

# 2020 BUDGET

## Executive Director's Recommendations

October 15, 2019



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, 2019**

*Christopher P. Morrill*

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, 2019. 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

# 2020 Budget

## Executive Director's Recommendations

October 15, 2019

### Officers

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Executive Director

**Mary Ann Boyle**

Treasurer

**Allison Fore**

Public & Intergovernmental Affairs Officer

**Darlene A. LoCascio**

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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

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### Board of Commissioners



From left to right:

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Commissioner

**Josina Morita**

Commissioner

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Commissioner

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Commissioner

**Barbara J. McGowan**

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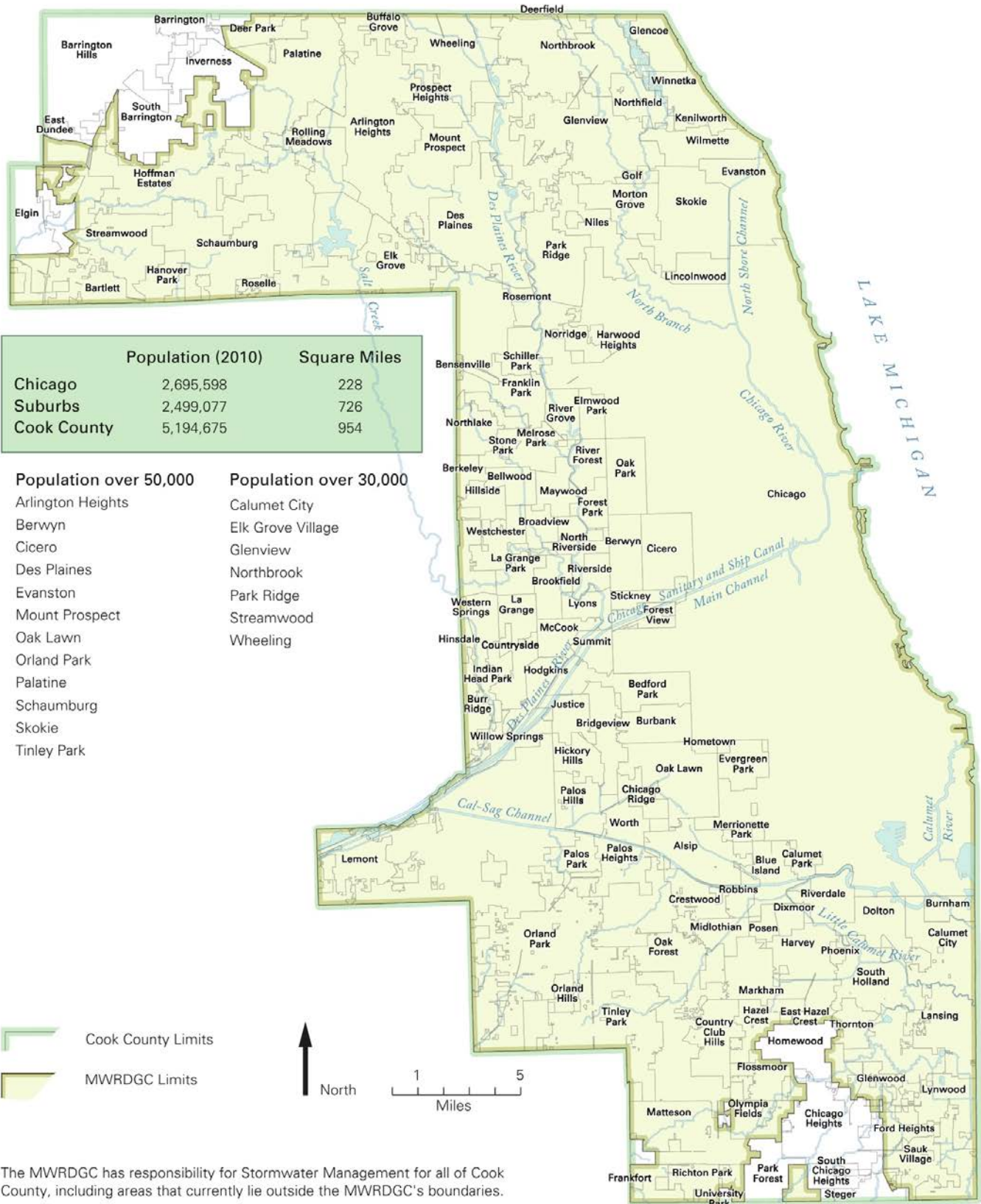
**Kimberly Du Buclet**

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 sewered 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 1.4 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**

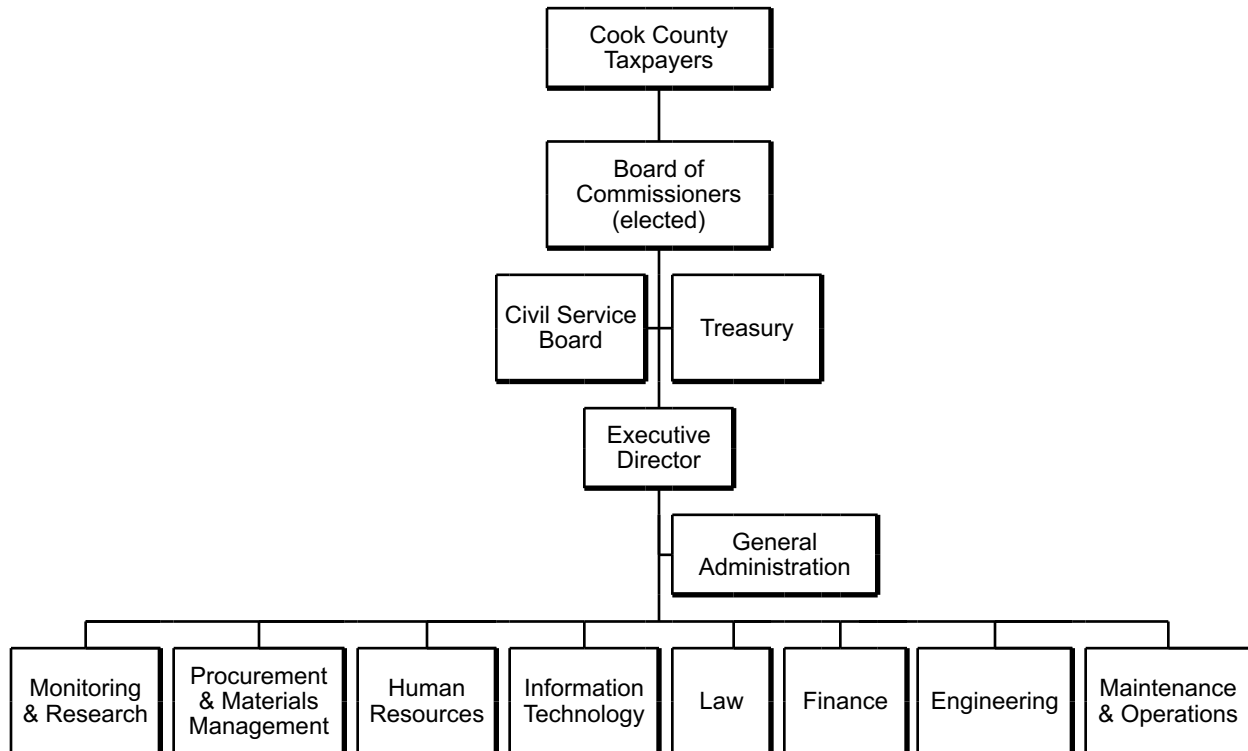
The District is governed by a nine-member Board of Commissioners (Board). Commissioners are elected at large and serve on a salaried basis. Three Commissioners are elected every two years for six-year terms. Biannually, the Board elects from its membership a President, Vice President, and Chairman of 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 Executive Director's Budget Message; 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 36 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 2020.
- 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		
2018	2019	2020
FTE	FTE	FTE
Count	Count	Count
Actual	Budgeted	Proposed

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

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

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# SECTION I

## BUDGET FOREWORD

This section introduces the budget with explanations of the organization and structure of the District's Budget. It also presents an overview of the substance of the 2020 Budget. It includes the following:

- In the *Budget Message*, the Executive Director discusses his 2020 Budget Recommendations.
- 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 2020 Budget, Annual Appropriation Ordinance, and tax levy ordinances to the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago.
- The *Annual Appropriation Ordinance* gives legal effect to the entire budget document as enacted into law by the Board of Commissioners under authority of the Illinois Compiled Statutes. It includes an explanation of the crosshatch (#) symbols used with some personnel positions within the budget, indicating changes to positions once vacated.

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**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

October 15, 2019

Honorable Ladies and Gentlemen:

I am pleased to present the 2020 Executive Director's Budget Recommendations for the Metropolitan Water Reclamation District of Greater Chicago (District). This spending plan advances the District's mission and Strategic Business Plan goals in a financially responsible manner. The Corporate Fund budget recommendations include an increase of 2.4 percent and emphasize consistent, effective maintenance of our facilities, while the Stormwater Management Fund recommendations include an increase of \$28.4 million to fund construction costs for both Green Infrastructure and major flood control projects. The District continues to implement new technologies that further our commitment to environmental protection. The 2020 Capital Improvement Program utilizes grants, State Revolving Fund loans, and general obligation and alternate revenue bonds, along with pay-as-you-go funding to maximize the value to the taxpayers.

The District serves 128 communities covering nearly all of Cook County, treating an average of 1.4 billion gallons of water each day, with a total treatment capacity of 2.0 billion gallons per day at seven water reclamation plants. The District also controls 76.1 miles of navigable waterways, and owns and operates 34 stormwater detention reservoirs to provide regional flood protection.

**Historic Buildings, Modern Facilities**

During 2019, the District celebrated its 130th anniversary, recognizing past accomplishments and looking to the future. The Lockport Controlling Works was constructed in 1899, followed by the Lockport Powerhouse in 1907. The Controlling Works is located at the confluence of the Chicago Sanitary & Ship Canal and the Des Plaines River and enables the District to regulate water levels of the canal. The Powerhouse marks the southwestern extent of the District's management of the Chicago Area Waterway System (CAWS) and provides approximately 40 million kilowatt hours of hydroelectric power generation annually. In 2004, the National Park Service recognized the Lockport Powerhouse by listing it on the National Register of Historic Places. The 2020 budget includes \$10 million in projects that are currently underway to rehabilitate the Controlling Works and Powerhouse to ensure continued reliable operation into the future.



*Lockport Powerhouse and Controlling Works. The Lockport Powerhouse generates approximately 40 million kilowatt hours of electrical energy annually, generating \$1.2 million in revenue for the District.*

The Calumet Water Reclamation Plant (WRP) was placed into service in 1922, followed by the O'Brien WRP in 1928, and the Stickney WRP in 1939. Four smaller WRPs were built between 1961 and 1980. Within the historic sites, the District operates modern water reclamation facilities with a tradition of operational excellence. In 2018, six of seven WRPs received National Association of Clean Water Agencies Platinum Peak Performance Awards for maintaining 100 percent compliance with National Pollutant Discharge Elimination Permits for at least five consecutive years. All seven WRPs have earned 99.71 percent or higher compliance since 2009.





*In 2020, the District will begin a \$10 million rehabilitation of the steel spandrel beams in the pump and blower house at the O'Brien WRP.*

Consistent, proactive plant maintenance is critical to meeting operational goals and fulfilling the District's mission to protect the health and safety of the public, protecting Lake Michigan, and meeting the goals of the Strategic Business Plan, *Recovering Resources, Transforming Water*. The 2020 Corporate Fund budget for the Maintenance & Operations Department includes an increase of 3.1 percent from the 2019 appropriation that will fund maintenance programs to ensure the plants are in peak operating condition.

Of the Capital Improvement Program's recommended \$229.6 million appropriation, 53.4 percent is dedicated to projects at the seven WRPs including a \$10 million rehabilitation of the steel spandrel beams at the O'Brien WRP pump and blower house, boiler replacements, digester rehabilitation, and gas piping replacements.

**Stormwater Management**

The District mitigates flooding and provides water quality benefits throughout Cook County through Stormwater Management programs. Changing weather patterns and intense bursts of precipitation can quickly overwhelm systems throughout the region. In 2019, the District updated the Watershed Management Ordinance (WMO). Among the changes made to the WMO, the District increased stormwater detention requirements based on the Illinois State Water Survey's Updated Bulletin 70 rainfall data, published in March 2019, which indicated that annual average rainfall across Illinois has increased by 11 percent over the past century.

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. The District continues to partner with Chicago Public Schools, the Chicago Department of Water Management, Healthy Schools Campaign, and Openlands on the Space to Grow Program implementing Green Infrastructure into schoolyards and creating vibrant places to play and learn. In 2019, five new green schoolyards opened or will open by the end of the year. An additional six are planned to open in 2020. The District also helped build a rain garden with volunteers from around the world at Saucedo Scholastic Academy as part of the Water Environment Federation's Technical Exhibition and Conference (WEFTEC) held in Chicago from September 23-25, 2019.



*WEFTEC volunteers from around the globe installing a rain garden at Saucedo Scholastic Academy in Chicago.*

The 2020 Budget highlights the District's commitment to reduce flooding. The Stormwater Management Fund budget is increasing by \$24.8 million over the 2019 appropriation to further our investment in flood control projects and continue to support local stormwater issues. During 2019, construction began on the \$63.3 million Addison Creek Reservoir, partially funded by a \$5 million Community Development Block Grant - Disaster Recovery Program, a federally funded program through the U.S. Department of Housing and Urban Development. The Addison Creek Channel improvements will begin in 2020. Together these large-scale projects will reduce overbank flooding for approximately 2,200 structures.

The District will complete construction on two additional reservoir projects in 2019. Together with the Forest Preserve



*Groundbreaking at Arrowhead Lake in Palos Heights on April 30, 2019. The project will bring needed flood relief and provide multi-use trails and other amenities for the Forest Preserves.*

District of Cook County, the District is increasing flood storage at Arrowhead Lake and removing 70 structures from the flood plain in Palos Heights. The \$1.6 million project will bring needed relief for area residents and improve forest preserve amenities. The \$9.7 million Buffalo Creek Reservoir expansion increases the storage capacity by 58.6 million gallons and will protect 107 structures from flooding impacts, with additional benefits along Buffalo Creek and the main stem of the Des Plaines River.

### **Tunnel and Reservoir Plan**

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 in 1972. 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 to enhance pollution control benefits of the tunnel system. In 2018, the 3.5 billion gallon McCook Reservoir Stage 1 became operational. Construction on Stage 2 is scheduled to be completed in 2029, adding 6.5 billion gallons of storage. During 2019, with the support of the Army Corps of Engineers Chicago District and the Illinois congressional delegation, the District secured \$33.8 million in federal funding to help complete Stage 2. The District received the lump sum payment as a result of a pilot program established under the Water Resources Development Act of 2014 that evaluates the cost-effectiveness and project delivery efficiency of allowing non-federal interests to carry out construction of projects for flood risk management.

The goal of TARP is to reduce combined sewer overflows; thereby, providing both pollution control and flood control. The system is accomplishing both goals. In its first year in operation in 2018, the McCook Reservoir Stage 1 was filled 39 times and captured 27.2 billion gallons of water that would have overwhelmed area combined sewer systems and flooded streets, homes, and communities. When completed, the McCook Reservoir is estimated to provide more than \$143 million annually in flood reduction benefits to 3.1 million people in Chicago and 36 suburban communities.

In the south suburbs, combined sewer overflows have been nearly eliminated since the 7.9 billion gallon Thornton Composite Reservoir was completed in 2015. Not only do the tunnels and reservoir systems protect from flood damage, findings from a District water quality monitoring study showed water quality improvements. Mean fecal coliform and total suspended solids concentrations decreased and dissolved oxygen concentrations increased significantly in the Calumet River System in 2017-2018. The preliminary results from a microbial health and composition study that the District is conducting with Argonne National Laboratory indicate signs of improvement in the Calumet River System since Thornton Composite Reservoir was completed and disinfection at the Calumet WRP commenced. The study, which began in 2013, released an interim report in 2019. The full study analyzing monthly water samples from 16 different sites throughout the CAWS will continue collecting data through 2019, before the final report is released.



*The Thornton Composite Reservoir in December 2015, following the first time it took in water.*

### **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. In May 2019, the District took an important step in promoting transparency and efficiency by entering into an Intergovernmental Agreement with Cook County to allow the Office of the Independent Inspector General to provide services to the District. These accomplishments speak to the effective leadership of the agency.

The 2020 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’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 2020 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 2020 Final Budget, compared to the 2019 Budget as Adjusted is:

	<u>2020</u>	<u>2019 Adjusted</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
Total Tax Levy	\$ 652,646,487	\$ 643,374,010	\$ 9,272,477	1.4 %
Aggregate Levy	\$ 353,182,900	\$ 341,239,500	\$ 11,943,400	3.5 %
Appropriation	\$ 1,087,341,167	\$ 1,222,943,041	\$ (135,601,874)	(11.1)%

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 2020 aggregate levy is equal to the estimated CPI plus new property for 2020.

**Conclusion**

The 2020 Budget was prepared to incorporate the goals and strategies of the Strategic Business Plan, *Recovering Resources, Transforming Water*. The 2020 update to the plan is included in full on the following pages. The 2020 Executive Director's Budget Recommendations provides a plan to accomplish our goals and fulfill the District's mission of protecting the health and safety of the public, protecting and improving water quality, and providing flood protection.

Respectfully submitted,



Brian A. Perkovich  
Executive Director



# STRATEGIC BUSINESS PLAN

## Recovering Resources, Transforming Water

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

The District's Strategic Business Plan is used throughout the year to measure results of its service to the communities throughout its 882.1 square mile service area and communicate progress to the Board of Commissioners, staff, and taxpayers. Reviewed and updated annually, this plan serves as a guiding document until replaced by a new Strategic Business Plan.

There have been significant achievements made during this Strategic Business Plan cycle. The Tunnel and Reservoir Plan's (TARP) 7.9 billion gallon Thornton Composite Reservoir came online in 2015 and the 3.5 billion gallon McCook Reservoir Stage 1 was placed into service in 2017. These reservoirs provide over 11 billion gallons of flood protection 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, while at the same time benefiting the treatment process.

The District developed over 100 capital stormwater projects to address regional and local flooding issues. These stormwater projects incorporate elements of both gray and green infrastructure ranging in size from massive reservoirs to green alleys and permeable parking lots. We are also completing design or construction of large regional stormwater projects throughout the county. In addition, we have dozens of active partnerships through intergovernmental agreements with local governmental organizations to address local flooding through the use of green and gray infrastructure improvements, as well as through the acquisition of flood-prone residential structures. These projects are vital to the health and well-being of our constituents.

Illinois just experienced the wettest May on record, and we see our stormwater program as essential to creating a resilient, sustainable Chicagoland. The many stormwater management projects and TARP are more important than ever as we work to address unpredictable weather patterns.

