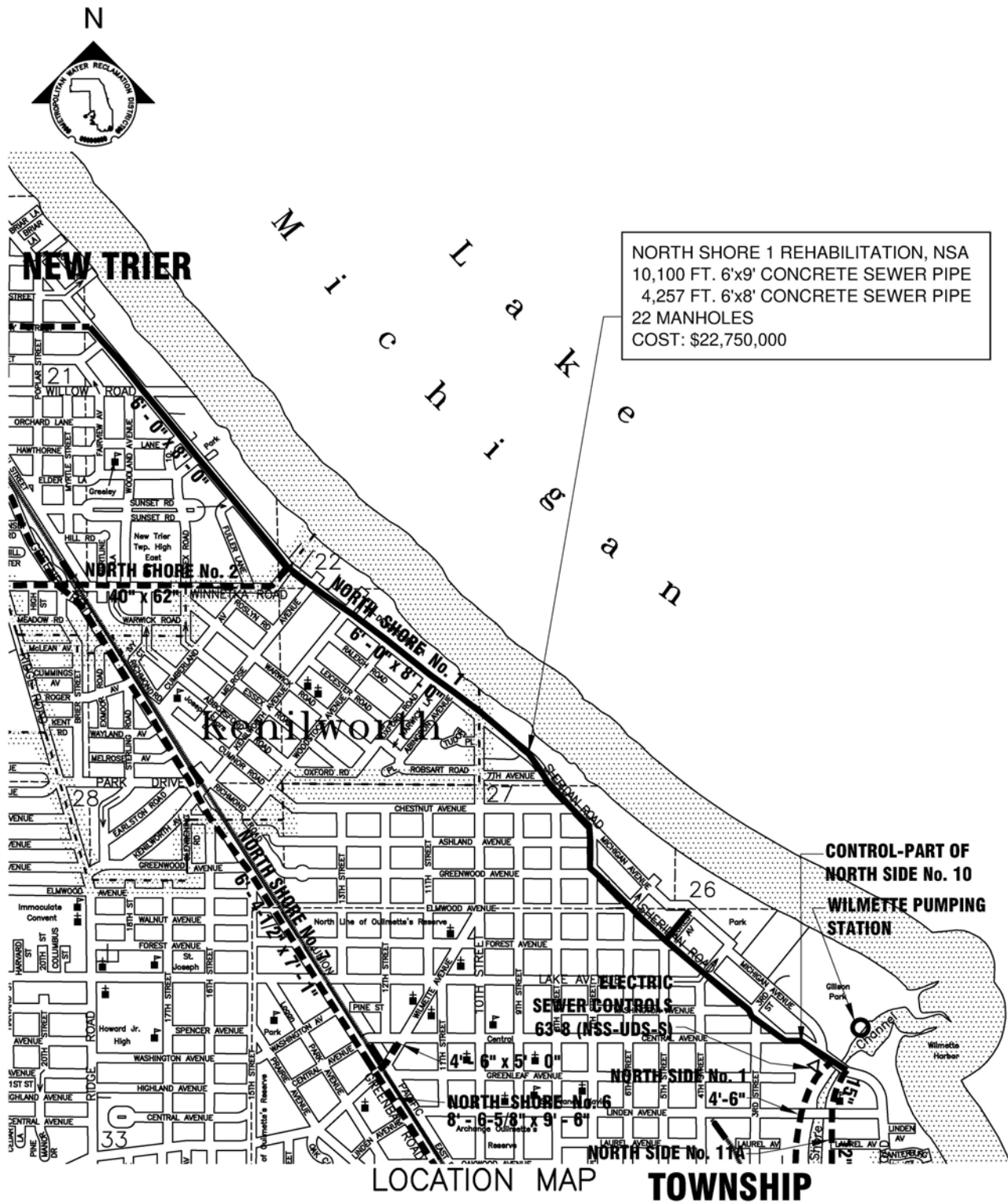


LOCATION MAP

**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

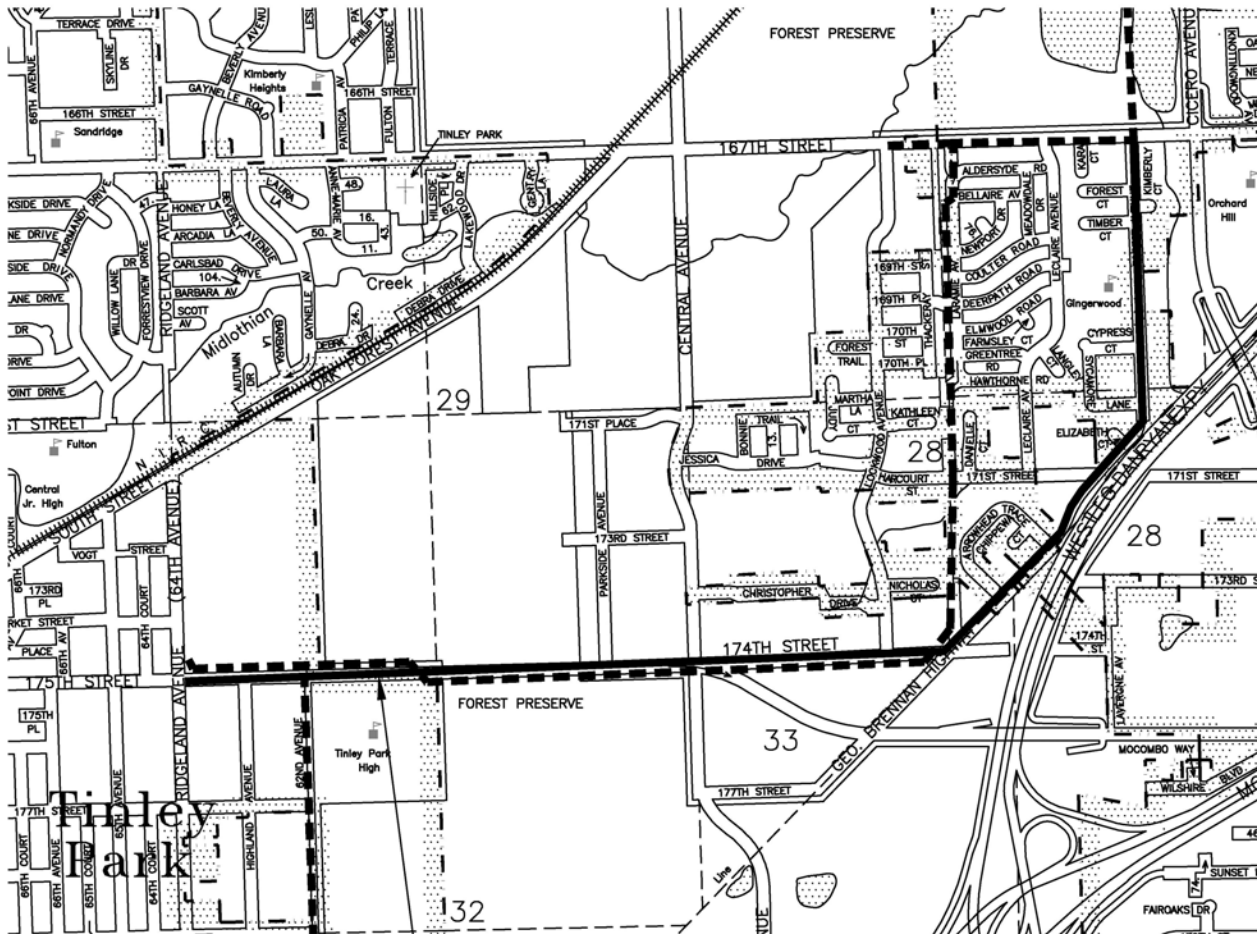
**NORTH SIDE SLUDGE PIPELINE REPLACEMENT, SECTION 1, NSA  
 CONTRACT 07-027-3S**



**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**NORTH SHORE 1 REHABILITATION, NSA  
CONTRACT 10-047-3S**



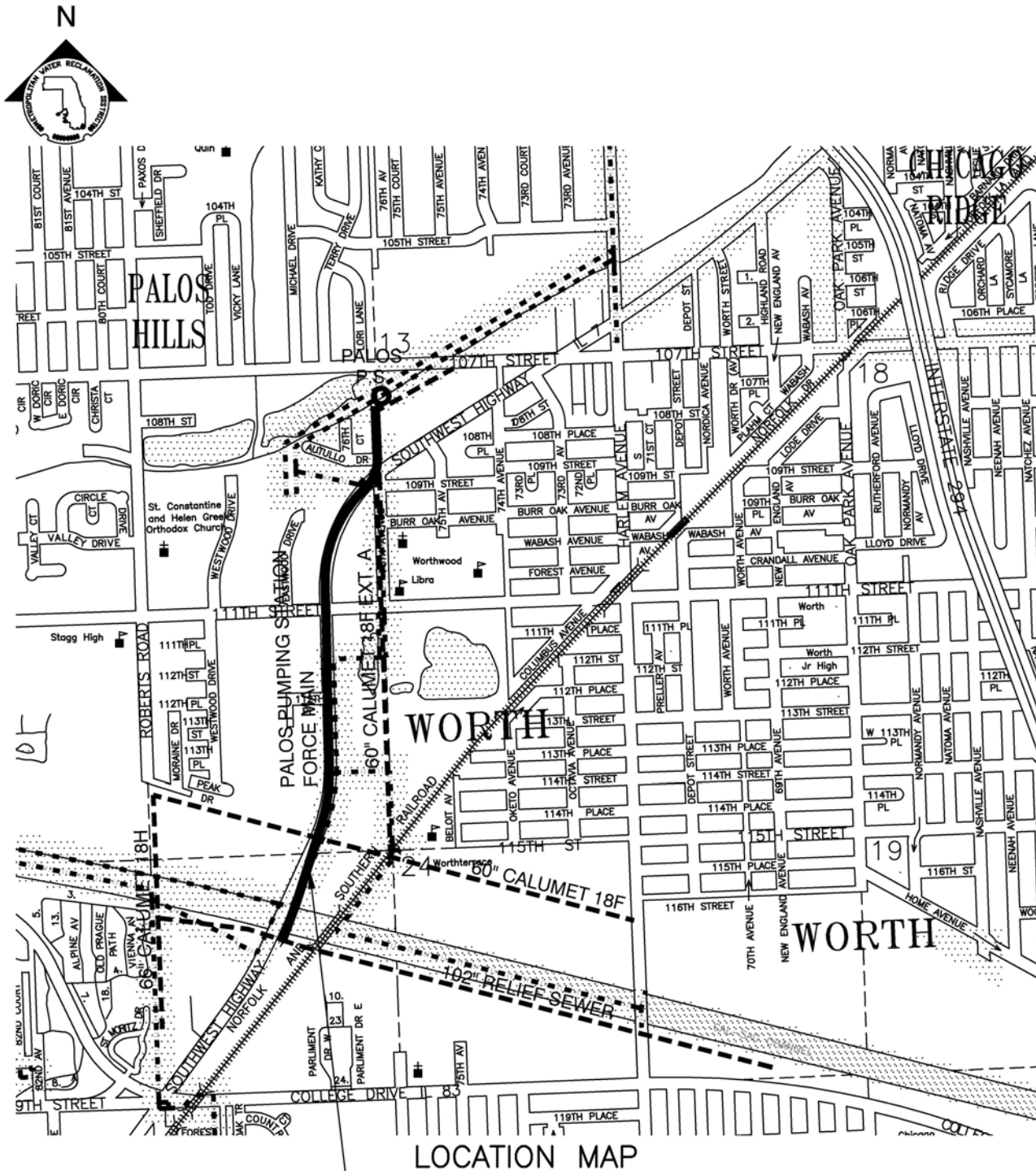
LOCATION MAP

CALUMET INTERCEPTING SEWER 19F  
 REHABILITATION, CSA  
 14,051 FEET OF 60-INCH DIAMETER  
 SEWER  
 23 MANHOLES AND 1 JUNCTION  
 STRUCTURE  
 COST: \$14,238,856

**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:**

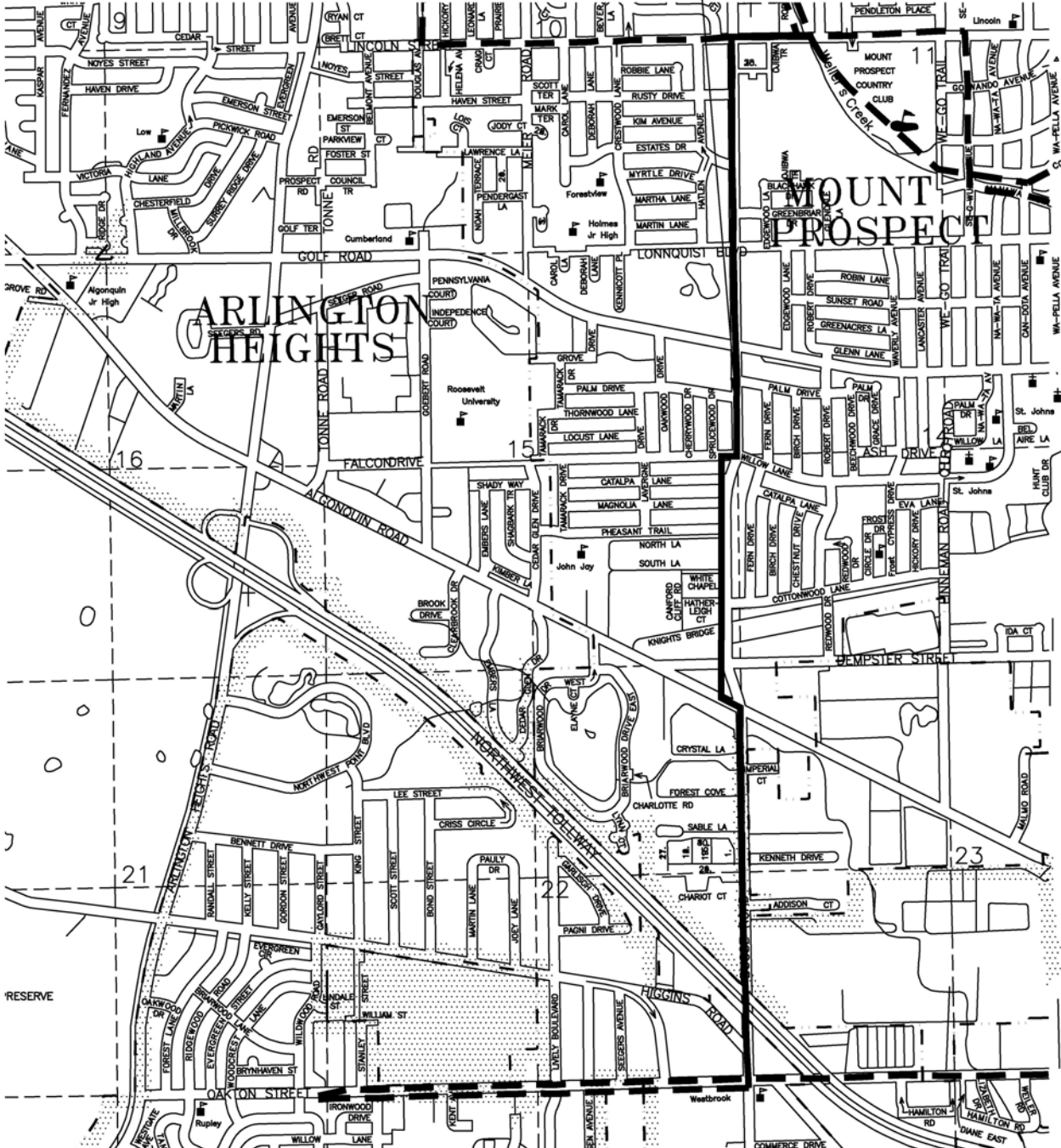
- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

UPPER DES PLAINES INTERCEPTING SEWER 11D EXT. C REHABILITATION, NSA  
 10,828 FEET OF 36-INCH DIAMETER SEWER  
 24 MANHOLES AND ONE CONNECTING 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:**

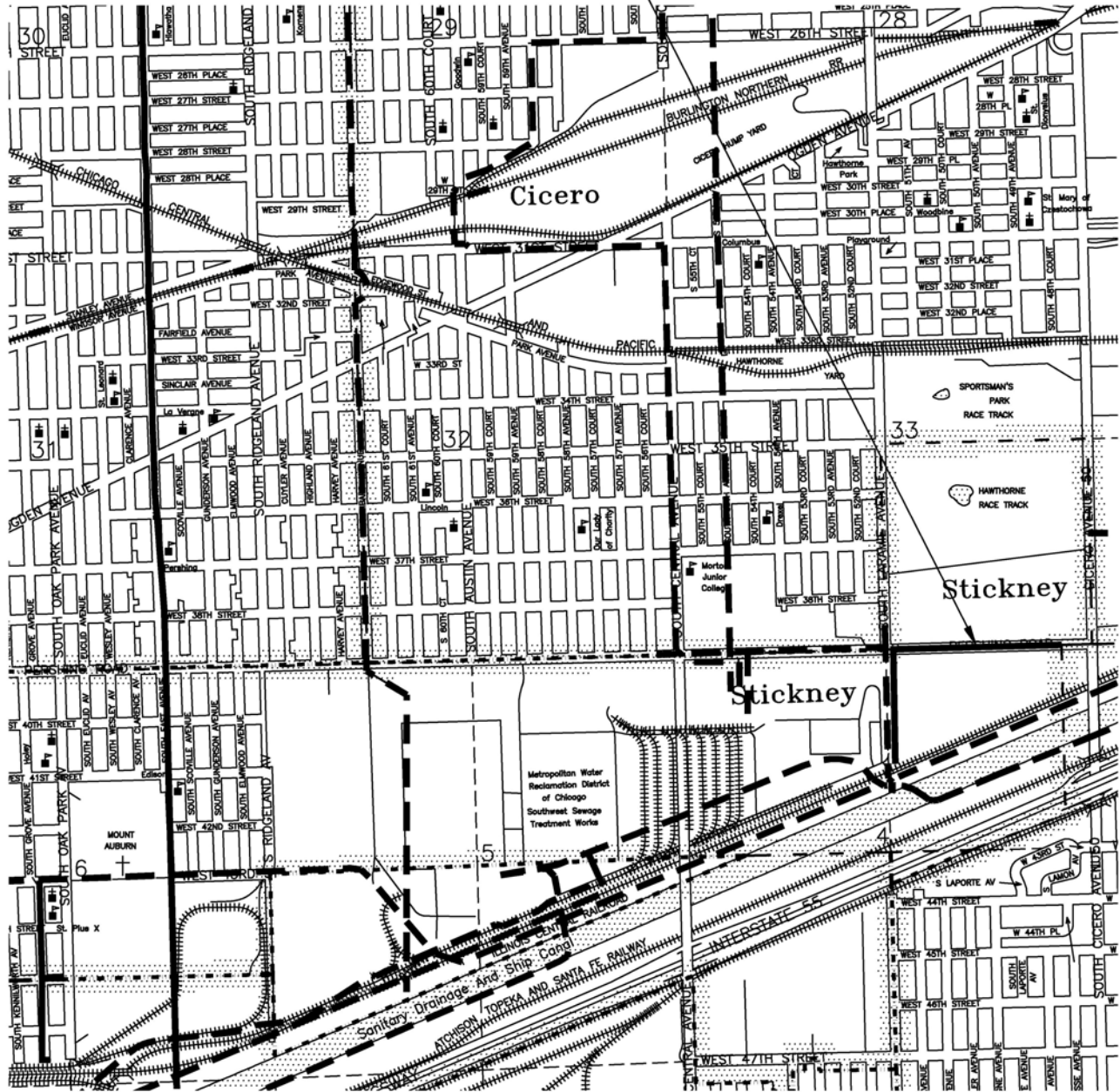
- = SEWER TO BE REHABILITATED
- - -** = EXISTING SEWER

**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

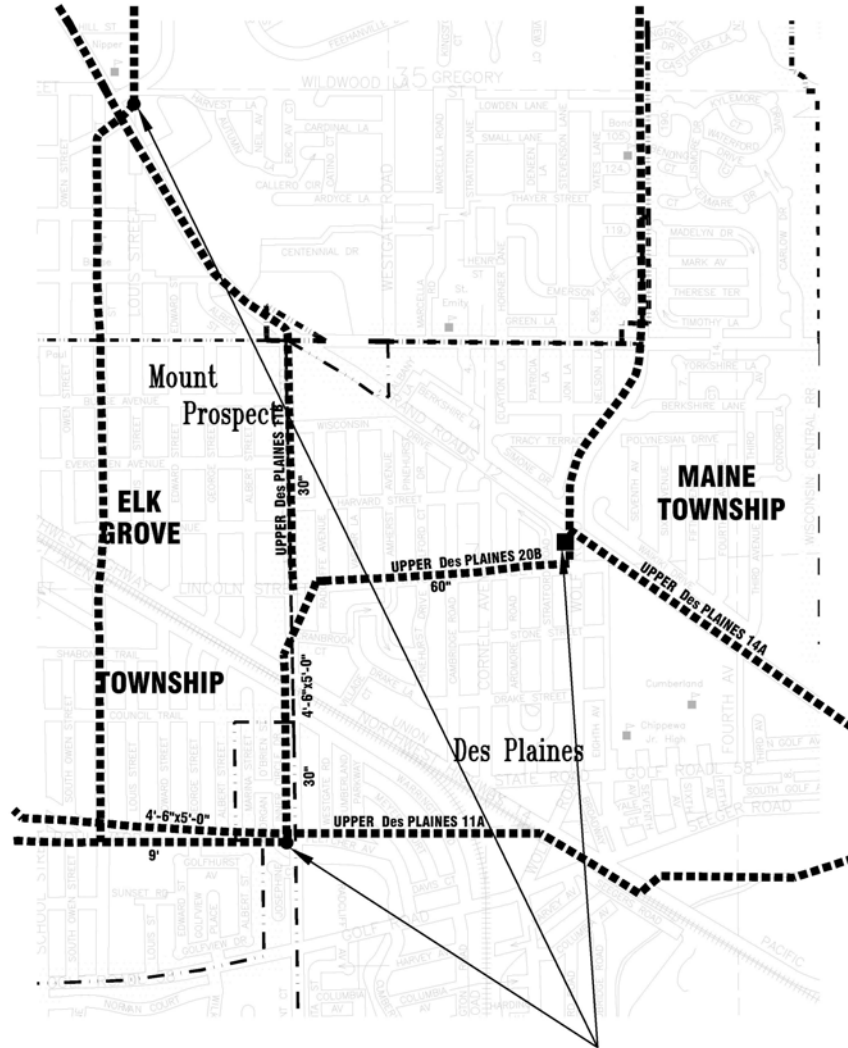


LOCATION MAP

LEGEND:

- = SEWER TO BE REHABILITATED
- = EXISTING SEWER
- \* = THIS PROJECT WILL BE FUNDED WITH PAY-AS-GO CAPITAL OUT OF THE CONSTRUCTION FUND

**STICKNEY EFFLUENT REUSE LINE, SSA  
CONTRACT 14-107-3S**



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  
 REPLACEMENT OF CONTROL GATE, STEM, AND OTHER PARTS  
 REPLACEMENT OF SLIDE GATE AND GROOVES  
 INSTALLATION OF LOUVER SYSTEM AND GRATING  
 COST: \$3,500,000

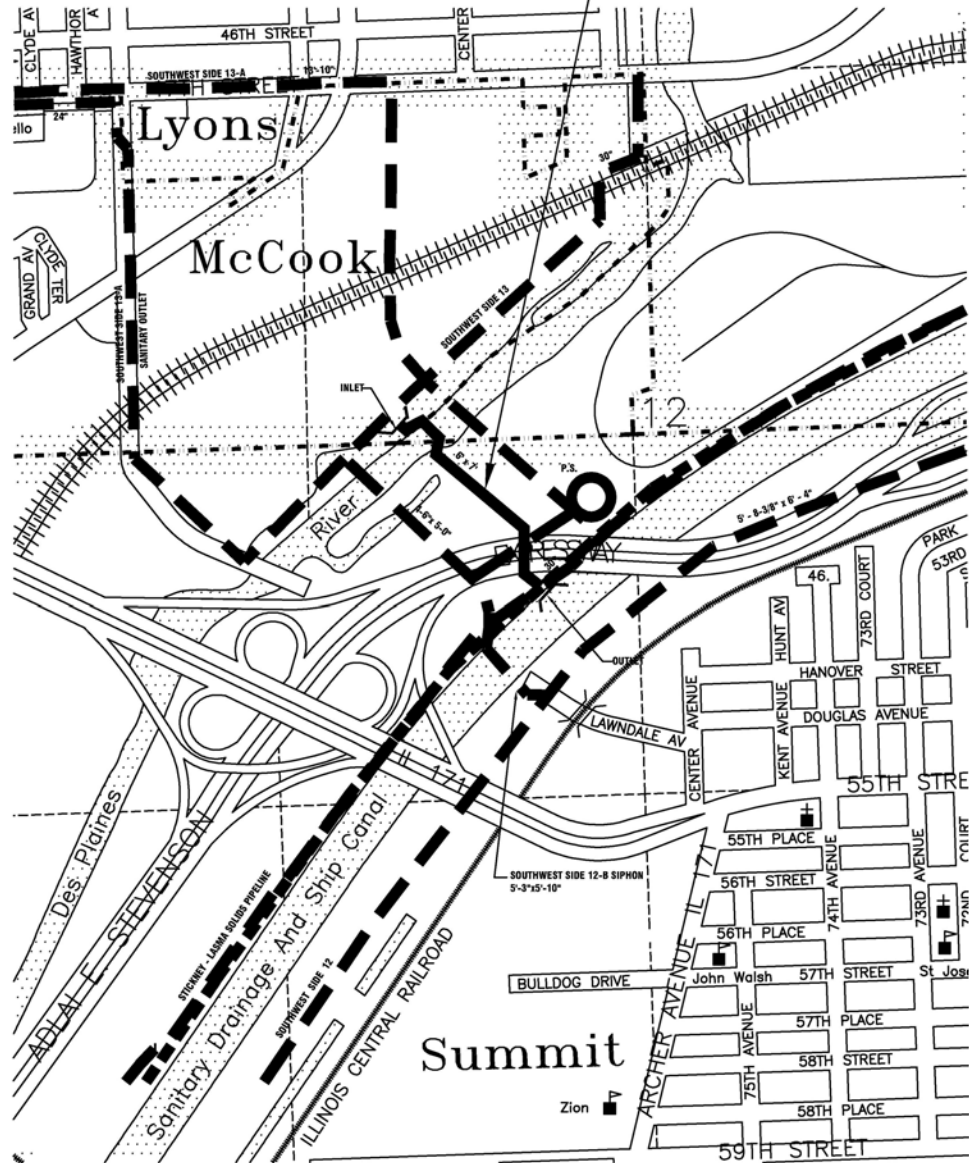
**LEGEND:**

- = 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: \$2,900,000

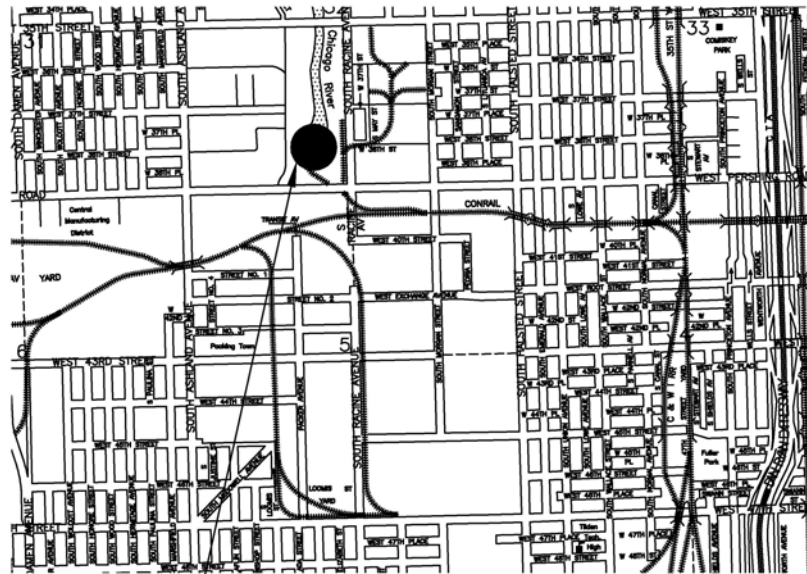


LOCATION MAP

**LEGEND:**

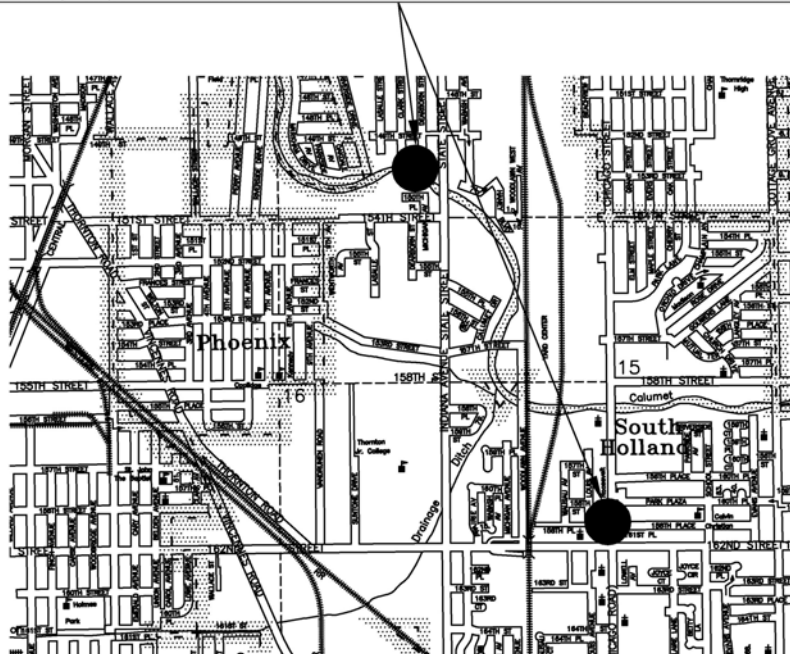
- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**SUMMIT CONDUIT REHABILITATION, SSA  
 CONTRACT 16-126-3SR**



LOCATION MAP

MODIFICATIONS TO TARP CONTROL STRUCTURES AND DROP SHAFTS, CSA AND SSA WEIR WALL MODIFICATIONS WORK AT DS-M27, DS-M28, AND DS-M29  
 INSTALLATION OF DRY WEATHER DIVERSION BY PASS SEWERS AT CDS-C1 AND CDS-45  
 COST: \$3,500,000



LOCATION MAP

**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**MODIFICATIONS TO TARP CONTROL STRUCTURES AND DROP SHAFTS, CSA AND SSA CONTRACT 17-842-3H**

**Stormwater Management Capital Improvements Bond Fund Program**

<b>Awards in 2019</b>				
Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Addison Creek Reservoir, SSA	11-186-3F	\$ 95,761	1,124	Jan 2019
Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA	13-248-3F	8,800	774	Jan 2019
Land Acquisition for a Flood Control Project in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA	17-IGA-04	370	119	May 2019
* Construction of a Levee along Thorn Creek at Arquilla Park, Glenwood, CSA	15-IGA-14	3,483	306	Jun 2019
Streambank Stabilization Project on Tinley Creek, CSA	10-882-AF	3,806	1,412	Jul 2019
Addison Creek Channel Improvements, SWRP	11-187-3F	42,700	1,048	Oct 2019
<b>Total 2019 Awards</b>		<b>\$ 154,920</b>		

\*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.**

<b>Method of Financing</b>				
State Revolving Fund Loans	Alternate Bonds	Grants	Total	
\$ 151,067	\$ 3,853	\$ —	\$ 154,920	

<b>Projects Under Construction</b>				
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. Substantial Completion Date
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	Jul 2016	Jun 2019
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	Feb 2017	Feb 2019
Melvina Ditch Reservoir Improvements, SSA	14-263-3F	14,245	Nov 2017	May 2021
* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	8,598	Feb 2018	Mar 2020
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	May 2018	May 2020
Pilot Study for Investigating Technology to Address Basement Backups, CSA and SSA	16-IGA-20	400	Nov 2018	Dec 2020
<b>Total Projects Under Construction</b>		<b>\$ 39,549</b>		

\*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.**

**50000 CAPITAL IMPROVEMENTS BOND FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION FACILITIES: Award six construction projects: North Shore 1 Rehabilitation, NSA, Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA, and four other projects.	\$ 37,550,000	9.9%
2. TREATMENT FACILITIES: Award 13 construction projects: Odor Control Facilities at WASSTRIP®, Southwest Coarse Screen and Overhead Weir, and Post Centrifuge Building, SWRP, two phosphorus removal projects at the Fox River Water Reclamation District, Roof Replacement of the Lue-Hing M&R Complex, SWRP, Energy Efficiency Improvements, SWRP, Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP, and seven other projects.	\$ 64,921,100	17.2%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award four construction projects: Digester Rehabilitation and Gas Piping Replacement, SWRP, Digester Sludge Heating System Upgrades and Boiler Removal, CWRP, and two other projects.	\$ 42,576,900	11.3%
4. FLOOD AND POLLUTION CONTROL: Award 11 construction projects: Addison Creek Reservoir, SSA, Addison Creek Channel Improvements, SWRP, Rehabilitation of TARP Pumps, MSPS, and eight other projects.	\$ 188,390,000	49.8%
5. LAND AND RIGHT-OF-WAY ACQUISITION COSTS: Acquisition of land for the expansion of reservoir projects and payments for land easements.	\$ 2,050,000	0.5%
6. PROJECT SUPPORT: Administration, design, and construction inspection for current and future contracts, funding support, and construction services, such as concrete and soil testing.	\$ 42,685,800	11.3%
<b>Totals</b>	<b>\$ 378,173,800</b>	<b>100.0%</b>

MEASURABLE GOAL:	2017	2018	2019
	Actual	Estimated	Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	16	40	34
Number of contracts awarded	10	40	34
<p>The projects proposed for each year are based upon the requirements dictated by the Capital Improvement Program. The number of actual projects awarded may not, on face value, quantify performance. There are several factors that could either increase or decrease the number of projects awarded. Some of these factors are project size, project complexity, and unforeseen obstacles. These numbers are provided only as a general indicator of performance.</p>			



**50000 CAPITAL IMPROVEMENTS BOND FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2017	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1700	Collection Design	\$ 110,871	2019	— \$	—	—
			2018	— \$	—	—
1800	Collection Construction	\$ 32,304,699	2019	— \$	41,012,500	(3,483,800) (7.8)
			2018	— \$	44,496,300	
2700	Treatment Design	\$ 1,229,095	2019	— \$	3,000,000	3,000,000 100.0
			2018	— \$	—	
2800	Treatment Construction	\$ 107,014,465	2019	— \$	72,686,100	8,618,100 13.5
			2018	— \$	64,068,000	
3700	Solids Processing Design	\$ 2,231,948	2019	— \$	—	(3,000,000) (100.0)
			2018	— \$	3,000,000	
3800	Solids Processing Construction	\$ 3,758,475	2019	— \$	41,843,300	12,660,000 43.4
			2018	— \$	29,183,300	
4341	Flood Mitigation Projects Planning and Design	\$ 3,903,628	2019	— \$	5,170,000	5,170,000 100.0
			2018	— \$	—	
4343	Flood Mitigation Projects Construction	\$ 4,840,626	2019	— \$	160,563,900	25,635,600 19.0
			2018	— \$	134,928,300	
4344	Flood Mitigation Projects Contracted with Other Governments	\$ 17,037,189	2019	— \$	3,853,000	3,453,000 863.3
			2018	— \$	400,000	
4345	Flood Mitigation Projects Land and Easements	\$ 2,369,515	2019	— \$	—	(3,338,000) (100.0)
			2018	— \$	3,338,000	
4600	Monitoring	\$ —	2019	— \$	—	(299,000) (100.0)
			2018	— \$	299,000	
4700	Flood and Pollution Control Design	\$ 880,472	2019	— \$	2,000,000	750,000 60.0
			2018	— \$	1,250,000	
4800	Flood and Pollution Control Construction	\$ 64,315,700	2019	— \$	44,407,500	18,812,500 73.5
			2018	— \$	25,595,000	
5800	Solids Disposal Construction	\$ 4,969,665	2019	— \$	3,387,500	(1,287,500) (27.5)
			2018	— \$	4,675,000	
7740	Land and Easements	\$ 62,041	2019	— \$	250,000	(1,500,000) (85.7)
			2018	— \$	1,750,000	
Totals		\$ 245,028,389	2019	— \$	378,173,800	65,190,900 20.8%
			2018	— \$	312,982,900	

Projects budgeted in the Capital Improvements Bond Fund are prioritized based on operational needs, design time frames, and available funding. Year-over-year variances in program area budgets are the result of project timing within the five-year capital planning cycle. The Capital Improvements Bond Fund is budgeted on an obligation basis, meaning the projects are budgeted at their full value in the year they are awarded, whether the project expenditures occur in the same budget year or not.