The District strives to be a sustainable partner in the region by recovering resources, lowering carbon emissions, creating new revenue streams, and promoting resiliency. We unveiled new primary settling tanks at the Stickney Water Reclamation Plant (WRP) to increase digester gas production, reduce energy costs, and reduce greenhouse gas emissions. The District produces an effective soil amendment and recovers nutrients, clean water, and energy that can be used to encourage economic job creation and add benefit to our communities. The District's real estate holdings are used to add value to the communities we serve.

The District's Mission Statement and Values continue to guide the District's future. The 2020 update to the Strategic Business Plan follows.

## 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 embrace research as the means through which we acquire information to address challenges and take advantage of opportunities through innovative solutions. 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 and by how we value the contributions that flow from our diversity, the productivity of our relationships, and each well done job, no matter the job. To meet our goals, we depend on the integrity, knowledge, skill, diversity, and teamwork of our employees. Maintaining a respectful, courteous, and fair workplace allows for effective 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.*

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 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:** Excellence is not an act, but a habit.

**Recover Resources:** 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.

**Information 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 adjust 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 a command and control, enforcement business model to one utilizing informed compliance;
- Develop and implement effective flood mitigation programs for our customers;
- Structure a multi-dimensional, culture changing strategy around Green Infrastructure;
- Develop and implement targeted odor control strategies.

**Real Estate:** Explore opportunities for community partnerships aimed at reducing waste and our carbon footprint and achieve other improvements in the environment.

- Work with communities to revitalize the urban forest through the “Restore the Canopy” program;
- Utilize Fulton County property as a test bed for nutrient control research and demonstration to foster partnerships with other organizations for a statewide approach to address excess nutrient discharges.

## **GOAL 2 - Excellence**

*Excellence is not an act, but a habit.* 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 resources;
- Provide base budget targets and assure approvals above base are tied to strategic initiatives;
- Manage resources to ensure financial stability.

**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;
- Sustain 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 contributions of staff.

- Develop measures that automatically captures and reports performance to the public.

## **GOAL 3 - Recover Resources**

*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 to offset operation costs.

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

- Explore reuse opportunities in the Kirie, Calumet, and Stickney industrial corridors.

**Phosphorus:** Recover phosphorus for environmentally-friendly reuse.

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

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

- Maximize use of digester gas;
- Optimize aeration processes and reduce energy consumption;
- Document and seek opportunities to reduce the carbon footprint at each WRP.

**Biosolids:** Maximize the utilization of Exceptional Quality (EQ) biosolids and compost throughout our service area.

- Develop partnerships with state and local agencies to use EQ biosolids in construction projects;
- Utilize wood chips as a feedstock for production of biosolids compost;
- Identify, monitor, and evaluate beneficial use opportunities for biosolids;
- Provide bulk distribution points at each WRP for public use.

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

- Recycle demolition material on all District construction projects;
- Ensure disposal availability for medications and other pharmaceutical products;
- Explore opportunities for recycle partnerships;
- Maximize community outreach through event tabling, presentations, facility tours, handouts, photos, videos, and other public communication tools (media advisories, press releases, etc.) to educate the public about wastewater treatment, stormwater management, pollution prevention, and water wellness;
- Expand educational outreach by offering tours of District facilities beginning at the fifth-grade level.

**GOAL 4 - Develop Employees**

*Value is measured through personal contribution and growth.* Employees at the District are the best in the industry. To maintain a leadership role in the water industry, 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;
- Continue to foster 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 organizations and events 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;
- Encourage students to consider a STEM career in the water industry through community outreach and education efforts.

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

- Provide active leadership in local, state, and federal water issues;
- Engage in international conversation to share best management practices.

**GOAL 6 - Information 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 Information Technology 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;
- 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 Information Technology 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;
- Maintain and update applications to improve the user experience on the District's external facing website.

## 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 2020 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 Green Infrastructure.** 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. The District accepted 47 applications and selected 20 projects in the initial round for 2018 funding. In 2018, the District accepted 48 applications and selected another 20 projects for 2019 funding. In 2019, the District accepted 41 applications and selections for 2020 funding 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 and provides social benefits that enhance the livability of communities throughout the region. The 2020 Budget includes \$43.2 million in the Stormwater Management Fund for Intergovernmental Agreements that include Green Infrastructure projects and other stormwater improvements.

**Work with communities to revitalize the urban forest through the "Restore the Canopy" program.** The District launched the "Restore the Canopy" 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 180 different entities and has distributed more than 68,000 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 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 179 leases, 394 easements, and 81 permits.



*The new Cricket Field was opened at Skokie Sports Park on District property leased to the Skokie Park District. It was constructed using the District's Exceptional Quality compost as a turf enhancer.*

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 \$23.0 million in 2020 in rental and fee income.

### Goal 2 - Excellence

**Manage resources to ensure financial stability.** 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, 2018, \$132.4 million has been contributed by the District to the OPEB Trust. The advance funding contribution for 2019 was \$5.0 million and the 2020 budgeted contribution is \$5.0 million. While authorized by statute, there is currently no legal requirement for the District to partially or fully fund the OPEB Trust.

The accumulated unfunded OPEB obligation is \$133.2 million as of December 31, 2018, based on an update roll-forward calculation from 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.

The District's banking and investment custody fees were reduced by 49 percent in 2019. This substantial decrease was the result of a competitive bid for banking and investment custody services for the next five years.

**Ensure accountability to taxpayers.** For the first time in agency history, the District entered into an Intergovernmental Agreement with Cook County to allow the Office of the Independent Inspector General to provide services to the District. Inspectors General are accountable to the taxpayers. Their role is to detect and prevent waste, fraud, and abuse and thereby build trust in government. The Inspector General investigates complaints or allegations of wrongdoing or misconduct within the programs or operations of the District.

## *Budget Message / Highlights*



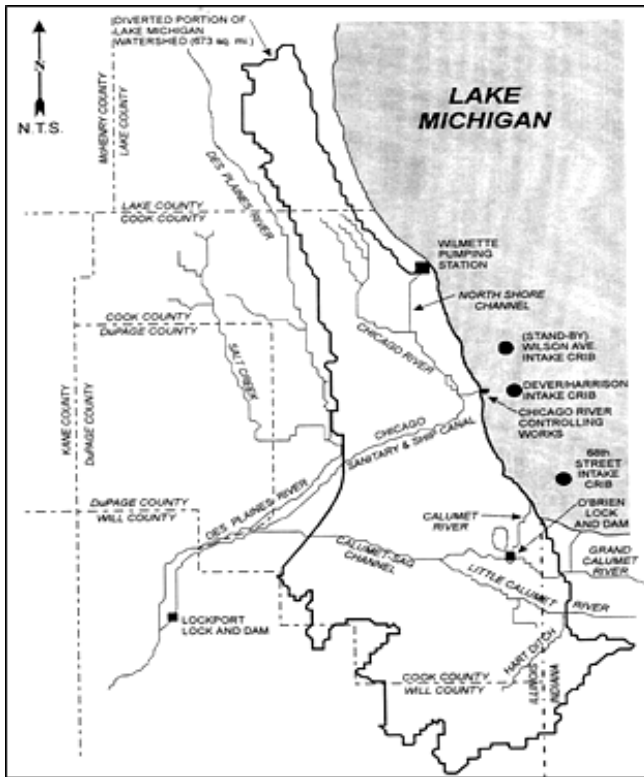
*The Thornton Quarry serves as one of the District's Tunnel and Reservoir Plan's three reservoirs for the Chicago area.*

**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 Water Reclamation Plant (WRP) and the Stickney WRP Storeroom. Estimated annual savings resulting from these projects are \$270,000. In addition, the District received rebates of \$129,500 for natural gas and \$270,000 for electrical energy from the Illinois Department of Commerce & Economic Opportunity. The District performed similar projects in the North Service Area and various remote locations in 2018 and 2019. Annual costs savings are estimated at \$204,000. Projects planned for 2019 and 2020 include lighting upgrades at the Stickney WRP and the Mainstream Pumping Station. These projects will result in annual costs savings of \$223,000. 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, repair, and improve its infrastructure. The District is replacing the 13.2kV switchgear and large power cable associated with the main electrical substation at the Stickney WRP. The infrastructure is over 35 years old. The work began in 2019 and will be completed in 2020 and will provide a reliable power source for the plant for another 35 years at a minimum. New modern features include providing arc resistant switchgear and arc blast walls to maximize safety. Also, dual tie breakers have been installed which will allow one breaker from each bus to be completely isolated. This will allow the WRP to remain in operation during maintenance of the electrical system.

In light of the fact that more than half of the District's intercepting sewer system is greater than 50 years old, the District has developed a Collections Asset Management Plan. The purpose of Collections Asset Management Plan is to ensure intercepting sewers are inspected according to National Association of Sewer Service Companies standards on a regular basis. Severity of defects are quantified and locations are noted. This information is used to develop and prioritize sewer rehabilitation projects. Through implementation of its comprehensive sewer inspection and rehabilitation programs, the District reduces the need for costly and disruptive emergency repairs of its interceptors. Furthermore, the District continues gaining experience with new sewer rehabilitation technologies to determine the best ways to extend the useful life of the intercepting sewer system.

*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.*

**Sustain 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. 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. In 2020, the District will begin a four-year CAWS phosphorus assessment and reduction study to guide future phosphorus reduction planning at the District’s three largest WRPs.

**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 370.

**Majewski Reservoir:** This 350 million gallon reservoir was completed in 1998 and has prevented over 6.8 billion gallons of combined sewer overflow from entering the waterways and mitigated over \$510 million in flood damage.

**Thornton Composite Reservoir:** In November 2015, the Thornton Composite Reservoir became operational. Through August of 2019, approximately 29.0 billion gallons of polluted water have been captured.

**McCook Reservoir:** The McCook Reservoir, the last component of the TARP system, serves 3.1 million people in 37 communities, including most of Chicago, and will provide a total volume of 10.0 billion gallons when completed. 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 million annually in flood reduction benefits to residents in its service area. Through August 2019, approximately 44.0 billion gallons of polluted water have been captured.

A new 20-foot diameter inflow tunnel and gate shaft, scheduled to be completed in 2021, 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*

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

	<b>2020 Budgeted</b>	<b>2019 Budgeted</b>	<b>2018 Actual</b>	<b>2019-2020 % Change</b>
Total cost of collection (millions)	\$51.7	\$52.4	\$49.8	(1.3)%
Total cost of treatment (millions)	\$78.3	\$72.3	\$69.9	8.2 %
Total cost of solids utilization (millions)	\$22.4	\$22.2	\$20.5	0.9 %

Number of full time equivalent employees:

Collection	247	246	100	0.4 %
Treatment	382	384	201	(0.5)%
Solids Utilization	39	42	38	(7.1)%

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

**Outputs:**

Amount of wastewater collected and treated by plant:

	<b>2020 Budgeted</b>	<b>2019 Budgeted</b>	<b>2018 Actual</b>	<b>2019-2020 % Change</b>
Stickney WRP (million gallons)	285,000	276,000	284,208	3.3 %
Calumet WRP (million gallons)	95,000	100,000	90,081	(5.0)%
O'Brien WRP (million gallons)	85,000	85,000	90,131	— %
Kirie WRP (million gallons)	15,000	14,500	17,126	3.4 %
Egan WRP (million gallons)	9,050	10,200	9,012	(11.3)%
Hanover Park WRP (million gallons)	3,950	3,700	3,963	6.8 %
Fox River Water Reclamation District (contract agreement)	2,150	2,150	2,156	— %
Lemont WRP (million gallons)	1,000	1,000	909	— %

**Outputs:**

Dry tons of biosolids utilized by area:

	<b>2020 Budgeted</b>	<b>2019 Budgeted</b>	<b>2018 Actual</b>	<b>2019-2020 % Change</b>
North Service Area	1,000	800	993	25.0 %
Calumet Service Area	23,000	29,000	11,762	(20.7)%
Stickney Service Area	76,000	70,000	48,242	8.6 %

**Outcomes:**

Achievement of water reclamation plant pollution permit requirements by plant:

	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Stickney WRP	99.83%	99.94%	99.77%	100.00 %
Calumet WRP	100.00%	100.00%	100.00%	100.00 %
O'Brien WRP	100.00%	100.00%	100.00%	100.00 %
Kirie WRP	100.00%	100.00%	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 2020, the District expects to collect and treat approximately 496 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 99.98 percent overall compliance with the National Pollutant Discharge Elimination System (NPDES) requirements in 2018. This compliance resulted in one Silver and six Platinum Peak Performance Awards from the National Association of Clean Water Agencies. See page 13 for Collection, Treatment, and Solids Utilization data.

In 2018, the District successfully renewed their NPDES permit for the Lockport Powerhouse and the Fulton County Land Application permit. In 2019, the District successfully renewed the Land Application of Sewage for the Calumet, Stickney, and Egan WRPs and the Harlem Avenue Solids Drying Area operating permit. 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, Egan WRP NPDES, Hanover Park WRP NPDES, Kirie WRP NPDES, Lemont WRP NPDES, and Stickney WRP NPDES.

### Goal 3 - Recover Resources

**Recover phosphorus in a slow release fertilizer for environmentally-friendly reuse.** In partnership with Ostara Nutrient Recovery Technologies, the District opened the world's largest nutrient recovery facility at the Stickney WRP. Phosphorus and nitrogen recovery will provide significant environmental benefits to the CAWS and downstream through the Mississippi River to the Gulf of Mexico. Excess phosphorus in waterways can cause algae to grow and bloom, creating toxic conditions that destroy aquatic life and severely limit recreational activities. Ostara's technology recovers phosphorus and nitrogen to create a high value fertilizer that is both economically and environmentally viable. The District expects to produce and ship approximately 1,280 tons of phosphorus pellets in 2020.

**Provide bulk distribution points of biosolids at each WRP for public use.** Regulatory changes in Illinois now allow the unrestricted distribution and use of Exceptional Quality (EQ) biosolids. As a result, the District's EQ compost has grown in popularity among local businesses, non-profit organizations, and governmental agencies. The District's EQ compost and air-dried biosolids products are also registered with the Illinois Department of Agriculture as soil amendments, resulting in the ability to increase distribution of these products locally within our service area. The District now offers EQ compost for no charge to residents, non-profit organizations, and governmental agencies within Cook County.

**Maximize community outreach through event tabling, presentations, facility tours, handouts, photos, videos, and other public communication tools (media advisories, press releases, etc.) to educate the public about wastewater treatment, stormwater management, pollution prevention, and water wellness.**

In 2019, three Road Show events will be held county-wide. One took place in Des Plaines and two others are scheduled on the South Side and North Side of Chicago. These events were so successful we plan to expand the initiative in 2020. These events showcase the work of the various departments and gives the public an opportunity to learn more about the District while meeting commissioners and staff. In 2019, the District also participated in hundreds of community and special events throughout Cook County, including back-to-school and environmental fairs, block club activities, farmers markets, municipal events, career days and STEM-related events. Staff from throughout the District lead lively interactive activities and distribute informative literature that describes and supports our mission. Our staff are experts in their fields and represent various District departments, including engineering, stormwater management, plant operations, microbiology, information technology, water quality/monitoring, and others. Staff strive to educate the public about the work of the District and how that work benefits residents, businesses, and visitors to Cook County.



*As part of the 130th anniversary celebration in 2019, the District is taking "the show on the road" to give the public an opportunity to learn more about the District. There are three events planned for the fall of 2019.*

## *Budget Message / Highlights*

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### **Goal 4 - Develop Employees**

**Continue to foster a culture that recognizes the value of every employee.** The District's female and minority workforce rates are 26 and 43 percent, respectively, as of June 30, 2019. The rates are calculated based on published data from the 2010 census.

A total of 1,953 positions are budgeted for 2020, a decrease of 14 budgeted positions from 2019. 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 53 percent of the Corporate Fund appropriation. It is challenging to match future appropriation requirements with restricted growth in property tax revenue without considering these costs. We continue to leverage technology and look for efficiencies in our processes to reduce staff time.

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 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.

**Develop and implement leadership initiatives that support succession planning.** The District develops employees 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 improve the 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. A new cloud-based system will be implemented in 2020.

### **Goal 5 - Leading Partnerships**

**Develop strategic relationships with constituents through active involvement in a variety of organizations and events 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 557.

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 for a four-year study on recycling drainage water. The study has generated and will continue to produce useful information on 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. In 2019, another four-year \$384,000 study was awarded to the District and its research partners to capture phosphorus from subsurface tile drainage using biochar and use phosphorus-enriched biochar as a slow-released fertilizer.

The District is a member of the Lower Des Plaines Watershed Group, the DuPage River Salt Creek Workgroup, and the North Branch Watershed Workgroup, non-profit organizations to cost effectively improve the health of local watersheds. The District actively collaborates with other member agencies in these groups to implement intensive monitoring and prioritize watershed-based projects to address aquatic life stressors. The District participates on the executive board of the Lower Des Plaines Watershed Group and will join the executive board of the DuPage River Salt Creek Workgroup in 2020.

## *Budget Message / Highlights*

In-kind resources and expertise provided by the District to support local initiatives include the Friends of the Chicago River Mill Creek/Cal-Sag Channel reconnection project, Current's H2NOW project to test real-time microbial sensor technologies in the CAWS, and Urban River's "Wild Mile" project installing floating island habitat in the North Branch Canal at Goose Island.

**Promote the District as one of the top leaders in the water industry.** Tom Kunetz, Assistant Director of Monitoring & Research, recently completed his year-long term as President of the Water Environment Federation. A number of other District employees sit on various committees and task groups within the Water Environment Federation.



*Tom Kunetz, Assistant Director of Monitoring & Research, is seen speaking during the opening session of the Water Environment Federation's Technical and Exhibition Conference held September 21-25 at McCormick Place in Chicago, IL.*

### **Goal 6 - Information 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 2020 tax levy required to finance the 2020 Budget is \$652.6 million, an increase of \$9.3 million, or 1.4 percent, from the 2019 Adjusted Budget. The increase is due to an aggregate 3.5 percent increase in the Corporate, Construction, Retirement, and Reserve Claim Funds. The Stormwater Management Fund Levy is remaining flat to 2019, while there is a decrease of \$2.7 million, or 1.1 percent in the Bond Redemption & Interest Fund. Among the funds subject to the Property Tax Extension Limitation law, the Corporate Fund levy has an increase of \$11.9 million, or 4.7 percent, while the Retirement Fund levy has an increase of \$0.7 million, or 0.9 percent. The Reserve Claim Fund levy is remaining flat at \$7.5 million and the Construction Fund has a decrease of \$0.6 million from the 2019 Levy.

The overall tax rate for 2020, based on the most recent Equalized Assessed Valuation (EAV), is estimated to be 39.48 cents per \$100 of assessed valuation, a 0.62 cent decrease from the 2019 Adjusted Tax Rate. The allowance for loss in collection of property taxes is budgeted at 3.5 percent, no change from 2019. The budgeted loss will be maintained at this level, based on trends in the required refunds of prior property tax payments.