Account Number	Account Name	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation*	Adjusted Appropriation 12/31/18**	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
401	Fund: Capital Improvements Bond							
50000	Department: Engineering							
612090	Reprographic Services	\$ —	\$ 10,000	\$ 10,000	\$ —	\$ 10,000	\$ 10,000	\$ 10,000
612240	Testing and Inspection Services	274,760	—	145,585	90,400	—	—	—
612250	Court Reporting Services	—	25,000	25,000	5,500	25,000	25,000	25,000
612400	Intergovernmental Agreements	17,939,689	3,888,000	40,674,195	22,647,900	12,302,500	12,302,500	16,354,100
612430	Payments for Professional Services	1,067,679	1,199,000	2,460,154	1,078,000	400,000	400,000	400,000
612440	Preliminary Engineering Reports and Studies	325,602	250,000	313,945	500	2,820,000	2,820,000	2,820,000
612450	Professional Engineering Services for Construction Projects	6,720,063	4,000,000	11,610,296	5,740,900	4,500,000	4,500,000	7,500,000
612470	Personal Services for Post-Award Engineering for Construction Projects	2,253,622	—	10,773,686	1,776,800	—	—	—
612490	Contractual Services, N.O.C.	254,892	—	—	—	—	—	—
612780	Safety Repairs and Services	—	100,000	100,000	—	100,000	100,000	100,000
200	TOTAL CONTRACTUAL SERVICES	28,836,306	9,472,000	66,112,862	31,340,000	20,157,500	20,157,500	27,209,100
634600	Equipment for Collection Facilities	—	645,000	636,800	—	—	—	—
634620	Equipment for Waterway Facilities	—	—	8,200	8,200	—	—	—
634650	Equipment for Process Facilities	579,900	—	—	—	—	—	—
634820	Computer Software	—	150,000	150,000	—	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	579,900	795,000	795,000	8,200	—	—	—
645600	Collection Facilities Structures	9,571,866	4,210,000	15,504,884	7,190,100	5,015,000	5,015,000	5,015,000
645620	Waterway Facilities Structures	5,746,486	127,539,900	156,325,228	18,737,400	66,687,000	66,687,000	163,752,700
645630	Army Corps of Engineers Services	54,005,694	7,500,000	63,993,681	35,345,000	800,000	800,000	800,000
645650	Process Facilities Structures	95,280,035	58,060,000	101,457,262	28,551,300	11,450,000	13,100,000	32,562,500
645680	Buildings	4,036,392	7,413,000	14,521,006	1,552,600	6,320,000	6,320,000	6,320,000
645690	Capital Projects, N.O.C.	—	5,302,000	1,845,400	369,100	—	—	—
645700	Preservation of Collection Facility Structures	27,497,524	31,555,000	46,270,456	10,959,700	58,493,800	58,493,800	58,793,800
645720	Preservation of Waterway Facility Structures	3,769,065	25,148,400	28,567,643	3,600,000	2,927,800	13,553,800	13,903,800
645750	Preservation of Process Facility Structures	9,786,302	15,963,300	25,654,725	7,877,300	42,318,300	42,318,300	45,895,800
645780	Preservation of Buildings	—	17,974,300	27,553,000	6,997,100	20,212,500	20,212,500	20,212,500
500	TOTAL CAPITAL PROJECTS	209,693,362	300,665,900	481,693,285	121,179,600	214,224,400	226,500,400	347,256,100
656010	Land	1,467,015	300,000	1,400,000	323,000	300,000	300,000	1,664,700
600	TOTAL LAND	1,467,015	300,000	1,400,000	323,000	300,000	300,000	1,664,700

401 Fund: Capital Improvements Bond 50000 Department: Engineering		LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation*	Adjusted Appropriation 12/31/18**	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
667340	Payments for Easements	62,041	1,750,000	650,000	650,000	1,750,000	1,750,000	2,043,900
727102	Principal Expense - Capital Lease	2,473,480	—	40,194,458	2,594,900	—	—	—
727112	Interest Expense - Capital Lease	1,916,284	—	12,389,516	1,795,000	—	—	—
700	TOTAL FIXED AND OTHER CHARGES	4,451,806	1,750,000	53,233,974	5,039,900	1,750,000	1,750,000	2,043,900
TOTAL CAPITAL IMPROVEMENTS BOND FUND		\$245,028,389	\$ 312,982,900	\$ 603,235,121	\$157,890,700	\$236,431,900	\$ 248,707,900	\$ 378,173,800

\* 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.

**NOTE PAGE**

# 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.

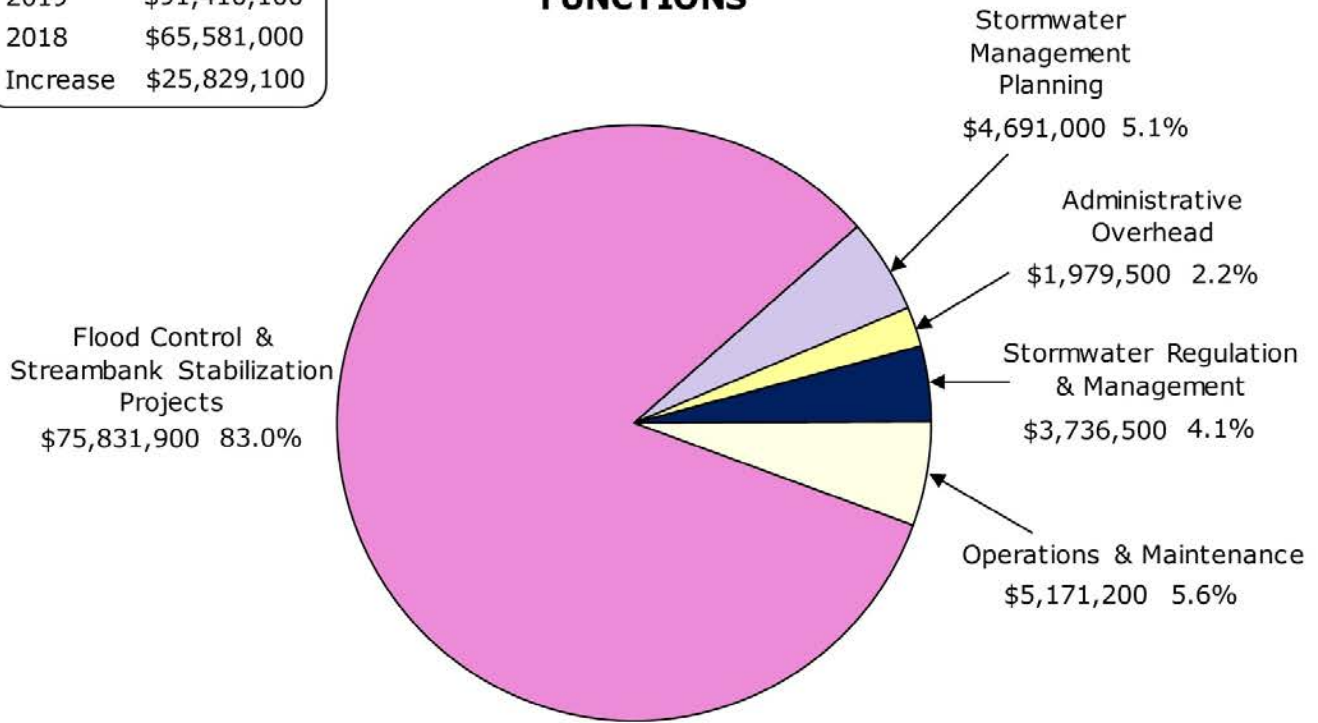
### Stormwater Management Fund:

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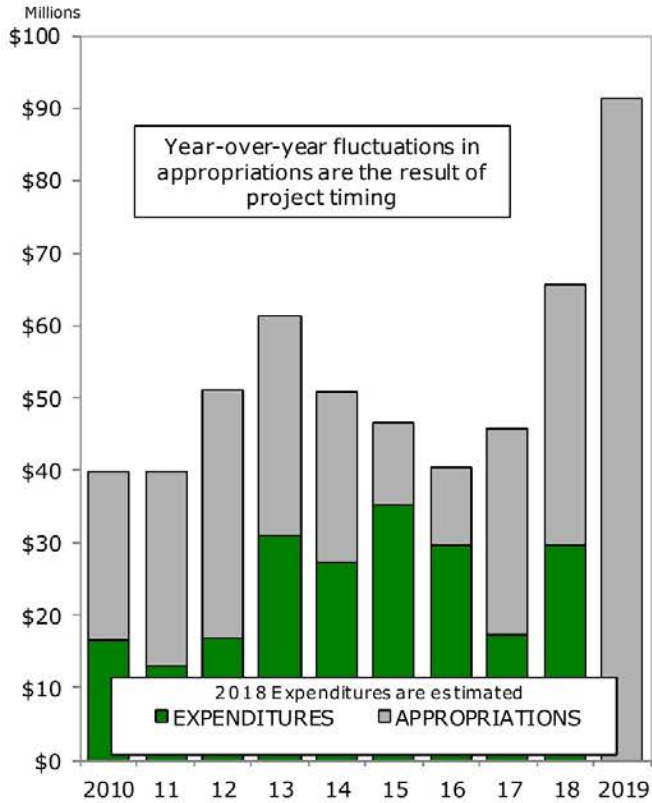
# STORMWATER MANAGEMENT

2019	\$91,410,100
2018	\$65,581,000
Increase	\$25,829,100

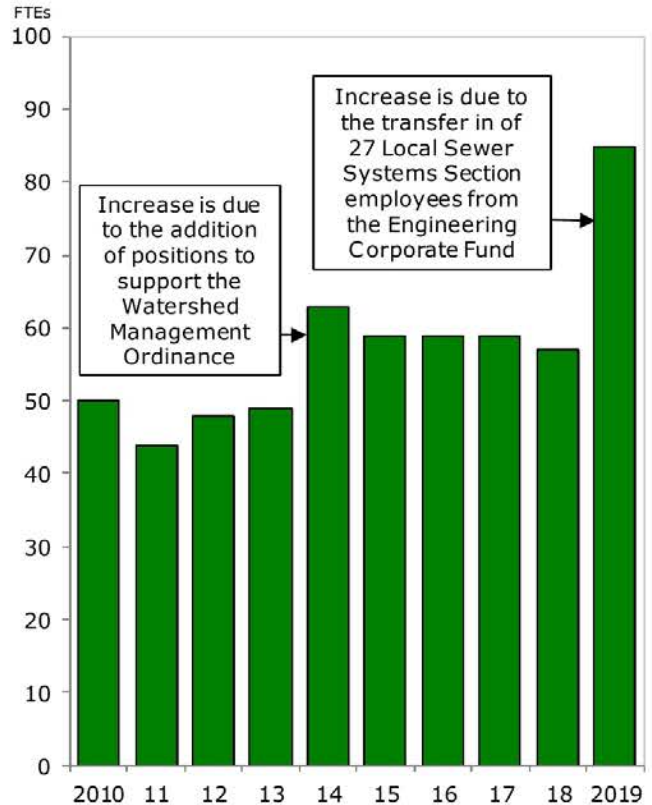
## FUNCTIONS



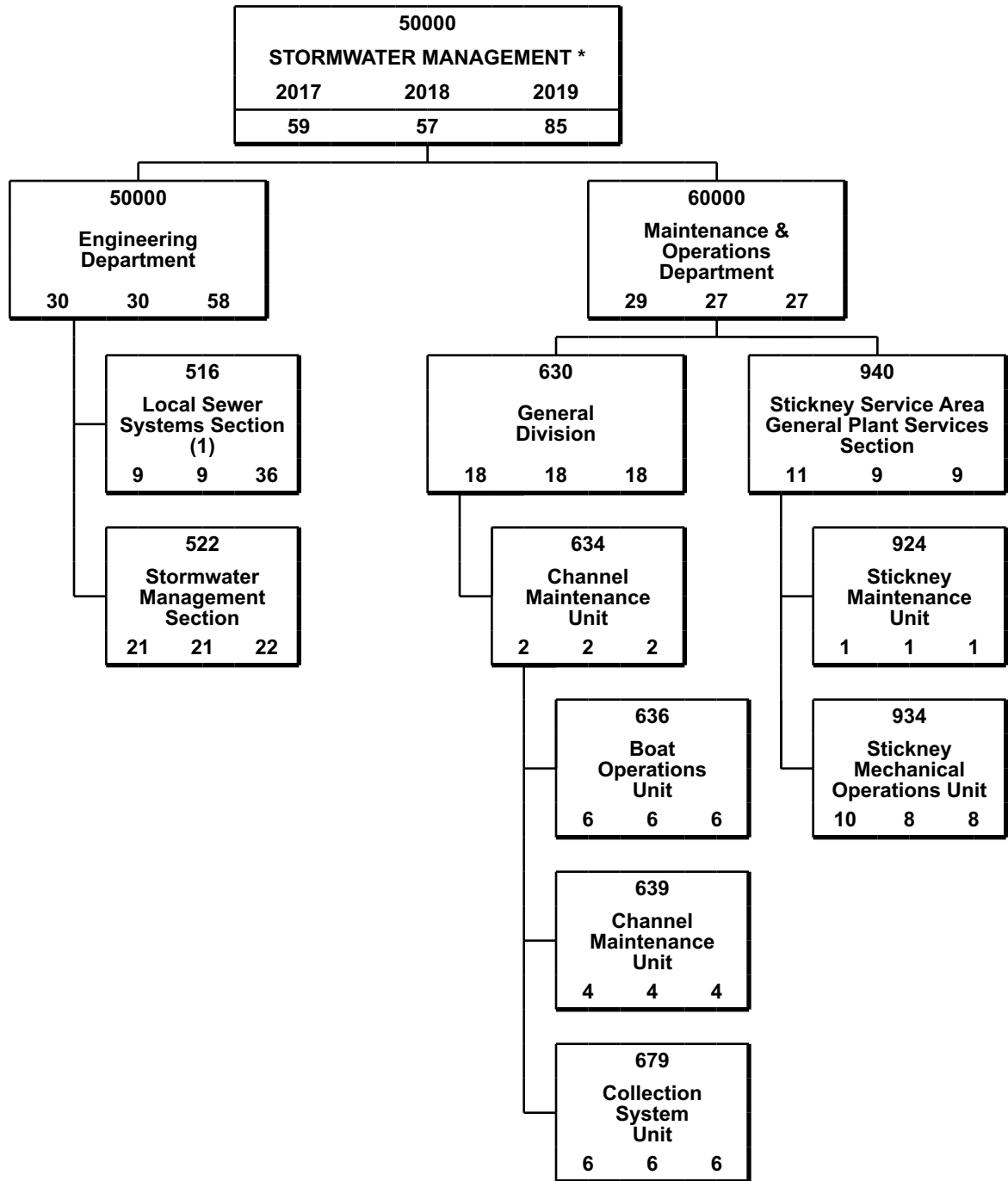
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# STORMWATER MANAGEMENT



\* Positions funded by the Stormwater Management Fund are operationally controlled by the Engineering and Maintenance & Operations Departments.

(1) Effective 01/01/19, 27 positions were transferred from the Engineering Department - Corporate Fund to the Stormwater Management Fund.

## 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 (WMO). Through a variety of engineered solutions, both green and gray, and flood-prone property acquisitions, the District's Stormwater Management Program addresses both regional and local flooding problems throughout Cook County. The District has made significant investments in developing over 140 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. Information on the Stormwater Management Program can be found at [stormwater.mwrdd.org](http://stormwater.mwrdd.org).

The Stormwater Management Fund supports the work of the Local Sewer Systems Section (LSSS), which is responsible for the implementation and enforcement of the 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.

### Summary of 2018 Accomplishments

- Completed construction of the Cherry Creek Flood Control project, 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 three streambank stabilization and flood control projects;
- Continued design of Phase II conceptual flood control projects identified by local governmental agencies;
- Entered into an Intergovernmental Agreement (IGA) for a pilot study with the City of Chicago to explore the effectiveness of various technologies aimed at reducing basement backups at private sites;
- Entered into IGAs for 20 Green Infrastructure and 14 Phase II shovel-ready projects based on solicitations and prioritization of projects from local communities;
- Continued the SSMP with the objective of removing debris and blockages from 532 miles of area waterways;
- Continued to solicit applications for Green Infrastructure projects from local communities and agencies and identify partnership opportunities to assist in constructing local improvements to address flooding issues;
- Provided 112 million gallons of volume control, detention, and floodplain compensatory storage as a result of WMO enforcement;
- Conducted a technical advisory committee meeting every two months to present changes to the WMO and Technical Guidance Manual and provided status of the Watershed Specific Release Rate Study;
- Presented status of the I/I Control Program at Watershed Planning Council meetings;
- Amended the WMO on February 15, 2018 to include clarifications to better serve the District and its constituents;
- Created an Earthwork/Foundation Limited permit application to allow limited construction activities to commence prior to WMO permit issuance;
- Provided 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.

### Budget Highlights

The 2019 appropriation for the Stormwater Management Fund is \$91,410,100, an increase of \$25,829,100, or 39.4 percent, from 2018. The staffing level has increased from 57 to 85 positions, which includes the transfer of 27 Corporate Fund LSSS positions responsible for administering the WMO from the Engineering Department and the transfer of a Public Affairs Specialist from the Law Department. The estimated impact of the transfer of LSSS positions will be an increase of \$2.8 million in operational costs which will be partially offset by revenues generated from WMO permit review fees.

Significant features of the 2019 Budget are:

- Prioritize and implement new Green Infrastructure projects from 2018 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;
- 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;
- Amend the WMO to include results of the Watershed Specific Release Rate Study;
- Continue the implementation of the I/I Control Program to reduce sanitary sewer overflows and basement backups.

**2019 Initiatives in Support of the Strategic Business Plan Include the Following:**

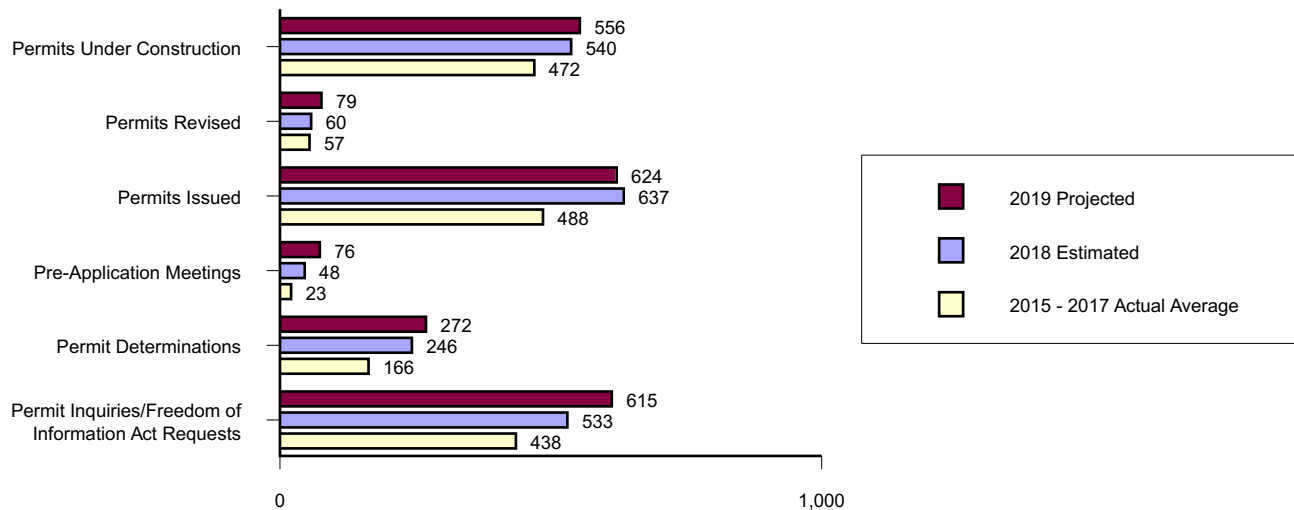
**• Add Value**

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. Under the Green Infrastructure, Phase II, and flood-prone property acquisition programs, projects are prioritized based on the number of structures benefited, the cost per structure, and other factors.

LSSS staff add value in providing exemplary customer service through continuous contact with consulting engineers, developers, and contractors throughout the permit process. Permit Inquiry and Freedom of Information Act requests are processed by 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 permits are required. Prior to submitting a permit application, LSSS staff routinely meet with consulting engineers and developers to discuss WMO requirements and project compliance during pre-application meetings. The total number of permit inquiries, Freedom of Information Act requests, permit determination letters, and pre-application meetings are shown on the Permit Activity exhibit.

The WMO requires the timely review of permit applications. In 2018, the average review 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 624 total permits in 2019, with an estimated average time from initial submittal to permit issuance of 37 working days. The number of total permits issued averaged 488 annually from 2015-2017.

**Permit Activity**



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. The total number of permits under construction is shown on the Permit Activity exhibit. 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 is shown on the Permit Activity exhibit. LSSS staff issue and process an average of five permit violations annually.

**• 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 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 has enlisted the services of two engineering consultant firms to provide program management services for additional stormwater master planning efforts, one for 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.

Planning, design, permit review, and permit approval are conducted with the goal of excellence in mind. Work is completed timely, accurately, and with the consideration given to the service to our regulated community. Through excellence, the District plans to find opportunities for efficiency gains with a disciplined methodology, which is deeply rooted in a culture of innovation and continuous improvement.

- **Develop Employees**

Stormwater Management Fund staff include numerous licensed professional engineers, certified floodplain managers, and engineering technicians. Staff regularly attend and present papers at various conferences and seminars for professional development related to stormwater management, sewer construction and rehabilitation, site development, construction inspection, flow monitoring, and GIS.

- **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. The District and the Village of Robbins have enlisted numerous partners to realize this bold vision and are working together to plan, design, and identify funding for implementing a 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 2018, 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 34 Chicago Public School campuses. The District has partnered with other local municipalities to design and construct 122 regional and local stormwater management projects.

In 2018, projects under construction in partnership with municipalities included numerous Green Infrastructure and Phase II local stormwater improvement projects.

The District developed the WMO and Technical Guidance Manual 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.

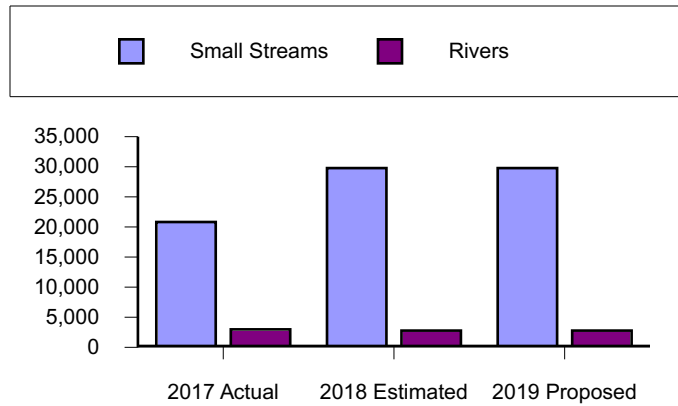
- **Technology**

In 2017, the District purchased six 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 IGA with the District. As of January 2018, seven municipalities have entered into an IGA with the District to utilize the GPS units.

## **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.

A map of streambank stabilization project locations is provided on page 529, while maps of flood control projects including reservoirs, Green Infrastructure, and other projects the District is implementing with local municipalities can be found on pages 530 - 533.

**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. In late 2017, the District solicited applications from municipalities and townships for assistance with the acquisition of flood-prone structures located throughout Cook County. The District previously entered into IGAs with several municipalities and the Cook County Land Bank Authority to acquire 58 flood-prone properties to date. Upon acquisition, the structures are removed and deed restrictions are placed on the acquired properties requiring them to remain as open spaces in perpetuity.

**INFILTRATION/INFLOW CONTROL PROGRAM ADMINISTRATION**

The District’s 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. The District is required to take action to reduce excessive I/I within the local sanitary sewer systems. The District administers the I/I Control Program to ensure separate sewer communities and other satellite entities maintain their sanitary sewer systems in order to reduce sanitary sewer overflows and basement backups and to minimize extraneous flows transported to District facilities due to defective system components or illegal connections.

## Stormwater Management Fund Program

Project Name	Project Number	Est. Construction Cost	MWRD 2019 Appropriation	Award Date	Est. Substantial Completion Date
Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, CSA	10-883-AF	\$ 7,583	\$ 363	Sep 2015	Jan 2020
Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills, CSA	10-882-DF	664	133	Apr 2016	Aug 2020
McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA	16-IGA-04	3,654	1,800	Jul 2016	Jul 2019
Installation of Green Infrastructure at Chicago Public Schools, Various Locations	15-IGA-20	16,000	10,575	Sep 2016	Dec 2022
* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	1,081	540	Feb 2018	Mar 2020
Flood Control Project at Arrowhead Lake in Palos Heights, CSA	10-883-BF	1,200	1,165	Sep 2018	Jul 2022
Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	14-252-5F	7,569	3,500	Sep 2018	Jan 2021
Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA	17-IGA-02	200	100	Sep 2018	Oct 2019
Parking Lot Pavers and a Bioinfiltration Basin at the Arlington Heights Police Station, NSA	18-IGA-01	358	100	Sep 2018	Mar 2019
Green Alleys Project in Harwood Heights, NSA	18-IGA-09	384	234	Sep 2018	Jun 2019
Storm Sewers in Reuters Subdivision in Franklin Park, SSA	18-IGA-23	378	189	Sep 2018	Jul 2019
Stormwater Infiltration Through the Establishment of Native Habitat at Three Chicago Parks, Various Locations	18-IGA-04	239	189	Oct 2018	Apr 2019
Green Alleys Project in Maywood, SSA	18-IGA-10	841	641	Oct 2018	Jun 2019
Streambank Stabilization Projects for Addison Creek, SSA	14-108-5F	1,823	1,503	Nov 2018	Aug 2022
Garfield Park Community Eco Orchard in Chicago, SSA	18-IGA-05	500	400	Nov 2018	Jan 2019
University of Illinois at Chicago Green Infrastructure at the Arthington Mall, SSA	18-IGA-18	242	192	Nov 2018	Jan 2019
Groveland Avenue Levee Improvements in Riverside, SSA	18-IGA-20	2,506	1,052	Nov 2018	Mar 2019
Permeable Pavement and Rain Gardens in Posen, CSA	18-IGA-15	125	125	Dec 2018	Apr 2019
Total Projects Under Construction		\$ 45,347	\$ 22,801		

**Awards in 2019**

Project Name	Project Number	Est. Construction Cost	MWRD 2019 Appropriation	Duration (days)	Est. Award Date
Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA	10-882-BF	\$ 1,568	\$ 634	1,261	Jan 2019
Flood Control Project on Midlothian Creek in Robbins, CSA	14-253-5F	11,000	4,100	502	Jan 2019
Storm Sewer Improvements in La Grange, SSA	16-IGA-02	3,000	2,000	369	Jan 2019
Green Alleys Project in Chicago, CSA	18-IGA-03	197	197	59	Jan 2019
Stormwater Storage in Mount Prospect, NSA	18-IGA-25	1,862	1,113	681	Jan 2019
Culvert Improvements in Elk Grove Village, NSA	18-IGA-30	1,250	646	365	Jan 2019
Storm Sewers and Outfall in Forest View, SSA	18-IGA-28	1,000	1,000	364	Mar 2019
Storm Sewers in Glenview, NSA	18-IGA-27	500	500	170	Apr 2019
Stormwater Storage Areas in Niles, NSA	18-IGA-31	2,000	504	585	Apr 2019
Expansion of Existing Detention Basin in Orland Park, CSA	18-IGA-33	558	558	364	Apr 2019
Relief Sewers to Mitigate Basement Backups in Arlington Heights, NSA	18-IGA-34	1,370	1,370	417	Apr 2019
Parking Lot Conversion in Park Ridge, NSA	18-IGA-08	320	270	59	May 2019
Wetland and Park Storage Projects in Winnetka, NSA	18-IGA-24	3,238	500	424	May 2019
* Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, CSA	15-IGA-14	387	200	306	Jun 2019
Lake Catherine Commuter Parking Lot in Palos Heights, CSA	18-IGA-14	184	184	59	Jun 2019
Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA	18-IGA-21	1,106	646	424	Jun 2019
Flood Control Project on Farmers and Prairie Creeks, NSA	12-056-5F	14,100	6,183	713	Jul 2019
Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA	14-111-5F	5,200	2,600	452	Jul 2019
Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA	14-259-5F	200	200	352	Jul 2019
Winchester Avenue Green Infrastructure Project in Calumet Park, CSA	18-IGA-02	325	163	300	Jul 2019
New Storm Sewers and Outfall to the North Shore Channel in Lincolnwood, NSA	18-IGA-22	1,392	1,392	364	Jul 2019
Orland Park Nature Center and Green Roofs in Orland Park, CSA	18-IGA-13	146	73	300	Aug 2019
Flood Control Project for Deer Creek, CSA	10-884-BF	6,500	1,720	683	Nov 2019
Green Infrastructure for the Peterson Ridge Metra Station in Chicago, NSA	18-IGA-11	1,082	541	59	Nov 2019
Total 2019 Awards		\$ 58,485	\$ 27,294		

**Projects Under Development**

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA	16-IGA-18	\$ 6,600	729	Feb 2020
Flood Control Project along Plainfield Road in Countryside, La Grange, McCook, and Lyons Township, SSA	14-112-5F	17,000	729	Mar 2020
Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, CSA	14-258-5F	9,300	317	Mar 2020
Storm Sewers and Outfall to Flagg Creek in Western Springs, SSA	18-IGA-32	192	240	Mar 2020
Flood Control Project for the Washington Street Area in Blue Island, CSA	14-260-5F	5,700	682	May 2020
Flood Control Project on Willow Road at McDonald Creek Tributary A in Prospect Heights, NSA	14-371-5F	1,800	670	May 2020
Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, CSA	14-257-5F	3,600	317	Jun 2020
Culvert Upsizing and Channel Improvements on Boca Rio Ditch in Oak Forest, CSA	18-IGA-26	203	120	Jun 2020
Flood Control Project on Central Road from the Des Plaines River to Greenwood Road, NSA	14-065-5F	12,000	683	Feb 2021
Total Future Awards		<u>\$ 56,395</u>		
Cumulative Projects Under Construction, 2019 Awards, and Future Awards		<u>\$ 160,227</u>		

\* This project is funded by the Capital Improvements Bond Fund and the Stormwater Management Fund. Refer to Section V Capital Budget for more information about Stormwater Management projects funded by alternative bonds.

**Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.**

**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 2019 award, or under development.

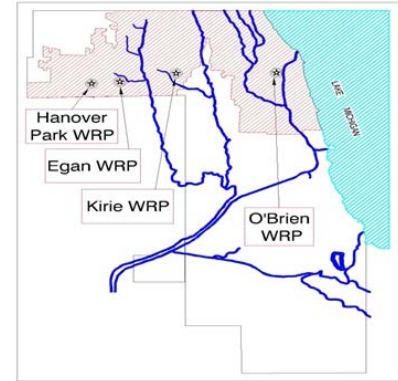
**STICKNEY  
SERVICE  
AREA (SSA)**



**Stickney Water Reclamation Plant (SWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
14-108-5F	Streambank Stabilization Projects for Addison Creek, SSA	8/22	\$ 1,823,306
15-IGA-20	Installation of Green Infrastructure at Chicago Public Schools, Various Locations	12/22	16,000,000
16-IGA-04	McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA	7/19	3,653,700
18-IGA-04	Stormwater Infiltration Through the Establishment of Native Habitat at Three Chicago Parks, Various Locations	4/19	238,930
18-IGA-05	Garfield Park Community Eco Orchard in Chicago, SSA	1/19	500,000
18-IGA-10	Green Alleys Project in Maywood, SSA	6/19	841,110
18-IGA-18	University of Illinois at Chicago Green Infrastructure at the Arthington Mall, SSA	1/19	242,000
18-IGA-20	Groveland Avenue Levee Improvements in Riverside, SSA	3/19	2,506,028
18-IGA-23	Storm Sewers in Reuters Subdivision in Franklin Park, SSA	7/19	378,000
	<b>Total</b>		<b>\$ 26,183,074</b>
<b>Projects for 2019 Award</b>			
14-111-5F	Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA		\$ 5,200,000
16-IGA-02	Storm Sewer Improvements in La Grange, SSA		3,000,000
18-IGA-21	Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA		1,106,300
18-IGA-28	Storm Sewers and Outfall in Forest View, SSA		1,000,000
	<b>Total</b>		<b>\$ 10,306,300</b>
<b>Projects Under Development</b>			
14-112-5F	Flood Control Project along Plainfield Road in Countryside, La Grange, McCook, and Lyons Township, SSA		\$ 17,000,000
18-IGA-32	Storm Sewers and Outfall to Flagg Creek in Western Springs, SSA		191,907
	<b>Total</b>		<b>\$ 17,191,907</b>
	<b>Stickney Service Area Grand Total</b>		<b>\$ 53,681,281</b>

**NORTH  
SERVICE  
AREA (NSA)**

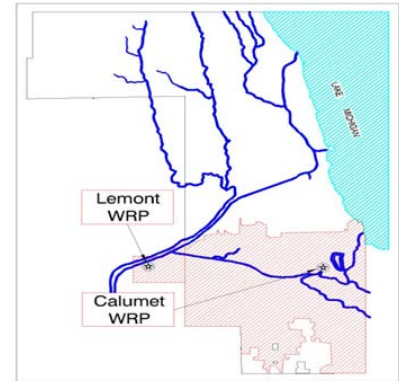


**Terrence J. O'Brien Water Reclamation Plant (OWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
13-370-3F	* Buffalo Creek Reservoir Expansion, NSA	3/20	\$ 1,081,000
18-IGA-01	Parking Lot Pavers and a Bioinfiltration Basin at the Arlington Heights Police Station, NSA	3/19	358,000
18-IGA-09	Green Alleys Project in Harwood Heights, NSA	6/19	383,984
		<b>Total</b>	<b>\$ 1,822,984</b>
<b>Projects for 2019 Award</b>			
12-056-5F	Flood Control Project on Farmers and Prairie Creeks, NSA		\$ 14,100,000
18-IGA-08	Parking Lot Conversion in Park Ridge, NSA		320,000
18-IGA-11	Green Infrastructure for the Peterson Ridge Metra Station in Chicago, NSA		1,082,000
18-IGA-22	New Storm Sewers and Outfall to the North Shore Channel in Lincolnwood, NSA		1,392,000
18-IGA-24	Wetland and Park Storage Projects in Winnetka, NSA		3,237,918
18-IGA-25	Stormwater Storage in Mount Prospect, NSA		1,862,322
18-IGA-27	Storm Sewers in Glenview, NSA		500,000
18-IGA-30	Culvert Improvements in Elk Grove Village, NSA		1,250,000
18-IGA-31	Stormwater Storage Areas in Niles, NSA		2,000,000
18-IGA-34	Relief Sewers to Mitigate Basement Backups in Arlington Heights, NSA		1,370,000
		<b>Total</b>	<b>\$ 27,114,240</b>
<b>Projects Under Development</b>			
14-065-5F	Flood Control Project on Central Road from the Des Plaines River to Greenwood Road, NSA		\$ 12,000,000
14-371-5F	Flood Control Project on Willow Road at McDonald Creek Tributary A in Prospect Heights, NSA		1,800,000
16-IGA-18	Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA		6,600,000
		<b>Total</b>	<b>\$ 20,400,000</b>
		<b>North Service Area Grand Total</b>	<b>\$ 49,337,224</b>



**CALUMET  
SERVICE  
AREA (CSA)**



**Calumet Water Reclamation Plant (CWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
10-882-DF	Streambank Stabilization/Flood Control Project on Tinley Creek in Orland Hills, CSA	8/20	\$ 664,000
10-883-AF	Flood Control/Streambank Stabilization Project on Tinley Creek in Crestwood, CSA	1/20	7,583,000
10-883-BF	Flood Control Project at Arrowhead Lake in Palos Heights, CSA	7/22	1,200,000
14-252-5F	Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	1/21	7,569,409
17-IGA-02	Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA	10/19	200,000
18-IGA-15	Permeable Pavement and Rain Gardens in Posen, CSA	4/19	125,000
		Total	<b>\$ 17,341,409</b>
<b>Projects for 2019 Award</b>			
10-882-BF	Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA		\$ 1,568,000
10-884-BF	Flood Control Project for Deer Creek, CSA		6,500,000
14-253-5F	Flood Control Project on Midlothian Creek in Robbins, CSA		11,000,000
14-259-5F	Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA		200,000
15-IGA-14	* Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, CSA		387,000
18-IGA-02	Winchester Avenue Green Infrastructure Project in Calumet Park, CSA		325,380
18-IGA-03	Green Alleys Project in Chicago, CSA		197,000
18-IGA-13	Orland Park Nature Center and Green Roofs in Orland Park, CSA		146,000
18-IGA-14	Lake Catherine Commuter Parking Lot in Palos Heights, CSA		184,000
18-IGA-33	Expansion of Existing Detention Basin in Orland Park, CSA		558,000
		Total	<b>\$ 21,065,380</b>

**Calumet Water Reclamation Plant (CWRP)**

		<b>Estimated Construction Cost</b>
<b>Projects Under Development</b>		
14-257-5F	Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, CSA	\$ 3,600,000
14-258-5F	Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, CSA	9,300,000
14-260-5F	Flood Control Project for the Washington Street Area in Blue Island, CSA	5,700,000
18-IGA-26	Culvert Upsizing and Channel Improvements on Boca Rio Ditch in Oak Forest, CSA	203,094
Total		<u>\$ 18,803,094</u>
Calumet Service Area Grand Total		<u>\$ 57,209,883</u>
Capital Projects Grand Total - All Service Areas		<u><u>\$ 160,228,388</u></u>

\* These projects are funded by the Capital Improvements Bond Fund and the Stormwater Management Fund.

### Streambank Stabilization Project on Tinley Creek, CSA

**Project Number** 10-882-AF

**Service Area** Calumet

**Location** Orland Park, IL

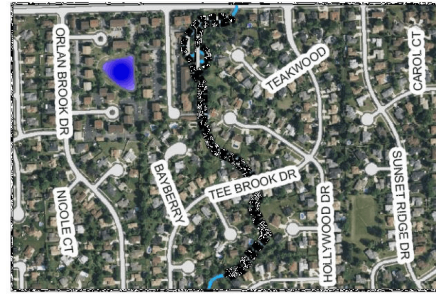
**Engineering Consultant** Michael Baker International, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,806,000

**Contract Award Date** July-19

**Substantial Completion Date** May-23



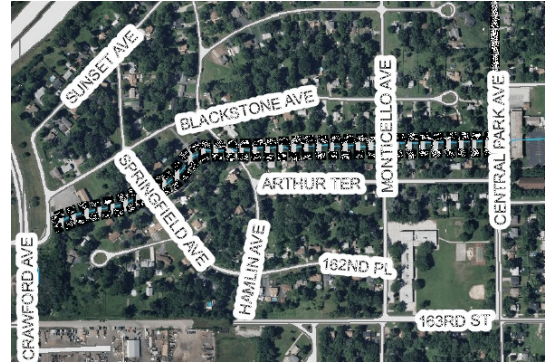
**Project Description** This project will stabilize approximately 2,200 linear feet of Tinley Creek between 86th Avenue and Crystal Creek Drive and approximately 2,800 linear feet between 151st Street and Oriole Court at two locations in the Village of Orland Park.

**Project Justification** Safety/Regulatory. This project will protect structures and infrastructure in imminent danger of failure due to active streambank erosion.

**Project Status** Design

## Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA

<b>Project Number</b>	10-882-BF
<b>Service Area</b>	Calumet
<b>Location</b>	Markham, IL
<b>Engineering Consultant</b>	Michael Baker International, Inc.
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,568,000
<b>Contract Award Date</b>	January-19
<b>Substantial Completion Date</b>	July-22
<b>Project Description</b>	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 will require one year of monitoring and maintenance after the substantial completion.
<b>Project Justification</b>	Safety/Regulatory. This project will protect 42 residential structures and infrastructure in imminent danger of failure from active streambank erosion and flooding.
<b>Project Status</b>	Design



## 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.

**Engineering Contractor** Cardno, Inc.

**Estimated Construction Cost** \$664,000

**Contract Award Date** April-16

**Substantial Completion Date** August-20



**Project Description** This project consists of naturalized channel stabilization/flood control on Tinley Creek, from Lake Lorin to 88th Avenue, in Orland Hills. A failing pipe will be removed and instead of replacing it, a meandering channel will be created with native landscaping. This project is in the Cal-Sag Channel Watershed.

**Project Justification** Safety/Regulatory. This project will protect against erosion along a segment of Tinley Creek and reduce the risk of overtopping of the Lake Lorin outlet structure.

**Project Status** Construction

## 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.

**Engineering Contractor** Industria, Inc.

**Estimated Construction Cost** \$7,583,000

**Contract Award Date** September-15

**Substantial Completion Date** January-20



**Project Description** This project will increase the conveyance capacity of Tinley Creek for about 2,000 feet downstream of Central Avenue in Crestwood. This project is in the Cal-Sag Channel Watershed.

**Project Justification** Safety/Regulatory. This project will provide protection from a 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** Construction

### Flood Control Project at Arrowhead Lake in Palos Heights, CSA

**Project Number** 10-883-BF

**Service Area** Calumet

**Location** Palos Heights, IL

**Engineering Consultant** CH2M Hill Engineers, Inc.

**Engineering Contractor** IHC Construction Companies, LLC

**Estimated Construction Cost** \$1,200,000

**Contract Award Date** September-18

**Substantial Completion Date** July-22



**Project Description** This project will raise an existing bicycle trail on the north side of Arrowhead Lake, in unincorporated Palos Heights, to increase stormwater storage in the lake.

**Project Justification** Safety/Regulatory. This project will remove approximately 70 structures from the Federal Emergency Management Agency Zone A floodplain.

**Project Status** Design

### Flood Control Project for Deer Creek, CSA

**Project Number** 10-884-BF

**Service Area** Calumet

**Location** Ford Heights, IL

**Engineering Consultant** Black & Veatch Corporation, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$6,500,000

**Contract Award Date** November-19

**Substantial Completion Date** October-21

**Project Description** This project reduces flooding damages by increasing channel conveyance and raising a berm for about 3,000 feet between U.S. Route 30 and Hammond Lane in the Village of Ford Heights. The project includes the construction of vegetated berm, stabilization of bank slopes, and placement of pools and rock riffles as well as diverse riparian plantings.

**Project Justification** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding, which affects approximately 270 structures in the Village of Ford Heights.

**Project Status** Design





### Addison Creek Reservoir, SSA

**Project Number** 11-186-3F

**Service Area** Stickney

**Location** Bellwood, IL

**Engineering Consultant** Christopher B. Burke Engineering, Ltd.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$95,760,600

**Contract Award Date** January-19

**Substantial Completion Date** February-22



**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** This project, along with the 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. Approximately 1,700 of 2,200 benefiting structures will be removed from the floodplain. In addition to providing flood control benefits, this reservoir will serve as compensatory storage for the channel improvement project. The District will operate and maintain the control and inlet structures, spillway, piping and pump station, while the Village of Bellwood will maintain the grounds, including landscaping, fencing, and access roadways. The impact of these operations on the District will be minor and are expected to result in redirecting manpower toward facility operations with no net change in total position costs and with a negligible impact on the District's overall energy budget.

**Project Status** Design

### Addison Creek Channel Improvements, SWRP

<b>Project Number</b>	11-187-3F
<b>Service Area</b>	Stickney
<b>Location</b>	Northlake, Melrose Park, Stone Park, Bellwood, Westchester, and Broadview, IL
<b>Engineering Consultant</b>	Hey & Associates, Inc.
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$42,700,000
<b>Contract Award Date</b>	October-19
<b>Substantial Completion Date</b>	August-22
<b>Project Description</b>	This project will improve channel conveyance in Northlake, Melrose Park, Stone Park, Bellwood, Westchester, and Broadview. The project includes various types of channel improvements, such as open channel, gabions, sheet piles, riprap, and stream clearing.
<b>Project Justification</b>	Safety/Regulatory. This project, along with the Addison Creek Reservoir 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. The compensatory storage required for these channel improvements will be provided with the Addison Creek Reservoir project.
<b>Project Status</b>	Design



## Flood Control Project on Farmers and Prairie Creeks, NSA

**Project Number** 12-056-5F

**Service Area** North

**Location** Park Ridge, IL and Maine Township

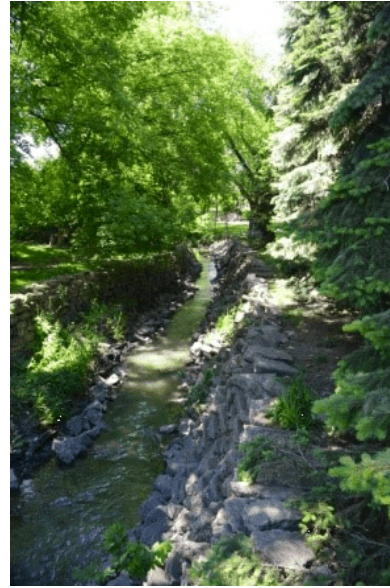
**Engineering Consultant** HNTB Corporation

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$14,100,000

**Contract Award Date** July-19

**Substantial Completion Date** July-21



**Project Description** This project includes flood storage and conveyance improvements along Farmers and Prairie Creeks, including channel modifications, detention expansion, diversion sewer construction, and streambank stabilization.

**Project Justification** Safety/Regulatory. This project will help alleviate public health and safety concerns by reducing overbank flooding to approximately 128 structures and protecting numerous buildings through streambank stabilization.

**Project Status** Design

## 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.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$8,800,000

**Contract Award Date** January-19

**Substantial Completion Date** February-21

**Project Description** This project consists of streambank stabilization along Melvina Ditch from 95th Street to 99th Street. This project is intended to address areas of critical erosion which threaten structures. This project is in the Cal-Sag Channel Watershed.

**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** Design



### Buffalo Creek Reservoir Expansion, NSA

<b>Project Number</b>	13-370-3F
<b>Service Area</b>	North
<b>Location</b>	Long Grove, IL
<b>Engineering Consultant</b>	Hey & Associates, Inc.
<b>Engineering Contractor</b>	Lake County Grading Co., LLC
<b>Estimated Construction Cost</b>	\$9,678,900
<b>Contract Award Date</b>	February-18
<b>Substantial Completion Date</b>	March-20
<b>Project Description</b>	This project consists of a 172 acre-foot expansion of the existing Buffalo Creek Reservoir. This project is a modification of the original BUCR-3 project identified in the Lower Des Plaines Detailed Watershed Plan. The project includes relocating trails and bridges above the reservoir's inundation level. This project is located in the Lower Des Plaines Tributary Watershed.
<b>Project Justification</b>	Safety/Regulatory. Approximately 104 structures will receive flood protection from the expansion.
<b>Project Status</b>	Construction



**Streambank Stabilization Projects for Addison Creek, SSA**

**Project Number** 14-108-5F

**Service Area** Stickney

**Location** North Riverside and Northlake, IL

**Engineering Consultant** Burns & McDonnell Engineering Co., Inc.

**Engineering Contractor** Industria, Inc.

**Estimated Construction Cost** \$1,823,306

**Contract Award Date** November-18

**Substantial Completion Date** August-22

**Project Description** The scope of this project involves the stabilization of approximately 750 feet of Addison Creek adjacent to Fullerton Avenue in Northlake and 410 linear feet of streambank adjacent to 19th Avenue in 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** Construction



## Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA

**Project Number** 14-111-5F

**Service Area** Stickney

**Location** Unincorporated Cook County, IL

**Engineering Consultant** Ciorba Group, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$5,200,000

**Contract Award Date** July-19

**Substantial Completion Date** September-20

**Project Description** This project will increase the 1st Avenue drainage conveyance capacity by replacing the existing storm sewer system with two parallel trunk sewers ranging in size from 18-inches to 48-inches on the east side and 18-inches to 36-inches on the west side. Multiple bioswales, in conjunction with the "daylighting" of lateral sewers and the installation of underdrains, will be installed along the Cook County Forest Preserve areas, east of 1st Avenue.

**Project Justification** The proposed improvements will address flooding along 1st Avenue between Roosevelt Road and Cermak Road which impairs hospital and ambulance personnel access to the Loyola University Medical Center.

**Project Status** Planning



### 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 Co., Inc.

**Engineering Contractor** IHC Construction Companies, LLC

**Estimated Construction Cost** \$7,569,409

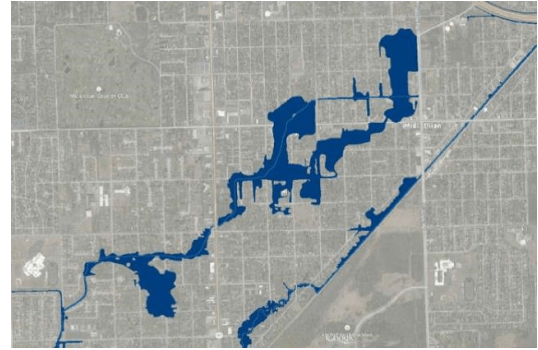
**Contract Award Date** September-18

**Substantial Completion Date** January-21

**Project Description** The scope of the project is to install flood control measures along Natalie Creek from 157th Street and Central Park in Oak Forest to 146th Street and Pulaski Road in Midlothian. This project is in the Little Calumet River Watershed.

**Project Justification** The scope of this project is to address overbank flooding by upsizing restrictive culverts, widening the channel at several locations, and creating a new stormwater storage basin along Natalie Creek. The project increases the level of protection to existing residential and commercial structures and will provide flood reduction benefits for 237 structures.

**Project Status** Design





### Flood Control Project on Midlothian Creek in Robbins, CSA

**Project Number** 14-253-5F

**Service Area** Calumet

**Location** Robbins, IL

**Engineering Consultant** Donohue & Associates, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$11,000,000

**Contract Award Date** January-19

**Substantial Completion Date** May-20

**Project Description** This three-phase project on Midlothian Creek in Robbins will include the construction of a diversion channel to the Calumet-Sag Channel, channel improvements on Midlothian Creek, and the construction of a naturalized detention area to resemble a park setting.

**Project Justification** This project will provide flood relief for an estimated 92 structures in Robbins.

**Project Status** Design



## Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA

**Project Number** 14-259-5F

**Service Area** Calumet

**Location** Palos Heights, IL

**Engineering Consultant** To be determined

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$200,000

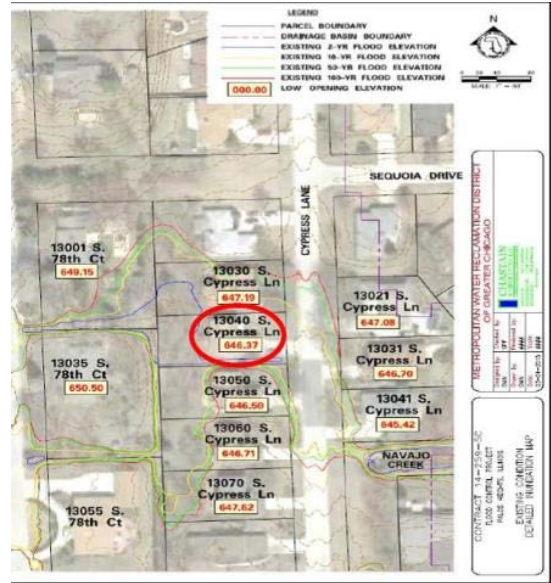
**Contract Award Date** July-19

**Substantial Completion Date** June-20

**Project Description** This project will involve the acquisition and demolition of 13040 South Cypress Lane and the installation of a swale at this location along with the installation of a new downstream storm sewer and outfall to Navajo Creek.

**Project Justification** Flood Control. This project will protect three residential properties at risk from a 100-year storm and will alleviate public health and safety concerns by reducing overbank flooding.

**Project Status** Design



## Melvina Ditch Reservoir Improvements, SSA

<b>Project Number</b>	14-263-3F
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney Township
<b>Engineering Consultant</b>	V3 Companies of Illinois, Ltd.
<b>Engineering Contractor</b>	F.H. Paschen, S.N. Nielsen, and Associates, LLC
<b>Estimated Construction Cost</b>	\$14,245,000
<b>Contract Award Date</b>	November-17
<b>Substantial Completion Date</b>	May-21



<b>Project Description</b>	<p>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 are immediately adjacent to the pumping station and in the 87th Street right-of-way as 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.</p>
<b>Project Justification</b>	<p>This project will reduce flooding for an estimated 430 structures in the City of Burbank and the Village of Oak Lawn.</p>
<b>Project Status</b>	Construction

### Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, CSA

**Project Number** 15-IGA-14

**Service Area** Calumet

**Location** Glenwood, IL

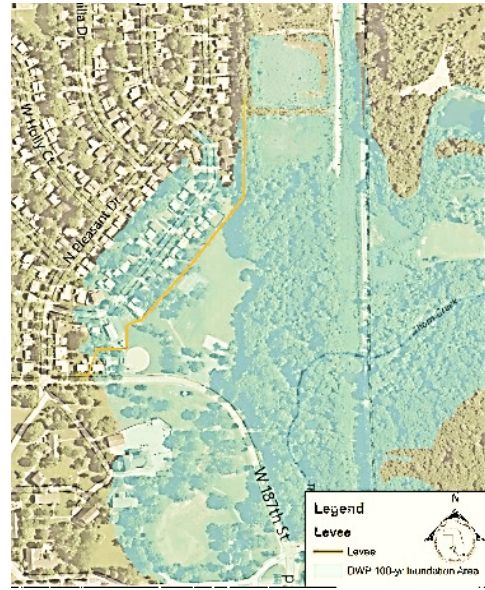
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,870,000

**Contract Award Date** June-19

**Substantial Completion Date** May-20



**Project Description** This project will provide a levee at Arquilla Park to protect residential structures from overbank flooding. The Village of Glenwood is responsible for the design, construction, operation, and maintenance of this project.

**Project Justification** The project will protect approximately 31 residential structures from overbank flooding along Thorn Creek.

**Project Status** Design

## Installation of Green Infrastructure at Chicago Public Schools, Various Locations

**Project Number** 15-IGA-20

**Service Area** Calumet, North, and Stickney

**Location** All Service Areas

**Engineering Consultant** Not Applicable

**Engineering Contractor** Multiple/To be determined

**Estimated Construction Cost** \$16,000,000

**Contract Award Date** September-16

**Substantial Completion Date** December-22



**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** The Chicago Public Schools Green Infrastructure projects will reduce the current load to the combined sewer systems and alleviate flooding within the project areas.

**Project Status** Cost Sharing Agreement

### Storm Sewer Improvements in La Grange, SSA

**Project Number** 16-IGA-02

**Service Area** Stickney

**Location** La Grange, IL

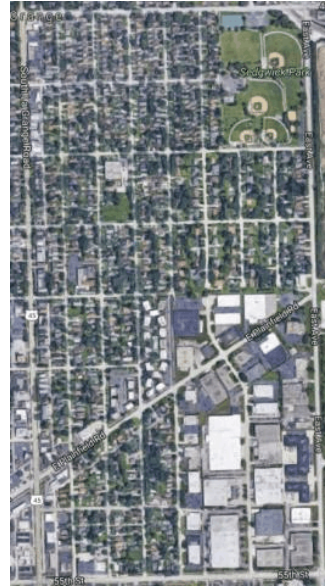
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,000,000

**Contract Award Date** January-19

**Substantial Completion Date** January-20



**Project Description** 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** This project will reduce overland flow flooding and eliminate basement backups.

**Project Status** Cost Sharing Agreement

### McDermott Drive/Morris Avenue Storm Sewer Improvements, SSA

**Project Number** 16-IGA-04

**Service Area** Stickney

**Location** Berkeley, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$3,653,700

**Contract Award Date** July-16

**Substantial Completion Date** July-19



**Project Description** This project will 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** This project will reduce flooding for nearly 800 residential structures in the Village of Berkeley.

**Project Status** Cost Sharing Agreement

## 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

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$8,000,000

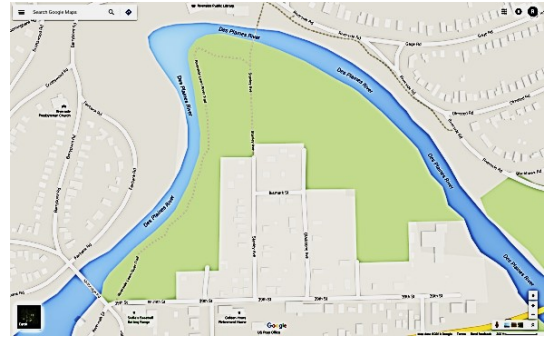
**Contract Award Date** July-16

**Substantial Completion Date** June-19

**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. The purchase of these homes will reduce the flood hazard risk in the Riverside Lawn area.

**Project Status** Cost Sharing Agreement





**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

**Engineering  
Contractor** Not Applicable

**Estimated  
Construction Cost** \$3,625,000

**Contract Award  
Date** February-17

**Substantial  
Completion Date** February-19

**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. The purchase of these homes will reduce the flood hazard risk in Des Plaines.

**Project Status** Cost Sharing Agreement



## Acquisition, Conversion to, and Maintenance of Open Space of Certain Flood-Prone Parcels of Real Property Located along Silver Creek, Franklin Park, SSA

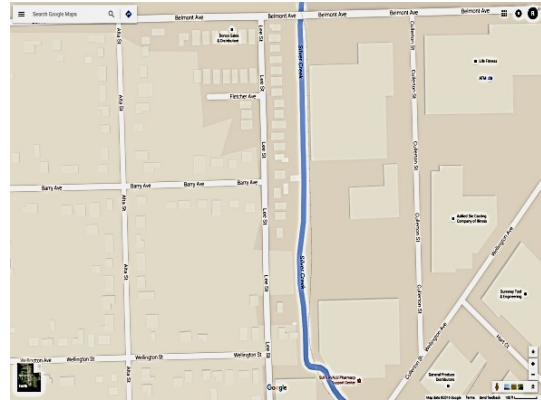
**Project Number** 16-IGA-13

**Service Area** Stickney

**Location** Franklin Park, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable



**Estimated Construction Cost** \$4,681,000

**Contract Award Date** May-18

**Substantial Completion Date** May-20

**Project Description** Purchase 32 flood-prone homes along the Silver Creek. This is a cost sharing agreement with the Village of Franklin Park.

**Project Justification** Flood Control. The purchase of these homes will reduce the flood hazard risk in Franklin Park.

**Project Status** Cost Sharing Agreement

## Pilot Study for Investigating Technology to Address Basement Backups, CSA and SSA

**Project Number** 16-IGA-20

**Service Area** Calumet and Stickney

**Location** Chicago, IL

**Engineering Consultant** City of Chicago

**Engineering Contractor** City of Chicago

**Estimated Construction Cost** \$400,000

**Contract Award Date** November-18

**Substantial Completion Date** December-20



**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** This is an Intergovernmental and Cost Sharing Agreement with the City of Chicago, which is responsible for design, construction, operation, and maintenance pertaining to this project. The District provides funding assistance. The results of the pilot study will provide valuable information for consideration in future efforts to address flooding in the region.

**Project Status** Cost Sharing Agreement

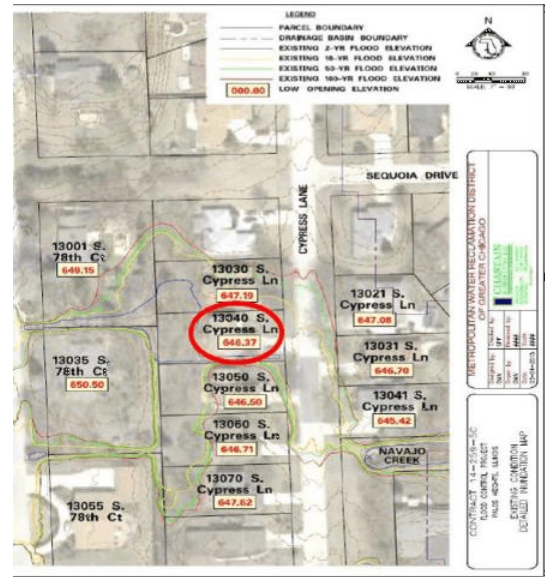
## Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA

<b>Project Number</b>	17-IGA-02
<b>Service Area</b>	Calumet
<b>Location</b>	Robbins, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$200,000
<b>Contract Award Date</b>	September-18
<b>Substantial Completion Date</b>	October-19
<b>Project Description</b>	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 the Flood Control Project on Midlothian Creek (Contract 14-253-3F) in the Village. The District will assist the Village in acquiring the needed parcels at an estimated cost of \$200,000. The current estimate will cover legal fees, court filing fees, and the cost of title work and insurance.
<b>Project Justification</b>	Flood Control. The land acquisitions are necessary for a flood control project that will provide flood relief to over 140 acres and 100 homes.
<b>Project Status</b>	Cost Sharing Agreement



## Land Acquisition for a Flood Control Project in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA

<b>Project Number</b>	17-IGA-04
<b>Service Area</b>	Calumet
<b>Location</b>	Palos Heights, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$370,000
<b>Contract Award Date</b>	May-19
<b>Substantial Completion Date</b>	September-19



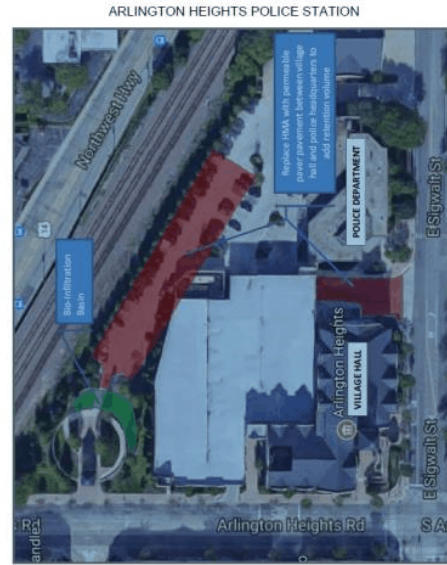
**Project Description** This is an Intergovernmental and Cost Sharing Agreement with the City of Palos Heights for the acquisition of residential property/land needed for the related project 14-259-5F, Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA.

**Project Justification** Residential property/land needed for the recommended flood control project will protect three residential properties from the risk of flooding.

**Project Status** Cost Sharing Agreement

## Parking Lot Pavers and a Bioinfiltration Basin at the Arlington Heights Police Station, NSA

<b>Project Number</b>	18-IGA-01
<b>Service Area</b>	North
<b>Location</b>	Arlington Heights, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$358,000
<b>Contract Award Date</b>	September-18
<b>Substantial Completion Date</b>	March-19



**Project Description** The Village of Arlington Heights is installing a permeable parking lot along with a bioswale at the Arlington Heights Police Station located at 200 East Sigwall Street. The District will be providing reimbursement funding for up to 23.6 percent of the total \$1,515,000 construction cost through an Intergovernmental Agreement.

**Project Justification** The Arlington Heights Green Infrastructure project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement

## Winchester Avenue Green Infrastructure Project in Calumet Park, CSA

**Project Number** 18-IGA-02

**Service Area** Calumet

**Location** Calumet Park, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$325,380

**Contract Award Date** July-19

**Substantial Completion Date** May-20



**Project Description** The Village of Calumet Park will be installing a storage pond and modernizing an existing combined sewer. The project will include planting native trees, tree trenches, bioswales, permeable pavement, and rain gardens. The location is between 124th Street and 127th Street, between Lincoln Avenue and Winchester Avenue. The District will be providing reimbursement funding for up to 32.5 percent of the total \$1,000,000 construction cost through an Intergovernmental Agreement.

**Project Justification** The Winchester Avenue Green Infrastructure project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation

### Green Alleys Project in Chicago, CSA

**Project Number** 18-IGA-03

**Service Area** Calumet

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$197,000

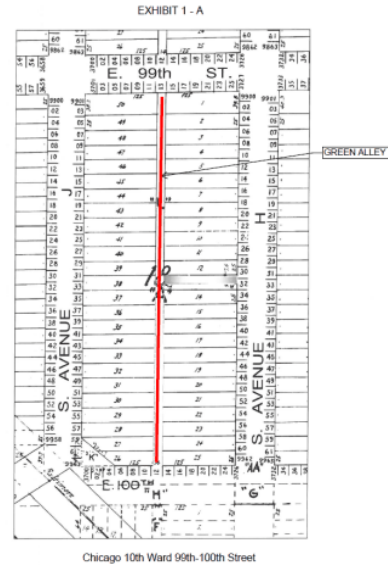
**Contract Award Date** January-19

**Substantial Completion Date** March-19

**Project Description** The 10th Ward in the City of Chicago will be replacing two alleys with permeable pavement located in various locations in the 10th Ward. The District will be providing reimbursement funding for up to 58.8 percent of the estimated \$335,000 construction cost through an Intergovernmental Agreement.

**Project Justification** The Green Alleys Project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation





## Stormwater Infiltration Through the Establishment of Native Habitat at Three Chicago Parks, Various Locations

**Project Number** 18-IGA-04

**Service Area** Calumet, North, and Stickney

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$238,930

**Contract Award Date** October-18

**Substantial Completion Date** April-19

**Project Description** The Chicago Park District's project will replace turf grass with native plantings at three Chicago parks. The District will be providing reimbursement funding for up to 50.0 percent of the total \$477,959 construction cost through an Intergovernmental Agreement.

**Project Justification** The Chicago Park District Stormwater Project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement



## Garfield Park Community Eco Orchard in Chicago, SSA

**Project Number** 18-IGA-05

**Service Area** Stickney

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$500,000

**Contract Award Date** November-18

**Substantial Completion Date** January-19

**Project Description** The City of Chicago's project will construct food forests in the area of 5th Avenue between Mozart Avenue and Kedzie Avenue. The District will be providing reimbursement funding for up to 55.6 percent of the estimated \$900,000 construction cost through an Intergovernmental Agreement.

**Project Justification** Curb cuts and runnels will be included to route water to areas with native plantings to reduce the current load to the combined sewer system and to help alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement



### Parking Lot Conversion in Park Ridge, NSA

**Project Number** 18-IGA-08

**Service Area** North

**Location** Park Ridge, IL

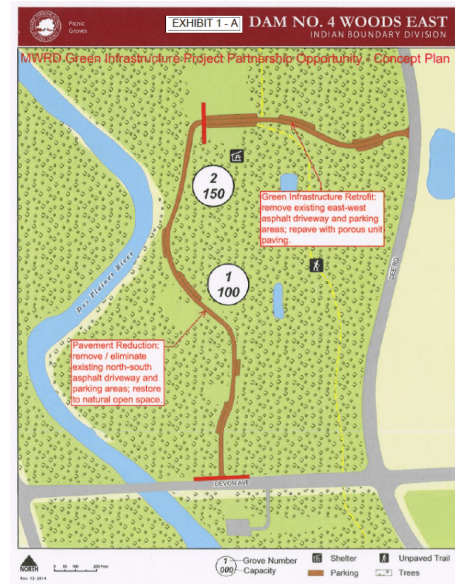
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$320,000

**Contract Award Date** May-19

**Substantial Completion Date** July-19



**Project Description** The Forest Preserve District of Cook County's project will convert an asphalt parking lot into a smaller permeable pavement parking lot. The remainder of the parking lot will be converted into open space. The District will be providing reimbursement funding for up to 63.8 percent of the estimated \$501,313 construction cost through an Intergovernmental Agreement.

**Project Justification** The parking lot conversion will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation

### Green Alleys Project in Harwood Heights, NSA

<b>Project Number</b>	18-IGA-09
<b>Service Area</b>	North
<b>Location</b>	Harwood Heights, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$383,984
<b>Contract Award Date</b>	September-18
<b>Substantial Completion Date</b>	June-19



<b>Project Description</b>	The Village of Harwood Heights will be replacing two alleys with permeable pavement. One alley is located between Olcott Avenue, Winnemac Avenue, and Argyle Avenue, and the other is located between Forest Preserve Drive, Sunnyside Avenue, and Naragansett Avenue. The District will be providing reimbursement funding for up to 65.8 percent of the total \$583,500 construction cost through an Intergovernmental Agreement.
<b>Project Justification</b>	The Green Alleys Project will reduce the current load to the combined sewer system and alleviate flooding within the project area.
<b>Project Status</b>	Cost Sharing Agreement

### Green Alleys Project in Maywood, SSA

**Project Number** 18-IGA-10

**Service Area** Stickney

**Location** Maywood, IL

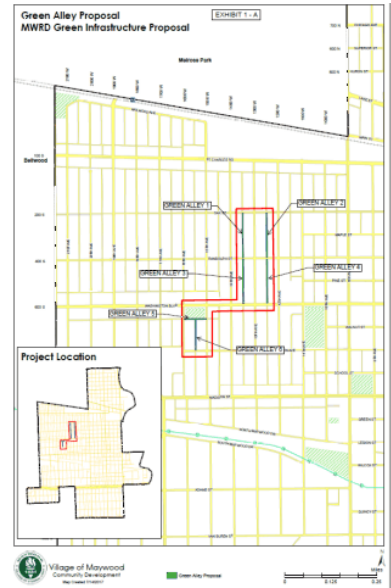
**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$841,110

**Contract Award Date** October-18

**Substantial Completion Date** June-19



**Project Description** The Village of Maywood will be replacing six alleys with permeable pavement located in various locations throughout the Village. The District will be providing reimbursement funding for up to 70.0 percent of the estimated \$1,201,585 construction cost through an Intergovernmental Agreement.

**Project Justification** The Green Alleys Project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement

### Green Infrastructure for the Peterson Ridge Metra Station in Chicago, NSA

<b>Project Number</b>	18-IGA-11
<b>Service Area</b>	North
<b>Location</b>	Chicago, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,082,000
<b>Contract Award Date</b>	November-19
<b>Substantial Completion Date</b>	January-20



<b>Project Description</b>	Metra is constructing a new train station located at Peterson Avenue and Ravenswood Avenue in Chicago. Some of the construction will include Green Infrastructure technologies such as permeable pavement and on-site filtration. The District will be providing reimbursement funding for up to 7.5 percent of the total \$15,000,000 construction cost through an Intergovernmental Agreement.
<b>Project Justification</b>	The permeable pavement parking lot and other Green Infrastructure components will reduce the current load to the combined sewer system and help alleviate flooding within the project area.
<b>Project Status</b>	Negotiation / Evaluation

## Orland Park Nature Center and Green Roofs in Orland Park, CSA

**Project Number** 18-IGA-13

**Service Area** Calumet

**Location** Orland Park, IL

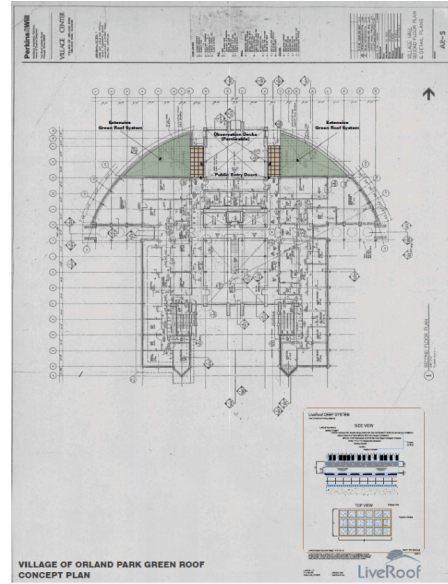
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$146,000

**Contract Award Date** August-19

**Substantial Completion Date** June-20



**Project Description** The Village of Orland Park proposes the construction of permeable pavement, naturalized plantings, and a wetland at the Orland Park Nature Center (near La Grange Road and Southwest Highway). The Village also plans to construct green roofs at the Orland Park Village Hall, which will provide an estimated stormwater design retention capacity of 4,032 gallons. The District will be providing reimbursement funding for up to 48.3 percent of the estimated \$302,000 construction cost through an Intergovernmental Agreement.

**Project Justification** The Village of Orland Park plans to build green roofs and other potential Green Infrastructure projects such as permeable pavement and rain gardens. The project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation

### Lake Catherine Commuter Parking Lot in Palos Heights, CSA

<b>Project Number</b>	18-IGA-14
<b>Service Area</b>	Calumet
<b>Location</b>	Palos Heights, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$184,000
<b>Contract Award Date</b>	June-19
<b>Substantial Completion Date</b>	August-19
<b>Project Description</b>	The City of Palos Heights will be installing a permeable parking lot along with rain gardens, bioswales, and a detention basin at Lake Catherine located at Harlem Avenue and College Drive (Illinois Route 83). The District will be providing reimbursement funding for up to 29.0 percent of the total \$634,000 construction cost through an Intergovernmental Agreement.
<b>Project Justification</b>	The parking lot and other Green Infrastructure will reduce the current load to the combined sewer system and alleviate flooding within the project area.
<b>Project Status</b>	Negotiation / Evaluation





### Permeable Pavement and Rain Gardens in Posen, CSA

**Project Number** 18-IGA-15

**Service Area** Calumet

**Location** Posen, IL

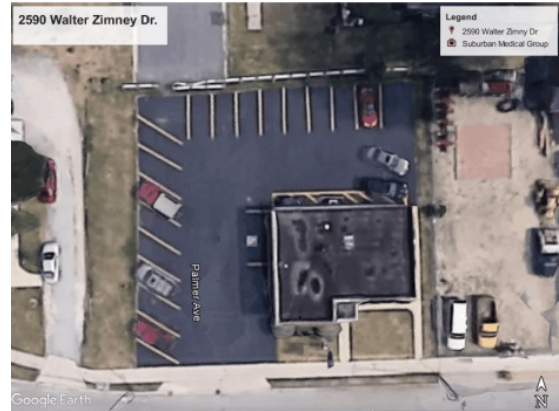
**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$125,000

**Contract Award Date** December-18

**Substantial Completion Date** April-19



**Project Description** The District will design up to three permeable parking lots and rain gardens for the Village of Posen. The locations will be at the Civic Center (2450 Walter Zimny Drive), the Veterans of Foreign Wars Hall (2590 Walter Zimny Drive), and the Civic Center at 144th Street and Campbell Avenue. The project will be funded through an Intergovernmental Agreement.

**Project Justification** The Posen Permeable Pavement and Rain Gardens project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement

## University of Illinois at Chicago Green Infrastructure at the Arthington Mall, SSA

**Project Number** 18-IGA-18

**Service Area** Stickney

**Location** Chicago, IL

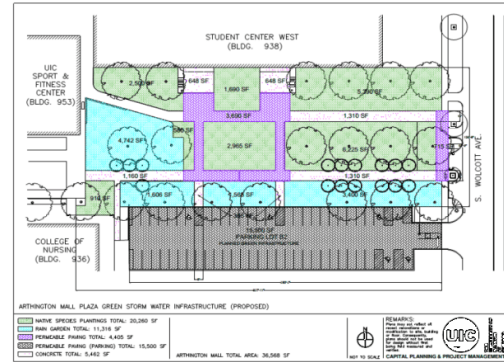
**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$242,000

**Contract Award Date** November-18

**Substantial Completion Date** January-19



**Project Description** The University of Illinois at Chicago's project will install porous pavers, rain gardens, and native landscaping at Arthington Mall. The District will be providing reimbursement funding for up to 44.5 percent of the total \$544,000 construction cost through an Intergovernmental Agreement.

**Project Justification** The University of Illinois at Chicago Green Infrastructure project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Cost Sharing Agreement

### Groveland Avenue Levee Improvements in Riverside, SSA

**Project Number** 18-IGA-20

**Service Area** Stickney

**Location** Riverside, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$2,506,028

**Contract Award Date** November-18

**Substantial Completion Date** March-19



**Project Description** The Groveland Avenue levee, located in the Village of Riverside (Village), will be improved by raising the levee with a sheet pile floodwall. A pumping station will be built to drain the land side of the levee. An adjacent street will be raised or protected by additional flood walls. The Village will enter a Project Partnership Agreement with the Army Corps of Engineers as its local sponsor. The District will enter into an Intergovernmental Agreement with the Village to provide the non-federal share of the design and construction costs.

**Project Justification** This project increases the level of protection the levee provides to adjacent homes.

**Project Status** Cost Sharing Agreement

## Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA

**Project Number** 18-IGA-21

**Service Area** Stickney

**Location** Forest Park, IL

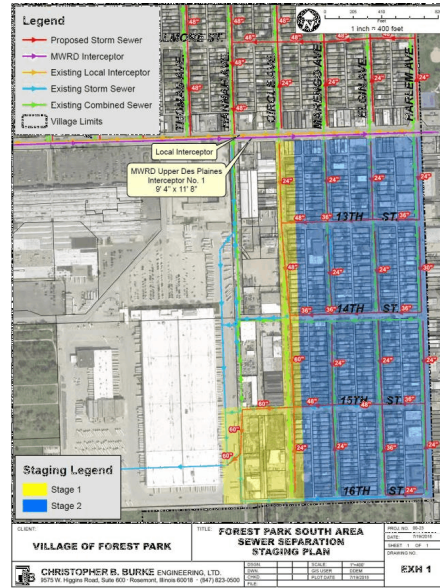
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,106,300

**Contract Award Date** June-19

**Substantial Completion Date** July-20



**Project Description** The Village of Forest Park will construct and connect a storm sewer system to an existing outfall to the Des Plaines River. The proposed system will prevent surface water from entering into the current combined system and will reduce basement and overland flooding.

**Project Justification** This project will protect 273 structures from basement and overland flooding.

**Project Status** Design

## New Storm Sewers and Outfall to the North Shore Channel in Lincolnwood, NSA

**Project Number** 18-IGA-22

**Service Area** North

**Location** Lincolnwood, IL

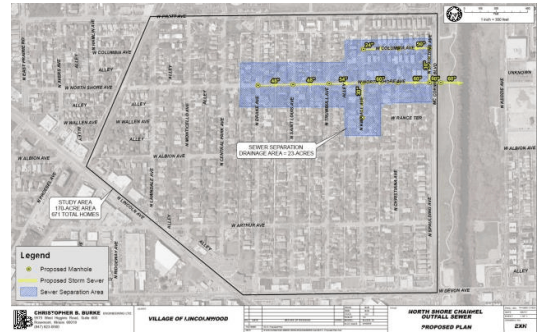
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,392,000

**Contract Award Date** July-19

**Substantial Completion Date** July-20



**Project Description** The Village of Lincolnwood is proposing to construct a separate storm sewer system that will mitigate overland flooding and basement backups for a 23-acre residential area. The stormwater sewer system will range in size from 24-inches to 60-inches and will outfall to the North Shore Channel. This second phase will complete the Village's overall "Stormwater Street Storage Program" involving previously installed inlet restrictors for a combined sewer system.

**Project Justification** The Village's completed "Stormwater Street Storage Program" will lower the number of structures affected by basement flooding from 551 to 403 homes. The purpose of the new storm sewer is to remove overland flow from the residential area and outfall the stormwater to the North Shore Channel.

**Project Status** Design

### Storm Sewers in Reuters Subdivision in Franklin Park, SSA

**Project Number** 18-IGA-23

**Service Area** Stickney

**Location** Franklin Park, IL

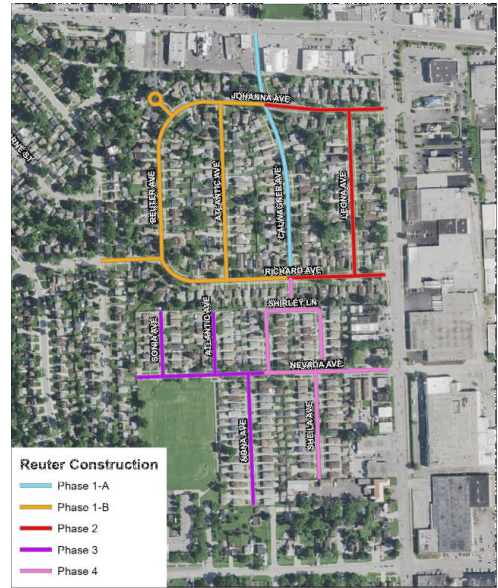
**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$378,000

**Contract Award Date** September-18

**Substantial Completion Date** July-19



**Project Description** The Village of Franklin Park will remove existing storm sewers and replace them with larger capacity sewers as well as install storm sewers where none previously existed.

**Project Justification** The overall project area has been divided into four phases, in which this project represents a part of the first phase. The overall project will reduce the effects of a 100-year storm on an estimated 67 structures.

**Project Status** Cost Sharing Agreement

### Wetland and Park Storage Projects in Winnetka, NSA

**Project Number** 18-IGA-24

**Service Area** North

**Location** Winnetka, IL

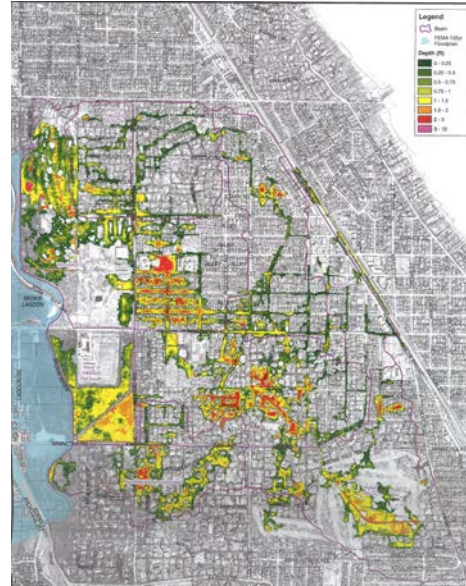
**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$3,237,918

**Contract Award Date** May-19

**Substantial Completion Date** July-20



**Project Description** This project will provide a wetland and an underground stormwater storage area near the Skokie River and will be designed, constructed, operated, and maintained by the Village of Winnetka.

**Project Justification** The project will reduce flooding for an estimated 474 structures in the Village of Winnetka.

**Project Status** Design

### Stormwater Storage in Mount Prospect, NSA

<b>Project Number</b>	18-IGA-25
<b>Service Area</b>	North
<b>Location</b>	Mount Prospect, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,862,322
<b>Contract Award Date</b>	January-19
<b>Substantial Completion Date</b>	December-20
<b>Project Description</b>	The Village of Mount Prospect will construct two stormwater storage areas to relieve flooding in a low-lying residential area located in the interior of the Levee 37 drainage area.
<b>Project Justification</b>	The proposed improvements will provide additional stormwater protection to a separate Levee 37 Army Corps of Engineers proposed pump upgrades project. The additional stormwater storage areas will protect 23 structures currently at risk from a 100-year storm as well as provide additional flood reduction benefits for an estimated 120 additional structures.
<b>Project Status</b>	Design





### Storm Sewers in Glenview, NSA

**Project Number** 18-IGA-27

**Service Area** North

**Location** Glenview, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$500,000

**Contract Award Date** April-19

**Substantial Completion Date** September-19

**Project Description** The Village of Glenview will upsize nearly 3,500 linear feet of storm sewers in areas east of Harms Road.

**Project Justification** This project will provide flood reduction benefits for an estimated 20 structures.

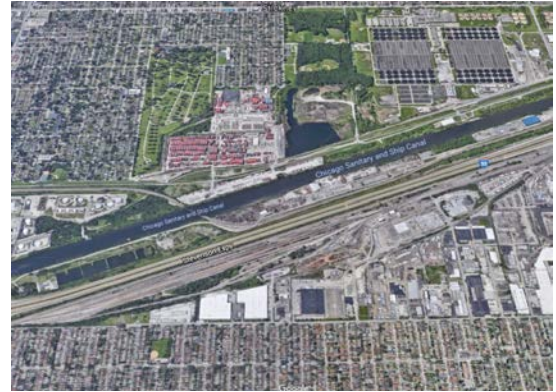
**Project Status** Design

East of Harms  
September 2008 Storm



### Storm Sewers and Outfall in Forest View, SSA

<b>Project Number</b>	18-IGA-28
<b>Service Area</b>	Stickney
<b>Location</b>	Forest View, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$1,000,000
<b>Contract Award Date</b>	March-19
<b>Substantial Completion Date</b>	March-20
<b>Project Description</b>	This project will construct storm sewers and outfall for a residential area in Forest View.
<b>Project Justification</b>	This project will provide flood reduction benefits for an estimated 14 structures for a residential area in Forest View.
<b>Project Status</b>	Design



### Culvert Improvements in Elk Grove Village, NSA

**Project Number** 18-IGA-30

**Service Area** North

**Location** Elk Grove, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,250,000

**Contract Award Date** January-19

**Substantial Completion Date** January-20

**Project Description** The Village of Elk Grove will perform nearly 3,000 linear feet of channel improvements along with the installation of a nearly 930 linear feet of a 24-square-foot box culvert for the Louis Avenue project area.

**Project Justification** This project will provide flood reduction benefits for an estimated 30 structures from a 100-year storm event.

**Project Status** Design



### Stormwater Storage Areas in Niles, NSA

**Project Number** 18-IGA-31

**Service Area** North

**Location** Niles, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$2,000,000

**Contract Award Date** April-19

**Substantial Completion Date** November-20

**Project Description** The Village of Niles will construct two open water and one underground stormwater storage areas near Greenwood Avenue to provide residential and commercial flood relief.

**Project Justification** This project will protect over 87 structures from a 100-year storm event.

**Project Status** Design



## Expansion of Existing Detention Basin in Orland Park, CSA

**Project Number** 18-IGA-33

**Service Area** Calumet

**Location** Orland Park, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$558,000

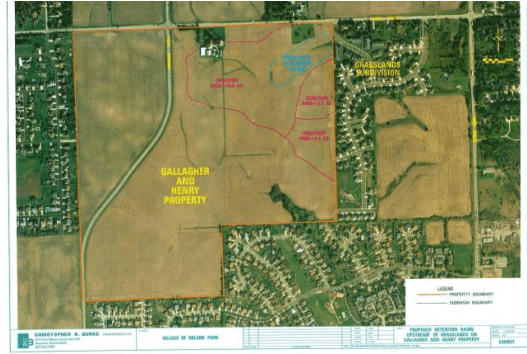
**Contract Award Date** April-19

**Substantial Completion Date** April-20

**Project Description** This project will expand the Grasslands regional detention basin in Orland Park.

**Project Justification** This project will reduce flooding for an estimated 30 structures in the Village of Orland Park.

**Project Status** Design



## Relief Sewers to Mitigate Basement Backups in Arlington Heights, NSA

**Project Number** 18-IGA-34

**Service Area** North

**Location** Arlington Heights, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,370,000

**Contract Award Date** April-19

**Substantial Completion Date** May-20

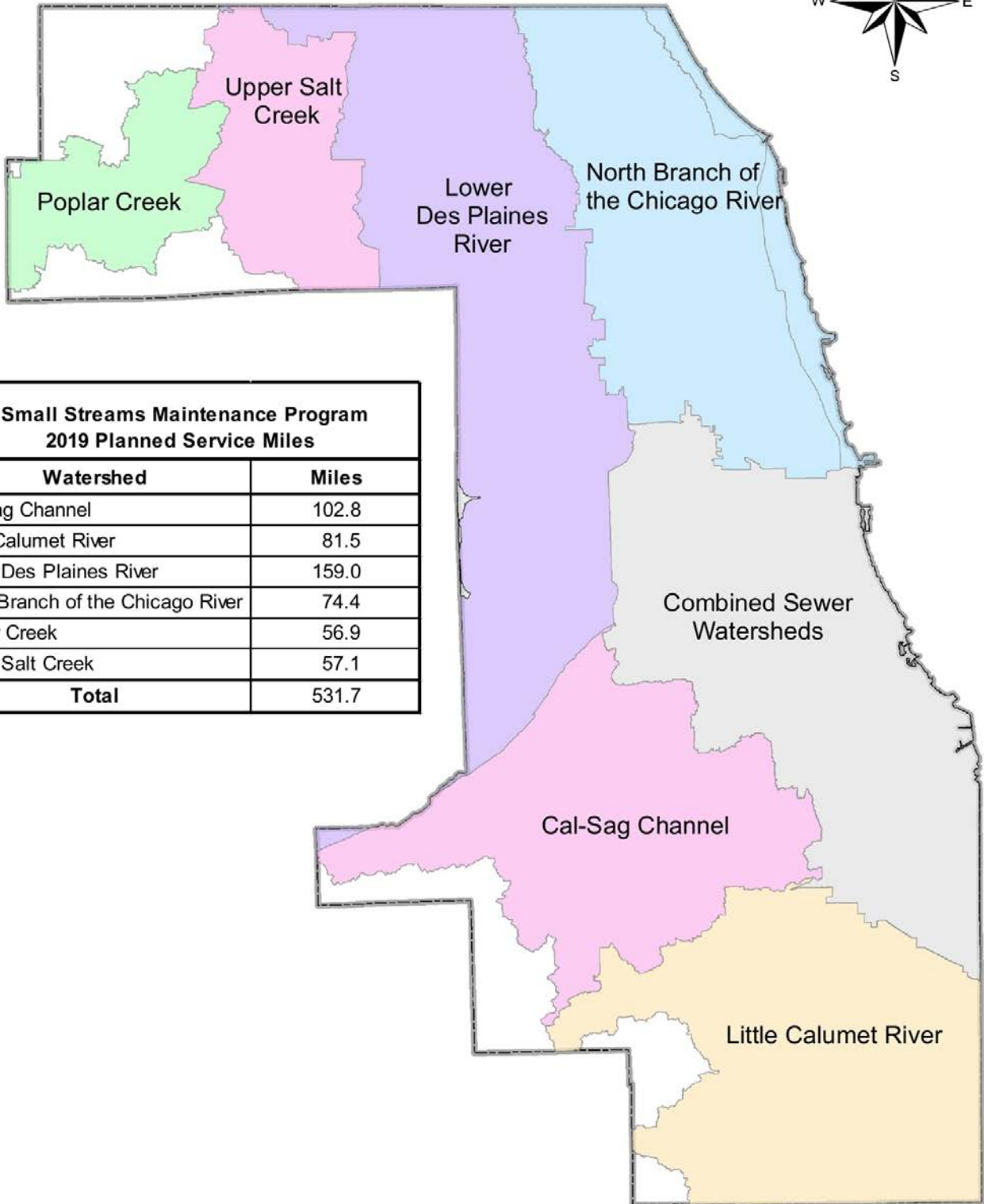


**Project Description** The Village of Arlington Heights will construct relief sewers for various locations to mitigate basement backups along Campbell Street, Vail Avenue, Dunton Avenue, and Sigwalt Street and in downtown areas. The Village of Arlington Heights will be responsible for the design, construction, operation, and maintenance of the project.

**Project Justification** This project will improve current capacity limitations and mitigate basement backups for an estimated 250 structures.