Overall appropriations for 2020 total \$1,087.3 million, a decrease of \$135.6 million, or 11.1 percent, from the 2019 Adjusted Budget. The decrease driven by a decrease of \$163.9 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 \$5.3 million is attributable to repayment schedules. Additionally, a decrease in the Construction Fund of \$3.0 million and the Retirement Fund appropriation remaining flat at \$82.3 million are offset by an increase of \$24.8 million in the Stormwater Management Fund, a \$9.1 million increase in the Corporate Fund, and a \$2.6 million increase in the Reserve Claim Fund. Explanations of these changes are provided in the following detailed Fund summaries.

<b>Levies</b>	<b>2020</b>	<b>2019 Adjusted</b>	<b>Increase (Decrease)</b>	<b>Percent Change</b>
Corporate Fund	\$ 266,455,300	\$ 254,574,100	\$ 11,881,200	4.7 %
Construction Fund	7,000,000	7,600,000	(600,000)	(7.9)%
Stormwater Management Fund	52,926,000	52,926,000	—	— %
Retirement Fund	72,227,600	71,565,400	662,200	0.9 %
Reserve Claim Fund	7,500,000	7,500,000	—	— %
Bond Redemption & Interest Fund	246,537,587	249,208,510	(2,670,923)	(1.1)%
<b>TOTAL</b>	<b>\$ 652,646,487</b>	<b>\$ 643,374,010</b>	<b>\$ 9,272,477</b>	<b>1.4 %</b>
<b>Appropriations</b>	<b>2020</b>	<b>2019 Adjusted</b>	<b>Increase (Decrease)</b>	<b>Percent Change</b>
Corporate Fund	\$ 386,697,700	\$ 377,612,500	\$ 9,085,200	2.4 %
Construction Fund	15,343,400	18,340,300	(2,996,900)	(16.3)%
Capital Improvements Bond Fund	214,306,200	378,173,800	(163,867,600)	(43.3)%
Stormwater Management Fund	116,258,000	91,410,100	24,847,900	27.2 %
Retirement Fund	87,319,000	87,281,000	38,000	— %
Reserve Claim Fund	34,395,000	31,767,800	2,627,200	8.3 %
Bond Redemption & Interest Fund	233,021,867	238,357,541	(5,335,674)	(2.2)%
<b>TOTAL</b>	<b>\$ 1,087,341,167</b>	<b>\$ 1,222,943,041</b>	<b>\$ (135,601,874)</b>	<b>(11.1)%</b>

Comparisons of the estimated taxes paid by the owner of a home with a market value of \$100,000 for 2020 as budgeted, and 2019 as adjusted for the 2018 EAV, are as follows:

	<b>2020 Budgeted</b>	<b>2019 Adjusted</b>	<b>Variance</b>	<b>Percent Change</b>
Estimated taxes for \$100,000 home	\$114.84	\$116.26	\$(1.42)	(1.22)%

## 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 in and transfers out to other funds are considered other financing sources and uses.

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 District's team, the Sewer Rats, participates in the Operations Challenge at the Water Environment Federation's WEFTEC in September 2019.*



*The District provides support for community recreation and stormwater management throughout Cook County.*

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 arbitration, which are recognized when due and payable.



## *Budget Message / Highlights*

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

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

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

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

### **Corporate Fund**

The Corporate Fund is the District’s general operating fund and includes appropriation requests for the day-to-day operational costs anticipated for 2020. The total appropriation for the Corporate Fund in 2020 is \$386.7 million, an increase of \$9.1 million, or 2.4 percent, from the 2019 Adjusted Budget. The 2020 tax levy for the Corporate Fund is \$266.5 million, an increase of \$11.9 million, or 4.7 percent, compared to the 2019 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 2020, property taxes and user charge revenues remain 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 2020 is 16.12 cents, an increase of 0.25 cents from 2019 Adjusted Tax Rate. User charges, budgeted at \$43.0 million for 2020, 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.

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.



*Permeable pavers on North Street, between Oak Park Avenue and 173rd Street in Tinley Park will provide 69,000 gallons of stormwater storage on site.*

## *Budget Message / Highlights*

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, along with 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 completed the new schoolyard at Wescott Elementary.*

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 20 schools with construction completed, five of which opened or will open in 2019. There are five additional that are planned for construction in 2020.

In addition, since 2017, the District initiated over 65 Green Infrastructure partnerships throughout Cook County for projects that provide flood reduction and other community benefits.

The Watershed Management Ordinance (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 May 16, 2019. The amendment adopted watershed specific release rates, updated requirements for redevelopment, and incorporated recently updated rainfall data. Staff in the Local Sewer Section review permit applications for compliance with the WMO. To ensure reviews of permit applications continue to be thorough while completed in a timely manner, six positions are being transferred from the Corporate Fund to the Stormwater Management Fund in 2020.

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 2020 Appropriation for the Stormwater Management Fund is \$116.3 million, an increase of \$24.8 million, or 27.2 percent, over the 2019 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 2020 is 3.2 cents, a decrease of 0.10 cents from the 2019 Adjusted Tax Rate.

*Budget Message / Highlights*

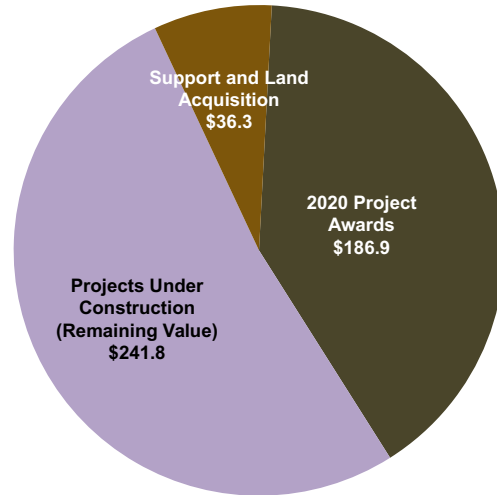
**Capital Improvement Program:**

**Construction Fund and Capital Improvements Bond Fund**

The District’s overall Capital Improvement Program (CIP) includes 2020 project awards, land acquisition, support, future projects, and the construction value remaining on projects currently under construction. The 2020 CIP has a total estimated cost of \$465.0 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 2020 totals \$15.3 million, a decrease of \$3.0 million, or 16.3 percent, from the 2019 Adjusted Budget.

Capital projects in the Construction Fund are primarily supported by property taxes. The 2020 tax levy planned for the Construction Fund is \$7.0 million, a decrease of \$0.6 million, or 7.9 percent, from the 2019 Adjusted Levy. A listing and description of proposed projects, projects under construction, and scheduled for 2020 award, can be found in the Capital Budget (Section V) of this budget document.

**Capital Improvements Bond Fund**

The 2020 appropriation for the Capital Improvements Bond Fund is \$214.3 million, a decrease of \$163.9 million, or 43.3 percent, from the 2019 Budget. The appropriation is based on the scheduled award of \$181.3 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 \$33.0 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 2020 award, can be found in the Capital Budget (Section V) of this budget document.



*The District provides educational opportunities and promotes STEM careers, including plant tours for students in Fifth Grades and above.*

### **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 2020 appropriation for the Retirement Fund is \$87.3 million, an increase of \$38,000, compared to the 2019 Adjusted Budget. The 2020 total tax support for the Retirement Fund is \$90.7 million, which is comprised of \$18.4 million from the District's Personal Property Replacement Tax allocation and a \$72.2 million property tax levy. The property tax levy of \$72.2 million is flat to the 2019 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 District's statutory tax levy calculation multiplier is 4.19 of employee contributions. 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 \$77.9 million.

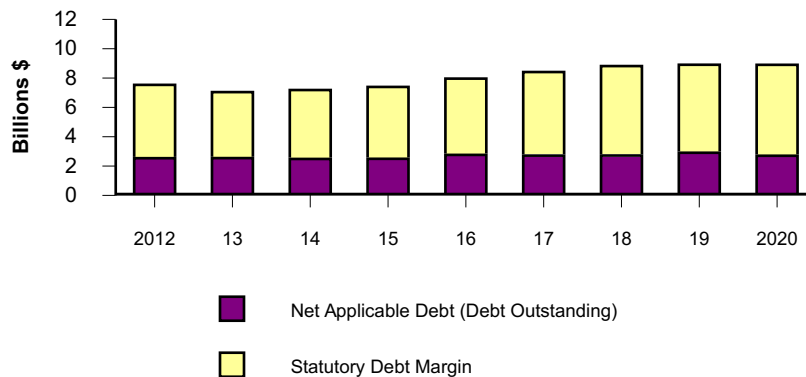
The 2020 appropriation of \$34.4 million is an increase of \$2.6 million, or 8.3 percent, from the 2019 Adjusted Budget. The practice is to fund toward the maximum fund balance allowable. This estimate is reviewed and adjusted annually. A historical profile of the resources available in the fund is provided in Section VII of this budget document. The levy will remain the same for the is fund in 2020. The District is levying against the last known EAV at the maximum rate allowed by state statute in 2020. 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 2020 Budget, the last known EAV (\$155.8 billion) is for the 2018 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 2.00 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 \$70.0 million in 2020 and approximately \$100.0 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 2020 appropriation for the Bond Redemption & Interest Fund totals \$233.0 million, a decrease of \$5.3 million, or 2.2 percent, compared to the 2019 Adjusted Budget. A debt service graph is found on page 52 that displays debt service from 2012 through 2024 and one on page 526 that displays debt service from 2020 through retirement. The 2020 tax levy for this fund is \$246.5 million, a decrease of \$2.7 million, or 1.1 percent, from the 2019 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 2034, effective January 1, 2020. The statutory debt limit is equal to 5.75 percent of the District’s EAV. The District's 2018 EAV is \$155.8 billion, setting the District's statutory debt limit at \$9.0 billion. Outstanding debt applicable to the debt limit as of December 31, 2018, totals \$2.8 billion. The debt margin is \$6.2 billion.

The 2020 debt service extension base limit is \$169.2 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 \$16.4 million annual debt service available under the statutory debt service limit related to the tax levy year 2019.

Additional bond issues through 2034 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 2034. 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, accumulated 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. The CPI growth for 2020 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. A factor or 0.5 percent is used to account for new property and EAV growth. 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 that is a minimum of 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 to maintain financial stability and sustain the District through economic uncertainties, and provide stability in order to maintain bond ratings to support the District’s capital program. Maintaining a strong fund balance 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.



*District staff demonstrated STEM careers at WEFTEC's Waterpoolza in September 2019.*

Investment interest income in 2020 is projected to be \$18.2 million, a decrease of \$3.4 million from the 2019 year-end estimate. The actual revenue for 2018 was \$14.8 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

## *Budget Message / Highlights*

corporations (commercial paper) rated in the highest classifications, the State Treasurer’s Illinois funds, and certain other investments with a maximum maturity of five years. The variation in investment income is largely due to the decrease in short-term interest rates and cyclical increases and decreases in fund balances. The current level of short-term interest rates is anticipated to continue through 2020. 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 2020 is \$37.4 million, an increase of \$4.2 million from the 2019 projected year end. The State of Illinois Department of Revenue allocates the PPRT to local governments. In 2019, year-end receipts are expected to be higher than budget due to some one-time allocations from prior-year collections. 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 \$43.0 million for 2020.

### Legislative Changes

The District had one legislative initiative that was passed and signed into law in 2019 by the Governor. Public Act 101-0302 extends the sunset date on the District's non-referendum bonding authority from year 2024 to 2034.

*To educate the public on specific ways to protect the waterways, the District prepared a consumer guide, Water Wellness, 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.mwrdd.org](http://www.mwrdd.org).*

## Minimize the risk




Photo by Raquel Martinez on Unsplash

THINK




Photo by Catt Liu on Unsplash

CONSIDER




Photo by Kelly Sikkema on Unsplash

CHOOSE

*Think about how you will use or discard a product before you purchase it. Is there an environmentally friendly alternative?*

*Consider how the things you use in your everyday life and your actions affect the waterways and the environment.*

*Choose to do something different - use environmentally friendly products; dispose of medications properly; pick up your pet waste; discard waste properly and teach your children to do the same.*

## *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 delays in second installment real estate tax collections;
- Reserve Claim Fund balance will be targeted toward the maximum level permitted by statute, 0.05 percent of the equalized assessed valuation (EAV), whenever economically feasible. This will be financed through tax levies at the maximum 0.5 cents per \$100 of EAV when economically feasible and financially prudent. This level of funding will protect the District in the event that environmental remediation costs cannot be recovered from former industrial tenants of District properties, catastrophic failure of District operational infrastructure, or other claims. As the District is partially self-insured, adequate reserves are critical.

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

#### **Stormwater Management Fund**

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

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

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

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

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

## *Financial Policies, Objectives, and Accomplishments*

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

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

### Capital Improvements Bond Fund Accumulated Income

Revenues that have accumulated in the CIBF from investment income, royalties, grants, or SRF revenues will primarily be used for capital projects. Capital projects are generally in the CIBF; however, capital projects in the Construction or Corporate Funds of critical importance may be financed by transfers from this revenue source. These funds may be transferred to the Bond Redemption & Interest 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 Retirement Fund an amount that over time will increase the ratio of Retirement 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 2020, 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 35th consecutive year, the GFOA of the United States and Canada has presented the Distinguished Budget Presentation for the District's 2019 Annual Budget. The entire 2020 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 November 2018, 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 classifications by at least two of the major rating services; (6) fully collateralized repurchase agreements; (7) the State Treasurer's



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

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:

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		14,829,000
2014		8,335,000	2019		18,245,000 (Estimated)
Total			\$ 102,007,000		

**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.)

## *Financial Policies, Objectives, and Accomplishments*

### 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 during 2019 to extend non-referendum bonding authority to December 31, 2034, effective on January 1, 2020.

#### **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 generally accepted accounting principles including GASB statements. 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.
- GASB 87 will be implemented in 2020 as required in order to improve lease reporting. Going forward, leases will be accounted for and reported as financings for the right to use an underlying asset. As the District is the lessor for hundreds of leases and easements, the new reporting model will have a substantial impact on the District's reporting for leases.
- 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 45, requiring reporting of the future liability for maintaining Other Postemployment Benefits (OPEB), primarily retiree health insurance benefits.

## *Financial Policies, Objectives, and Accomplishments*

- An irrevocable trust, the Metropolitan Water Reclamation District Retiree Health Care Trust, was established to fund the future OPEB 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 designed to control risk and provide guidance in establishing a prudent investment strategy for the Trust. The policy was subsequently revised most recently on November 15, 2018 to allow for new asset allocation targets structured to provide competitive performance while minimizing the potential for losses. The current policy allows for a range of exposure to four aggregate asset classes including domestic equities, international equities, fixed income securities, along with money market funds and cash.

The District has adopted the following fund balance policy in conformity with GASB 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.

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, 2018, and for the MWRD Retiree Health Care Trust for the year ended December 31, 2018. This is the 44th consecutive year and 12th consecutive year that the District has received these prestigious awards, respectively. The CAFRs are available at [www.mwrdd.org](http://www.mwrdd.org). The external audit of the District's 2018 financial statements, completed on May 10, 2019, includes an unmodified opinion. In 2019, the Internal Audit Section completed 8 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. While the plan is updated annually, 2020 is the final year of the current plan, *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 2020-2024 Five-Year Financial Forecast is prepared prior to the Executive Director's Budget Recommendations and reflects the best estimates of revenues, fund equity, and appropriation needs available at the time. The forecast is presented to the Executive Director. Subject to his review and approval, it is then included in the Budget. The projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the Annual Budget. It contributes to making the budget a comprehensive financial plan of District operations, past, present, and future. It summarizes the tax impact of the District's strategic goals and objectives.

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



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## *Policy Development and The Budget Process*

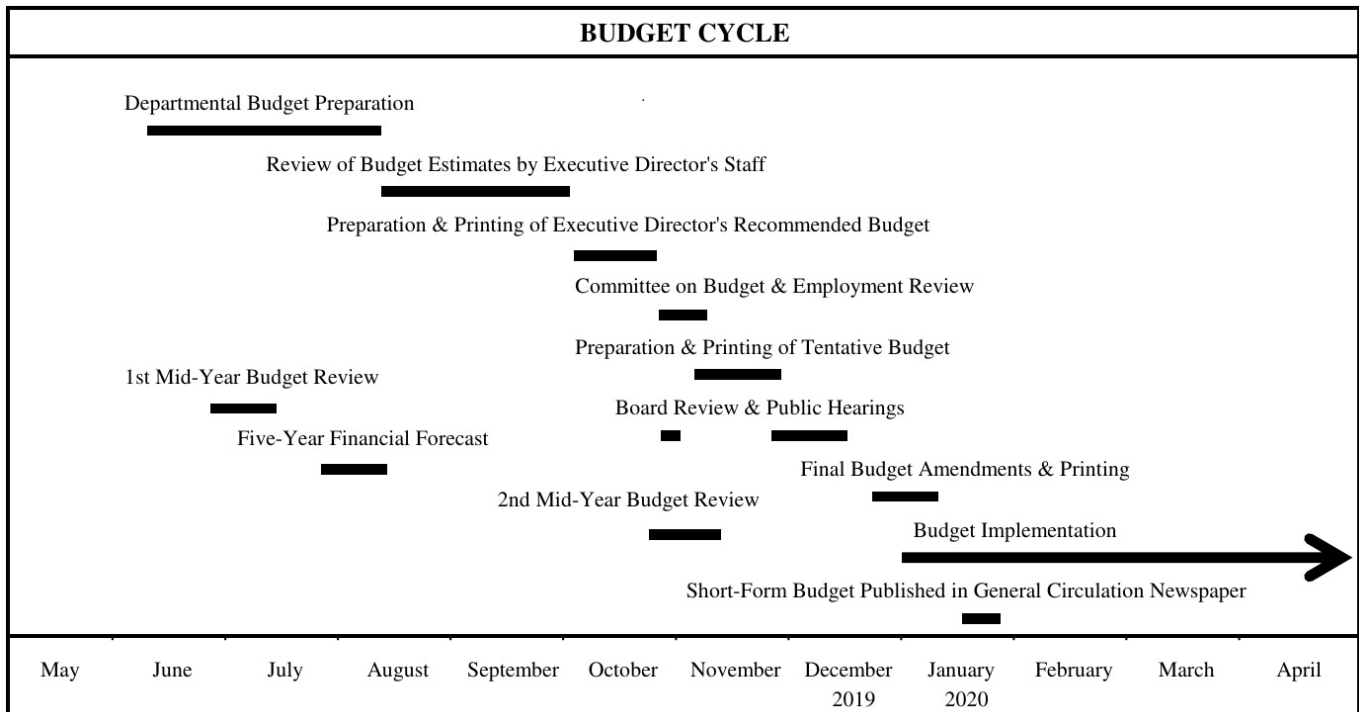
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The fiscal year of the District begins on January 1 and ends on December 31.