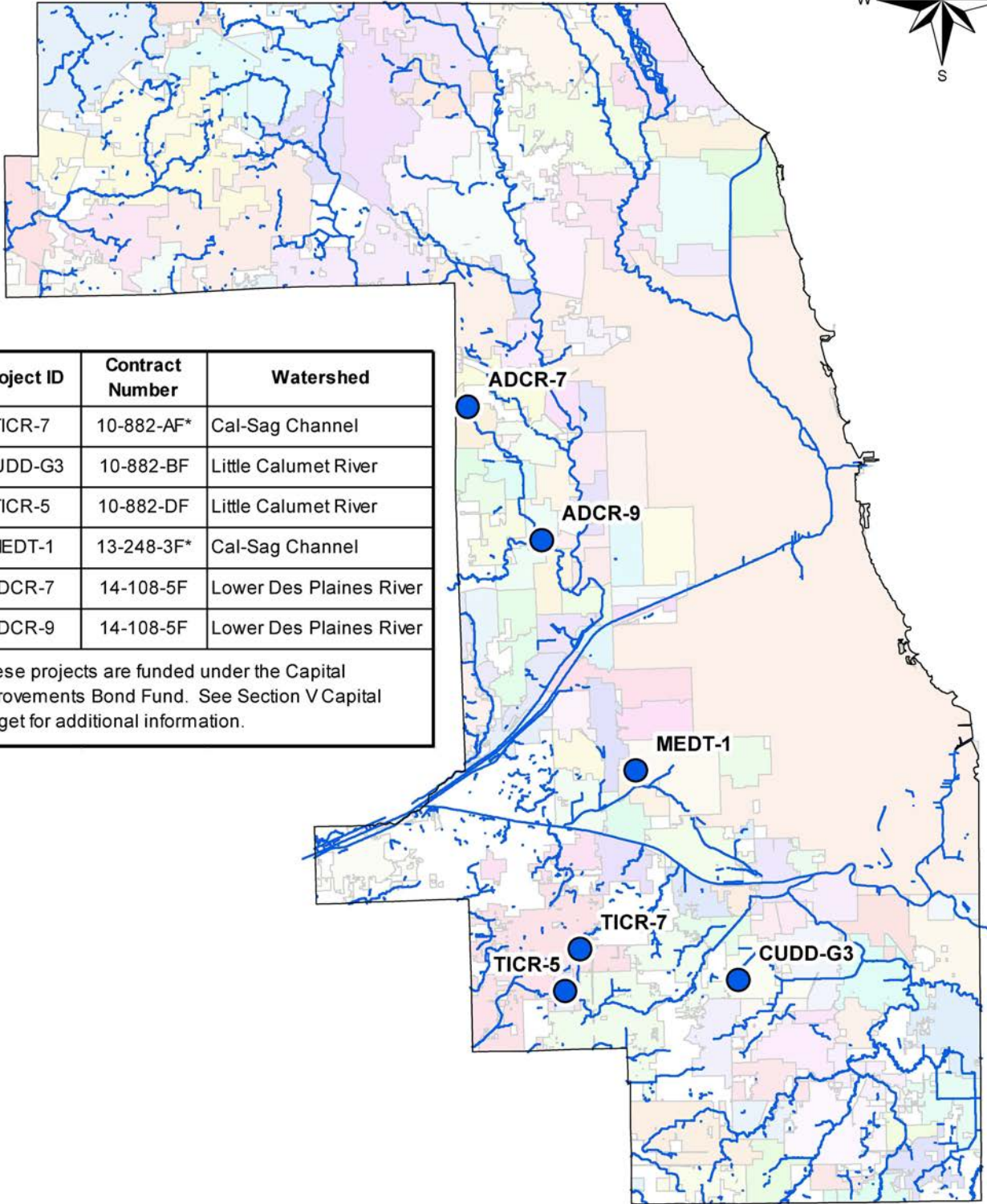
**Project Status** Design

# STORMWATER MANAGEMENT WATERSHEDS



Small Streams Maintenance Program 2019 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
<b>Total</b>	<b>531.7</b>

# STORMWATER MANAGEMENT PROJECTS STREAMBANK STABILIZATION

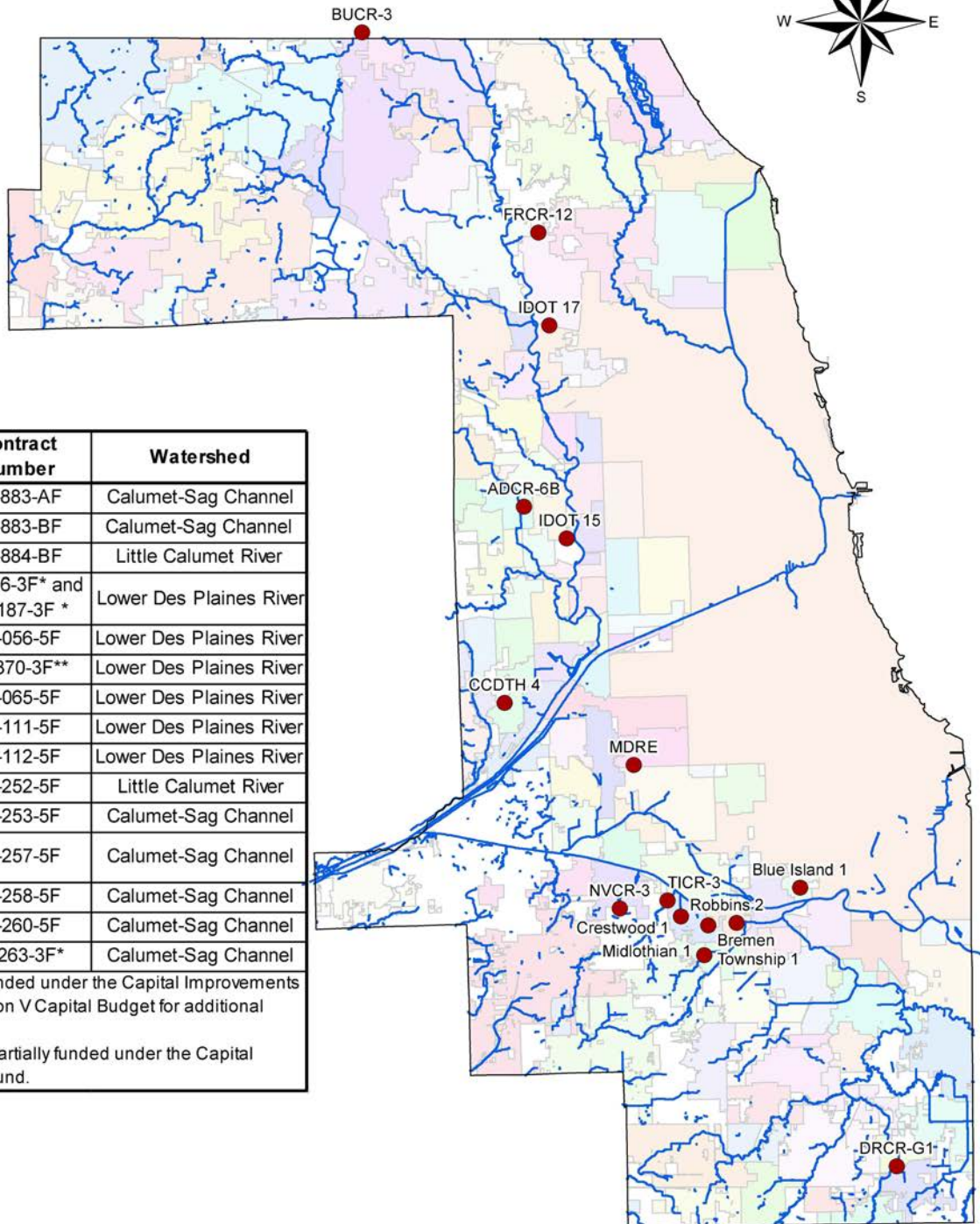


Project ID	Contract Number	Watershed
TICR-7	10-882-AF*	Cal-Sag Channel
CUDD-G3	10-882-BF	Little Calumet River
TICR-5	10-882-DF	Little Calumet River
MEDT-1	13-248-3F*	Cal-Sag Channel
ADCR-7	14-108-5F	Lower Des Plaines River
ADCR-9	14-108-5F	Lower Des Plaines River

\*These projects are funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.



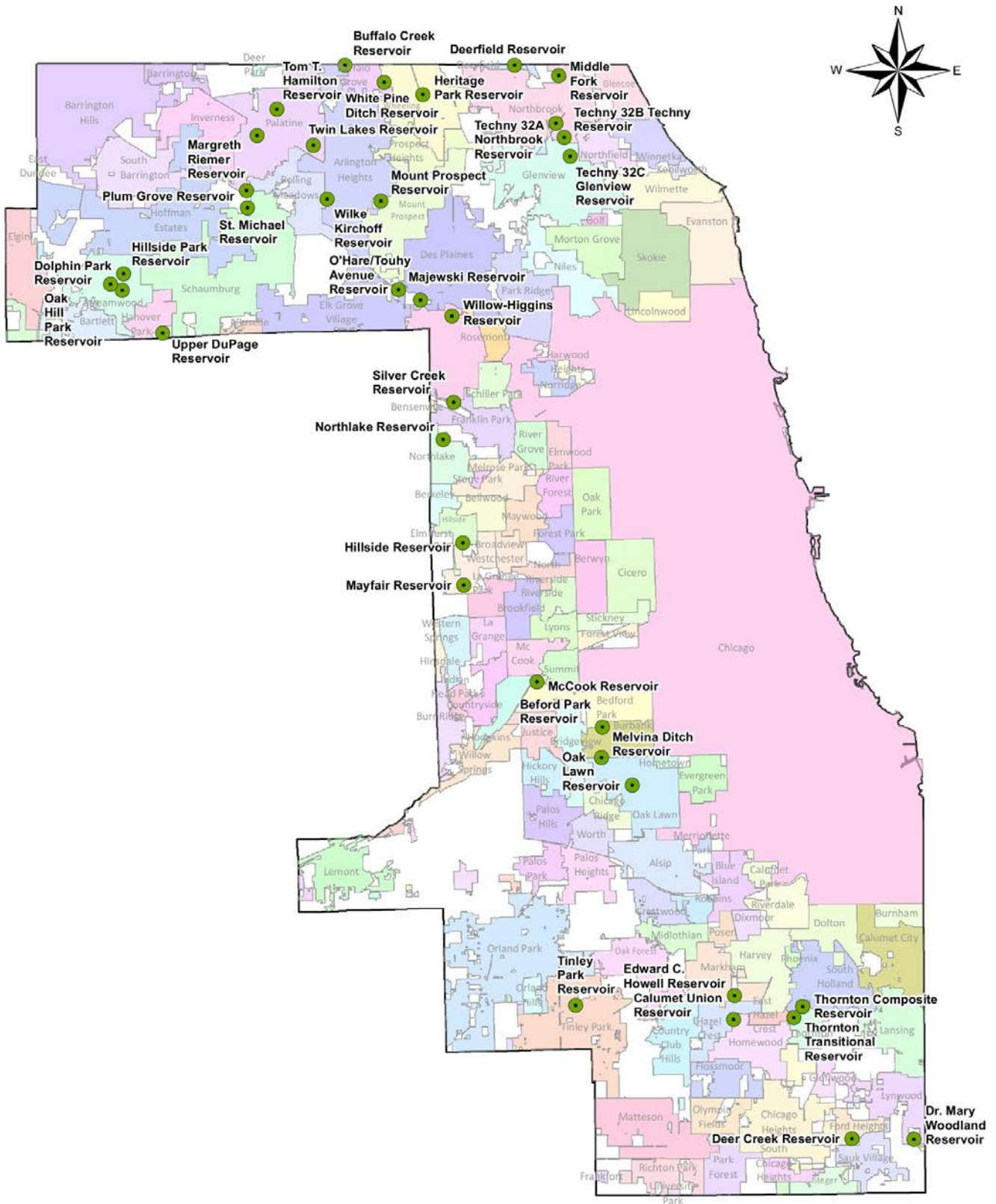
# STORMWATER MANAGEMENT PROJECTS FLOOD CONTROL



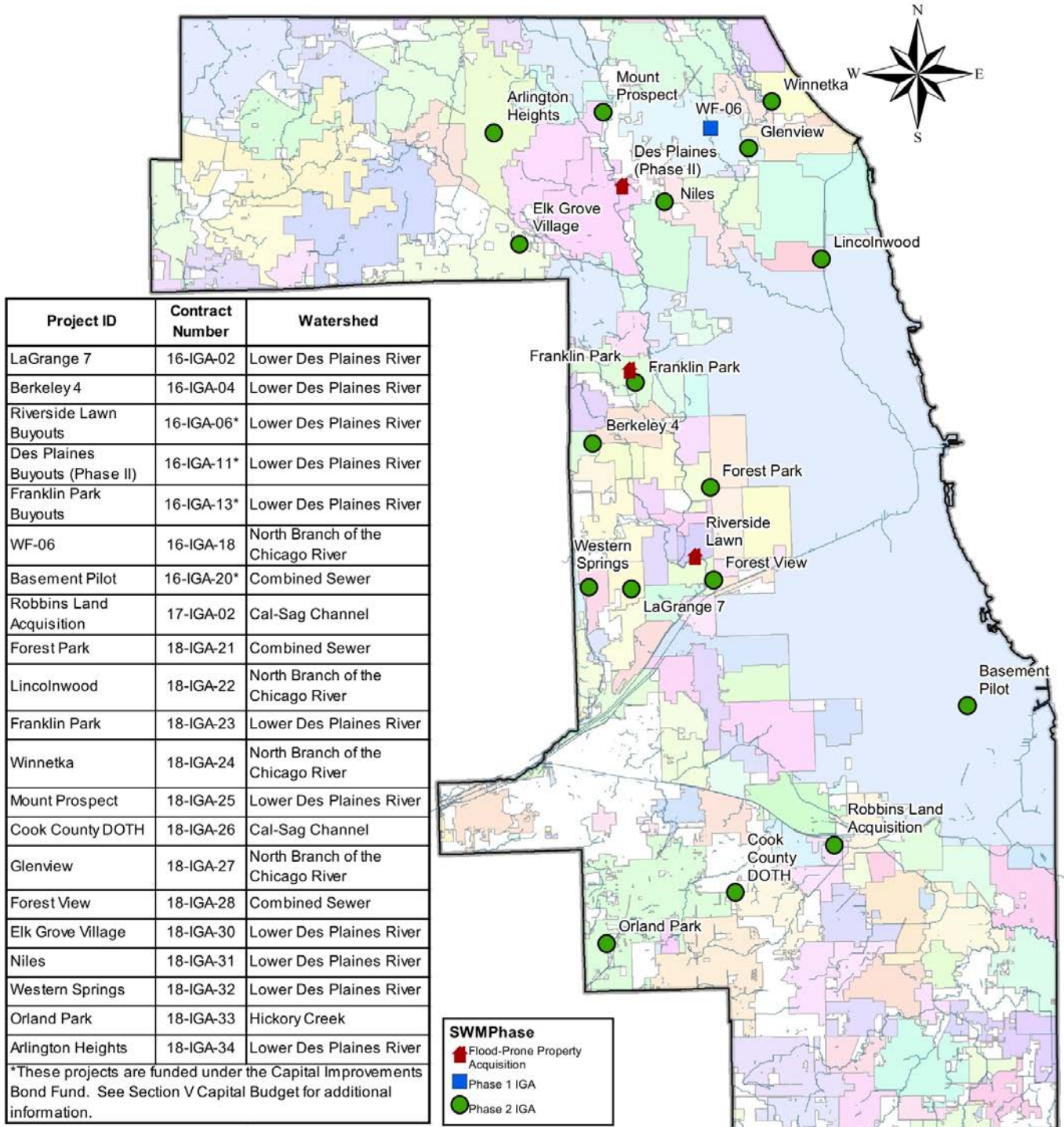
Project ID	Contract Number	Watershed
TICR-3	10-883-AF	Calumet-Sag Channel
NVCR-3	10-883-BF	Calumet-Sag Channel
DRCR-G1	10-884-BF	Little Calumet River
ADCR-6B	11-186-3F* and 11-187-3F *	Lower Des Plaines River
FRCR-12	12-056-5F	Lower Des Plaines River
BUCR-3	13-370-3F**	Lower Des Plaines River
IDOT 17	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
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.

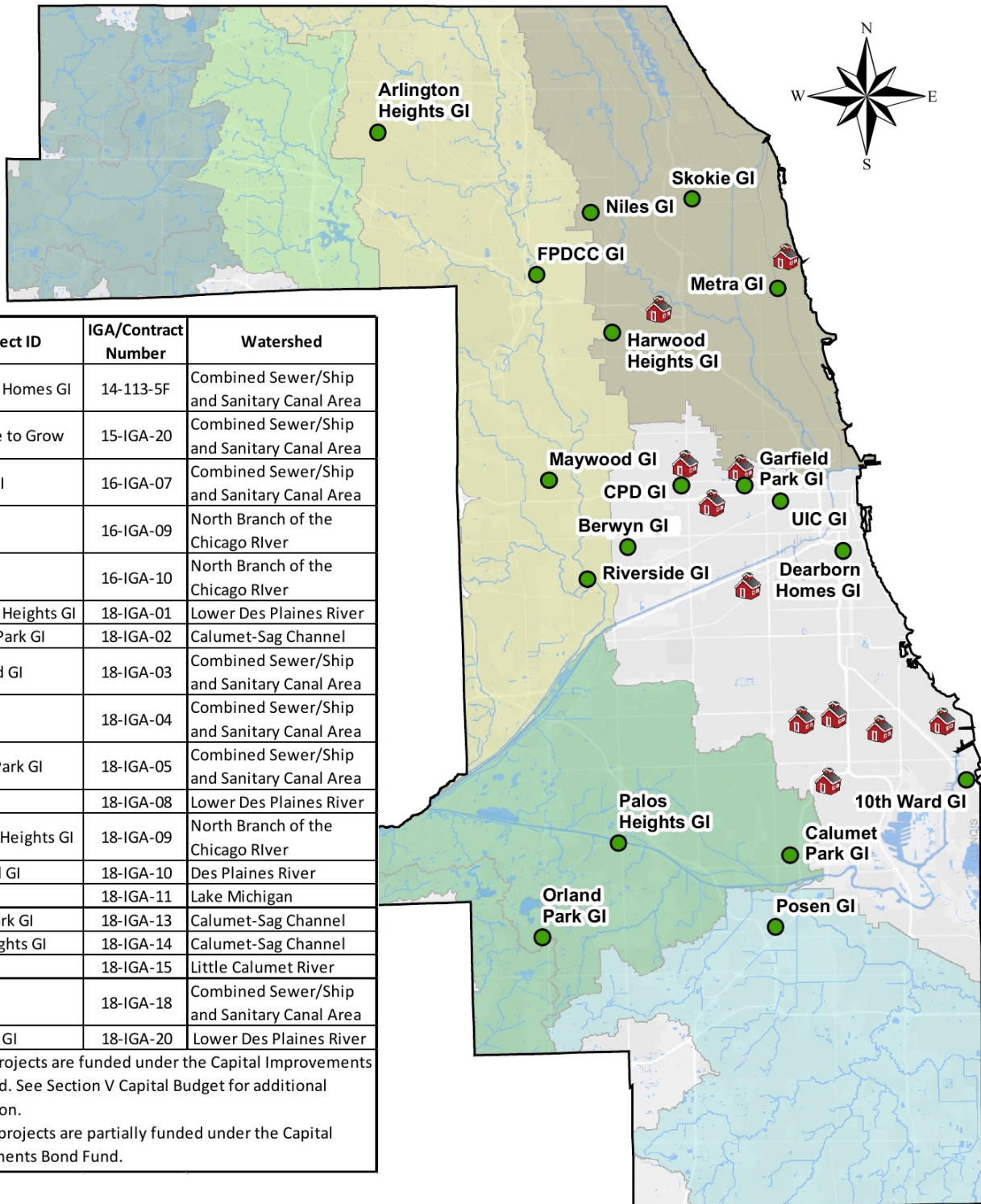
# EXISTING MWRD SUPPORTED FLOOD CONTROL RESERVOIRS



# STORMWATER MANAGEMENT PROJECTS INTERGOVERNMENTAL AGREEMENTS



# STORMWATER MANAGEMENT PROJECTS GREEN INFRASTRUCTURE



Project ID	IGA/Contract Number	Watershed
Dearborn Homes GI	14-113-5F	Combined Sewer/Ship and Sanitary Canal Area
CPS Space to Grow	15-IGA-20	Combined Sewer/Ship and Sanitary Canal Area
Berwyn GI	16-IGA-07	Combined Sewer/Ship and Sanitary Canal Area
Niles GI	16-IGA-09	North Branch of the Chicago Rlver
Skokie GI	16-IGA-10	North Branch of the Chicago Rlver
Arlington Heights GI	18-IGA-01	Lower Des Plaines River
Calumet Park GI	18-IGA-02	Calumet-Sag Channel
10th Ward GI	18-IGA-03	Combined Sewer/Ship and Sanitary Canal Area
CPD GI	18-IGA-04	Combined Sewer/Ship and Sanitary Canal Area
Garfield Park GI	18-IGA-05	Combined Sewer/Ship and Sanitary Canal Area
FPDCC GI	18-IGA-08	Lower Des Plaines River
Harwood Heights GI	18-IGA-09	North Branch of the Chicago Rlver
Maywood GI	18-IGA-10	Des Plaines River
Metra GI	18-IGA-11	Lake Michigan
Orland Park GI	18-IGA-13	Calumet-Sag Channel
Palos Heights GI	18-IGA-14	Calumet-Sag Channel
Posen GI	18-IGA-15	Little Calumet River
UIC GI	18-IGA-18	Combined Sewer/Ship and Sanitary Canal Area
Riverside GI	18-IGA-20	Lower Des Plaines River

\* 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.

**Legend**

- Green Infrastructure Project
- CPS SpaceToGrow

**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.	\$ 10,384,500	11.4%
2. Planning, design, and construction of stormwater management projects by the District or outside agencies under agreement.	\$ 75,854,400	83.0%
3. Operation and maintenance of natural and manmade drainageways for the purpose of stormwater management.	\$ 5,171,200	5.6%
<b>Totals</b>	<b>\$ 91,410,100</b>	<b>100.0%</b>

MEASURABLE GOALS:		2017	2018	2019
	Unit of Measure	Actual	Estimated	Proposed
1. Award contracts for the continued implementation of the Stormwater Management Capital Improvement Program in the Stormwater Management and Capital Improvements Bond Funds.	No. of Contracts	7	24	29
2. Expenditures for the acquisition of flood-prone properties in the Capital Improvements Bond Fund.	Dollars	\$4,230,000	\$5,000,000	\$4,000,000
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	\$20,485,759	\$34,909,500	\$50,885,700
4. Remove 33,000 cubic yards of debris from 532 miles of small streams and rivers.	Debris Cubic Yards Removed	24,247	33,000	33,000
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:		2017	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1500	Local Sewer Engineering Activity	\$ 910,848	2019	— \$ —	\$ —	—	
			2018	— \$ —			
4310	Stormwater Management Planning	\$ 129,442	2019	1 \$ 4,691,000	\$ 4,300,300	1,100.7	a)
			2018	— \$ 390,700			
4320	Stormwater Management Regulation	\$ 178,001	2019	36 \$ 3,736,500	\$ 2,468,800	194.7	b)
			2018	10 \$ 1,267,700			
4330	Operations and Maintenance	\$ 5,128,498	2019	25 \$ 5,044,200	\$ (96,700)	(1.9)	
			2018	25 \$ 5,140,900			
4340	Flood Mitigation Projects	\$ 10,202,931	2019	19 \$ 75,831,900	\$ 18,642,200	32.6	c)
			2018	19 \$ 57,189,700			
4350	Administrative Overhead	\$ 774,850	2019	4 \$ 1,979,500	\$ 470,900	31.2	d)
			2018	3 \$ 1,508,600			
7604	Social Security and Medicare Contributions	\$ 76,832	2019	— \$ 127,000	\$ 43,600	52.3	e)
			2018	— \$ 83,400			
Totals		\$ 17,401,402	2019	85 \$ 91,410,100	\$ 25,829,100	39.4%	
			2018	57 \$ 65,581,000			

- a) Increase is due to the request for Stormwater Master Planning (\$2,000,000) and the planned awards of 18-849-5F, Program Management of Stormwater Master Planning in Combined Service Area (\$1,204,500) and 18-848-5F, Program Management of Stormwater Master Planning in Separate Sewer Area (\$1,078,200).
- b) Increase is due to the transfer in of 26 FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$2,623,200), offset by the revised estimated for 18-834-5F, Specialist Services for Watershed Management Ordinance (\$205,100).
- c) Increase is due to the revised request for 12-056-5F, Flood Control Project (FCP) on Farmers and Prairie Creeks, NSA (\$3,375,000), the planned awards of 14-111-5F, FCP on 1st Avenue from Roosevelt Road to Cermak Road, SSA (\$2,860,000) and the McCook Levy Flood Control Project (\$2,145,500), the increased estimate for 16-IGA-02, Storm Sewer Improvements in La Grange, SSA (\$2,000,000), the planned awards of 18-IGA-22, New Storm Sewers Outfall to the North Shore Channel in Lincolnwood, NSA (\$1,391,800), 18-IGA-34, Relief Sewers to Mitigate Basement Backups in Arlington Heights, NSA (\$1,370,000), 18-IGA-25, Stormwater Storage in Mount Prospect, NSA (\$1,113,200), and 18-IGA-28, Storm Sewers in Forest View, SSA (\$1,000,000), the revised request for 14-108-5F, Streambank Stabilization Projects for Addison Creek, SSA (\$986,300), and the planned awards of 18-IGA-21, Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA (\$646,100), 18-IGA-30, Culvert Improvements in Elk Grove Village, NSA (\$645,800), 18-IGA-33, Expansion of Existing Detention Basin in Orland Park, CSA (\$558,000), and 18-IGA-11, Green Infrastructure for the Peterson Ridge Metra Station in Chicago, NSA (\$540,900).
- d) Increase is due to the revised estimate for Health, Life, and Dental premiums resulting from the transfer in of 27 FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$311,900), the transfer in of a Public Affairs Specialist from the Law Department (\$80,200), and the increased estimate for the paid overtime (\$65,000).
- e) Increase is due to the revised estimate for Social Security and Medicare contributions resulting from the transfer in of 28 FTE positions from the Corporate Fund to the Stormwater Management Fund (\$43,600).

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated		
1500	Local Sewer Engineering Activity						
1530	Local Sewer Permit Activity	Cost	\$ 592,444	\$ —	\$ —		
1560	Local Sewer Public Service Coordination	Cost	\$ 247,154	\$ —	\$ —		
1570	Local Sewer Rehabilitation	Cost	\$ 71,250	\$ —	\$ —		
4310	Stormwater Management Planning						
4311	Watershed Councils	Cost	\$ 34,255	\$ 39,600	\$ 39,900		
4312	Mapping, Surveys, and Soil Testing	Cost	\$ 93,977	\$ 348,600	\$ 322,800		
4313	Watershed Plan Development	Cost	\$ —	\$ —	\$ 4,282,700	a)	
4314	Publications and Public Information	Cost	\$ 1,210	\$ 2,500	\$ 22,500	b)	
4315	Geographic Information System	Cost	\$ —	\$ —	\$ 23,100	c)	
4320	Stormwater Management Regulation						
4321	Permits	Cost	\$ 54,483	\$ 963,100	\$ 1,952,500	d)	
4322	Watershed Management Ordinance Development	Cost	\$ 113,763	\$ 238,000	\$ 104,100	e)	
4323	Inspections	Cost	\$ 9,755	\$ 66,600	\$ 861,900	f)	
4324	Watershed Management Ordinance Administration	Cost	\$ —	\$ —	\$ 662,200	g)	
4326	Watershed Management Ordinance Infiltration/Inflow Control Program	Cost	\$ —	\$ —	\$ 155,800	h)	
4330	Operations & Maintenance						
4331	Stormwater Detention Reservoir Activity	Cost	\$ 1,093,319	\$ 1,188,700	\$ 1,173,800		
4332	Small Streams Maintenance	Cost	\$ 3,876,351	\$ 3,187,500	\$ 3,109,600		
			Debris Cubic Yards Removed	24,247	33,500	33,000	
			Cost per Cubic Yard	\$ 159.87	\$ 95.15	\$ 94.23	
4334	Operations & Maintenance Contracted with Other Governments	Cost	\$ 158,828	\$ 159,900	\$ 165,900		
4335	Waterways Debris Removal	Cost	\$ —	\$ 604,800	\$ 594,900		
<p>a) Increase is due to the request for Stormwater Master Planning (\$2,000,000) and the planned awards of 18-849-5F, Program Management of Stormwater Master Planning in Combined Service Area (\$1,204,500) and 18-848-5F, Program Management of Stormwater Master Planning in Separate Sewer Area (\$1,078,200).</p> <p>b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$20,000).</p> <p>c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$23,100).</p> <p>d) Increase is due to the transfer in of 12 FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$1,172,200), offset by the revised estimate for 18-834-5F, Specialist Services for Watershed Management Ordinance (\$205,100).</p> <p>e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$114,700).</p> <p>f) Increase is due to the transfer in of seven FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$781,600).</p> <p>g) Increase is due to the transfer in of six FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$578,900).</p> <p>h) Increase is due to the transfer in of one FTE position from the Engineering Corporate Fund to the Stormwater Management Fund (\$90,500) and the reallocation of salaries to more accurately reflect current activities (\$62,900).</p>							

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2017 Actual	2018 Budgeted	2019 Estimated	
4340	Flood Mitigation Projects					
4341	Planning/Design	Cost	\$ 2,169,730	\$ 9,026,300	\$ 13,701,500	i)
4342	Contract Administration	Cost	\$ 523,767	\$ 607,900	\$ 619,700	
4343	Construction	Cost	\$ 1,268,014	\$ 18,412,500	\$ 24,608,300	j)
4344	Flood Mitigation Projects Contracted with Other Governments	Cost	\$ 2,785,802	\$ 27,591,400	\$ 34,811,800	k)
4345	Land & Easements	Cost	\$ 186,368	\$ 1,551,600	\$ 2,090,600	l)
7601	Capital Financing Program and Other Related Costs	Cost	\$ 3,269,250	\$ —	\$ —	
4350	Administrative Overhead	Cost	\$ 774,850	\$ 1,508,600	\$ 1,979,500	m)
7604	Social Security and Medicare Contributions	Cost	\$ 76,832	\$ 83,400	\$ 127,000	n)
<b>Totals</b>			<b>\$ 17,401,402</b>	<b>\$ 65,581,000</b>	<b>\$ 91,410,100</b>	

- i) Increase is due to the planned award of 14-111-5F, Flood Control Project (FCP) on 1st Avenue from Roosevelt Road to Cermak Road, SSA (\$2,860,000), the revised estimate for the Stormwater preliminary engineering projects (\$1,202,200), and professional engineering services for 11-187-3F, Addison Creek Channel Improvements (\$750,000).
- j) Increase is due to the revised request for 12-056-5F, FCP on Farmers and Prairie Creeks, NSA (\$3,375,000), the planned award of the McCook Levy Flood Control Project (\$2,145,500), and the revised request for 14-252-5F, FCP on Natalie Creek in Oak Forest and Midlothian, CSA (\$728,500).
- k) Increase is due to the revised estimate for 16-IGA-02, Storm Sewer Improvements in La Grange, SSA (\$2,000,000), and the planned awards of 18-IGA-22, New Storm Sewers Outfall to the North Shore Channel in Lincolnwood, NSA (\$1,391,800), 18-IGA-34, Relief Sewers to Mitigate Basement Backups in Arlington Heights, NSA (\$1,370,000), 18-IGA-25, Stormwater Storage in Mount Prospect, NSA (\$1,113,200), 18-IGA-21, Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA (\$646,100), and 18-IGA-30, Culvert Improvements in Elk Grove Village, NSA (\$645,800).
- l) Increase is due to the revised estimate for land acquisitions (\$600,000).
- m) Increase is due to the revised estimate for Health, Life, and Dental premiums resulting from the transfer in of 27 FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$311,900), the transfer in of a Public Affairs Specialist from the Law Department (\$80,200), and the increased estimate for the paid overtime (\$65,000).
- n) Increase is due to the revised estimate for Social Security and Medicare contributions resulting from the transfer in of 28 FTE positions from the Corporate Fund to the Stormwater Management Fund (\$43,600).



501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601010	Salaries of Regular Employees	\$ 5,370,381	\$ 5,810,900	\$ 5,810,900	\$ 5,588,700	\$ 8,502,700	\$ 8,502,700	\$ 8,626,500
601060	Compensation Plan Adjustments	108,371	192,200	192,200	190,000	212,800	212,800	293,100
601070	Social Security and Medicare Contributions	76,832	83,400	83,400	81,000	124,000	124,000	127,000
601080	Salaries of Nonbudgeted Employees	—	20,000	20,000	—	20,000	20,000	20,000
601100	Tuition and Training Payments	8,770	10,000	10,000	9,800	11,000	11,000	11,000
601250	Health and Life Insurance Premiums	501,670	567,000	567,000	514,000	878,900	878,900	878,900
601270	General Salary Adjustments	—	—	—	—	42,800	42,800	—
100	TOTAL PERSONAL SERVICES	6,066,024	6,683,500	6,683,500	6,383,500	9,792,200	9,792,200	9,956,500
612010	Travel	1,511	2,000	2,000	1,800	2,000	2,000	2,000
612030	Meals and Lodging	3,897	4,000	4,000	2,900	4,000	4,000	4,000
612040	Postage, Freight, and Delivery Charges	1,210	2,500	2,500	1,300	2,500	2,500	2,500
612050	Compensation for Personally-Owned Automobiles	15,160	24,800	24,800	16,300	24,800	24,800	24,800
612080	Motor Vehicle Operating Services	55	800	800	200	800	800	800
612240	Testing and Inspection Services	—	10,000	10,000	—	—	—	—
612250	Court Reporting Services	10,508	12,000	14,500	11,700	12,000	12,000	12,000
612330	Rental Charges	693	2,500	2,500	2,100	2,500	2,500	2,500
612400	Intergovernmental Agreements	2,546,070	26,269,700	26,269,700	12,261,600	35,129,400	35,129,400	34,531,600
612430	Payments for Professional Services	227,106	1,059,000	1,056,500	364,000	775,000	775,000	775,000
612440	Preliminary Engineering Reports and Studies	1,097,336	3,724,900	3,724,900	1,694,000	7,605,500	7,605,500	7,605,500
612450	Professional Engineering Services for Construction Projects	116,109	4,147,300	3,797,300	1,078,000	6,534,400	6,534,400	6,534,400
612490	Contractual Services, N.O.C.	163,349	415,000	765,000	639,000	205,000	205,000	205,000
612520	Waste Material Disposal Charges	53,786	60,000	60,000	40,000	60,000	60,000	60,000
612620	Repairs to Waterway Facilities	2,250,515	2,585,000	2,585,000	2,370,000	2,500,000	2,500,000	2,500,000
612820	Computer Software Maintenance	150,000	145,000	145,000	145,000	145,000	145,000	145,000
612990	Repairs, N.O.C.	665	2,000	2,000	1,000	2,000	2,000	2,000
200	TOTAL CONTRACTUAL SERVICES	6,637,972	38,466,500	38,466,500	18,628,900	53,004,900	53,004,900	52,407,100
623130	Buildings, Grounds, Paving Materials, and Supplies	4,866	5,000	5,000	5,000	5,000	5,000	5,000
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	4,139	11,500	11,500	8,200	11,500	11,500	11,500
623560	Processing Chemicals	—	5,000	5,000	1,000	5,000	5,000	5,000

501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
623680	Tools and Supplies	7,824	11,000	11,000	5,300	11,000	11,000	11,000
623700	Wearing Apparel	—	2,000	2,000	1,900	8,500	8,500	8,500
623990	Materials and Supplies, N.O.C.	436,290	90,400	90,400	9,300	90,400	90,400	90,400
300	TOTAL MATERIALS AND SUPPLIES	453,119	124,900	124,900	30,700	131,400	131,400	131,400
645620	Waterway Facilities Structures	961,501	16,175,600	16,175,600	2,377,000	24,579,100	24,579,100	22,725,400
645630	Army Corps of Engineers Services	—	1,750,000	1,750,000	1,358,000	500,000	500,000	2,145,500
645690	Capital Projects, N.O.C.	—	400,000	400,000	225,000	400,000	400,000	400,000
645720	Preservation of Waterway Facility Structures	—	1,180,500	1,180,500	50,000	1,602,500	1,602,500	2,244,200
500	TOTAL CAPITAL PROJECTS	961,501	19,506,100	19,506,100	4,010,000	27,081,600	27,081,600	27,515,100
656010	Land	—	400,000	400,000	360,400	1,000,000	1,000,000	1,000,000
600	TOTAL LAND	—	400,000	400,000	360,400	1,000,000	1,000,000	1,000,000
667020	Equity Transfer	3,269,250	—	—	—	—	—	—
667340	Payments for Easements	13,536	400,000	400,000	345,700	400,000	400,000	400,000
700	TOTAL FIXED AND OTHER CHARGES	3,282,786	400,000	400,000	345,700	400,000	400,000	400,000
TOTAL STORMWATER MANAGEMENT FUND		\$ 17,401,402	\$ 65,581,000	\$ 65,581,000	\$ 29,759,200	\$ 91,410,100	\$ 91,410,100	\$ 91,410,100

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: Stormwater Management		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>50000</b>	<b>Engineering Department</b>					
<b>516</b>	<b>Local Sewer Systems Section</b>					
HP18	Principal Civil Engineer	1	1		2	
HP17	Senior Civil Engineer	2	2		8	
HP15	Associate Civil Engineer	3	3		8	
HP14	Assistant Civil Engineer	2	2		6	
HP14	Engineering Technician V	—	—		3	
HP12	Engineering Technician IV	1	1		4	
HP12	Engineering Technician IV #4	—	—		1	
HP11	Administrative Specialist	—	—		1	
HP11	Engineering Technician III	—	—		1	
HP09	Administrative Clerk	—	—		2	
TOTAL	Local Sewer Systems Section	9	9	935,966.63	36	3,626,754.71
<b>522</b>	<b>Stormwater Management Section</b>					
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	3	3		3	
HP14	Public Affairs Specialist	—	—		1	
HP11	Administrative Specialist	1	1		1	
TOTAL	Stormwater Management Section	21	21	2,407,764.85	22	2,570,652.22
TOTAL	Engineering Department	30	30	3,343,731.48	58	6,197,406.93
<b>60000</b>	<b>Maintenance &amp; Operations Department</b>					
<b>630</b>	<b>General Division</b>					
<b>634</b>	<b>Channel Maintenance Unit</b>					
HP18	Principal Engineer	—	1		1	
HP17	Senior Civil Engineer	1	—		—	
HP15	Associate Civil Engineer	1	1		1	
TOTAL	Channel Maintenance Unit	2	2	245,892.92	2	236,240.15

Fund: Stormwater Management		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
<b>636</b>	<b>Boat Operations Unit</b>					
HP14	Engineering Technician V	1	1		2	
HP14	Engineering Technician V #4	1	1		—	
HP12	Engineering Technician IV	1	1		2	
HP12	Engineering Technician IV #4	1	1		—	
NR8650	Maintenance Laborer Class A Shift	2	2		2	
TOTAL	Boat Operations Unit	6	6	557,106.67	6	529,852.40
<b>639</b>	<b>Channel Maintenance Unit</b>					
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	383,922.31	4	394,929.52
<b>679</b>	<b>Collection System Unit</b>					
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
PR6473	Truck Driver	1	1		1	
TOTAL	Collection System Unit	6	6	488,342.40	6	506,750.40
TOTAL	General Division	18	18	1,675,264.30	18	1,667,772.47
<b>940</b>	<b>Stickney Service Area General Plant Services Section</b>					
<b>924</b>	<b>Stickney Maintenance Unit</b>					
PR7773	Pipefitter	1	1		1	
TOTAL	Stickney Maintenance Unit	1	1	98,800.00	1	100,880.00
<b>934</b>	<b>Stickney Mechanical Operations Unit</b>					
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8650	Maintenance Laborer Class A Shift #1	2	—		—	

Fund: Stormwater Management		POSITION ANALYSIS				
		2017	2018		2019	
PAY PLAN & GRADE	CLASS TITLE	ACTUAL FTEs	BUDGETED FTEs	APPROPRIATION IN DOLLARS	BUDGETED FTEs	APPROPRIATION IN DOLLARS
NR6831	Operating Engineer I	4	4		4	
TOTAL	Stickney Mechanical Operations Unit	10	8	722,425.60	8	751,712.00
TOTAL	Stickney Service Area General Plant Services Section	11	9	821,225.60	9	852,592.00
TOTAL	Maintenance & Operations Department	29	27	2,496,489.90	27	2,520,364.47
TOTAL	Stormwater Management	59	57	5,840,221.38	85	8,717,771.40
<p>Note: The positions budgeted are funded by the Stormwater Management Fund while the operations remain in the Engineering and Maintenance &amp; Operations Departments.</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>						

## 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 2019, 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, starting on page 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 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 to issue short-term financing. There will be no tax levies for the Corporate, Construction, or Stormwater Working Cash Funds in 2019.

### Reserve Claim Fund:

<a href="#">Description of Fund, Purpose, and Operation</a> .....	543
<a href="#">Line Item Analysis</a> .....	545

### Bond Redemption & Interest Fund:

<a href="#">Description of Fund, Purpose, and Operation</a> .....	546
<a href="#">Appropriation for Payment of Outstanding Bonds, 2019</a> .....	549

### Retirement Fund:

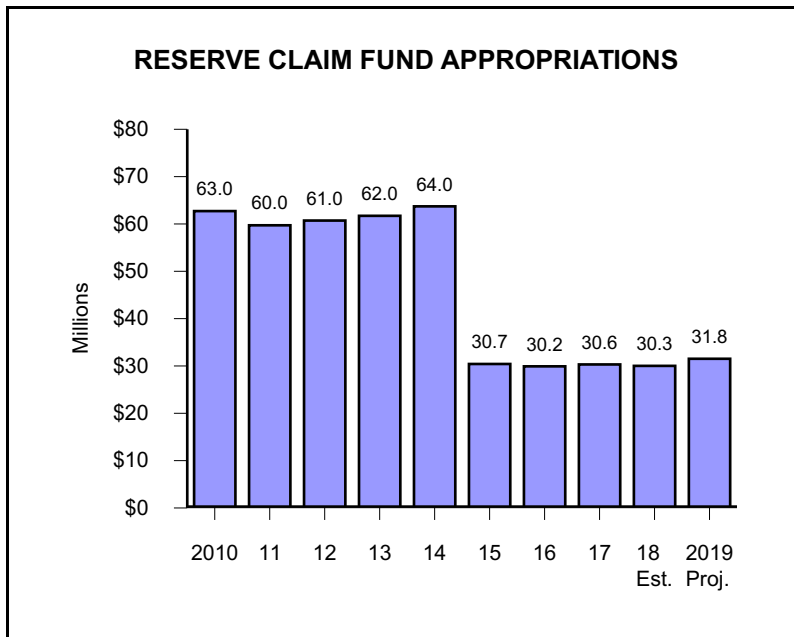
<a href="#">Description of Fund, Purpose, and Operation</a> .....	551
<a href="#">Appropriation Ordinance</a> .....	554

# RESERVE CLAIM FUND

## Description of Fund, Purpose, and Operation

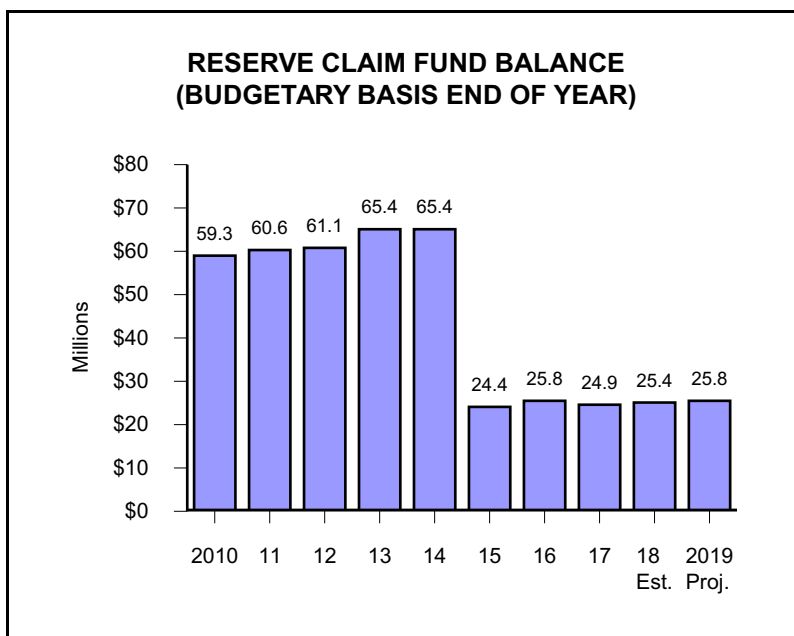
The Reserve Claim Fund is the District’s self-insurance fund. It is maintained at an appropriation level adequate to meet potential liabilities. The fund is capable of providing coverage for those risks that can be expected to be encountered and is able to pay such claims without exposing the agency 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 0.05 percent of the EAV, or approximately \$74.0 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.



*In 2015, the reduction is due to a settlement in 2014.*

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 2018 year-end fund balance is \$25.4 million and the projection for 2019 is \$25.8 million.

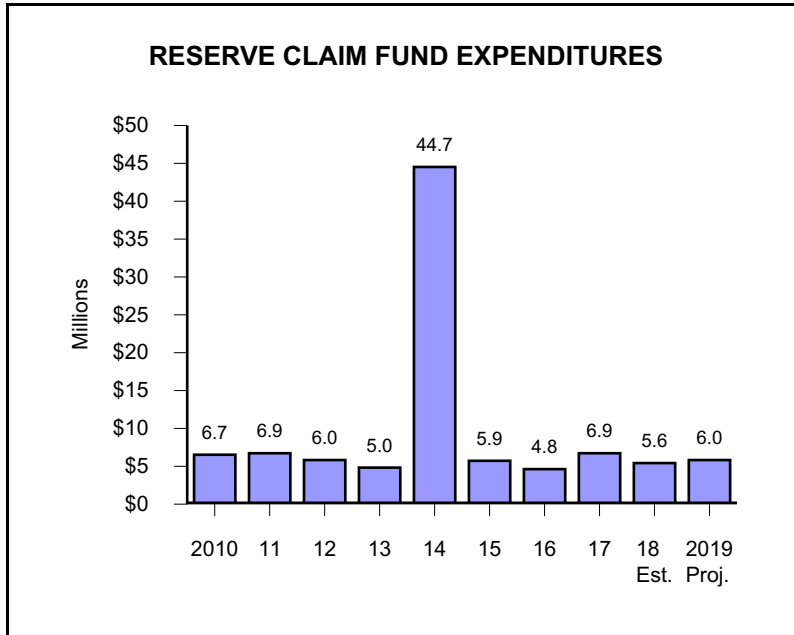


*The Statutory Limit for Budget Year 2019 Proj. is \$74.0 million.*

*In 2015, the reduction is due to a settlement in 2014.*

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 2019, accounts payable and other liabilities are estimated at \$0.4 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.



*In 2014, the increase is due to the payment of a settlement.*



901	Fund: Reserve Claim	LINE ITEM ANALYSIS						
		2017	2018			2019		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 12/31/18	Estimated Expenditure 12/31/18	Proposed by Executive Director	Recommended by Committee on Budget and Employment	Adopted and Amended by Board of Commissioners
601090	Employee Claims	\$ 4,233,724	\$ 10,000,000	\$ 10,000,000	\$ 4,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
100	TOTAL PERSONAL SERVICES	4,233,724	10,000,000	10,000,000	4,000,000	10,000,000	10,000,000	10,000,000
667220	General Claims and Emergency Repair and Replacement Costs	2,671,350	20,289,500	20,289,500	1,600,000	21,767,800	21,767,800	21,767,800
700	TOTAL FIXED AND OTHER CHARGES	2,671,350	20,289,500	20,289,500	1,600,000	21,767,800	21,767,800	21,767,800
TOTAL RESERVE CLAIM FUND		\$ 6,905,074	\$ 30,289,500	\$ 30,289,500	\$ 5,600,000	\$ 31,767,800	\$ 31,767,800	\$ 31,767,800
NOTE: Amounts may not add up due to rounding.								

# BOND REDEMPTION & INTEREST FUND

## Description of Fund, Purpose, and Operation

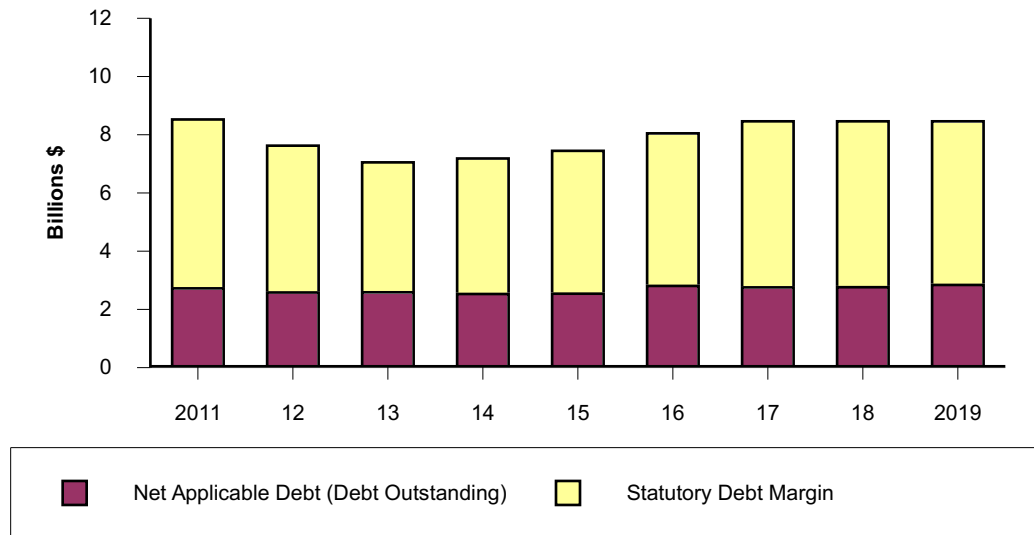
The District's Bond Redemption & Interest Fund is a debt service fund established to account for annual property tax levies and certain other revenues, principally interest on investments, which are used for the payment of interest and redemption of general obligation bond issues. Sub-funds are established for each debt issue.

### Debt Limits, Margins, and Borrowing Authority

Applicable Illinois State Statutes establish the following limitations relative to the District:

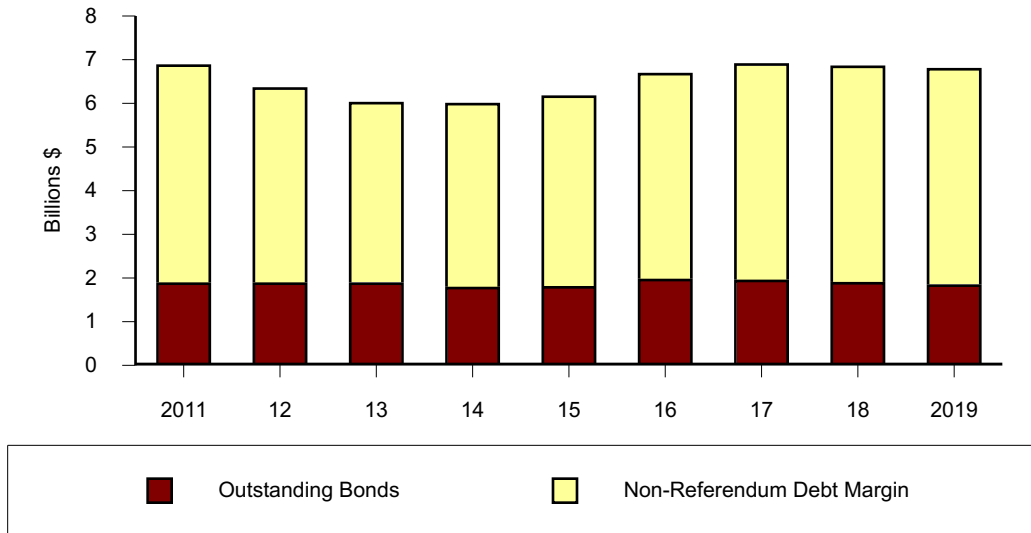
- General Obligation Notes may be issued at an amount not to exceed 85 percent of the current General Corporate Fund tax levy.
- The District may fund up to 100 percent of the aggregate total of the estimated amount of taxes levied or to be levied for corporate purposes plus the General Corporate Fund 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 (\$147.9 billion for 2017) within the District boundary. On December 31, 2018, the District's statutory debt limit is estimated at \$8.5 billion, with a net applicable debt of \$2.9 billion and an estimated statutory debt margin of \$5.6 billion.

**Net Debt and Statutory Debt Margin**



- 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, 2018, 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 \$5.0 billion and a non-referendum bonded debt margin of \$3.1 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. 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. Additional legislation was passed in 1997 to expand the "Limited bond" authority for the District. The debt service extension limitation for the District, related to the 2018 tax year, is \$166.1 million.

**Non-Referendum Debt Limit and Margin**



- 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 (\$147.9 billion for 2017) at the time the bonds are issued, plus 90 percent of the last known entitlement of the Personal Property Replacement Tax.

# BOND REDEMPTION & INTEREST FUND

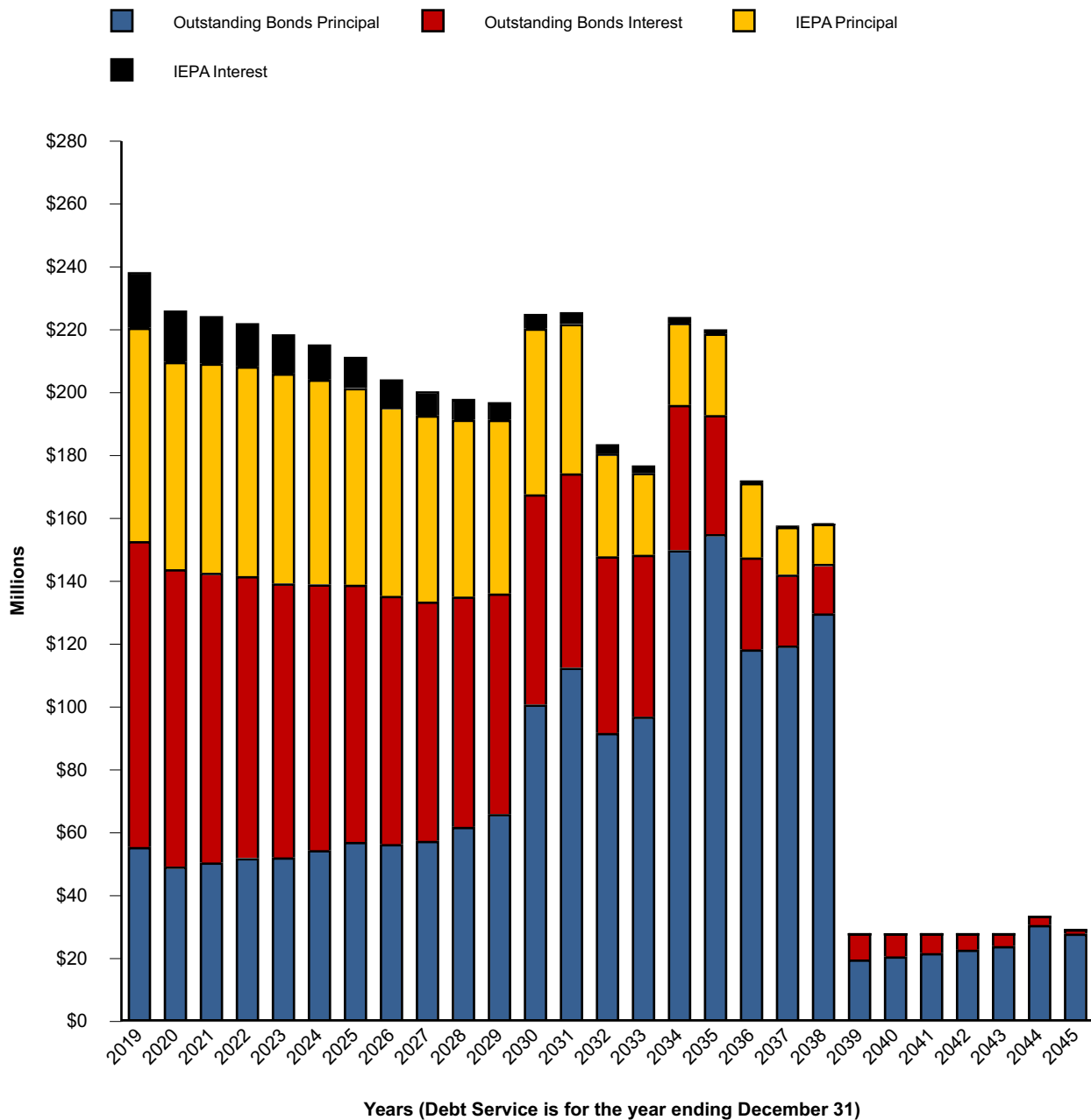
## Description of Fund, Purpose, and Operation (continued)

### 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.

**District General Obligation Bonded Debt Service  
(Includes IEPA Debt)**



**BOND REDEMPTION & INTEREST FUND****Appropriation for Payment of Outstanding Bonds During the Year 2019**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2019		JULY 1, 2019		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
<b>Capital Improvements Bonds - Series:</b>						
2016 Qualified Energy Conservation Limited Tax Series F	5.0	\$ 80,000 (1)	\$ —	\$ 80,000 (2)	\$ — (2)	\$ 160,000
2009 Limited Tax Series	5.72	17,160,000 (1)	—	17,160,000 (2)	— (2)	34,320,000
2011 Limited Tax Series B	5.0	5,879,672 (1)	—	5,879,672 (2)	16,140,000 (2)	27,899,344
2011 Unlimited Tax Series C	3.0 to 5.0	1,076,666 (1)	—	1,076,666 (2)	1,885,000 (2)	4,038,332
2014 Limited Tax Series C	2.0 to 5.0	1,563,375 (1)	—	1,563,375 (2)	3,400,000 (2)	6,526,750
2014 Unlimited Tax Series A	5.0	2,500,000 (1)	—	2,500,000 (2)	— (2)	5,000,000
2014 Alternate Revenue Unlimited Tax Series B	2.0 to 5.0	1,143,450 (1)	—	1,143,450 (2)	985,000 (2)	3,271,900
2016 Alternate Revenue Unlimited Tax Series E	5.0	1,250,000 (1)	—	1,250,000 (2)	— (2)	2,500,000
2016 Unlimited Tax Series C	5.0	750,000 (1)	—	750,000 (2)	— (2)	1,500,000
2016 Limited Tax Series D	5.0	500,000 (1)	—	500,000 (2)	— (2)	1,000,000
<b>State Revolving Fund Bonds - Series:</b>						
14M SRF L175372	1.75	\$ 12,615	\$ 31,177	\$ 12,342	\$ 31,449	\$ 87,583
14N SRF L175371	1.75	11,554	28,555	11,304	28,805	80,218
16A SRF L174555	1.75	1,134,560	2,721,362	1,110,748	2,745,173	7,711,843
14B SRF L175171	2.21	28,281	60,291	27,614	60,956	177,142
14C SRF L174559	2.295	215,789	439,635	210,745	444,679	1,310,848
14D SRF L175263	1.86	104,381	240,068	102,148	242,300	688,897
14E SRF L173062	1.86	321,991	718,503	315,309	725,185	2,080,988
14G SRF L175152	1.86	142,941	318,964	139,975	321,930	923,810
14H SRF L175355	1.86	10,818	27,352	10,563	27,605	76,338
14K SRF L175366	1.86	45,310	104,208	44,340	105,176	299,034
14L SRF L175368	1.75	47,709	117,910	46,677	118,941	331,237
09D SRF L174558	2.295	335,868	976,394	324,663	987,598	2,624,523
12A SRF L174710	2.295	71,246	167,903	69,319	169,829	478,297
12B SRF L174712	2.295	61,017	143,796	59,367	145,446	409,626
12C SRF L174621	1.995	124,533	299,807	121,542	302,796	848,678
12D SRF L174988	1.93	230,800	804,053	223,041	811,812	2,069,706
12E SRF L174709	1.93	47,817	128,231	46,580	129,468	352,096
12F SRF L174989	1.93	449,361	1,478,481	435,093	1,492,747	3,855,682
12G SRF L174923	1.93	316,908	697,527	310,177	704,258	2,028,870
12H SRF L174924	1.93	208,286	710,772	201,426	717,631	1,838,115
12L SRF L175161	2.21	341,923	704,556	334,137	712,342	2,092,958
12J SRF L175172	1.995	23,449	60,505	22,846	61,108	167,908
12K SRF L174925	1.995	121,144	301,806	118,134	304,816	845,900
09A SRF L173074	1.25	206,056	1,133,398	198,972	1,140,482	2,678,908
09B SRF L173064	—	—	191,445	—	191,445	382,890
09C SRF L173063	—	—	55,979	—	55,979	111,958
09I SRF L174675	1.25	45,519	270,062	43,831	271,750	631,162
07A SRF L172625	2.50	344,265	1,040,964	331,252	1,053,976	2,770,457
07B SRF L172850	2.50	238,503	686,634	229,920	695,217	1,850,274
07C SRF L172770	—	—	1,666,667	—	1,666,667	3,333,334

(1) Interest Payable June 1, 2019 (2) Interest and Principal Payable December 1, 2019

**BOND REDEMPTION & INTEREST FUND****Appropriation for Payment of Outstanding Bonds During the Year 2019**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2019		JULY 1, 2019		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
<b>State Revolving Fund Bonds - Series (continued):</b>						
09G SRF L173075	1.25	\$ 131,525	\$ 729,008	\$ 126,969	\$ 733,563	\$ 1,721,065
09H SRF L173800	—	—	18,397	—	18,397	36,794
09E SRF L173005	1.25	169,908	969,590	163,848	975,650	2,278,996
07D SRF L172763	2.50	78,523	237,433	75,555	240,401	631,912
09F SRF L174557	1.25	280,375	1,541,771	270,738	1,551,407	3,644,291
04G SRF L172611	2.50	25,603	108,883	24,241	110,244	268,971
04H SRF L172849	2.50	406,136	1,362,586	389,104	1,379,618	3,537,444
01A SRF L172126	2.57	248,744	1,649,593	227,546	1,670,790	3,796,673
97DD SRF L171152	2.905	69,767	449,758	63,234	456,290	1,039,049
01B SRF L172127	2.50	287,454	1,640,121	266,953	1,660,622	3,855,150
01C SRF L172128	2.50	288,527	1,408,618	270,918	1,426,226	3,394,289
04A SRF L172485	2.50	158,183	631,272	150,291	639,162	1,578,908
04B SRF L172488	2.50	184,788	737,448	175,570	746,667	1,844,473
04C SRF L172493	2.50	16,434	69,891	15,561	70,765	172,651
04D SRF L172494	2.50	15,760	67,024	14,922	67,862	165,568
04E SRF L172495	2.50	54,377	204,264	51,824	206,817	517,282
04F SRF L172496	—	—	99,368	—	99,368	198,736
12O SRF L175166	1.995	41,891	104,362	40,850	105,403	292,506
12I SRF L175222	2.21	51,318	105,744	50,149	106,911	314,122
12M SRF L175168	2.21	126,491	244,046	123,794	246,741	741,072
12N SRF L175164	1.995	26,017	62,634	25,392	63,259	177,302
14I SRF L175223	1.86	55,039	122,815	53,896	123,957	355,707
14J SRF L175219	2.21	33,989	72,460	33,188	73,261	212,898
97BB SRF L171151	2.535	16,097	311,513	12,148	315,462	655,220
14A SRF L173076	2.21	825,716	1,701,446	806,915	1,720,247	5,054,324
97CC SRF L172031	2.535	100,499	1,090,352	86,679	1,104,172	2,381,702
16D SRF L175460	1.75	42,639	105,379	41,716	106,302	296,036
97AA SRF L170822	2.506	40,140	1,591,751	20,194	1,611,696	3,263,781
<b>Refunding Bonds - Series:</b>						
2014 Limited Tax Series D	2.0 to 5.0	\$ 1,328,125 (1)	\$ —	\$ 1,328,125 (2)	\$ 11,945,000 (2)	\$ 14,601,250
2007 Unlimited Tax Series A	4.0 to 5.0	2,283,125 (1)	—	2,283,125 (2)	21,125,000 (2)	25,691,250
2007 Unlimited Tax Series B	4.0 to 5.0	2,410,932 (1)	—	2,410,931 (2)	— (2)	4,821,863
2007 Limited Tax Series C	4.0 to 5.0	2,673,825 (1)	—	2,673,825 (2)	— (2)	5,347,650
2016 Unlimited Tax Series A	5.0	7,023,250 (1)	—	7,023,250 (2)	— (2)	14,046,500
2016 Limited Tax Series B	5.0	1,033,250 (1)	—	1,033,250 (2)	— (2)	2,066,500
<b>TOTAL</b>		<b>\$ 57,674,254</b>	<b>\$ 33,764,532</b>	<b>\$ 57,339,929</b>	<b>\$ 89,578,826</b>	<b>\$ 238,357,541</b>

(1) Interest Payable June 1, 2019 (2) Interest and Principal Payable December 1, 2019

# 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.

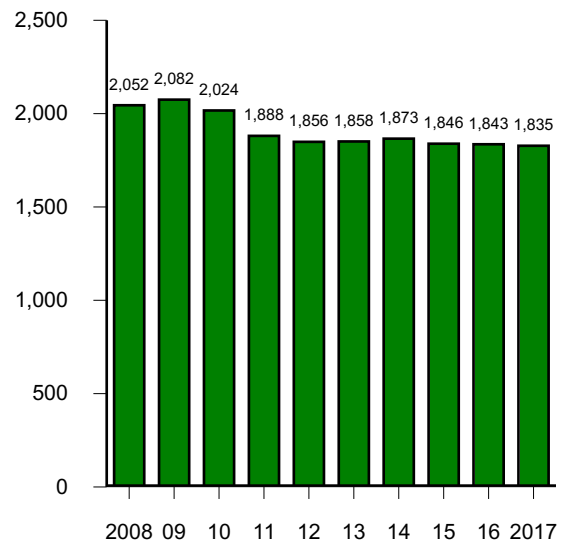
On August 3, 2012, the Governor signed Public Act 97-0894, which increased the nine percent required employee contributions one percent per year for three years beginning in 2013 to the current contribution of 12 percent for employees who first became a member of the Fund or certain reciprocal systems before January 1, 2011 (Tier I). The employee contribution rate will be reduced to nine percent when the funded ratio reaches 90 percent. The District's goal is to have a 100 percent funded ratio by 2050. 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, 2017, there were 1,835 active (contributing) participants in the Fund and 2,438 beneficiaries. Annuitants accounted for 2,408 of these beneficiaries, including 1,809 retired employees, 576 surviving spouses, and 23 children. Additionally, the Fund paid disability benefits to 30 District employees.