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 holds a study session on the Capital Improvement Program in October.
5. The Board's Committee on Budget and Employment holds public meetings with the Executive Director and department heads regarding the Executive Director's proposals.
6. At the conclusion of these hearings, the Committee on Budget and Employment recommends the preparation of a second document, a supplement to the Executive Director's Budget Recommendations called the "Tentative Budget," which incorporates changes approved at the hearings. Once printed, this is placed on public display, along with the Executive Director's Budget Recommendations, for a minimum of 10 days. An advertisement is published in a general circulation newspaper announcing the availability of the Tentative Budget for inspection at the main office of the District, and specifying the time and date of the public hearing.
7. At least one public hearing is held between 10 and 20 days after the Budget has been made available for public inspection. All interested individuals and groups are invited to participate.
8. After the public hearing, the Committee on Budget and Employment presents the Tentative Budget, which includes revisions and the approved Appropriation and Tax Levy Ordinances, to the Board for adoption. This action must take place before January 1.
9. The Budget, as adopted by the Board, can be amended once at the next Regular Meeting of the Board. No amendment, however, can be requested before a minimum of five days after the Budget has been adopted. Amendments for contracts and/or services not received before December 31 must be reappropriated in the new Budget and are included through this amendment process.
10. The final budget document "As Adopted and Amended" is produced, and an abbreviated version, known as the "short form" is published in a newspaper of general circulation before January 20 of the fiscal year.
11. Budget implementation begins on January 1. The Finance Department and Budget Office provide control of appropriations and ensure that all expenditures are made in accordance with budget specifications. The manual entitled "Budget Code Book" is published in conformance with the Adopted Budget and is used to administer, control, and account for the Budget.
12. Supplemental appropriations can be made for the appropriation of revenues from federal or state grants, loans, bond issues, and emergencies. The Executive Director is authorized to transfer appropriations between line items within an object class of expenditure within a department. After March 1 of each fiscal year, transfers of appropriations between objects of expenditures or between departments must be presented for approval to the Board in accordance with applicable statutes.
13. The Board can authorize, by a two-thirds majority, the transfer of accumulated investment income between funds and the transfer of assets among the Working Cash Funds.

## CALENDAR FOR 2020 BUDGET

- Executive Director's Budget Recommendations  
Submitted to Board of Commissioners ..... Tuesday, October 15, 2019
  
- Board of Commissioners Holds a Study Session on the Capital  
Improvement Program immediately following the Regular Board Meeting ..... Thursday, October 17, 2019
  
- Committee on Budget & Employment Hearings at 1:00 P.M. .... Thursday, November 7, 2019  
(Friday, November 8, 2019, if necessary)
  
- Committee on Budget & Employment Submits Tentative Budget  
to Board of Commissioners for Public Display ..... Tuesday, November 19, 2019
  
- Board of Commissioners Holds a Public Hearing  
on the Budget at 2:00 P.M. .... Thursday, December 5, 2019
  
- Board of Commissioners Adopts the Budget ..... Thursday, December 12, 2019
  
- Board of Commissioners Amends the Adopted Budget ..... Thursday, December 19, 2019



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

**ORDINANCE NUMBER O19-008**

**ANNUAL APPROPRIATION ORDINANCE OF THE  
METROPOLITAN WATER RECLAMATION DISTRICT  
OF GREATER CHICAGO  
FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2020  
AND ENDING DECEMBER 31, 2020**

**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, 2020 and ending December 31, 2020.”

*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, 2020 and ending December 31, 2020.

*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” includes (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. Contracts and purchase orders for these items that do not involve amounts in excess of \$25,000 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:

**NOTE PAGE**



# SECTION II

## BUDGET AND FINANCIAL SUMMARIES, SCHEDULES, AND EXHIBITS

This section includes a broad overview of the 2020 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 2020 and comparing it to previous years, this section also provides a projection of the future: the comprehensive Five-Year Financial Forecast for 2020 - 2024.

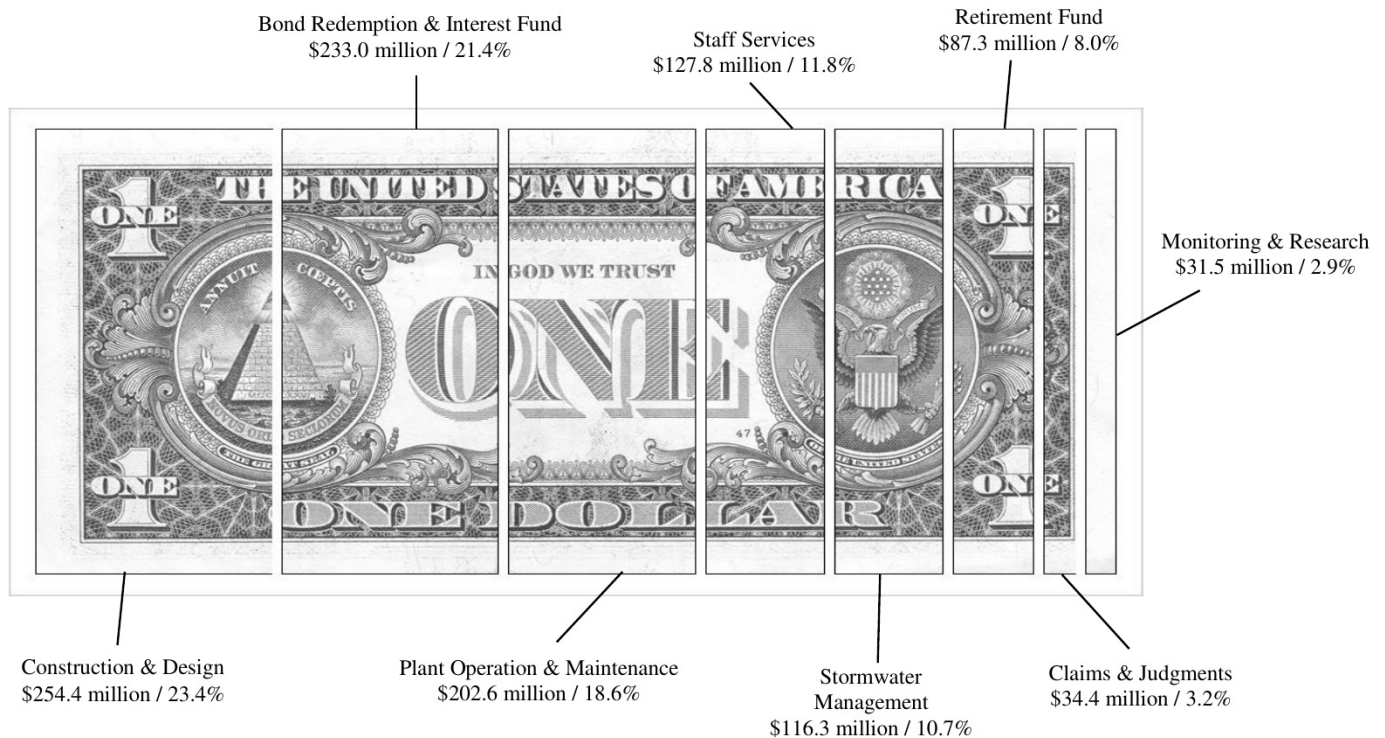
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WHERE THE MONEY COMES FROM: \$1,087.3 MILLION



\* \$450.3 of the \$554.6 Net Assets Appropriable detailed in the analysis on the next page will be appropriated as revenue for 2020 (excludes Capital Improvements Bond Fund).

WHERE THE MONEY GOES: \$1,087.3 MILLION



**SUMMARY OF NET ASSETS APPROPRIABLE**  
**at January 1, 2020**  
(In Millions)

CURRENT ASSETS	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
Cash & Investments	\$ 96.3	\$ 251.3	\$ 13.8	\$ 50.5	\$ —	\$ 90.1	\$ 26.7	\$ 528.7
Restricted Cash	—	—	—	—	—	—	—	—
Deposit with Escrow Agent	—	—	—	—	—	—	—	—
Taxes Receivable	246.8	—	7.3	51.5	69.1	241.5	7.3	623.4
Replacement Tax	15.0	—	—	—	18.3	—	—	33.3
Grants	—	14.5	—	—	—	—	—	14.5
State Revolving Fund Loans Receivable	—	70.0	—	—	—	—	—	70.0
Due from Other Funds	—	—	—	—	—	—	—	—
<b>Total</b>	<b>\$ 358.1</b>	<b>\$ 335.8</b>	<b>\$ 21.1</b>	<b>\$ 102.0</b>	<b>\$ 87.3</b>	<b>\$ 331.6</b>	<b>\$ 34.0</b>	<b>\$ 1,269.8</b>
<b>CURRENT LIABILITIES, DESIGNATIONS AND RESTRICTIONS</b>								
Unpaid Bill and Contingent Liabilities	\$ 36.8	\$ 989.1	\$ 1.7	\$ 6.9	\$ —	\$ —	\$ 0.3	\$ 1,034.9
Due to Working Cash Funds	190.0	—	11.1	26.5	—	—	—	227.6
Liabilities for Restricted Assets	—	—	—	—	—	—	—	—
Principal and Interest	—	—	—	—	—	106.1	—	106.1
<b>Total</b>	<b>\$ 226.8</b>	<b>\$ 989.1</b>	<b>\$ 12.8</b>	<b>\$ 33.4</b>	<b>\$ —</b>	<b>\$ 106.1</b>	<b>\$ 0.3</b>	<b>\$ 1,368.6</b>
<b>*Net Assets Appropriable</b>	<b>\$ 131.3</b>	<b>\$ (653.4)</b>	<b>\$ 8.2</b>	<b>\$ 68.6</b>	<b>\$ 87.3</b>	<b>\$ 225.5</b>	<b>\$ 33.7</b>	<b>\$ (98.8)</b>
Budget Reserve	(104.2)	—	—	—	—	—	—	(104.2)
<b>Net Assets Appropriated</b>	<b>\$ 27.1</b>	<b>\$ (653.4)</b>	<b>\$ 8.2</b>	<b>\$ 68.6</b>	<b>\$ 87.3</b>	<b>\$ 225.5</b>	<b>\$ 33.7</b>	<b>\$ (203.0)</b>
Equity Transfer	\$ 5.5	\$ (5.5)	—	\$ (6.0)	—	\$ 6.0	—	—

\* 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, 2020.

Gross Corporate Fund .....	16.12¢
Construction Fund .....	0.42
Stormwater Management Fund .....	3.20
Retirement Fund .....	4.37
Reserve Claim Fund .....	0.45
Subtotal .....	<u>24.56¢</u>

Bond Redemption & Interest Fund:

Capital Improvement Bonds - Series:

2016 Qualified Energy Conservation Limited Tax Series F .....	0.01¢
2009 Limited Tax Series .....	2.15
2011 Limited Tax Series B .....	1.26
2011 Unlimited Tax Series C .....	0.13
2014 Limited Tax Series C .....	0.45
2014 Unlimited Tax Series A .....	0.31
2014 Alternate Revenue Unlimited Tax Series B .....	0.21
2016 Alternate Revenue Unlimited Tax Series E .....	0.16
2016 Unlimited Tax Series C .....	0.09
2016 Limited Tax Series D .....	0.06

State Revolving Fund Bonds - Series:

Various .....	5.97¢
---------------	-------

Refunding Bonds - Series:

2007 Unlimited Tax Series A .....	1.62¢
2007 Unlimited Tax Series B .....	0.30
2007 Limited Tax Series C .....	0.34
2014 Limited Tax Series D .....	0.85
2016 Unlimited Tax Series A .....	0.88
2016 Limited Tax Series B .....	0.13

Subtotal Bond Redemption & Interest Fund .....	<u>14.92¢</u>
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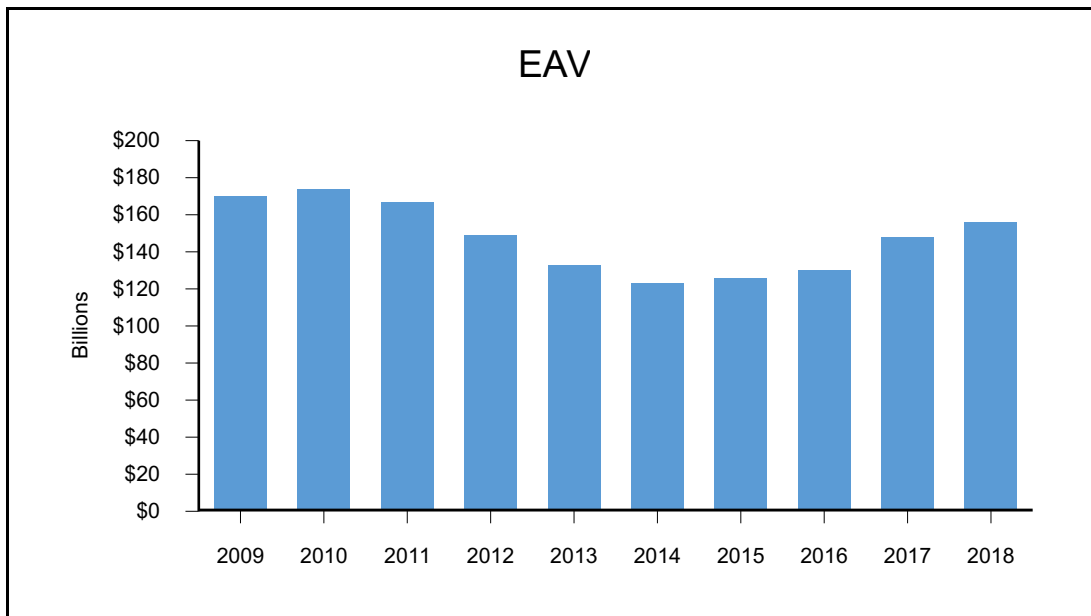
<b>TOTAL ESTIMATED TAX RATE - 2020 .....</b>	<b><u>39.48¢</u></b>
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### TAXABLE PROPERTY WITHIN THE DISTRICT (Equalized Assessed Valuation)

The equalized assessed property valuation (EAV) of the Metropolitan Water Reclamation District increased 5.3 percent from 2017 to 2018, showing the sustained growth for the fourth 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.

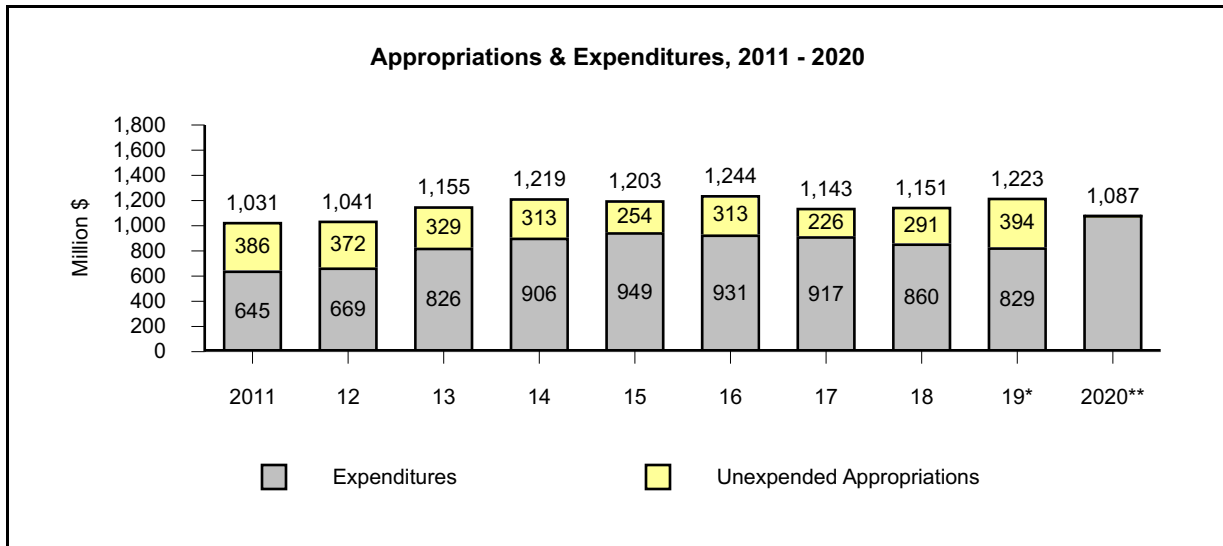
The equalized assessed valuation of real estate property is determined in Cook County based on market values of real estate, reduced by a classification factor determined by property use, and then multiplied by the State of Illinois equalization factor. The statutory objective is to value property at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

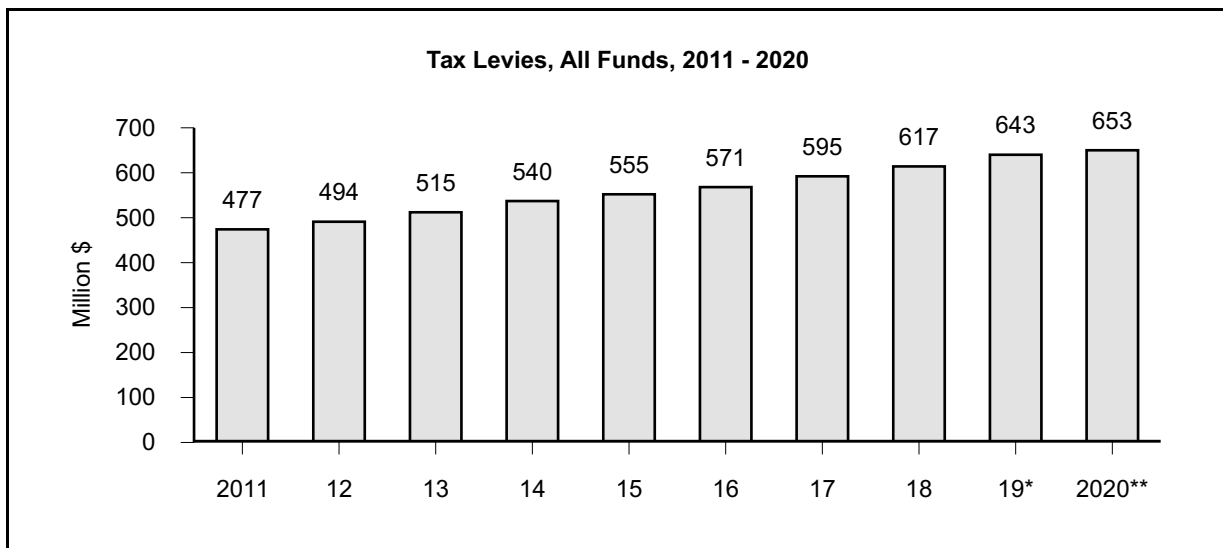


Year	Real Property	Railroad Property and Pollution Control Facilities	Total
2009	174.26 billion	212.23 million	174.47 billion
2010	166.66 billion	256.49 million	166.92 billion
2011	148.77 billion	275.01 million	149.05 billion
2012	133.11 billion	286.93 million	133.40 billion
2013	123.11 billion	311.53 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
2018	155.39 billion	397.83 million	155.79 billion

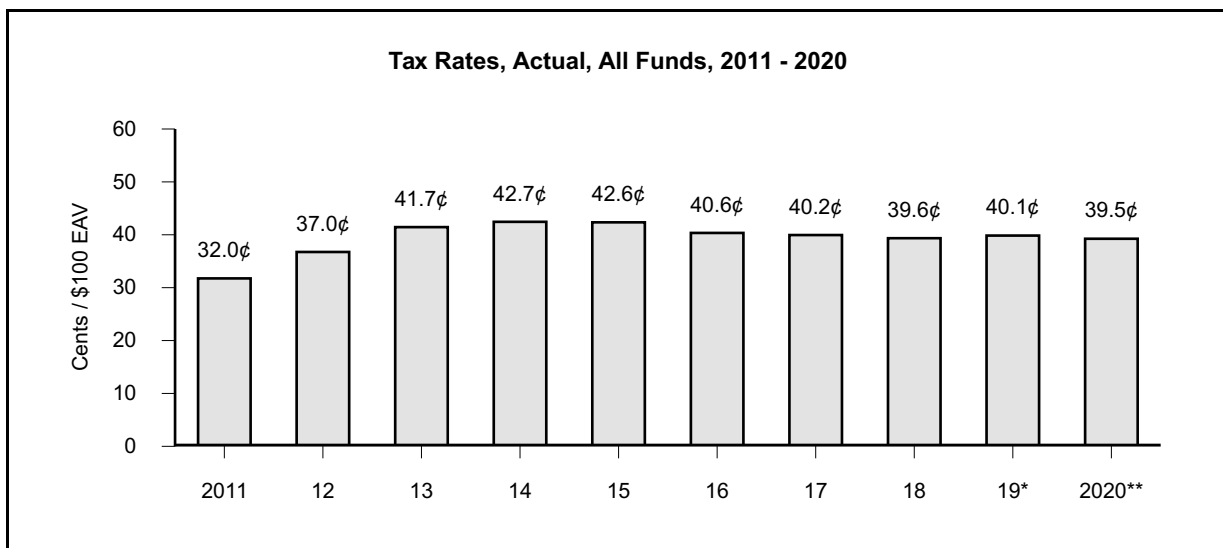




\*Adjusted  
 \*\*Estimated  
 Note: Amounts are rounded.