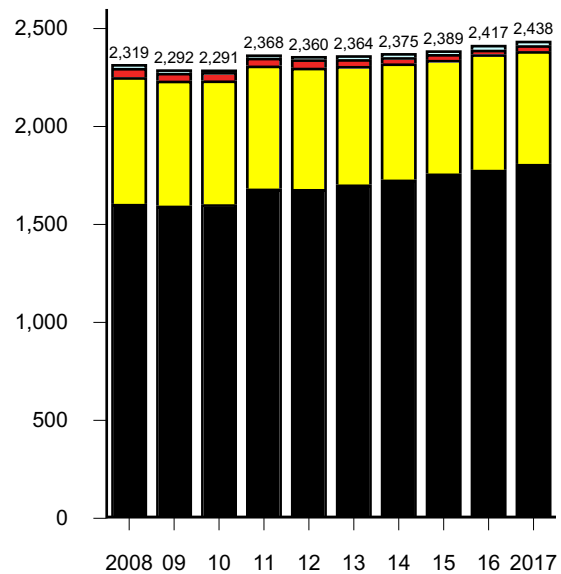
Gross income for the Fund is composed of the following items:

- 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 due to benefits under the Tier II 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 2019, the District will levy a tax which will produce a sum that will be sufficient to meet the Fund's actuarially determined contribution requirement but 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**



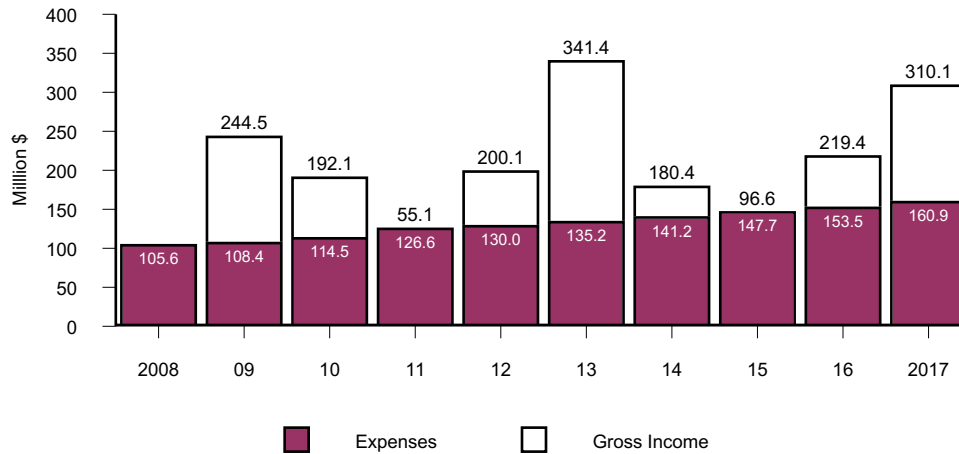
- Employee Annuitants
- Spouse Annuitants
- Disabilities
- Children's Annuitants

# RETIREMENT FUND

## Description of Fund, Purpose, and Operation (continued)

Gross income for 2017 was \$310.1 million, which is a combination of employee and employer contributions of \$110.7 million, investment income of \$199.1 million, securities lending income of \$345,800, and other income of \$3,100; reflecting an income of \$90.7 million greater than in 2016. Total investment income in 2017 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 2017.

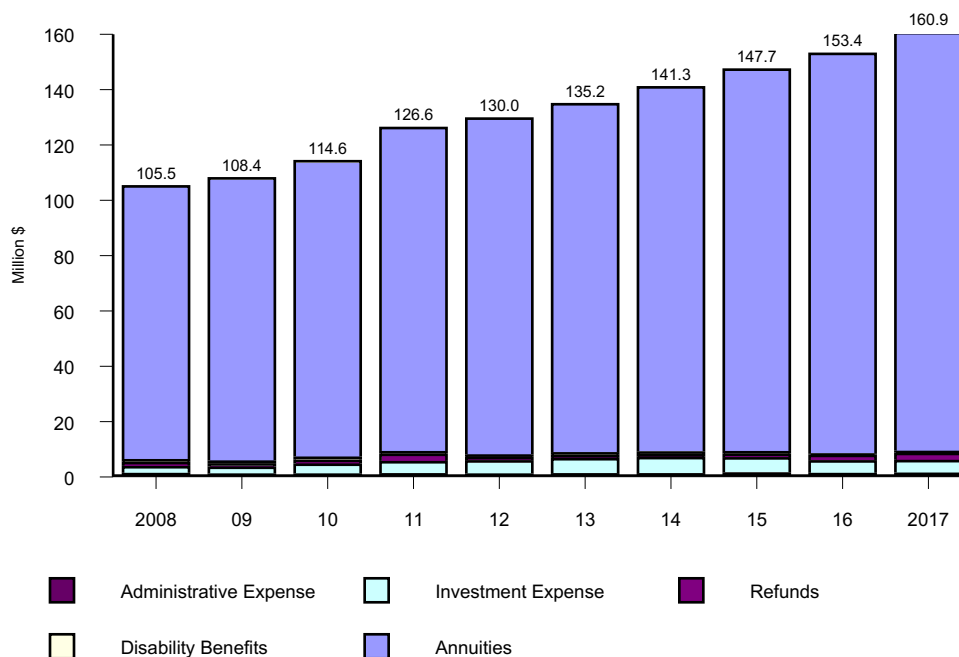
**Gross Income vs. All Expenses**



*In 2008, Gross Income was (\$249.0) which was primarily due to the unprecedented declines in the financial market in the 4th quarter.*

Expenses for 2017 include annuity and disability benefit payments of \$152.1 million investment management expenses of \$4.6 million, administrative expenses of \$1.6 million, and refunds of \$2.6 million for a total of \$160.9 million.

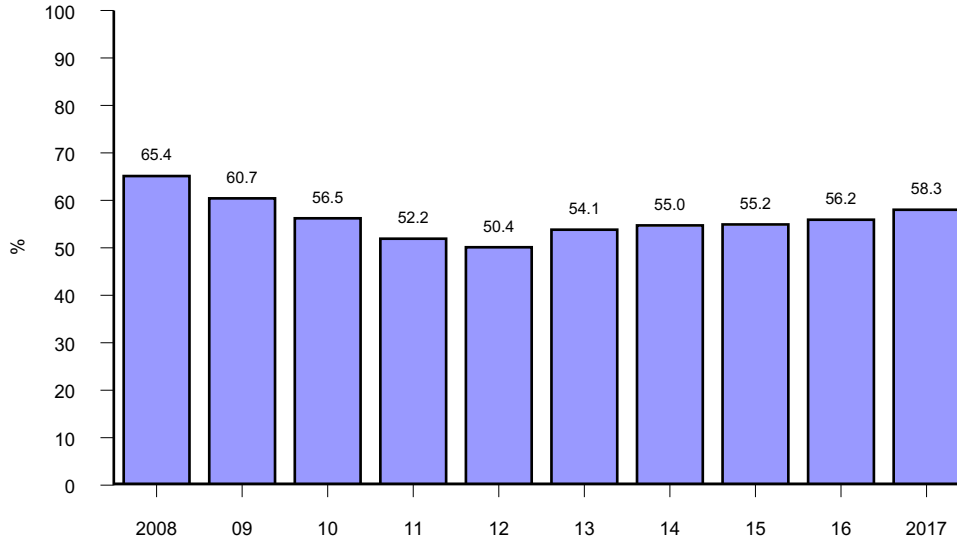
**Expenses**



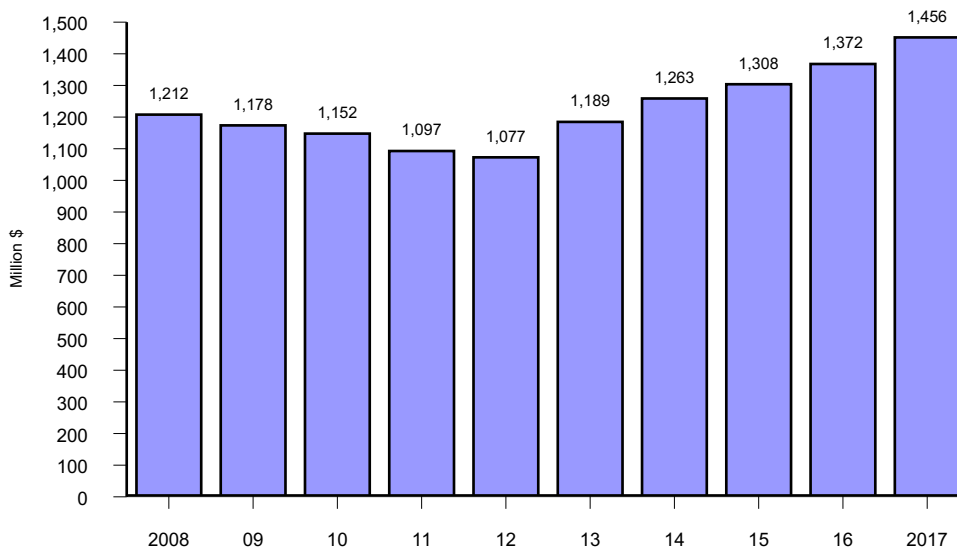


As of December 31, 2017, the funded ratio of the Fund was 58.3 percent. Beginning in 1997, Fund assets and this ratio are reported at the new Actuarial Asset Value required by the Governmental Accounting Standards Board. The funded ratio has been in the range of 50.4 percent to 65.4 percent during the 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.

**Funded Ratio at Actuarial Value**



**Assets at Actuarial Value**



For the 2019 Budget, the gross property tax levy totals \$71.6 million, an increase of \$0.03 million, or 0.04 percent, above the 2018 adjusted levy. The 2019 Personal Property Replacement Tax allocation to the Retirement Fund is \$18.3 million. The 2019 appropriation is \$87.3 million, a decrease of \$2.3 million, or 2.6 percent, below the 2018 Adjusted Budget.

**APPROPRIATION ORDINANCE NUMBER O18-006A**  
**(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 \$87,281,000.

*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, 2019.

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 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 2019 levies.

This section includes 2019 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 2019 Tax Levy for Payment of Outstanding Bonds, can also be found in this section.

<a href="#">Retirement Fund and Corporate Fund</a> .....	<a href="#">555</a>
<a href="#">Construction Fund</a> .....	<a href="#">556</a>
Bond Redemption & Interest Fund:	
<a href="#">Tax Levy Ordinance for Outstanding Bonds</a> .....	<a href="#">557</a>
<a href="#">Tax Levy for Payment of Outstanding Bonds, 2019</a> .....	<a href="#">560</a>
<a href="#">Reserve Claim Fund</a> .....	<a href="#">562</a>
<a href="#">Stormwater Management Fund</a> .....	<a href="#">563</a>

**ORDINANCE NUMBER O18-007**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
BEGINNING JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
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, 2019  
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, 2019, for the fiscal year ending December 31, 2019, 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 \$71,565,400 which includes the sum of \$2,504,789 as a reserve for loss in collection of taxes, distributed as

Contributions for Service Retirement Allowances and Spouses' Allowances .....	\$ 13,140,340
Contributions for Ordinary Disability Benefits .....	461,444
Contributions for Duty Disability Benefits .....	214,395
Contributions for Expense of Administration .....	1,358,416
Contributions for Children's Annuities .....	125,858
Contributions for Current and Past Service Requirements .....	56,264,947
	<u>\$ 71,565,400</u>

For Corporate Purposes of the said Metropolitan Water Reclamation District of Greater Chicago "the sum of \$254,574,100 which includes the sum of \$8,910,094 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 2019 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, 2019, 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, 2019.

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 O18-008**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
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, 2019  
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, 2019 for the fiscal year ending December 31, 2019, 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 \$7,600,000 which includes the sum of \$266,000 as a reserve for loss in collection of taxes."

*Section 2.* That the Clerk of the Metropolitan Water Reclamation District of Greater Chicago be, and is hereby directed to certify to the County Clerk of Cook County, the amount above set forth to be raised by taxation in the year 2019 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, 2019, 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 2019 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 2019 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, 2019.

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 O18-009**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
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:

Chicago, as said territorial limits exist on January 1, 2019, and all taxable property in townships or parts of townships disconnected from the Metropolitan Water Reclamation District of Greater Chicago prior to January 1, 2019, but after the issuance of any bonds, the amounts of money hereinafter stated:

*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

Capital Improvement Bonds - Series:

2009 Limited Tax Series .....	08/26/09 .....	\$ 35,564,767
2011 Limited Tax Series B .....	07/27/11 .....	18,950,616
2011 Unlimited Tax Series C .....	07/27/11 .....	2,515,991
2014 Limited Tax Series C .....	01/06/15 .....	8,286,788
2014 Unlimited Tax Series A .....	01/06/15 .....	5,181,348
2014 Alternate Revenue Unlimited Tax Series B .....	01/06/15 .....	3,391,037
2016 Alternate Revenue Unlimited Tax Series E .....	07/07/16 .....	2,590,674
2016 Unlimited Tax Series C .....	07/07/16 .....	1,554,405
2016 Limited Tax Series D .....	07/07/16 .....	1,036,270
2016 Qualified Energy Conservation Limited Tax Series F .....	07/07/16 .....	165,804

State Revolving Funds Bonds - Series:

09D SRF L174558 .....	\$ 2,719,714
12A SRF L174710 .....	495,644
12B SRF L174712 .....	424,481
12C SRF L174621 .....	913,248
12D SRF L174988 .....	2,144,773
12E SRF L174709 .....	364,866
12F SRF L174989 .....	4,182,054
12G SRF L174923 .....	2,237,666
12H SRF L174924 .....	1,904,781
12I SRF L175222 .....	336,470
12J SRF L175172 .....	173,996
12K SRF L174925 .....	971,963
12L SRF L175161 .....	2,557,534
12M SRF L175168 .....	1,164,145
12N SRF L175164 .....	186,528
12O SRF L175166 .....	303,115
14A SRF L173076 .....	8,866,321
14B SRF L175171 .....	182,404
14C SRF L174559 .....	1,772,899
14D SRF L175263 .....	828,388
14E SRF L173062 .....	2,914,926
14F SRF L175342 .....	4,145,078
14G SRF L175152 .....	1,364,037

**ORDINANCE NUMBER O18-009**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
TO PAY THE INTEREST ON OUTSTANDING BONDS AND TO  
DISCHARGE THE PRINCIPAL THEREOF (CONTINUED)**

## State Revolving Funds Bonds - Series:

14H SRF L175355 .....	\$	79,322
14I SRF L175223 .....		809,704
14J SRF L175219 .....		315,494
14K SRF L175366 .....		348,796
14L SRF L175368 .....		345,144
14M SRF L175372 .....		92,450
14N SRF L175371 .....		98,613
14O SRF L175305 .....		203,389
14P SRF L175369 .....		256,093
16A SRF L174555 .....		8,497,409
16C SRF L175367 .....		2,134,539
16D SRF L175460 .....		503,633
09A SRF L173074 .....		2,776,070
09B SRF L173064 .....		396,777
09C SRF L173063 .....		116,019
09I SRF L174675 .....		654,054
07A SRF L172625 .....		2,870,941
07B SRF L172850 .....		1,917,382
07C SRF L172770 .....		3,454,232
09G SRF L173075 .....		1,783,488
09H SRF L173800 .....		38,128
09E SRF L173005 .....		2,361,654
07D SRF L172763 .....		654,831
09F SRF L174557 .....		3,776,466
04G SRF L172611 .....		278,725
04H SRF L172849 .....		3,665,745
01A SRF L172126 .....		3,934,375
97DD SRF L171152 .....		1,076,736
01B SRF L172127 .....		3,994,974
01C SRF L172128 .....		3,517,399
04A SRF L172485 .....		1,636,174
04B SRF L172488 .....		1,911,370
04C SRF L172493 .....		178,912
04D SRF L172494 .....		171,573
04E SRF L172495 .....		536,044
04F SRF L172496 .....		205,944
97BB SRF L171151 .....		339,492
97CC SRF L172031 .....		2,468,083

**ORDINANCE NUMBER O18-009**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
TO PAY THE INTEREST ON OUTSTANDING BONDS AND TO  
DISCHARGE THE PRINCIPAL THEREOF (CONTINUED)**

Refunding Bonds - Series:

2007 Unlimited Tax Series A .....	03/21/07 .....	\$ 26,694,301
2007 Unlimited Tax Series B .....	03/21/07 .....	4,996,749
2007 Limited Tax Series C .....	03/21/07 .....	5,541,607
2014 Limited Tax Series D .....	01/06/15 .....	15,895,337
2016 Unlimited Tax Series A .....	07/07/16 .....	14,555,959
2016 Limited Tax Series B .....	07/07/16 .....	2,141,451
		\$ 248,618,309

*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 2019 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, 2019, 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, 2019 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, 2019.

Approved as to Form and Legality:

Approved:



Head Assistant Attorney



President, Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago



General Counsel



## BOND REDEMPTION AND INTEREST FUND

### 2019 Tax Levy for Payment of Outstanding Bonds

BOND ISSUE	ISSUE DATED	INTEREST PAYMENT DATES	INTEREST	PRINCIPAL	RESERVE FOR UNCOLLECTED TAX (A)	GROSS LEVY
<b>Capital Improvement Bonds - Series:</b>						
2009 Limited Tax Series	08/26/09	6/1/19 - 12/1/19	\$ 34,320,000	\$ —	\$ 1,244,767	\$ 35,564,767
2011 Limited Tax Series B	07/27/11	6/1/19 - 12/1/19	10,952,344	7,335,000	663,272	18,950,616
2011 Unlimited Tax Series C	07/27/11	6/1/19 - 12/1/19	2,077,931	350,000	88,060	2,515,991
2014 Limited Tax Series C	01/06/15	6/1/19 - 12/1/19	2,956,750	5,040,000	290,038	8,286,788
2014 Unlimited Tax Series A	01/06/15	6/1/19 - 12/1/19	5,000,001	—	181,347	5,181,348
2014 Alternate Revenue Unlimited Tax Series B	01/06/15	6/1/19 - 12/1/19	2,257,351	1,015,000	118,686	3,391,037
2016 Alternate Revenue Unlimited Tax Series E	07/07/16	6/1/19 - 12/1/19	2,500,000	—	90,674	2,590,674
2016 Unlimited Tax Series C	07/07/16	6/1/19 - 12/1/19	1,500,001	—	54,404	1,554,405
2016 Limited Tax Series D	07/07/16	6/1/19 - 12/1/19	1,000,001	—	36,269	1,036,270
2016 Qualified Energy Conservation Limited Tax Series F	07/07/16	6/1/19 - 12/1/19	160,000	—	5,804	165,804
<b>State Revolving Funds Bonds - Series:</b>						
09D SRF L174558	07/01/13	7/1/19 - 1/1/20	\$ 592,143	\$ 2,032,381	\$ 95,190	\$ 2,719,714
12A SRF L174710	07/01/14	7/1/19 - 1/1/20	128,804	349,492	17,348	495,644
12B SRF L174712	07/01/14	7/1/19 - 1/1/20	110,312	299,312	14,857	424,481
12C SRF L174621	07/01/16	7/1/19 - 1/1/20	236,615	644,669	31,964	913,248
12D SRF L174988	07/01/15	7/1/19 - 1/1/20	406,609	1,663,097	75,067	2,144,773
12E SRF L174709	07/01/15	7/1/19 - 1/1/20	86,865	265,231	12,770	364,866
12F SRF L174989	07/01/15	7/1/19 - 1/1/20	787,398	3,248,284	146,372	4,182,054
12G SRF L174923	07/01/18	7/1/19 - 1/1/20	638,480	1,520,868	78,318	2,237,666
12H SRF L174924	07/01/15	7/1/19 - 1/1/20	367,959	1,470,155	66,667	1,904,781
12I SRF L175222	07/01/16	7/1/19 - 1/1/20	97,514	227,180	11,776	336,470
12J SRF L175172	07/01/15	7/1/19 - 1/1/20	42,618	125,288	6,090	173,996
12K SRF L174925	07/01/15	7/1/19 - 1/1/20	304,088	633,856	34,019	971,963
12L SRF L175161	07/01/16	7/1/19 - 1/1/20	741,210	1,726,810	89,514	2,557,534
12M SRF L175168	07/01/18	7/1/19 - 1/1/20	546,123	577,277	40,745	1,164,145
12N SRF L175164	07/01/16	7/1/19 - 1/1/20	48,328	131,672	6,528	186,528
12O SRF L175166	07/01/15	7/1/19 - 1/1/20	76,401	216,105	10,609	303,115
14A SRF L173076	07/01/16	7/1/19 - 1/1/20	5,019,621	3,536,379	310,321	8,866,321
14B SRF L175171	07/01/16	7/1/19 - 1/1/20	51,502	124,518	6,384	182,404
14C SRF L174559	07/01/16	7/1/19 - 1/1/20	795,742	915,106	62,051	1,772,899
14D SRF L175263	07/01/18	7/1/19 - 1/1/20	229,196	570,198	28,994	828,388
14E SRF L173062	07/01/18	7/1/19 - 1/1/20	806,494	2,006,410	102,022	2,914,926
14F SRF L175342	07/01/19	7/1/19 - 1/1/20	597,749	3,402,251	145,078	4,145,078
14G SRF L175152	07/01/18	7/1/19 - 1/1/20	377,398	938,898	47,741	1,364,037
14H SRF L175355	07/01/17	7/1/19 - 1/1/20	19,887	56,659	2,776	79,322
14I SRF L175223	07/01/18	7/1/19 - 1/1/20	224,027	557,337	28,340	809,704
14J SRF L175219	07/01/16	7/1/19 - 1/1/20	89,081	215,371	11,042	315,494
14K SRF L175366	07/01/18	7/1/19 - 1/1/20	96,504	240,084	12,208	348,796
14L SRF L175368	07/01/18	7/1/19 - 1/1/20	90,720	242,344	12,080	345,144
14M SRF L175372	07/01/18	7/1/19 - 1/1/20	24,300	64,914	3,236	92,450
14N SRF L175371	07/01/18	7/1/19 - 1/1/20	25,920	69,242	3,451	98,613
14O SRF L175305	07/01/18	7/1/19 - 1/1/20	53,460	142,810	7,119	203,389
14P SRF L175369	07/01/18	7/1/19 - 1/1/20	63,850	183,280	8,963	256,093
16A SRF L174555	07/01/18	7/1/19 - 1/1/20	2,233,516	5,966,484	297,409	8,497,409
16C SRF L175367	07/01/19	7/1/19 - 1/1/20	2,059,830	—	74,709	2,134,539

**BOND REDEMPTION AND INTEREST FUND**  
**2019 Tax Levy for Payment of Outstanding Bonds**

BOND ISSUE	ISSUE DATED	INTEREST PAYMENT DATES	INTEREST	PRINCIPAL	RESERVE FOR UNCOLLECTED TAX (A)	GROSS LEVY
<b>State Revolving Funds Bonds - Series:</b>						
16D SRF L175460	07/01/18	7/1/19 - 1/1/20	\$ 129,284	\$ 356,722	\$ 17,627	\$ 503,633
09A SRF L173074	07/01/12	7/1/19 - 1/1/20	362,126	2,316,781	97,163	2,776,070
09B SRF L173064	06/21/11	7/1/19 - 1/1/20	—	382,886	13,891	396,777
09C SRF L173063	01/15/11	7/1/19 - 1/1/20	—	111,957	4,062	116,019
09I SRF L174675	06/21/11	7/1/19 - 1/1/20	79,128	552,034	22,892	654,054
07A SRF L172625	06/17/10	7/1/19 - 1/1/20	595,971	2,174,486	100,484	2,870,941
07B SRF L172850	07/01/10	7/1/19 - 1/1/20	415,953	1,434,320	67,109	1,917,382
07C SRF L172770	01/01/11	7/1/19 - 1/1/20	—	3,333,334	120,898	3,454,232
09G SRF L173075	07/01/13	7/1/19 - 1/1/20	230,899	1,490,166	62,423	1,783,488
09H SRF L173800	04/23/11	7/1/19 - 1/1/20	—	36,793	1,335	38,128
09E SRF L173005	08/06/11	7/1/19 - 1/1/20	297,054	1,981,942	82,658	2,361,654
07D SRF L172763	06/10/10	7/1/19 - 1/1/20	135,934	495,976	22,921	654,831
09F SRF L174557	07/01/16	7/1/19 - 1/1/20	492,752	3,151,538	132,176	3,776,466
04G SRF L172611	01/31/07	7/1/19 - 1/1/20	41,523	227,446	9,756	278,725
04H SRF L172849	07/01/09	7/1/19 - 1/1/20	691,117	2,846,327	128,301	3,665,745
01A SRF L172126	07/01/04	7/1/19 - 1/1/20	346,638	3,450,034	137,703	3,934,375
97DD SRF L171152	07/01/04	7/1/19 - 1/1/20	92,944	946,104	37,688	1,076,736
01B SRF L172127	07/01/05	7/1/19 - 1/1/20	429,075	3,426,073	139,826	3,994,974
01C SRF L172128	06/16/06	7/1/19 - 1/1/20	451,804	2,942,484	123,111	3,517,399
04A SRF L172485	05/15/08	7/1/19 - 1/1/20	260,235	1,318,673	57,266	1,636,174
04B SRF L172488	05/28/08	7/1/19 - 1/1/20	304,005	1,540,467	66,898	1,911,370
04C SRF L172493	03/27/07	7/1/19 - 1/1/20	26,654	145,996	6,262	178,912
04D SRF L172494	01/31/07	7/1/19 - 1/1/20	25,561	140,007	6,005	171,573
04E SRF L172495	05/30/08	7/1/19 - 1/1/20	90,592	426,690	18,762	536,044
04F SRF L172496	04/23/11	7/1/19 - 1/1/20	—	198,735	7,209	205,944
97BB SRF L171151	07/01/04	7/1/19 - 1/1/20	4,102	323,509	11,881	339,492
97CC SRF L172031	07/01/04	7/1/19 - 1/1/20	102,669	2,279,031	86,383	2,468,083
<b>Refunding Bonds - Series:</b>						
2007 Unlimited Tax Series A	03/21/07	6/1/19 - 12/1/19	\$ 3,510,000	\$ 22,250,000	\$ 934,301	\$ 26,694,301
2007 Unlimited Tax Series B	03/21/07	6/1/19 - 12/1/19	4,821,863	—	174,886	4,996,749
2007 Limited Tax Series C	03/21/07	6/1/19 - 12/1/19	5,347,650	—	193,957	5,541,607
2014 Limited Tax Series D	01/06/15	6/1/19 - 12/1/19	2,059,000	13,280,000	556,337	15,895,337
2016 Unlimited Tax Series A	07/07/16	6/1/19 - 12/1/19	14,046,500	—	509,459	14,555,959
2016 Limited Tax Series B	07/07/16	6/1/19 - 12/1/19	2,066,500	—	74,951	2,141,451
<b>TOTAL</b>			<b>\$ 118,252,176</b>	<b>\$ 121,664,473</b>	<b>\$ 8,701,660</b>	<b>\$ 248,618,309</b>

(A) Reserve at 3.5%

**ORDINANCE NUMBER O18-010**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
 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, 2019  
 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 \$7,500,000 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, 2019, for the fiscal year ending December 31, 2019, 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 2019 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, 2019, 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, 2019.

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 O18-011**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2019 AND ENDING DECEMBER 31, 2019  
 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, 2019  
 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, 2019, for the fiscal year ending December 31, 2019, 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 \$52,926,000 which includes the sum of \$1,852,410 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 2019, 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, 2019, 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, 2019.

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 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 45 years.

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## 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	\$9,317.17
EX02	\$2,692.31	EX10	\$9,317.17	EX18	\$5,240.93
EX03	\$7,066.69	EX11	\$10,481.82	EX19	\$9,317.17
EX04	\$2,578.16 to \$4,012.97	EX12	\$10,481.82	EX20	None
EX05	\$9,317.17	EX13	\$9,317.17	EX21	\$2,884.62
EX06	\$2,578.16 to \$4,012.97	EX14	\$10,481.82	EX22	\$3,076.92
EX07	\$11,646.51	EX15	\$10,481.82	EX23	\$3,651.91
EX08	\$9,317.17	EX16	\$673.08	EX24	\$3,651.91

### Technical, Administrative, and Managerial (HP)

HP07	\$1,339.53 to \$1,950.92	HP14	\$2,772.12 to \$4,297.49	HP21	\$5,577.27 to \$8,368.42
HP08	\$1,457.88 to \$2,147.87	HP15	\$3,042.58 to \$4,634.99	HP22	\$6,156.42 to \$9,143.16
HP09	\$1,599.83 to \$2,384.32	HP16	\$3,376.63 to \$5,051.85	HP23	\$6,845.35 to \$9,957.71
HP10	\$1,789.18 to \$2,699.55	HP17	\$3,769.04 to \$5,541.53	TM01	\$1,040.00
HP11	\$2,010.14 to \$3,067.30	HP18	\$4,230.45 to \$6,117.20	TM02	\$1,400.00
HP12	\$2,278.37 to \$3,513.89	HP19	\$4,803.16 to \$6,831.82		
HP13	\$2,578.16 to \$4,012.97	HP20	\$5,086.45 to \$7,711.85		

### Labor Trades (LT)

NR1541	\$3,203.20	NR6275	\$4,794.40	PR5153	\$3,788.00	PR5975	\$4,066.40	PR7579	\$4,150.40
NR1835	\$2,874.40	NR6441	\$3,460.00	PR5155	\$3,948.00	PR5989	\$4,186.40	PR7743	\$4,040.00
NR1853	\$3,245.60	NR6810	\$3,392.80	PR5159	\$3,988.00	PR6453	\$4,088.00	PR7773	\$3,880.00
NR1857	\$3,460.00	NR6831	\$3,982.40	PR5353	\$3,695.20	PR6459	\$4,408.00	PR7775	\$4,120.00
NR2483	\$3,245.60	NR6832	\$4,125.60	PR5553	\$3,724.00	PR6473	\$2,968.00	PR7779	\$4,280.00
NR3641	\$2,325.60	NR7393	\$4,352.00	PR5555	\$3,956.80	PR6479	\$3,228.00	PR1025	\$2,182.72 to \$3,483.36
NR3642	\$2,544.00	NR7394	\$5,176.00	PR5753	\$4,020.00	PR7343	\$3,868.00	TR3509	\$2,079.09
NR5369	\$3,261.60	NR7399	\$3,526.40	PR5755	\$4,260.00	PR7347	\$4,348.00		
NR6210	\$3,570.40	NR8331	\$3,460.00	PR5759	\$4,340.00	PR7349	\$4,108.00		
NR6232	\$3,748.80	NR8650	\$3,245.60	PR5933	\$3,844.00	PR7423	\$4,152.00		
NR6233	\$3,936.00	NR8651	\$3,089.60	PR5935	\$4,124.00	PR7424	\$4,552.00		
NR6251	\$4,567.20	NR8652	\$2,154.40	PR5953	\$3,540.00	PR7425	\$4,872.00		
NR6271	\$4,597.60	NR8660	\$1,900.50	PR5955	\$3,858.40	PR7573	\$3,870.40		
NR6272	\$4,352.00	NR8661	\$2,830.80	PR5973	\$3,906.40	PR7575	\$4,070.40		

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 \$4,230.45 to \$6,117.20 bi-weekly. By multiplying those rates by 26, it can be determined that the annual salary range for such positions is \$109,991.70 to \$159,047.20. 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 2017 and 2018 graduates that utilized the tuition reimbursement program.

<b>EMPLOYEE NAME</b>	<b>COLLEGE/UNIVERSITY</b>	<b>MONTH/YEAR OF GRADUATION</b>	<b>FIELD OF STUDY</b>
Devitt, Colin	Northwestern University	Dec 2017	Master of Science in Project Management
Desai, Rachana	Roosevelt University	Dec 2017	Master of Science
Haucke, Stephen	Indiana University	Feb 2018	Master of Business Administration
Reynolds, Brandon	University of Illinois	Dec 2017	Master of Public Health
Venuso, Valerie	Saint Xavier University	Dec 2017	Bachelor of Business Administration
Wright, Anne	Roosevelt University	May 2018	Post-Baccalaureate Certificate in Paralegal Studies

# USER CHARGE RATES

Year	Large Commercial/Industrial Users				Tax-Exempt Users				Revenues in \$ millions
	Flow per million gallons	BOD <sub>5</sub> per 1,000 pounds	SS per 1,000 pounds	OM&R Factor	Flow per million gallons	BOD <sub>5</sub> per 1,000 pounds	SS per 1,000 pounds		
2019	\$ 269.04	\$ 216.64	\$ 130.38	32.8%	\$ 269.04	\$ 216.64	\$ 130.38	\$ 46.0	
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	

BOD<sub>5</sub> Biochemical Oxygen Demand based on standard five-day test

SS Suspended Solids

OM&R Portion of real estate taxes credited to users for the District's Operations, Maintenance, and Replacement costs

User charges are calculated based on sewer discharge volumes and representative sampling of the discharge for concentrations of BOD<sub>5</sub> and suspended solids. Loadings in thousands of pounds annually are extrapolated from the volume and concentration measurements, with the rates listed above applied. Users are given a credit for real estate taxes paid to the District multiplied by the OM&R factor. Users owing more than \$12,000 annually pay monthly estimates.

# PROPERTY TAX LEVIES AND COLLECTIONS

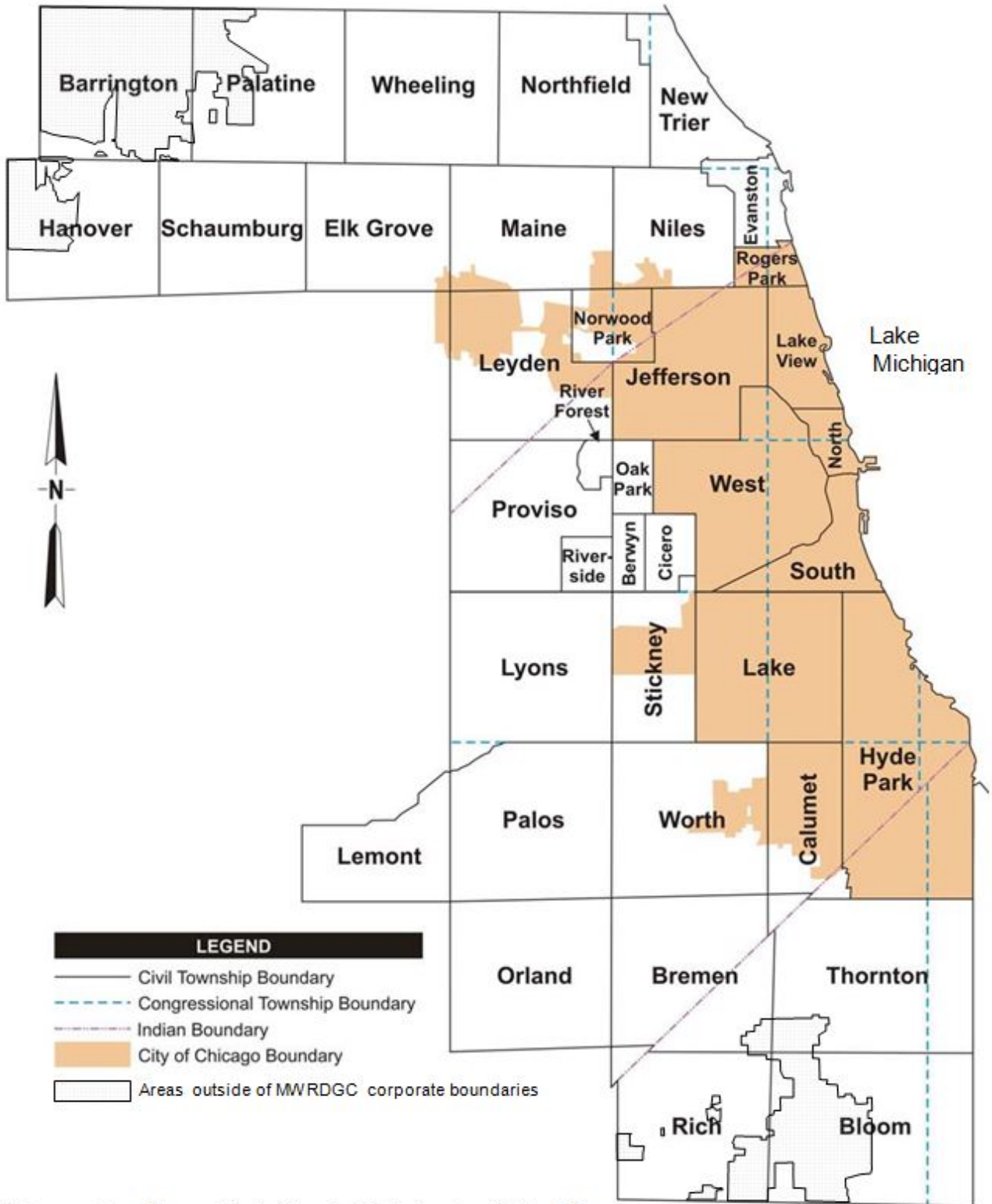
(in thousands of dollars)

Fiscal Year Ended Dec. 31	Taxes Levied for the Fiscal Year	Collected within the First Year		
		Amount	Percentage of Levy	Final Due Date
2017	\$ 593,135	\$ —	—	8/1/2018
2016	571,454	559,938	98.0	8/1/2017
2015	555,098	541,008	97.5	8/1/2016
2014	540,666	523,203	96.8	8/1/2015
2013	514,659	497,452	96.7	8/1/2014
2012	493,573	476,881	96.6	8/1/2013
2011	476,955	460,618	96.6	8/1/2012
2010	457,356	435,009	95.1	10/1/2011
2009	455,361	383,612	84.2	12/13/2010
2008	428,645	400,048	93.3	12/1/2009

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, 2017.

# 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/TRAD/cook.html>

# PROPERTY TAX BASE

## MWRDGC Equalized Assessed Valuation by Township 2012 - 2017 (in \$ millions)

Township	2012	2013	2014	2015	2016	2017	Average Annual Change
<b>Suburban</b>							
Barrington	\$ 353	\$ 325	\$ 328	\$ 326	\$ 319	\$ 328	-2.70%
Berwyn	688	647	596	581	600	735	0.13%
Bloom	503	474	450	440	456	490	-1.78%
Bremen	1,689	1,566	1,469	1,425	1,480	1,648	-1.69%
Calumet	184	176	177	176	179	199	-0.06%
Cicero	625	586	555	536	554	647	-0.44%
Elk Grove	3,652	3,128	3,184	3,103	3,516	3,559	-1.53%
Evanston	2,515	2,202	2,245	2,196	2,670	2,740	0.63%
Hanover	1,647	1,406	1,426	1,379	1,608	1,615	-1.39%
Lemont	778	733	715	711	755	914	1.83%
Lyden	2,655	2,331	2,332	2,409	2,753	2,794	-0.21%
Lyons	3,680	3,465	3,469	3,373	3,523	4,267	1.66%
Maine	4,531	3,729	3,778	3,666	4,308	4,383	-1.21%
New Trier	4,595	4,151	4,201	4,075	4,987	5,097	1.00%
Niles	4,333	3,810	3,886	3,818	4,461	4,542	-0.15%
Northfield	5,290	4,722	4,787	4,627	5,531	5,716	0.56%
Norwood Park	859	726	745	727	839	852	-0.98%
Oak Park	1,470	1,369	1,383	1,334	1,387	1,656	1.00%
Orland	3,098	2,921	2,829	2,753	2,890	3,310	—%
Palatine	3,001	2,597	2,628	2,557	2,977	2,987	-0.93%
Palos	1,459	1,369	1,330	1,290	1,350	1,577	0.27%
Proviso	2,893	2,723	2,652	2,573	2,679	3,150	0.44%
Rich	1,138	1,044	988	962	1,007	1,098	-1.81%
River Forest	529	493	488	470	486	586	0.80%
Riverside	541	505	489	474	495	575	-0.15%
Schaumburg	4,460	3,949	3,999	3,892	4,497	4,549	-0.65%
Stickney	1,049	972	935	914	956	1,102	-0.24%
Thornton	1,867	1,718	1,662	1,651	1,699	1,770	-2.39%
Wheeling	4,875	4,185	4,253	4,152	4,894	4,952	-0.61%
Worth	3,194	3,011	2,847	2,752	2,880	3,341	-0.42%
<b>City of Chicago</b>							
Hyde Park	3,748	3,576	3,648	3,890	4,077	4,143	-0.89%
Jefferson	11,060	10,529	10,741	11,311	11,735	11,960	-1.46%
Lake	6,488	6,227	6,364	6,684	6,970	6,978	-2.09%
Lake View	8,886	8,416	8,654	9,521	9,782	10,020	-0.29%
North Chicago	12,745	12,079	12,509	14,197	14,839	15,718	2.53%
Rogers Park	1,391	1,299	1,318	1,376	1,433	1,449	-2.67%
South Chicago	12,616	12,050	13,277	14,559	15,297	16,119	2.96%
West Chicago	8,317	8,188	8,398	9,427	9,883	10,380	1.54%
<b>Total EAV</b>	<b>133,398</b>	<b>123,400</b>	<b>125,736</b>	<b>130,305</b>	<b>140,752</b>	<b>147,946</b>	<b>0.11%</b>

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	2018	<i>Chicago Metro Chapter Suburban Branch: Public Works Project of the Year Award for the Niles Flood Relief Project</i>
	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, "Top Ten Public Works Projects of the Century" 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 Council of Engineering Companies - Illinois Chapter	2018	<i>Engineering Excellence Merit Award for the Mayfair Reservoir Expansion</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	2018	<i>Outstanding Civil Engineering Achievement Award, Over \$100 Million Category, for the McCook Reservoir</i>
	2016	<i>Project of the Year (Higher than \$25 Million) for Thornton Composite Reservoir</i>
		<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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

American Society of Civil Engineers - Illinois Section (continued)	1986	<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>
American Society of Landscape Architects - Illinois Chapter	2018	<i>Merit Award for Planning and Analysis for the Robbins Park Project</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>
		<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	2018-1985	<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>
	2017-2007	<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 2017</i>
	2017-1975	<i>Certificate of Achievement for Excellence in Financial Reporting - Comprehensive Annual Financial Report for Fiscal Years 1975 through 2017</i>
	2017-1993	<i>Certificate of Achievement for Excellence in Financial Reporting for the MWRD Retirement Fund - Comprehensive Annual Financial Report for Fiscal Years 1993 through 2017</i>
1999, 1996-1993	<i>Outstanding Achievement in Popular Annual Financial Reporting</i>	

**AWARDS AND ACHIEVEMENTS RECOGNITION**

Government Finance Officers Association of the United States and Canada (continued)	1998-1988	<i>Budget document recognized as "Especially Notable" or "Outstanding" in various categories</i>
Illinois Association for Floodplain and Stormwater Management	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>
	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	<i>Safety and Health Award for Outstanding Safety Performance</i>
	1996-1994	
	2002, 2000	<i>Outstanding Safety Performance in maintaining a safe and healthy working environment for its employees</i>
	2010	<i>Chicagoland Excellence in Engineering Project Award, Mechanical Division, for the Calumet Central Boiler Facility</i>
Illinois Society of Professional Engineers	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**

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>
Metropolitan Planning Council	2018	<i>Burnham Award for Excellence in Planning for the Space to Grow Partnership</i>
National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies	2017	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 26 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 21 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for 13 consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for 12 consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; and Platinum Award for 10 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>
	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>
	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>



**AWARDS AND ACHIEVEMENTS RECOGNITION**

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	2014	<p><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></p> <p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan and Stickney Water Reclamation Plants</i></p>
	2013	<p><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></p> <p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan and Stickney Water Reclamation Plants</i></p> <p><i>Richard Lanyon, former Executive Director, was inducted into the Hall of Fame and became the fifth former District executive in its ranks. The other four are former Director of M&amp;R Dr. Cecil Lue-Hing and former General Superintendents Bart Lynam, Hugh McMillan, and Ben Sosewitz</i></p>
	2012	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 21 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 16 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for eight consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for seven consecutive years of full compliance for North Side Water Reclamation Plant; and Platinum Award for five consecutive years of full compliance for Hanover Park Water Reclamation Plant</i></p> <p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i></p>
	2011	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 20 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 15 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for seven consecutive years of full compliance for James C. Kirie Water Reclamation Plant; and Platinum Award for six consecutive years of full compliance for North Side Water Reclamation Plant</i></p> <p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant</i></p> <p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i></p>
	2010	<p><i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 19 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 14 consecutive years of full compliance for Stickney and Lemont Water Reclamation Plants; Platinum Award for six consecutive years of full compliance for John E. Egan and James C. Kirie Water Reclamation Plants; and Platinum Award for five consecutive years of full compliance for North Side Water Reclamation Plant</i></p> <p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant</i></p>
	2009	<p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park and North Side Water Reclamation Plants</i></p> <p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for John E. Egan, James C. Kirie, Stickney, Calumet, and Lemont Water Reclamation Plants</i></p>
	2008	<p><i>National Environmental Achievement Award in Public Information and Education - Education Program category for "Mission Possible: Educating People to Promote Beneficial Use of Biosolids"</i></p> <p><i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan, Hanover Park, James C. Kirie, and North Side Water Reclamation Plants</i></p>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	2008	<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>
	2007	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for Hanover Park Water Reclamation Plant</i> <i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney, Calumet, and Lemont Water Reclamation Plants</i> <i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for James C. Kirie, John E. Egan, and North Side Water Reclamation Plants</i>
	2006	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney, Calumet, and Lemont Water Reclamation Plants</i> <i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for James C. Kirie, John E. Egan, Hanover Park, and North Side Water Reclamation Plants</i>
	2005-2003	<i>Certificate of Recognition for Excellence in Management for excellence in utility management and successful implementation of programs that address the range of management challenges facing public wastewater utilities in today's competitive environment</i>
	2005	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for North Side Water Reclamation Plant</i> <i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, James C. Kirie, John E. Egan, Hanover Park, and Lemont Water Reclamation Plants</i>
	2004	<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, North Side, and Lemont Water Reclamation Plants</i> <i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for James C. Kirie, John E. Egan, and Hanover Park Water Reclamation Plants</i>
	2003	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Stickney, Calumet, North Side, Hanover Park, John E. Egan, James C. Kirie, and Lemont Water Reclamation Plants</i>
	2002	<i>Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Hanover Park, North Side, and Calumet Water Reclamation Plants</i> <i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan, James C. Kirie, Stickney, and Lemont Water Reclamation Plants</i>
	2001	<i>Research and Technology Award on "Biosolids as a Topsoil Substitute for the Germination and Growth of Turf, Forage, Prairie Grasses and Wild Flower Plants"</i> <i>National Environmental Achievement Award for Excellence in Research and Technology</i> <i>Award for Full Compliance with National Pollutant Discharge Elimination System, Platinum Award for Stickney and Lemont Water Reclamation Plants</i> <i>Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant</i> <i>Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park, James C. Kirie, North Side, and Calumet Water Reclamation Plants</i>
	2000	<i>Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan and James C. Kirie Water Reclamation Plants</i> <i>Award for Full Compliance with National 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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	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>
	2016	<i>Green Infrastructure Award, First Place in the Large Agency Category for the Space to Grow Program</i>
National Association of Flood and Stormwater Management Agencies (NAFSMA)		
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)	2018	<i>Ten-Year Platinum Award for the Dedication to Environmentally Sound Biosolids Management Practices</i>
	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	2018-2003	<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>
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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

United States Environmental Protection Agency (continued)	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 Plant, 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>
Water and Wastes Digest	2016	<i>Thornton Composite Reservoir, one of the "Top Projects for 2016 Award"</i>
Water Environment Federation	2018	<i>Project Excellence Award for the McCook Reservoir</i>
	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.

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
American Academy of Environmental Engineers and Scientists	Co-Chair, Environmental Microbiology group of the Environmental Life Sciences Committee	Rijal, Dr. Geeta K.	Principal Environmental Scientist
	Certification by Eminence Committee		
American Contract Compliance Association	Board of Directors, Member	Berry, Regina D.	Diversity Administrator
American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America	Chair, Soil and Environmental Quality Division Associate Editor, Agronomy Journal	Kumar, Dr. Kuldip	Senior Environmental Soil Scientist
	Student Contest Committee	Oladeji, Dr. Olawale	Environmental Soil Scientist
American Society of Civil Engineers, Illinois Section	Member, Illinois Infrastructure Report Card Wastewater Subcommittee	Goldrich, Michael	Senior Environmental Specialist
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
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	Principal Environmental Scientist
Chicago Region Trees Initiative	Work Group	Fore, Allison	Public & Intergovernmental Affairs Officer
Civil Engineer Professional Advisory Council	Member	Podczerwinski, Edward	Director of Monitoring & Research
Decalogue Society	Anti-Semitism Committee	Saindon, Pamela	Senior Attorney
Dupage River Salt Creek Workgroup, Nutrient Trading Framework Projects Committee	Member	Minarik, Thomas	Senior Aquatic Biologist
Emerson Process Management's Ovation Group	Executive Board Member on the Ovation User's Group	Majka, Jeff	Senior Electrical Engineer
Environtopica	Associate Editor	Tian, Dr. Guanglong	Principal Environmental Scientist
Human Resources Round Table for the City of Chicago Sister Agencies	Member	Kosowski, Thaddeus J.	Assistant Director of Human Resources
Illinois Association of Public Procurement Officials	Member	LoCascio, Darlene A.	Director of Procurement & Materials Management
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	Executive Director
	Nutrients and Total Maximum Daily Loads Committee	Szyszk, Theodore	Senior Civil Engineer

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Illinois Association of Wastewater Agencies (continued)	Committee Chair, Subcommittee on the Environmental Utility	Wasik, Jennifer	Principal Environmental Specialist
	Committee Member, Subcommittee on Water Quality; Subcommittee on Nutrients and Total Maximum Daily Loads; Subcommittee on Tiered Aquatic Life Use Development		
	Member at Large, Executive Committee		
Illinois Environmental Protection Agency	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.	Principal Environmental Scientist
	Ammonia Workgroup Nutrient Reduction Strategy, Nutrient Monitoring Council	Vick, Justin	Aquatic Biologist
Illinois Public Employer Labor Relations Association	Bacteria Stakeholders Workgroup		
	Board of Directors, Member and Vice-Chair of Training Committee	Bonner, Roxanne J.	Human Resources Manager
Illinois State Bar Association's Section on Environmental Law	Membership and Marketing Committees	Kosowski, Thaddeus J.	Assistant Director of Human Resources
	Secretary of the Environmental Section Counsel	Mihalopoulos, Jorge	Principal Attorney
Illinois Water Environment Association	Committee Chair, Sustainability Committee	Brose, Dr. Dominic	Associate Environmental Soil Scientist
	Member, Biosolids Committee		
	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
	Plant Operations Committee	Kohlhaas, Lynn	Senior Civil Engineer
	Removal and Recovery Committee	Kozak, Dr. Joseph A.	Principal Environment Scientist
	Biosolids and Resources Recovery Committee	Kumar, Dr. Kuldip	Senior Environmental Soil Scientist
	Chairperson of the Students and Young Professionals Committee	Matias, Meagan	Senior Civil Engineer
	Biosolids and Resources Recovery Committee	McGregor, Matthew	Principal Engineer
	Biosolids and Resources Recovery Committee	Oladeji, Dr. Olawale	Environmental Soil Scientist
	Vice-Chair of the Lab Committee	Poole, Tiffany	Senior Environmental Chemist
	Scholarship and Charitable Giving Committee	Rijal, Dr. Geeta K.	Principal Environmental Scientist
	Water Environment Federation Delegate	Rose, Rebecca	Supervising Environmental Chemist
Industrial Pretreatment Committee	Scapardine, Barbara	Environmental Specialist	

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Illinois Water Environment Association (continued)	Treasurer	Storino, Louis	Principal Civil Engineer
	Leaders Innovation Forum for Technology Committee		
	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	Tian, Dr. Guanglong	Principal Environmental Scientist
International Journal of Environmental Science and Technology	Editorial Board	Oskouie, Dr. Ali	Senior Environmental Research Scientist
Local Governmental Law Consortium	Founding and Organizing Member	Goldberg, Lisa A.	Head Assistant Attorney
	Founding and Organizing Member	Saindon, Pamela	Senior Attorney
Lower Des Plaines Watershed Group	Member at Large, Executive Committee	Wasik, Jennifer	Principal Environmental Scientist
Midwest Water Analysts Association	Treasurer	Coolidge, Donna	Assistant Director of Monitoring & Research
	Secretary	Miller, Sarah	Senior Environmental Chemist
	Steering Committee	Poshyvanyk, Paul	Senior Environmental Chemist
	Steering Committee	Rose, Rebecca	Supervising 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
	Climate and Resiliency Committee	Grabowy, Jonathan	Managing Civil Engineer
	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.	Principal Environmental Scientist
	Facility and Collection System Committee	Storino, Louis	Principal Civil Engineer
	Water Quality Committee	Vick, Justin	Aquatic Biologist
	Emerging Contaminants Committee		
Water Quality Committee	Wasik, Jennifer	Principal Environmental Scientist	
Pretreatment Program Committee	Yarnik, Greg	Supervising Environmental Specialist	

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
The National Environmental Laboratory Accreditation Conference	Contributing Member	Grunwald, Pawel	Environmental Chemist
National Public Employee Labor Relations Association	Annual Training Conference Committee	Bonner, Roxanne J.	Human Resources Manager
The National Science Foundation	Industrial Advisory Board of Water Equipment and Policy Committee	Zhang, Dr. Heng	Assistant Director of Monitoring and Research
North Branch Watershed Group	MWRD Representative	Vick, Justin	Aquatic Biologist
Partnership for River Restoration in the Upper Midwest	Technical Committee	Vick, Justin	Aquatic Biologist
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	Tian, Dr. Guanglong	Principal Environmental Scientist
US Water Alliance	Value of Water Campaign Communications Committee	Fore, Allison	Public & Intergovernmental Affairs Officer
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
	Air Quality and Odor Committee	Grabowy, Jonathan	Managing Civil Engineer
	Municipal Resource Recovery Design Committee	Kozak, Dr. Joseph	Principal Environmental Scientist
	President	Kunetz, Thomas	Assistant Director of Monitoring & Research
	Residuals and Biosolids Committee	Laban, Ahmad	Managing 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
Water Environment & Reuse Foundation Leaders Innovation Forum for Technology	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		
	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		



<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Water Research Foundation (formerly 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.	Principal Environmental Scientist
	Stabilization of Main Plant Nitrification/Denitrification Performance Subcommittee		
	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	Patel, Kamlesh	Senior Environmental Research Scientist
	Sustainable Struvite Control Digester Gas Steering Committee		
	Unintended Consequences of Resource Recovery on Overall Plant Performance: Solving the Impacts on Dewaterability Properties Committee		
	Project Steering Committee	Rijal, Dr. Geeta K.	Principal Environmental Scientist
	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	
The World Academy of Sciences	Advisor	Tian, Dr. Guanglong	Principal Environmental Scientist

**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 Appropriable):** 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. The period for the District is 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.

**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.

**FINANCIAL GLOSSARY (continued)**

**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 electrical energy 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.

**Real Property:** Real Estate, including land and improvements (buildings, fences, pavements, etc.) classified for purposes of assessment.

**FINANCIAL GLOSSARY (continued)**

**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 (CO<sub>2</sub>) from waste air.

**Pretreatment (Industrial):** Any method, construction, device, arrangement, or appliance installed for the purpose of treating, neutralizing, stabilizing, disinfecting, or disposing of sewage, industrial waste, or other wastes prior to entry into the District's sewerage system.

**Pretreatment Program:** The District's efforts to identify, monitor and control by enforcement, the discharge of industrial waste from industrial sources into the District's sewerage system, in conformance with federal regulations promulgated pursuant to the Clean Water Act.

**Primary Treatment:** The District uses a series of large screens to remove large debris from the wastewater which can clog the machinery. Heavy solids like sand and grit are then removed in the grit chamber. Any remaining heavy solids settle to the bottom of the primary settling tanks.

**Reservoirs, Storm:** Temporary storage areas for containing surface waters during extreme storm conditions.

**Secondary Treatment Process:** The wastewater flows to aeration tanks which have been seeded with bacteria. Filtered air is pumped through the liquid to provide oxygen for the bacteria. The bacteria consume organic materials in the wastewater, grow and multiply. The mixture of bacteria and water then flow into a secondary settling tank. The bacteria clump together and become heavy "flocs" which settle to the bottom of the tank and are removed. At this point, the water can be discharged to a nearby waterway after disinfection, with over 90 percent of its contaminants removed.

**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**

<b>ALD</b>	Analytical Laboratories Division	<b>GASB</b>	Government Accounting Standards Board
<b>AMS</b>	Asset Management Section	<b>GFOA</b>	Government Finance Officers Association
<b>ASCE</b>	American Society of Civil Engineers	<b>GIP</b>	Green Infrastructure Program
<b>BMP</b>	Best Management Practices	<b>GIS</b>	Geographic Information System
<b>BOD</b>	Biochemical Oxygen Demand	<b>GPS</b>	Global Positioning System
<b>CAFR</b>	Comprehensive Annual Financial Report	<b>HASMA</b>	Harlem Avenue Solids Management Area
<b>CALSMA</b>	Calumet Solids Management Area	<b>HPWRP</b>	Hanover Park Water Reclamation Plant
<b>CAWS</b>	Chicago Area Waterway System	<b>HSOM</b>	High Strength Organic Materials
<b>CBOD</b>	Carbonaceous Biochemical Oxygen Demand	<b>HVAC</b>	Heating, Ventilation, and Air Conditioning
<b>CIBF</b>	Capital Improvements Bond Fund	<b>I/I</b>	Infiltration/Inflow
<b>CIP</b>	Capital Improvement Program	<b>IAS</b>	Instream Aeration Station
<b>CPI</b>	Consumer Price Index	<b>IDOT</b>	Illinois Department of Transportation
<b>CPR</b>	Cardio-Pulmonary Resuscitation	<b>IEPA</b>	Illinois Environmental Protection Agency
<b>CSA</b>	Calumet Service Area	<b>IGA</b>	Intergovernmental Agreement
<b>CSO</b>	Combined Sewer Overflow	<b>iPACS</b>	The internet-based Publicly owned treatment works Administration and Compliance System
<b>CUP</b>	Chicago Underflow Plan	<b>IRS</b>	Internal Revenue Service
<b>CWRP</b>	Calumet Water Reclamation Plant	<b>IT</b>	Information Technology
<b>CY</b>	Cubic Yards	<b>ITD</b>	Information Technology Department
<b>DCS</b>	Distributed Control System	<b>IU</b>	Industrial Users
<b>DO</b>	Dissolved Oxygen	<b>IWD</b>	Industrial Waste Division
<b>DT</b>	Dry Tons	<b>kWh</b>	kilowatt-hour
<b>DWP</b>	Detailed Watershed Plan	<b>KWRP</b>	Kirie Water Reclamation Plant
<b>EAP</b>	Employee Assistance Program	<b>LASMA</b>	Lawndale Avenue Solids Management Area
<b>EAV</b>	Equalized Assessed Valuation	<b>LF</b>	Linear Feet
<b>EBPR</b>	Enhanced Biological Phosphorus Removal	<b>LIMS</b>	Laboratory Information Management System
<b>EEO</b>	Equal Employment Opportunity	<b>LPH</b>	Lockport Powerhouse
<b>EQ</b>	Exceptional Quality	<b>LSSS</b>	Local Sewer Systems Section
<b>EWRP</b>	Egan Water Reclamation Plant	<b>LWRP</b>	Lemont Water Reclamation Plant
<b>F&amp;D</b>	Furnish & Deliver	<b>mg/L</b>	milligrams per liter
<b>FD&amp;I</b>	Furnish, Deliver, & Install	<b>M&amp;O</b>	Maintenance & Operations
<b>FESOP</b>	Federally Enforceable State Operating Permit	<b>M&amp;R</b>	Monitoring & Research
<b>FMLA</b>	Family Medical Leave Act	<b>MBE</b>	Minority-owned Business Enterprise
<b>FOIA</b>	Freedom of Information Act	<b>MGD</b>	Millions of Gallons per Day
<b>FTE</b>	Full-Time Equivalent		
<b>GAAP</b>	Generally Accepted Accounting Principles		



**ACRONYMS (continued)**

<b>MMS</b>	Maintenance Management System	<b>RAS</b>	Return Activated Sludge
<b>MOB</b>	Main Office Building - 100 E. Erie St., Chicago, Illinois	<b>RFP</b>	Request for Proposal
<b>MOBA</b>	Main Office Building McMillan Pavilion - 111 E. Erie St., Chicago, Illinois	<b>RMIS</b>	Risk Management Information System
<b>MOBC</b>	Main Office Building Complex - MOB & MOBA	<b>SAN</b>	Storage Area Network
<b>MOP</b>	Manual of Procedures	<b>SAP</b>	SAP is a German computer software firm
<b>MSC</b>	Material Service Corporation	<b>SBE</b>	Small Business Enterprise
<b>MSPS</b>	Mainstream Pumping Station	<b>SBP</b>	Strategic Business Plan
<b>MWRD</b>	Metropolitan Water Reclamation District	<b>SEPA</b>	Sidestream Elevated Pool Aeration stations
<b>NAA</b>	Net Assets Appropriable	<b>SIU</b>	Significant Industrial User
<b>NACWA</b>	National Association of Clean Water Agencies	<b>SPO</b>	Sewer Permit Ordinance
<b>NBP</b>	National Biosolids Partnership	<b>SRF</b>	State Revolving Fund loan program
<b>NBPS</b>	North Branch Pumping Station	<b>SS</b>	Suspended Solids
<b>NCBP</b>	Non-Core Business Projects	<b>SSA</b>	Stickney Service Area
<b>NPDES</b>	National Pollutant Discharge Elimination System	<b>SSMP</b>	Small Streams Maintenance Program
<b>NSA</b>	North Service Area	<b>SWCO</b>	Sewage and Waste Control Ordinance
<b>NSWRP</b>	North Side Water Reclamation Plant (renamed OWRP)	<b>SWRP</b>	Stickney Water Reclamation Plant
<b>OM&amp;R</b>	Operations, Maintenance, & Replacement costs	<b>TAM</b>	Technical, Administrative, and Managerial
<b>OPEB</b>	Other Postemployment Benefits	<b>TARP</b>	Tunnel and Reservoir Plan
<b>OSHA</b>	Occupational Safety and Health Administration	<b>TGM</b>	Technical Guidance Manual
<b>OWRP</b>	O'Brien Water Reclamation Plant (formerly known as NSWRP)	<b>TIF</b>	Tax Increment Financing
<b>PBF</b>	Public Budget Formulation	<b>UCO</b>	User Charge Ordinance
<b>PJM</b>	Pennsylvania-New Jersey-Maryland Interconnection service provider for marketing electrical energy	<b>USEPA</b>	United States Environmental Protection Agency
<b>P&amp;MM</b>	Procurement & Materials Management	<b>UV</b>	Ultraviolet
<b>PO</b>	Purchase Order	<b>VFD</b>	Variable Frequency Drive
<b>PPO</b>	Participating Provider Option	<b>WASSTRIP®</b>	Waste Activated Sludge Stripping to Remove Internal Phosphorus
<b>PPRT</b>	Personal Property Replacement Tax	<b>WBE</b>	Women-owned Business Enterprise
<b>PS</b>	Pumping Station	<b>WEFTEC</b>	Water Environment Federation Technical Exhibition and Conference
<b>PST</b>	Primary Settling Tank	<b>WMO</b>	Watershed Management Ordinance
<b>RAPS</b>	Racine Avenue Pumping Station	<b>WRP</b>	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.

# 130 Years of Dedicated Service

Nearly 500 billion gallons of water flow through the pipes and facilities of the Metropolitan Water Reclamation District of Greater Chicago (District) each year. The District addresses the volume of water that comes with heavy rains and unknown contaminants that are flushed down drains throughout Cook County. It is the diligent men and women of the District and our seven industrious water reclamation plants that maintain that flow and transform wastewater into a clean product that protects our environment and makes our region an attractive place to live and visit. Our water reclamation plants meet the highest standards and uphold our distinguished record of excellence that residents have come to rely on for 130 years. The District's staff are implementing several innovations in renewable energy, while also developing reuse opportunities for water, energy, biosolids, algae, phosphorus, and other nutrients collected during the wastewater treatment process. Each of the seven water reclamation plants add value in traditional and non-traditional ways and protect the region's water quality.



*The Stickney Water Reclamation Plant remains unrivaled as the world's largest plant with full secondary treatment by volume, cleaning up to 1.44 billion gallons per day, serving 2.3 million people in a 260 square mile area.*



*As stewards of our land, the District plants native prairie landscaping at the Terrence J. O'Brien Water Reclamation Plant and other facilities to reduce maintenance costs, increase biodiversity and wildlife habitat, sequester carbon, and meet our goals in managing stormwater.*



*Recreational use of area waterways is thriving thanks to improvements in wastewater treatment technologies.*



*The District is constructing new primary settling tanks and aerated grit tanks, support facilities, service tunnels, and conduits at the Stickney Water Reclamation Plant. This will replace tanks, produce renewable energy, increase and improve grit removal, protect downstream piping and equipment, increase water recycling and reduce odors.*

**Cover:** *The John E. Egan Water Reclamation Plant represents major advancements in the art and science of wastewater treatment, combining traditional technologies with new energy efficient processes to remove nitrogen and ammonia.*



**Metropolitan Water Reclamation District of Greater Chicago**

100 East Erie Street • Chicago, Illinois 60611-3154



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