\*Adjusted  
 \*\*Estimated



\*Adjusted  
 \*\*Estimated using 2018 EAV

**COMPARATIVE STATEMENT OF APPROPRIATIONS AND TAX LEVIES  
2020-2018 ALL FUNDS**

APPROPRIATIONS	2020 **	2019 AS PASSED	2019 AS ADJUSTED *	2018 ACTUAL
<b>FUND</b>				
Corporate Fund	\$ 386,697,700	\$ 377,612,500	\$ 377,612,500	\$ 370,209,200
Construction Fund	15,343,400	18,340,300	18,340,300	26,080,600
Capital Improvements Bond Fund ***	214,306,200	378,173,800	378,173,800	312,982,900
Stormwater Management Fund	116,258,000	91,410,100	91,410,100	65,581,000
Retirement Fund	87,319,000	87,281,000	87,281,000	89,604,000
Reserve Claim Fund	34,395,000	31,767,800	31,767,800	30,289,500
Bond Redemption & Interest Fund	233,021,867	238,357,541	238,357,541	256,304,187
<b>TOTAL</b>	<b>\$ 1,087,341,167</b>	<b>\$ 1,222,943,041</b>	<b>\$ 1,222,943,041</b>	<b>\$ 1,151,051,387</b>
<b>LEVIES</b>				
Corporate Fund	\$ 266,455,300	\$ 254,574,100	\$ 254,574,100	\$ 241,153,834
Construction Fund	7,000,000	7,600,000	7,600,000	11,700,000
Stormwater Management Fund	52,926,000	52,926,000	52,926,000	47,826,000
Retirement Fund	72,227,600	71,565,400	71,565,400	71,534,197
Reserve Claim Fund	7,500,000	7,500,000	7,500,000	6,000,000
Subtotal	\$ 406,108,900	\$ 394,165,500	\$ 394,165,500	\$ 378,214,031
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	20,865,901	18,950,616	18,950,616	28,911,238
2011 Unlimited Tax Series C	2,142,417	2,515,991	2,515,991	4,184,800
2014 Limited Tax Series C	7,434,975	8,286,788	8,286,788	6,763,472
2014 Unlimited Tax Series A	5,181,348	5,181,348	5,181,348	5,181,348
2014 Alternate Revenue Unlimited Tax Series B ****	3,390,570	3,391,037	3,391,037	3,390,570
2016 Alternate Revenue Unlimited Tax Series E ****	2,590,674	2,590,674	2,590,674	2,590,674
Alternate Revenue Abatement ****	—	—	—	(5,981,244)
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	98,657,072	99,555,205	100,145,406	86,551,302
State Revolving Fund Stormwater Abatement****				(170,984)
Refunding Bonds - Series:				
2007 Unlimited Tax Series A	26,727,980	26,694,301	26,694,301	26,623,057
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	13,989,638	15,895,337	15,895,337	15,130,830
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	\$ 246,537,587	\$ 248,618,309	\$ 249,208,510	\$ 238,732,075
<b>TOTAL</b>	<b>\$ 652,646,487</b>	<b>\$ 642,783,809</b>	<b>\$ 643,374,010</b>	<b>\$ 616,946,106</b>
Abatement after the budget year ****	(6,184,633)	(6,185,100)	(6,185,100)	
<b>Total (after planned abatement)</b>	<b>\$ 646,461,854</b>	<b>\$ 636,598,709</b>	<b>\$ 637,188,910</b>	

NOTES: \* As Adjusted reflects the 2018 EAV (\$155,788,046,903) estimated to increase 3.0 percent, plus any subsequent supplemental levies or appropriations.  
 \*\* 2020 reflects an estimated 3.0 percent increase in EAV from the 2019 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 2020-2018 ALL FUNDS

Per \$100 in Equalized Assessed Valuation (EAV)

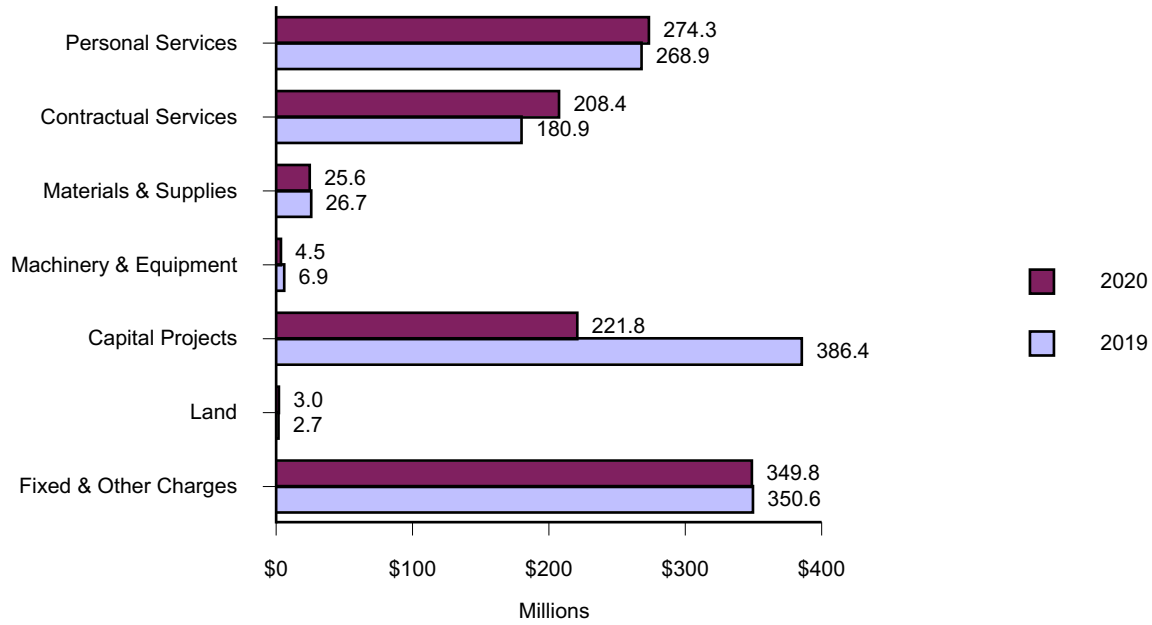
FUND		2020 **	2019 AS PASSED	2019 AS ADJUSTED *	2018 ACTUAL
	tax rate limit				
Corporate Fund	41¢	16.12¢	16.22¢	15.87¢	15.48¢
Construction Fund	10¢	0.42	0.48	0.47	0.75
Stormwater Management Fund	5¢	3.20	3.37	3.30	3.07
Retirement Fund		4.37	4.56	4.46	4.59
Reserve Claim Fund	½ ¢	0.45	0.48	0.47	0.39
Subtotal		24.56¢	25.11¢	24.57¢	24.28¢
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		2.15	2.27	2.22	2.28
2011 Limited Tax Series B		1.26	1.21	1.18	1.86
2011 Unlimited Tax Series C		0.13	0.16	0.16	0.27
2014 Limited Tax Series C		0.45	0.53	0.52	0.43
2014 Unlimited Tax Series A		0.31	0.33	0.32	0.33
2014 Alternate Revenue Unlimited Tax Series B ***		0.21	0.22	0.21	0.22
2016 Alternate Revenue Unlimited Tax Series E ***		0.16	0.17	0.16	0.17
Alternate Revenue Abatement ***		—	—	—	(0.39)
2016 Unlimited Tax Series C		0.09	0.10	0.10	0.10
2016 Limited Tax Series D		0.06	0.07	0.06	0.07
State Revolving Fund Bonds - Series:					
Various		5.97	6.34	6.24	5.56
Refunding Bonds - Series:					
2007 Unlimited Tax Series A		1.62	1.70	1.66	1.71
2007 Unlimited Tax Series B		0.30	0.32	0.31	0.32
2007 Limited Tax Series C		0.34	0.35	0.35	0.36
2014 Limited Tax Series D		0.85	1.01	0.99	0.97
2016 Unlimited Tax Series A		0.88	0.93	0.91	0.93
2016 Limited Tax Series B		0.13	0.14	0.13	0.14
Subtotal Bond Redemption & Interest Fund		14.92¢	15.86¢	15.53¢	15.34¢
<b>TOTAL</b>		<b>39.48¢</b>	<b>40.97¢</b>	<b>40.10¢</b>	<b>39.62¢</b>

NOTES: \* As Adjusted reflects the 2018 EAV (\$155,788,046,903) estimated to increase 3.0 percent, plus any subsequent supplemental levies or appropriations.

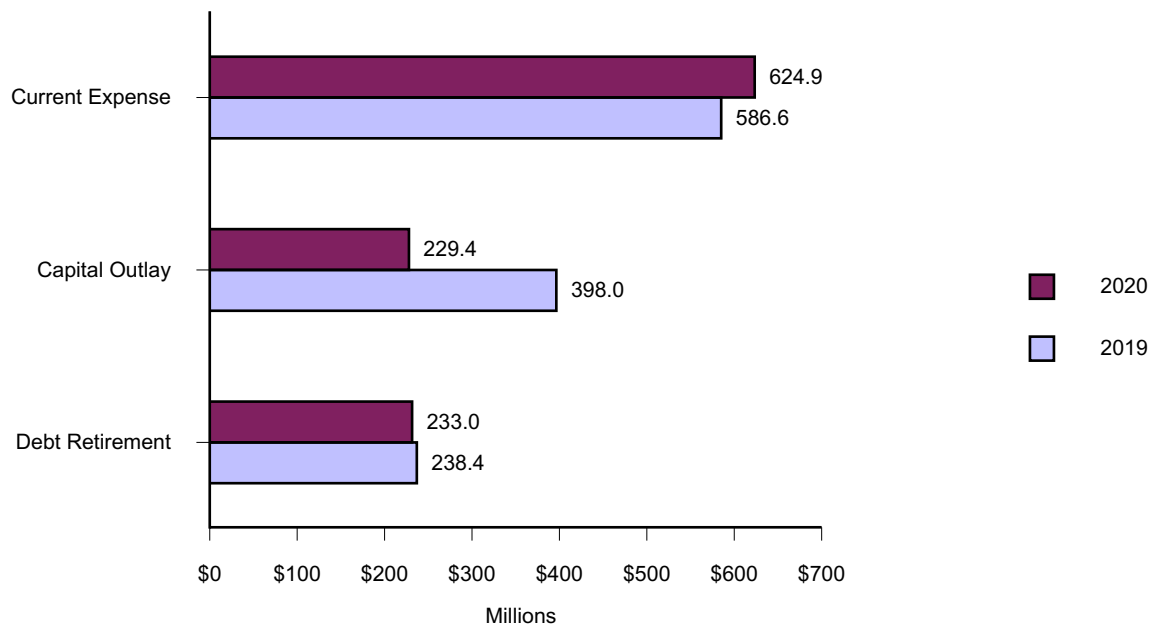
\*\* 2020 reflects an estimated 3.0 percent increase in EAV from the 2019 estimate.

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

**COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE**



**COMPARATIVE APPROPRIATIONS BY MAJOR CHARACTER OF EXPENDITURE**



## COMPARATIVE APPROPRIATIONS BY MAJOR OBJECT OF EXPENDITURE 2020-2019 ALL FUNDS

ORGANIZATION or FUND	YEAR	TOTAL	PERSONAL SERVICES	CONTRACTUAL SERVICES	MATERIALS & SUPPLIES	MACHINERY & EQUIPMENT	CAPITAL PROJECTS	LAND	FIXED & OTHER CHARGES
Board of Commissioners	2020	\$ 5,242,200	\$ 4,249,600	\$ 977,100	\$ 15,500	\$ —	\$ —	\$ —	\$ —
	2019	\$ 5,256,000	\$ 4,302,100	\$ 928,400	\$ 25,500	\$ —	\$ —	\$ —	\$ —
General Administration	2020	21,305,200	14,725,900	5,004,100	425,200	1,150,000	—	—	—
	2019	18,713,800	11,880,900	5,535,700	302,400	994,800	—	—	—
Monitoring & Research	2020	31,546,700	29,449,300	1,084,100	460,300	553,000	—	—	—
	2019	31,548,300	29,620,100	1,005,800	538,100	384,300	—	—	—
Procurement & Materls. Management	2020	9,809,700	5,971,400	260,300	3,448,000	130,000	—	—	—
	2019	9,821,100	5,880,000	155,500	3,496,400	172,200	117,000	—	—
Human Resources	2020	61,329,200	56,116,800	4,916,300	296,100	—	—	—	—
	2019	60,229,600	55,193,200	4,833,400	203,000	—	—	—	—
Information Technology	2020	18,353,500	8,872,200	7,946,400	1,213,900	321,000	—	—	—
	2019	18,592,700	8,746,500	8,804,500	827,700	214,000	—	—	—
Law	2020	7,234,100	5,647,000	812,900	19,200	—	—	—	755,000
	2019	7,177,700	5,728,200	675,900	18,600	—	—	—	755,000
Finance	2020	3,834,400	3,432,600	390,800	11,000	—	—	—	—
	2019	3,739,800	3,379,200	338,000	22,600	—	—	—	—
<b>Maint. &amp; Operations:</b>									
General Division	2020	31,680,800	13,857,000	16,663,400	802,900	357,500	—	—	—
	2019	31,771,800	13,717,000	16,772,400	832,400	450,000	—	—	—
North Service Area	2020	45,383,700	26,091,600	15,754,100	3,185,000	353,000	—	—	—
	2019	43,582,000	26,234,900	13,374,700	3,609,700	362,700	—	—	—
Calumet Service Area	2020	38,960,500	19,889,500	15,945,800	2,966,200	159,000	—	—	—
	2019	36,727,200	19,338,800	12,826,000	3,648,400	914,000	—	—	—
Stickney Service Area	2020	86,564,800	40,306,400	33,550,000	12,620,900	87,500	—	—	—
	2019	84,511,300	39,346,000	31,910,300	12,940,000	315,000	—	—	—
TOTAL Maintenance & Operations	2020	\$ 202,589,800	\$ 100,144,500	\$ 81,913,300	\$ 19,575,000	\$ 957,000	\$ —	\$ —	\$ —
	2019	\$ 196,592,300	\$ 98,636,700	\$ 74,883,400	\$ 21,030,500	\$ 2,041,700	\$ —	\$ —	\$ —
Engineering	2020	25,452,900	24,796,800	579,400	76,700	—	—	—	—
	2019	25,941,200	25,544,200	342,900	54,100	—	—	—	—
TOTAL Corporate Fund	2020	\$ 386,697,700	\$ 253,406,100	\$ 103,884,700	\$ 25,540,900	\$ 3,111,000	\$ —	\$ —	\$ 755,000
	2019	\$ 377,612,500	\$ 248,911,100	\$ 97,503,500	\$ 26,518,900	\$ 3,807,000	\$ 117,000	\$ —	\$ 755,000
Construction Fund	2020	15,343,400	—	3,980,700	—	50,000	11,312,700	—	—
	2019	18,340,300	—	3,765,700	—	3,070,000	11,504,600	—	—
Capital Improvements Bond Fund	2020	214,306,200	—	24,412,500	—	1,200,000	187,251,200	300,000	1,142,500
	2019	378,173,800	—	27,209,100	—	—	347,256,100	1,664,700	2,043,900
Stormwater Management Fund	2020	116,258,000	10,901,800	76,129,400	101,900	125,000	23,199,900	2,650,000	3,150,000
	2019	91,410,100	9,956,500	52,407,100	131,400	—	27,515,100	1,000,000	400,000
Bond Redemption & Interest Fund	2020	233,021,867	—	—	—	—	—	—	233,021,867
	2019	238,357,541	—	—	—	—	—	—	238,357,541
Retirement Fund	2020	87,319,000	—	—	—	—	—	—	87,319,000
	2019	87,281,000	—	—	—	—	—	—	87,281,000
Reserve Claim Fund	2020	34,395,000	10,000,000	—	—	—	—	—	24,395,000
	2019	31,767,800	10,000,000	—	—	—	—	—	21,767,800
<b>GRAND TOTAL</b>	2020	\$ 1,087,341,167	\$ 274,307,900	\$ 208,407,300	\$ 25,642,800	\$ 4,486,000	\$ 221,763,800	\$ 2,950,000	\$ 349,783,367
	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
PERCENTAGES	2020	100.0%	25.2%	19.2%	2.4%	0.4%	20.4%	0.3%	32.2%
	2019	100.0%	22.0%	14.8%	2.2%	0.6%	31.6%	0.2%	28.7%

Note: Percentages are rounded.



**COMPARATIVE APPROPRIATIONS BY CHARACTER OF EXPENDITURE  
2020-2019 ALL FUNDS**

ORGANIZATION OR FUND	YEAR	TOTAL	CURRENT EXPENSE	CAPITAL OUTLAY	DEBT RETIREMENT
Board of Commissioners	2020	\$ 5,242,200	\$ 5,242,200	\$ —	\$ —
	2019	\$ 5,256,000	\$ 5,256,000	\$ —	\$ —
General Administration	2020	21,305,200	20,155,200	1,150,000	—
	2019	18,713,800	17,719,000	994,800	—
Monitoring & Research	2020	31,546,700	30,993,700	553,000	—
	2019	31,548,300	31,164,000	384,300	—
Procurement & Materials Management	2020	9,809,700	9,679,700	130,000	—
	2019	9,821,100	9,531,900	289,200	—
Human Resources	2020	61,329,200	61,329,200	—	—
	2019	60,229,600	60,229,600	—	—
Information Technology	2020	18,353,500	18,032,500	321,000	—
	2019	18,592,700	18,378,700	214,000	—
Law	2020	7,234,100	7,234,100	—	—
	2019	7,177,700	7,177,700	—	—
Finance	2020	3,834,400	3,834,400	—	—
	2019	3,739,800	3,739,800	—	—
Maintenance & Operations:					
General Division	2020	31,680,800	31,323,300	357,500	—
	2019	31,771,800	31,321,800	450,000	—
North Service Area	2020	45,383,700	45,030,700	353,000	—
	2019	43,582,000	43,219,300	362,700	—
Calumet Service Area	2020	38,960,500	38,801,500	159,000	—
	2019	36,727,200	35,813,200	914,000	—
Stickney Service Area	2020	86,564,800	86,477,300	87,500	—
	2019	84,511,300	84,196,300	315,000	—
TOTAL Maintenance & Operations	2020	\$ 202,589,800	\$ 201,632,800	\$ 957,000	\$ —
	2019	\$ 196,592,300	\$ 194,550,600	\$ 2,041,700	\$ —
Engineering	2020	25,452,900	25,452,900	—	—
	2019	25,941,200	25,941,200	—	—
TOTAL Corporate Fund	2020	\$ 386,697,700	\$ 383,586,700	\$ 3,111,000	\$ —
	2019	\$ 377,612,500	\$ 373,688,500	\$ 3,924,000	\$ —
Construction Fund	2020	15,343,400	3,980,700	11,362,700	—
	2019	18,340,300	3,765,700	14,574,600	—
Capital Improvements Bond Fund	2020	214,306,200	25,305,000	189,001,200	—
	2019	378,173,800	27,209,100	350,964,700	—
Stormwater Management Fund	2020	116,258,000	90,283,100	25,974,900	—
	2019	91,410,100	62,895,000	28,515,100	—
Bond Redemption & Interest Fund	2020	233,021,867	—	—	233,021,867
	2019	238,357,541	—	—	238,357,541
Retirement Fund	2020	87,319,000	87,319,000	—	—
	2019	87,281,000	87,281,000	—	—
Reserve Claim Fund	2020	34,395,000	34,395,000	—	—
	2019	31,767,800	31,767,800	—	—
<b>GRAND TOTAL</b>	2020	\$ 1,087,341,167	\$ 624,869,500	\$ 229,449,800	\$ 233,021,867
	2019	\$ 1,222,943,041	\$ 586,607,100	\$ 397,978,400	\$ 238,357,541
<b>PERCENTAGES</b>	2020	101%	58%	21%	21%
	2019	100%	48%	33%	19%

Note: Percentages are rounded.

**2020 - 2019\* PROGRAM APPROPRIATION - ALL FUNDS**  
**BY DEPARTMENT AND MAJOR PROGRAM**  
(In Millions)

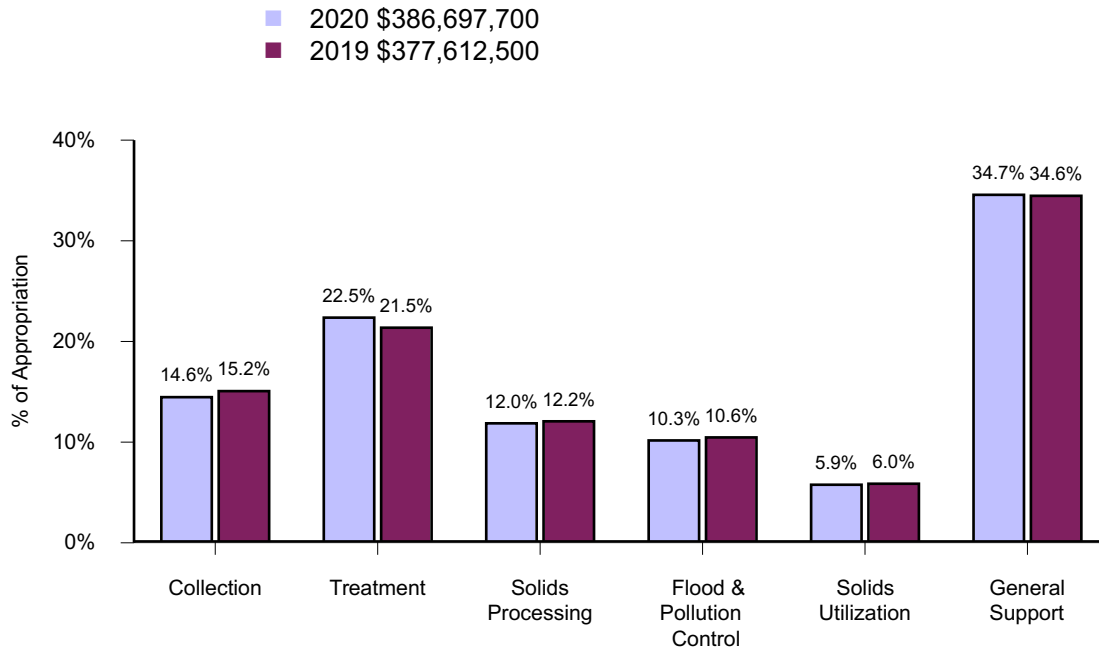
DEPARTMENT	MAJOR PROGRAM															
	COLLECTION		TREATMENT		SOLIDS PROCESSING		SOLIDS UTILIZATION		FLOOD & POLLUTION CONTROL		GENERAL SUPPORT		TOTAL			
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019		
Board of Commissioners	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 5.2	\$ 5.3	\$ 5.2	\$ 5.3
General Administration	—	—	—	—	—	—	—	—	—	—	—	—	21.3	18.7	21.3	18.7
Monitoring & Research	—	—	—	—	—	—	—	—	31.1	31.1	0.4	0.4	31.5	31.5		
Procurement & Materials Management	—	—	—	—	—	—	—	—	—	—	9.8	9.8	9.8	9.8		
Human Resources	—	—	—	—	—	—	—	—	—	—	61.3	60.2	61.3	60.2		
Information Technology	—	—	—	—	—	—	—	—	—	—	18.4	18.6	18.4	18.6		
Law	—	—	—	—	—	—	—	—	0.5	0.4	6.8	6.7	7.2	7.2		
Finance	—	—	—	—	—	—	—	—	0.3	0.3	3.6	3.5	3.8	3.7		
Maintenance & Operations	51.7	52.4	78.3	72.3	40.0	39.6	22.4	22.2	4.9	4.8	5.3	5.2	202.6	196.6		
Engineering	4.7	4.9	8.7	8.8	6.4	6.4	0.3	0.4	3.1	3.2	2.3	2.3	25.5	25.9		
Total Corporate Fund	\$ 56.4	\$ 57.3	\$ 87.0	\$ 81.1	\$ 46.3	\$ 46.0	\$ 22.8	\$ 22.6	\$ 39.9	\$ 39.9	\$ 134.4	\$ 130.6	\$ 386.7	\$ 377.6		
Construction and Capital Improvements Bond Funds	\$ 21.2	\$ 45.4	\$ 106.1	\$ 81.3	\$ 16.4	\$ 42.4	\$ 1.8	\$ 5.0	\$ 82.7	\$ 220.0	\$ 1.5	\$ 2.5	\$ 229.6	\$ 396.5		
Stormwater Management Fund	—	—	—	—	—	—	—	—	116.1	91.3	0.1	0.1	116.3	91.4		
Miscellaneous (Debt Service, Retirement, and Reserve Funds)	—	—	—	—	—	—	—	—	—	—	354.7	357.4	354.7	357.4		
<b>GRAND TOTAL</b>	<b>\$ 77.6</b>	<b>\$ 102.7</b>	<b>\$ 193.2</b>	<b>\$ 162.4</b>	<b>\$ 62.7</b>	<b>\$ 88.5</b>	<b>\$ 24.6</b>	<b>\$ 27.5</b>	<b>\$ 238.7</b>	<b>\$ 351.1</b>	<b>\$ 490.7</b>	<b>\$ 490.7</b>	<b>\$ 1,087.3</b>	<b>\$ 1,222.9</b>		

Notes: Totals are rounded.  
\*Adjusted Appropriation

### APPROPRIATION DISTRIBUTION BY MAJOR PROGRAM

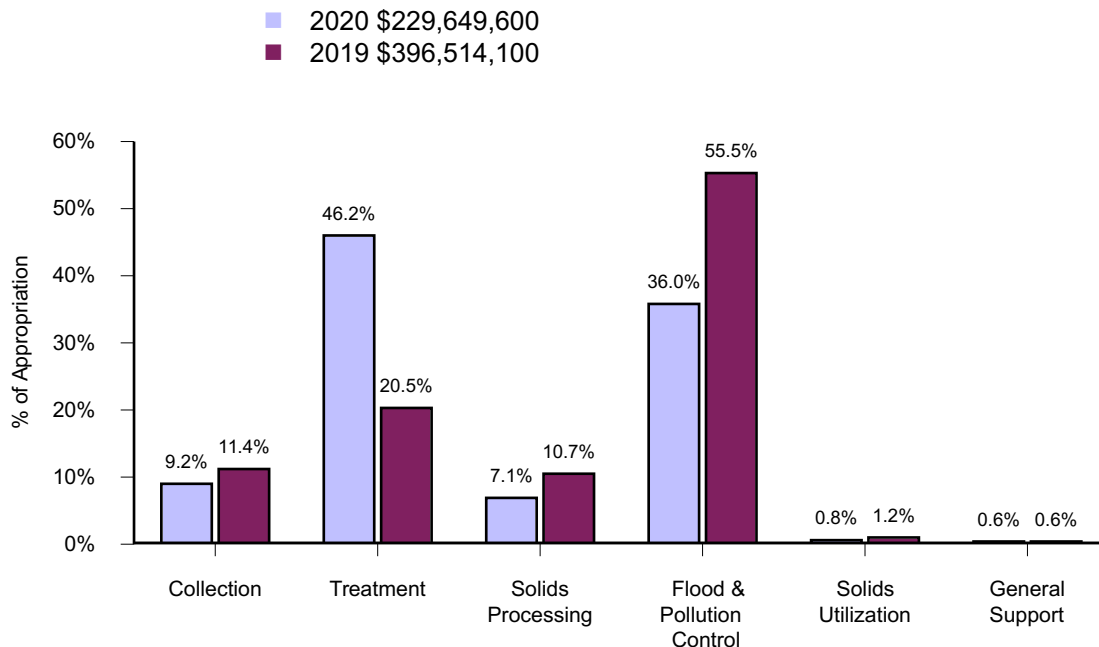
To comply with Illinois State Statute, it is necessary to prepare budget estimates and appropriate funds according to programs, as well as organizational units, performance principles, and unit cost data. The two charts on this page show the relationship of major objectives or functions within the Corporate, Construction, and Capital Improvements Bond Funds. The charts compare major program appropriations to the total fund appropriations for 2020 and 2019, as shown on the following page.

#### Corporate Fund



Note: Percentages are rounded.

#### Capital Improvements Bond & Construction Funds



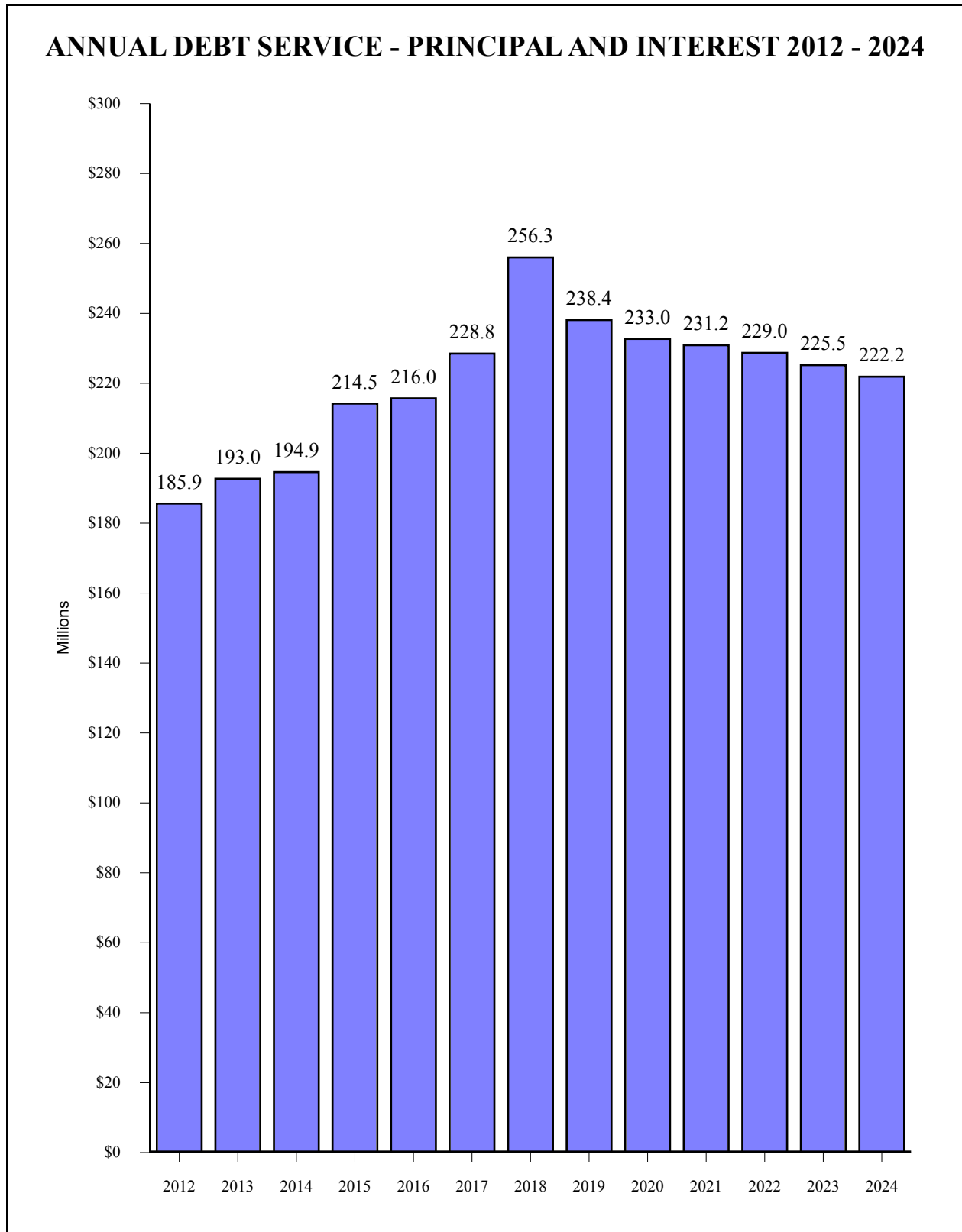
Note: Percentages are rounded.

**2020 - 2019 PROGRAM APPROPRIATION COMPARISON  
ALL FUNDS**

**PROGRAM OBJECTIVE**

NUMBER	NAME	2020 BUDGET	2019 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
						2020	2019
1000	Collection	\$ 77,551,114	\$ 102,692,675	\$ (25,141,561)	(24.5)	281	285
2000	Treatment	193,171,609	162,445,816	30,725,793	18.9	456	460
3000	Solids Processing	62,686,867	88,451,745	(25,764,878)	(29.1)	254	254
4000	Flood & Pollution Control	238,689,281	351,145,583	(112,456,302)	(32.0)	440	442
5000	Solids Utilization	24,566,818	27,549,217	(2,982,399)	(10.8)	42	43
7000	General Support (Debt, Retirement, Law, etc.)	490,675,500	490,658,005	17,495	—	480	483
<b>TOTAL</b>		<b>\$ 1,087,341,189</b>	<b>\$ 1,222,943,041</b>	<b>\$ (135,601,852)</b>	<b>(11.1)</b>	<b>1,953</b>	<b>1,967</b>

SUMMARY BY FUND	2020 BUDGET	2019 BUDGET	DOLLAR INCREASE (DECREASE)	PERCENT INCREASE (DECREASE)	FTE POSITIONS	
					2020	2019
Corporate Fund	\$ 386,697,700	\$ 377,612,500	\$ 9,085,200	2.4	1,862	1,882
Construction & Capital Improvements Bond Funds	229,649,600	396,514,100	(166,864,500)	(42.1)	—	—
Stormwater Management Fund	116,258,000	91,410,100	24,847,900	27.2	91	85
Retirement Fund	87,319,000	87,281,000	38,000	—	—	—
Bond Redemption & Interest Fund	233,021,867	238,357,541	(5,335,674)	(2.2)	—	—
Reserve Claim Fund	34,395,000	31,767,800	2,627,200	8.3	—	—
<b>TOTAL</b>	<b>\$ 1,087,341,167</b>	<b>\$ 1,222,943,041</b>	<b>\$ (135,601,874)</b>	<b>(11.1)</b>	<b>1,953</b>	<b>1,967</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.

Bonds to be sold in the future are not included in this chart and are detailed in the Five-Year Financial Forecast on pages 60 and 68.



**OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN  
DECEMBER 31, 2019**

<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%	220,890,000
2011 Unlimited Tax Series C	2031	3.0% to 5.0%	41,850,000
2014 Unlimited Tax Series A	2044	5.0%	100,000,000
2014 Alternate Revenue Unlimited Tax Series B	2044	2.0% to 5.0%	46,205,000
2014 Limited Tax Series C	2028	2.0% to 5.0%	59,135,000
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>\$ 1,172,080,000</u>
Refunding Bonds - Series:			
2007 Unlimited Tax Series A	2022	4.0% to 5.0%	\$ 70,200,000
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%	41,180,000
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>\$ 627,345,000</u>
State Revolving Fund Bonds - Series:			
97BB SRF L171151	2020	2.54%	\$ 642,969
97CC SRF L172031	2022	2.54%	5,734,369
97DD SRF L171152	2023	2.91%	3,897,178
01A SRF L172126	2024	2.57%	16,037,100
01B SRF L172127	2025	2.50%	19,695,573
01C SRF L172128	2026	2.50%	20,247,242
14F SRF L175342	2039	1.75%	79,738,164
16C SRF L175367	2039	1.76%	5,819,957
16D SRF L175460	2038	1.75%	7,404,813
14O SRF L175305	2038	1.75%	3,047,783
04A SRF L172485	2027	2.50%	11,384,153
04B SRF L172488	2027	2.50%	13,298,909
04C SRF L172493	2027	2.50%	1,174,063
04D SRF L172494	2027	2.50%	1,125,898
04E SRF L172495	2028	2.50%	3,939,073
04F SRF L172496	2031	—%	2,285,446
04G SRF L172611	2027	2.50%	1,829,062
04H SRF L172849	2029	2.50%	29,748,666
07A SRF L172625	2030	2.50%	25,446,221
07B SRF L172850	2031	2.50%	17,698,379
07C SRF L172770	2031	—%	38,333,333
07D SRF L172763	2030	2.50%	5,804,003
09A SRF L173074	2032	1.25%	30,695,036
09B SRF L173064	2031	—%	4,403,233
09C SRF L173063	2031	—%	1,287,507
09D SRF L174558	2032	2.30%	27,305,503
09E SRF L173005	2032	1.25%	25,239,979
09F SRF L174557	2032	1.25%	41,766,679
09G SRF L173075	2032	1.25%	19,581,410
09H SRF L173800	2031	—%	423,112
09I SRF L174675	2031	1.25%	6,741,216
12A SRF L174710	2034	2.30%	5,871,021

**OUTSTANDING BONDS AND ESTIMATED STATUTORY DEBT MARGIN  
DECEMBER 31, 2019**

<b>BOND SERIES</b>	<b>DATE OF MATURITY</b>	<b>INTEREST RATES</b>	<b>AMOUNT PAYABLE</b>
State Revolving Fund Bonds - Series (continued):			
12B SRF L174712	2034	2.30%	\$ 5,028,074
12C SRF L174621	2036	2.00%	12,207,259
12D SRF L174988	2032	1.93%	22,301,214
12E SRF L174709	2035	1.93%	4,697,405
12F SRF L174989	2032	1.93%	45,085,337
12G SRF L174923	2038	1.93%	32,505,738
12H SRF L174924	2032	1.93%	20,155,545
12I SRF L175222	2037	2.21%	4,431,449
12J SRF L175172	2035	2.00%	2,229,143
12K SRF L174925	2036	2.00%	11,538,117
12L SRF L175161	2037	2.21%	29,526,314
12M SRF L175168	2038	2.21%	11,216,266
12N SRF L175164	2036	2.00%	2,482,291
12O SRF L175166	2036	2.00%	3,989,778
14A SRF L173076	2036	2.21%	71,303,667
14B SRF L175171	2036	2.21%	2,438,053
14C SRF L174559	2036	2.30%	17,920,826
14D SRF L175263	2038	1.86%	11,312,990
14E SRF L173062	2038	1.86%	41,995,278
14G SRF L175152	2038	1.86%	19,006,288
14H SRF L175355	2036	1.86%	1,108,198
14I SRF L175223	2038	1.86%	7,189,818
14J SRF L175219	2036	2.21%	3,497,003
14K SRF L175366	2038	1.86%	4,998,165
14L SRF L175368	2038	1.75%	5,231,032
14M SRF L175372	2038	2.22%	1,398,577
14N SRF L175371	2038	2.00%	1,332,068
14P SRF L175369	2038	1.56%	3,387,331
16A SRF L174555	2038	1.75%	124,197,420
SUBTOTAL - State Revolving Fund Bonds:			\$ 1,001,357,694
<b>TOTAL OUTSTANDING BONDS:</b>			<b>\$ 2,800,782,694</b>

**CALCULATION OF ESTIMATED STATUTORY DEBT MARGIN**

Debt Applicable to Debt Limit:			
Outstanding Bonds		\$ 2,800,782,694	
Less: Alternate Revenue Bonds Outstanding		(96,205,000)	
Bond Anticipation Note - Principal		30,000,000	
Bond Anticipation Note - Interest		500,000	
Capital Lease - Biosolids Facility		32,257,383	
Liabilities of Tax Financed Funds		3,000,000	\$ 2,770,335,077
Less Applicable Assets:			
Cash and Investments - Bond Redemption & Interest Fund		\$ (90,067,000)	
Interest on Bonds Payable in Next Twelve Months		112,942,336	\$ 22,875,336
NET DEBT APPLICABLE TO LIMIT:			\$ 2,793,210,413
Statutory Debt Limit 5.75% of 2018 EAV			\$ 8,957,812,697
Less Net Debt Applicable to Limit			2,793,210,413
<b>ESTIMATED STATUTORY DEBT MARGIN:</b>			<b>\$ 6,164,602,284</b>

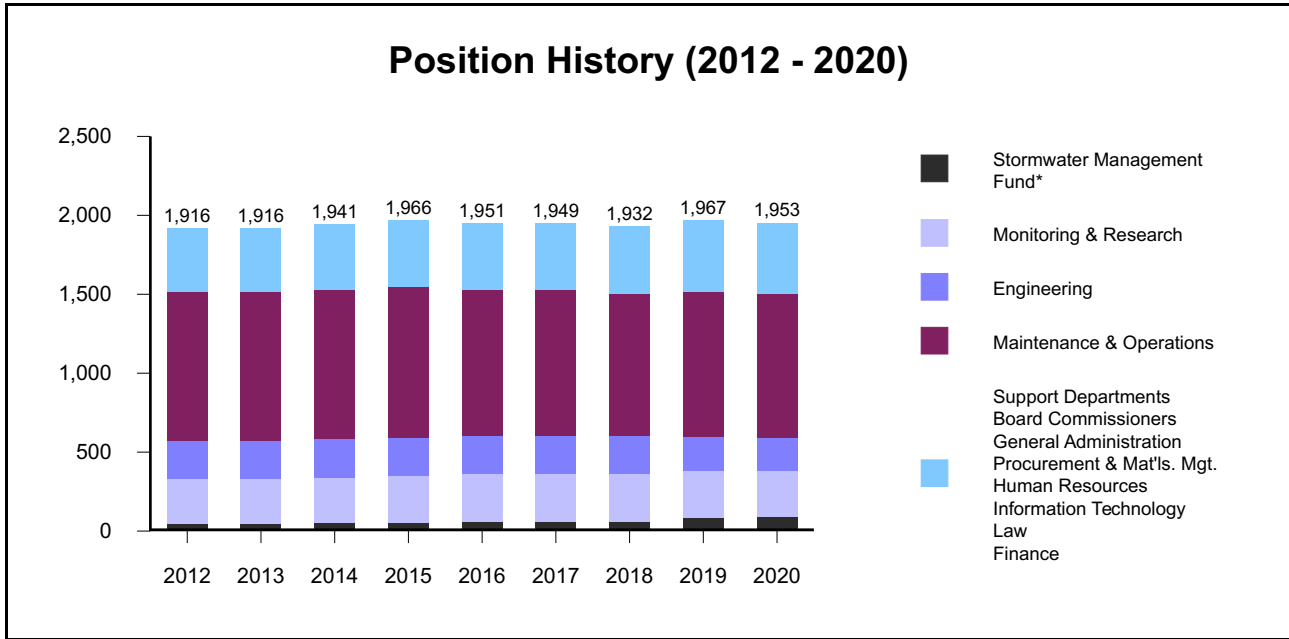
**ACCOUNT SUMMARY COMPARISON  
2020 - 2019 ALL FUNDS**

ORGANIZATION OR FUND	Account Appropriation		Increase (Decrease) 2020-2019	
	2020	2019	Dollars	Percent
<b>Board of Commissioners</b>	\$ 5,242,200	\$ 5,256,000	\$ (13,800)	(0.3)
<b>General Administration</b>	21,305,200	18,713,800	2,591,400	13.8
<b>Monitoring &amp; Research</b>	31,546,700	31,548,300	(1,600)	—
<b>Procurement &amp; Materials Management</b>	9,809,700	9,821,100	(11,400)	(0.1)
<b>Human Resources</b>	61,329,200	60,229,600	1,099,600	1.8
<b>Information Technology</b>	18,353,500	18,592,700	(239,200)	(1.3)
<b>Law</b>	7,234,100	7,177,700	56,400	0.8
<b>Finance</b>	3,834,400	3,739,800	94,600	2.5
<b>Maintenance &amp; Operations:</b>				
<b>General Division</b>	31,680,800	31,771,800	(91,000)	(0.3)
<b>North Service Area</b>	45,383,700	43,582,000	1,801,700	4.1
<b>Calumet Service Area</b>	38,960,500	36,727,200	2,233,300	6.1
<b>Stickney Service Area</b>	86,564,800	84,511,300	2,053,500	2.4
<b>TOTAL Maintenance &amp; Operations</b>	\$ 202,589,800	\$ 196,592,300	\$ 5,997,500	3.1
<b>Engineering</b>	25,452,900	25,941,200	(488,300)	(1.9)
<b>TOTAL Corporate Fund</b>	\$ 386,697,700	\$ 377,612,500	\$ 9,085,200	2.4
<b>Construction Fund</b>	15,343,400	18,340,300	(2,996,900)	(16.3)
<b>Capital Improvements Bond Fund</b>	214,306,200	378,173,800	(163,867,600)	(43.3)
<b>TOTAL Capital Budget</b>	\$ 229,649,600	\$ 396,514,100	\$ (166,864,500)	(42.1)
<b>Stormwater Management Fund</b>	116,258,000	91,410,100	24,847,900	27.2
<b>Bond Redemption &amp; Interest Fund</b>	233,021,867	238,357,541	(5,335,674)	(2.2)
<b>Retirement Fund</b>	87,319,000	87,281,000	38,000	—
<b>Reserve Claim Fund</b>	34,395,000	31,767,800	2,627,200	8.3
<b>GRAND TOTAL</b>	<u>\$1,087,341,167</u>	<u>\$1,222,943,041</u>	<u>\$ (135,601,874)</u>	(11.1)

**PERSONNEL SUMMARY COMPARISON  
2020 - 2018 ALL FUNDS**

ORGANIZATION OR FUND	Proposed FTEs 2020	Budgeted FTEs 2019	Actual FTEs 2018	Increase (Decrease) 2020-2019	
				FTEs	Percent
<b>Board of Commissioners</b>	36	38	37	(2)	(5.3)
<b>General Administration</b>	121	119	120	2	1.7
<b>Monitoring &amp; Research</b>	294	300	307	(6)	(2.0)
<b>Procurement &amp; Materials Management</b>	63	63	61	—	—
<b>Human Resources</b>	92	93	79	(1)	(1.1)
<b>Information Technology</b>	71	71	69	—	—
<b>Law</b>	38	39	35	(1)	(2.6)
<b>Finance</b>	27	27	27	—	—
<b>Maintenance &amp; Operations:</b>					
<b>General Division</b>	113	115	107	(2)	(1.7)
<b>North Service Area</b>	246	248	244	(2)	(0.8)
<b>Calumet Service Area</b>	187	188	185	(1)	(0.5)
<b>Stickney Service Area</b>	369	369	367	—	—
<b>TOTAL Maintenance &amp; Operations</b>	915	920	903	(5)	(0.5)
<b>Engineering</b>	205	212	237	(7)	(3.3)
<b>TOTAL Corporate Fund</b>	1,862	1,882	1,875	(20)	(1.1)
<b>Construction Fund</b>	—	—	—	—	—
<b>Capital Improvements Bond Fund</b>	—	—	—	—	—
<b>TOTAL Capital Budget</b>	—	—	—	—	—
<b>Stormwater Management Fund</b>	91	85	57	6	7.1
<b>Bond Redemption &amp; Interest Fund</b>	—	—	—	—	—
<b>Retirement Fund</b>	—	—	—	—	—
<b>Reserve Claim Fund</b>	—	—	—	—	—
<b>GRAND TOTAL</b>	1,953	1,967	1,932	(14)	(0.7)

**PERSONAL SERVICE APPROPRIATIONS**



\*In 2020, 91 positions for the Maintenance & Operations and Engineering Departments are budgeted in the Stormwater Management Fund, while the operations remain within the departments.

The exhibit above shows the actual staffing from 2012 to 2018, along with the budgeted positions for 2019 and 2020. The staffing increases in 2014 and 2015 were necessary to address Strategic Business Plan initiatives.

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 exhibit below provides the personal service appropriations for 2019 and 2020, and the actual expenditures for personal services in 2018. The District has introduced a number of initiatives in an effort to control cost increases including actively managing employee health benefit costs.

Personal Service Summary - All Funds	2018 Actual Exp.	2019 Adj. Approp.	2020 Budgeted	Increase (Decrease) 2020-2019	
				Dollars	Percent
Salaries of Regular Employees	\$ 184,557,815	\$ 196,701,000	\$ 200,984,500	\$ 4,283,500	2.2 %
Compensation Plan Adjustments	7,668,015	9,118,900	9,366,600	\$ 247,700	2.7 %
Social Security & Medicare Contributions	2,714,668	2,980,500	3,031,700	\$ 51,200	1.7 %
Employee Claims	4,278,135	10,110,000	10,100,000	\$ (10,000)	(0.1)%
Other Employee Personal Services*	1,418,102	2,198,900	2,436,700	\$ 237,800	10.8 %
Health & Life Insurance Premiums**	43,392,023	47,683,300	48,388,400	\$ 705,100	1.5 %
<b>Total</b>	<b>\$ 244,028,758</b>	<b>\$ 268,792,600</b>	<b>\$ 274,307,900</b>	<b>\$ 5,515,300</b>	<b>2.1 %</b>

\* Includes Tuition, Training, and Nonbudgeted Salaries  
 \*\* Includes Other Postemployment Benefits Distribution



# **FIVE-YEAR FINANCIAL FORECAST**

## **2020 - 2024**

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

October 15, 2019

SUBJECT: **FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

Dear Sir:

I have reviewed the Five-Year Financial Forecast prepared for the fiscal years 2020 - 2024 and offer the following report and summary. Subject to your review and approval, this will be included in the 2020 Budget. These projections are a tool designed to aid the District in planning and controlling its financial position over a longer range than the 2020 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 2020 is estimated to increase by 3.5 percent over 2019, as adjusted, and is projected to increase an average of 3.5 percent per year for 2021 through 2024. As noted on the graph on page 64, the 2020 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 2019 aggregate levy to be collected in 2020, depending on the 2019 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 extended by the legislature in 2019 through December 31, 2034, effective January 1, 2020. 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 2020 - 2024. 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. Electrical energy 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 2018 amount as provided by the Cook County Clerk, with estimated growth of 3.0 percent annually from 2020 - 2024;
- 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 2020 - 2024, 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>	<u>Stormwater Bonds</u>
2020	\$75 million		\$50 million
2021			
2022			
2023	\$75 million		\$50 million
2024			

- 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 \$70 million in 2020, ranging to a maximum of \$100 million annually from 2021 - 2024 in State Revolving Fund loans;

**APPROPRIATION FORECASTS**

Total District appropriations are summarized in the exhibit on page 64, and detailed in Table I on page 65. The year-to-year variation is largely due to the schedule of awards for major capital projects. Changes and explanations within the various District funds are as follows:

Corporate Fund

The Corporate Fund, the District's general fund, includes all appropriations for day-to-day operations. Appropriations for the fund are expected to increase an average of 2.3 percent annually from 2020 through 2024. This relative stability of appropriations is attributed to revenue estimates, as well as planned control of growth 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 chemical costs, the District anticipates a stable outlook through 2024 because chemical dosing for new processes have been tested and stabilized. However, over the next ten years, regulatory permit requirements for phosphorus and nitrogen may impact operational costs including both capital and chemical needs.

The District's long-term benefits strategy continues to focus on rising health care costs. Employee and retiree benefits constitute approximately 11.0 percent of the Corporate Fund budget. While strategies to limit cost increases have resulted in average annual increases of 2.3 percent from 2014 to 2018, benefits are projected to increase an average 5.8 percent annually over the next five years. The District continues to fund the Other Postemployment Benefits Trust Fund to ensure future retiree health care benefits by contributing \$5.0 million annually through 2026. Salaries are projected to increase 2.0 percent from 2021 through 2024, while the number of positions is projected to remain stable or decrease slightly.

*Energy Costs*

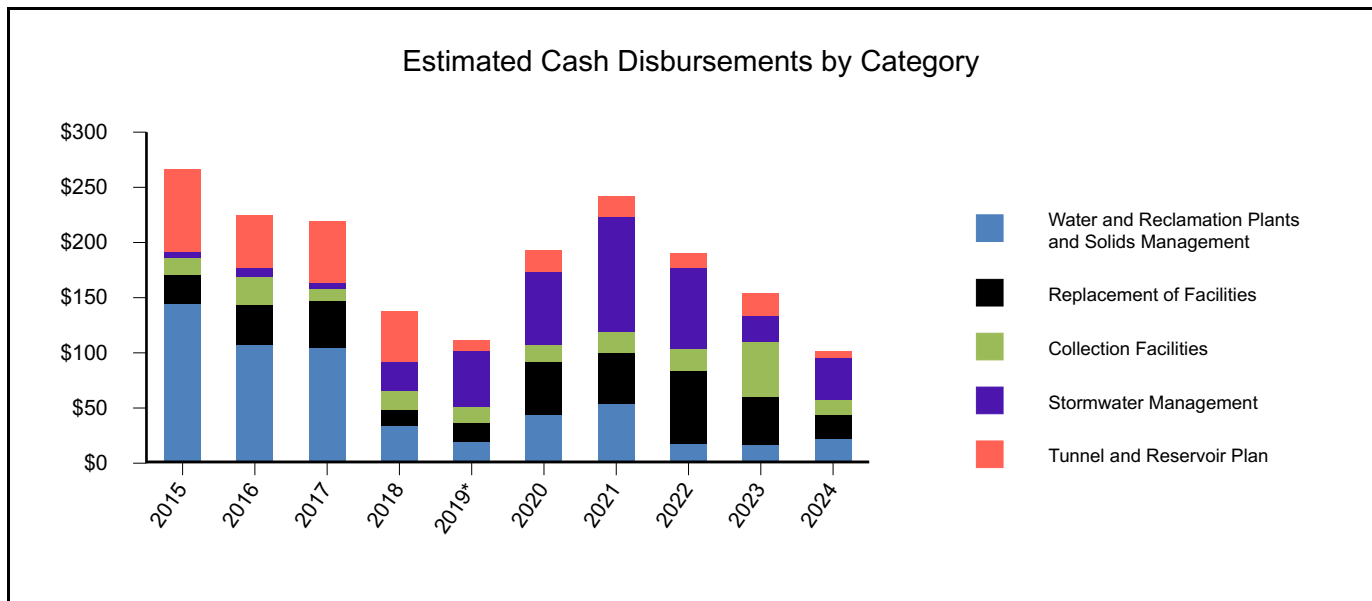
Energy costs are expected to remain stable, increasing slightly from 2019 through 2024, although shifting weather patterns impact TARP pumping and the associated electrical energy demand. Anticipated savings did not materialize during 2019 due to increased TARP reservoir pumping as the McCook Reservoir Stage 1 was online and Cook County continued to receive increased rainfall. Increase in kilowatt usage is offset by a rate reduction and elimination of the Energy Efficiency Charge. The forecast for electrical

energy includes a 5.8 decrease in the supply rate from 2020 through 2024 based on results of a reverse auction for electricity supply. Finally, the District has completed Phase I, II, and III guaranteed energy performance agreements with the Public Building Commission and NORESKO. Work completed in 2017 at the Calumet Water Reclamation Plant, included replacing lighting, heating, ventilation, and air conditioning controls, and steam blanket insulation. In 2018, Phase II work began in the North Area and various outlying stations. Phase III of the project is underway 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 2020 and 2023. The District has also secured \$33.8 million in federal funds to help complete McCook Reservoir Stage 2. This lump sum payment to the District comes as a result of a pilot program established under the Water Resources Development Act of 2014, which evaluates the cost-effectiveness and project delivery efficiency of allowing non-federal interests to carry out construction of projects for flood risk management. The District will budget for these funds as grant revenue to be received in increments as the work progresses.

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 2024. The table below shows the Estimated Cash Disbursements by Category for construction projects.



\*Estimated 2019 Year-end

Retirement Fund

The appropriation for the Retirement Fund remains stable from 2019 to 2020, with an increase of \$38,000. The appropriation is expected to be stable from 2021 through 2024, with slight year-over-year increases as the number of employees is expected to remain stable. 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 0.1 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 2024, from \$34.4 million to \$42.4 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 2.9 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 3.6 percent annually from 2020 through 2024. Property tax revenues account for 66.5 percent of 2020 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 stabilize at \$42.0 million after several years of slowly declining projections. Actual revenue collections have been variable, alternating from approximately \$41.0 million to \$50.0 million from 2015 to 2019. 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 \$7.0 million in 2020. The Levy is projected to increase slightly to \$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 2020 through 2024 is 1.1 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 2020 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 2020 and remain flat at \$7.5 million from 2021 through 2024.

#### Stormwater Management Fund

The Stormwater Management Fund levy is projected to increase an average of 7.1 percent annually as the District continues to address local flooding issues. Regional stormwater management projects are being vetted for funding in 2020 and the following years. In 2020 and 2021 several large capital stormwater reservoirs are being constructed that will bring flood control to communities throughout Cook County, as well as Green Infrastructure projects.

#### Bond Redemption and Interest Fund

The 2020 tax levies for the District's Debt Service Fund are based on six refunding bonds, 10 capital improvement bonds, and 65 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 2020 through 2024 appears on page 68. The District's outstanding bonds and ability to issue additional bonds are presented on pages 524 - 526.

## 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 3.0 percent annual increase in EAV, the District's tax rate per \$100 of assessed value will remain flat from 2020 through 2024 at approximately \$0.39.

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 64, and the tables on page 65, summarize the projected appropriations, property tax rates, and tax levies for all funds for the years 2020 through 2024. Historical comparisons can be made by reviewing the actual appropriations, tax rates, and levies for the years 2011 through 2020 on page 43.

Table II, on page 66 provides detailed revenue and tax rate projections, as well as appropriations by department and major categories for the Corporate Fund for 2020 through 2024. Corporate Fund appropriations and expenditures for the years 2011 through 2020 can be found on page 107.

Projections for revenues, tax rates, and appropriations for the Construction Fund for the years 2020 through 2024, appear on page 67, and projected appropriable resources and appropriations for the Capital Improvements Bond Fund appear on page 68. The table on the bottom of page 66 and the exhibits on page 69 present appropriation projections by major programs. A summary of actual and projected construction expenditures for both funds, for the years 2015 through 2024, can be found in the Capital Improvement Program Section, on page 332.

The balance sheet statement on page 70 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 2020 is \$327.1 million.

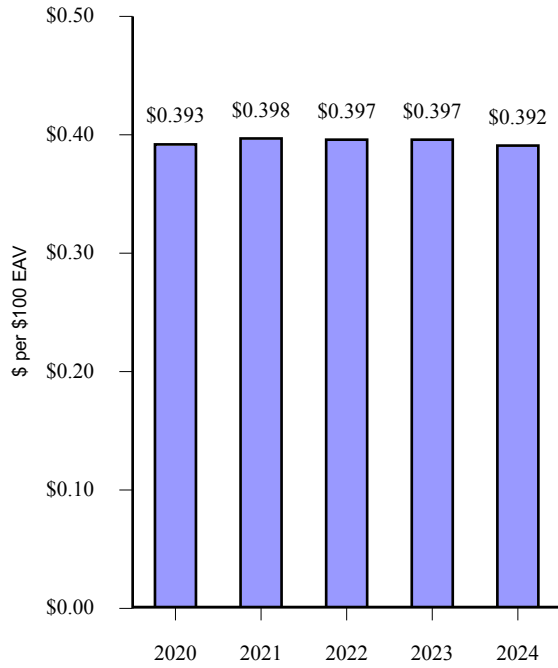
Respectfully submitted,



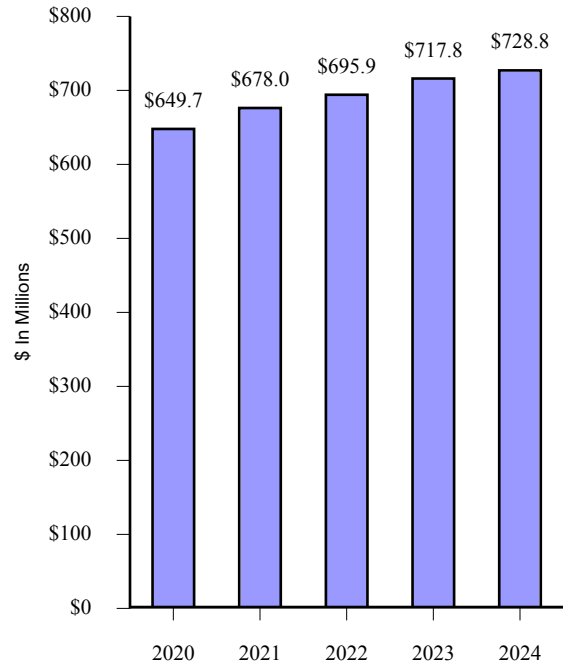
Shellie A. Riedle  
Budget Officer

**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

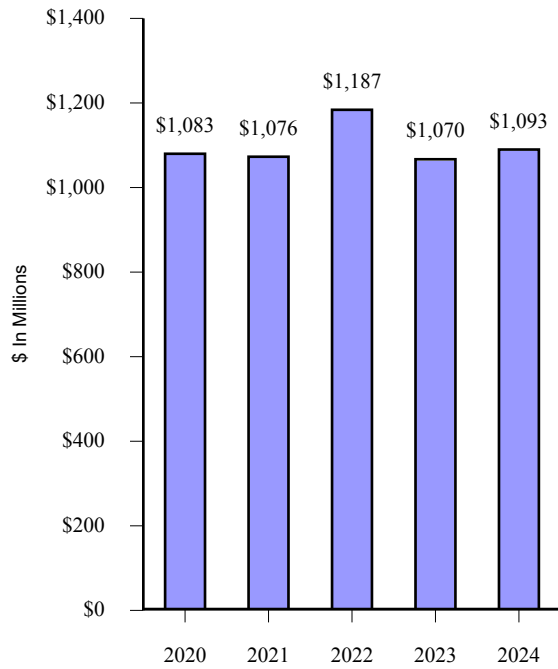
**Projected Tax Rates**



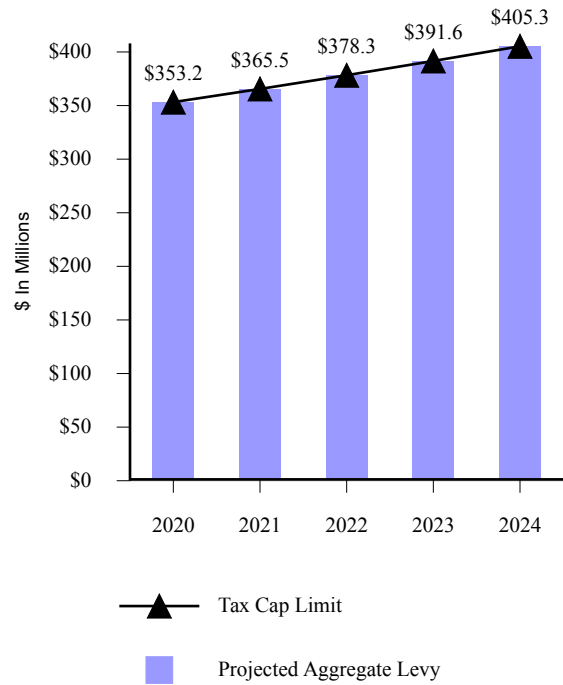
**Projected Total Tax Levy**



**Projected Appropriation**



**Projected Aggregate Levy**





**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

**TABLE I**

<b>ALL FUNDS</b>					
<b>Projected Tax Rates</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Corporate	\$ 0.1612	\$ 0.1627	\$ 0.1608	\$ 0.1630	\$ 0.1652
Construction	0.0042	0.0047	0.0086	0.0083	0.0081
Stormwater Management	0.0315	0.0340	0.0359	0.0376	0.0368
Debt Service	0.1479	0.1495	0.1452	0.1430	0.1371
Retirement	0.0437	0.0430	0.0422	0.0414	0.0406
Reserve Claim	0.0045	0.0044	0.0043	0.0042	0.0040
<b>Total (\$ in cents)</b>	<b>\$ 0.3930</b>	<b>\$ 0.3983</b>	<b>\$ 0.3969</b>	<b>\$ 0.3974</b>	<b>\$ 0.3918</b>
Percentage Change		1.35%	(0.36)%	0.14%	(1.42)%
Projected tax rate per \$100 Equalized Assessed Valuation (EAV). Assumes 2019 EAV of \$160.5 billion increasing 3.0% annually from 2020 - 2024.					
<b>Projected Tax Levies</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Corporate	\$ 266,455	\$ 276,893	\$ 281,891	\$ 294,334	\$ 307,244
Construction	7,000	8,000	15,000	15,000	15,000
Stormwater Management	52,103	57,926	62,926	67,926	68,426
Debt Service- Existing	244,404	245,480	242,511	237,734	233,631
Debt Service- Proposed	—	9,088	12,082	20,522	21,462
Retirement	72,228	73,151	73,947	74,745	75,541
Reserve Claim	7,500	7,500	7,500	7,500	7,500
<b>Total Levy (\$ in thousands)</b>	<b>\$ 649,690</b>	<b>\$ 678,038</b>	<b>\$ 695,857</b>	<b>\$ 717,761</b>	<b>\$ 728,805</b>
Percentage Change	1.17%	4.36%	2.63 %	3.15%	1.54 %
<b>Aggregate Levy (\$ in thousands)</b>	<b>\$ 353,183</b>	<b>\$ 365,544</b>	<b>\$ 378,338</b>	<b>\$ 391,578</b>	<b>\$ 405,286</b>
Percentage Change	3.50%	3.50%	3.50 %	3.50%	3.50 %
<b>Projected Annual Appropriations</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Corporate	\$ 386,698	\$ 396,870	\$ 405,620	\$ 414,549	\$ 424,137
Capital Improvements Bond	210,538	228,329	318,939	186,881	198,294
Construction	14,535	11,760	16,659	19,060	17,754
Stormwater Management	116,238	82,976	79,732	76,935	76,777
Debt Service- Existing	233,022	231,225	228,988	228,988	222,221
Debt Service- Proposed	—	—	9,088	12,082	20,522
Retirement	87,319	88,660	89,666	90,641	90,641
Reserve Claim	34,395	35,895	38,395	40,395	42,395
<b>Total Appropriation (\$ in thousands)</b>	<b>\$ 1,082,744</b>	<b>\$ 1,075,715</b>	<b>\$ 1,187,086</b>	<b>\$ 1,069,530</b>	<b>\$ 1,092,741</b>
<b>Projected Positions</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Corporate	1,862	1,860	1,859	1,858	1,858
Stormwater Management	91	90	90	90	90
<b>Total Positions</b>	<b>1,953</b>	<b>1,950</b>	<b>1,949</b>	<b>1,948</b>	<b>1,948</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

**TABLE II**

<b>CORPORATE FUND</b>						% average annual change
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020-2024</b>
Property Taxes	\$ 257,129	\$ 267,202	\$ 272,025	\$ 284,032	\$ 296,491	3.63 %
Personal Property Replacement Tax	19,000	19,000	18,250	18,000	18,000	(1.33)%
User Charge	43,000	42,000	42,000	42,000	42,000	(0.58)%
Investment Income	2,100	1,900	2,000	2,000	2,400	3.93 %
Land Rentals	23,000	23,500	24,000	24,500	25,000	2.11 %
Miscellaneous	9,916	8,411	7,706	7,976	8,255	(4.14)%
Equity Transfer	5,500	—	—	—	—	
Net Assets Appropriable	131,295	131,311	128,204	125,070	126,338	(0.95)%
Budget Reserve	(104,242)	(96,454)	(88,565)	(89,029)	(94,347)	(2.29)%
<b>Total Appropriable Resources (\$ in thousands)</b>	<b>\$ 386,698</b>	<b>\$ 396,870</b>	<b>\$ 405,620</b>	<b>\$ 414,549</b>	<b>\$ 424,137</b>	<b>2.34 %</b>
Projected Equalized Assessed Valuation (EAV) (Based on 2018 EAV, assumes 3.0% increase for 2019 and then 3.0% annually)	\$ 165.28 billion	\$ 170.23 billion	\$ 175.34 billion	\$ 180.60 billion	\$ 186.02 billion	
Projected Tax Rate Cents per \$100 EAV	16.1¢	16.3¢	16.1¢	16.3¢	16.5¢	
Gross Levy - assumes 3.5% uncollectible.	\$ 266,455	\$ 276,893	\$ 281,891	\$ 294,334	\$ 307,244	
<b>Projected Appropriations by Major Categories</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020-2024</b>
Employee Cost - Salaries	\$ 207,410	\$ 211,558	\$ 215,789	\$ 220,105	\$ 224,507	2.00 %
Employee Cost - Health Care	42,510	44,937	48,148	51,241	54,543	6.43 %
Other Postemployment Benefits Trust	5,000	5,000	5,000	5,000	5,000	— %
Professional Services	6,422	6,486	6,551	6,617	6,683	1.00 %
Energy Cost	40,488	40,893	41,302	41,715	42,132	1.00 %
Chemicals	11,087	10,728	10,753	10,753	10,753	(0.75)%
Materials & Supplies	13,465	13,600	13,736	13,873	14,012	1.00 %
Solids Disposal	11,250	11,362	11,476	11,590	11,706	1.00 %
Contracted Solids Disposal	4,100	4,594	4,792	4,996	5,205	6.20 %
Computer Systems & Telecommunications	8,611	8,698	8,785	8,872	8,961	1.00 %
Repairs to Structures & Equipment	14,808	16,379	15,274	14,728	15,142	0.77 %
Contractual Services	18,211	19,197	20,467	21,394	21,701	4.50 %
Machinery & Equipment	2,581	2,607	2,633	2,660	2,686	1.00 %
Real Estate Taxes	755	831	914	1,005	1,106	10.02 %
<b>Total (\$ in thousands)</b>	<b>\$ 386,698</b>	<b>\$ 396,870</b>	<b>\$ 405,620</b>	<b>\$ 414,549</b>	<b>\$ 424,137</b>	<b>2.34 %</b>
<b>Projected Appropriations by Department</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020-2024</b>
Board of Commissioners	\$ 5,276	\$ 5,377	\$ 5,480	\$ 5,538	\$ 5,627	1.62 %
General Administration	19,024	18,707	19,144	19,441	19,695	0.88 %
Monitoring & Research	31,747	33,536	33,621	34,043	34,884	2.40 %
Procurement & Materials Management	9,872	9,566	9,727	9,874	10,017	0.39 %
Human Resources	61,712	64,876	68,798	72,582	76,467	5.51 %
Information Technology	18,472	18,781	19,323	19,926	20,414	2.53 %
Law	7,280	7,400	7,552	7,766	7,980	2.32 %
Finance	3,858	3,879	3,988	4,025	4,110	1.60 %
Engineering	25,618	26,712	27,341	27,772	28,199	2.43 %
Maintenance & Operations	203,839	208,036	210,646	213,582	216,744	1.55 %
<b>Total (\$ in thousands)</b>	<b>\$ 386,698</b>	<b>\$ 396,870</b>	<b>\$ 405,620</b>	<b>\$ 414,549</b>	<b>\$ 424,137</b>	<b>2.34 %</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020-2024</b>
1000 Collection	\$ 57,162	\$ 57,219	\$ 58,163	\$ 58,814	\$ 59,312	0.9 %
2000 Treatment	85,414	88,238	88,471	90,044	91,264	1.68 %
3000 Solids Processing	46,278	46,880	48,338	48,583	49,738	1.82 %
4000 Flood & Pollution Control	40,744	42,244	42,468	42,993	43,944	1.91 %
5000 Solids Disposal	23,399	26,508	26,849	27,542	28,048	4.75 %
7000 General Support	133,701	135,781	141,331	146,573	151,831	3.2 %
<b>Total (\$ in thousands)</b>	<b>\$ 386,698</b>	<b>\$ 396,870</b>	<b>\$ 405,620</b>	<b>\$ 414,549</b>	<b>\$ 424,137</b>	<b>2.34 %</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

**TABLE III**

<b>CONSTRUCTION FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Property Taxes	\$ 6,755	\$ 7,720	\$ 14,475	\$ 14,475	\$ 14,475
Personal Property Replacement Tax	—	—	—	—	—
Equity Transfer	—	—	—	—	—
Investment Income & Miscellaneous Revenue	315	320	420	420	420
Net Assets Appropriable	7,465	3,720	1,764	4,165	2,859
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$ 14,535</b>	<b>\$ 11,760</b>	<b>\$ 16,659</b>	<b>\$ 19,060</b>	<b>\$ 17,754</b>
Projected Equalized Assessed Valuation (EAV)	\$ 165.28	\$ 170.23	\$ 175.34	\$ 180.60	\$ 186.02
(Based on 2018 EAV, assumes 3.0% increase for 2019 and then 3.0% annually thereafter)	billion	billion	billion	billion	billion
Projected Tax Rate Cents per \$100 of EAV	0.4¢	0.5¢	0.9¢	0.8¢	0.8¢
Gross Levy - assumes 3.5% uncollectible rate.	7,000	8,000	15,000	15,000	15,000
<b>Projected Appropriations</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Capital Projects	\$ 10,038	\$ 6,530	\$ 9,937	\$ 11,387	\$ 10,237
Professional Services	4,497	5,230	6,722	7,673	7,517
Other Charges	—	—	—	—	—
<b>Total (\$ in thousands)</b>	<b>\$ 14,535</b>	<b>\$ 11,760</b>	<b>\$ 16,659</b>	<b>\$ 19,060</b>	<b>\$ 17,754</b>
<b>Projected Appropriation Distribution by Program</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
1000 Collection	\$ 3,369	\$ 3,712	\$ 3,364	\$ 4,022	\$ 3,798
2000 Treatment	3,471	3,405	5,540	5,077	4,145
3000 Solids Processing	375	121	335	434	450
4000 Flood & Pollution Control	4,755	3,344	5,133	6,084	5,807
5000 Solids Disposal	1,295	(101)	639	981	1,037
7000 General Support	1,270	1,281	1,647	2,462	2,517
<b>Total (\$ in thousands)</b>	<b>\$ 14,535</b>	<b>\$ 11,760</b>	<b>\$ 16,659</b>	<b>\$ 19,060</b>	<b>\$ 17,754</b>
<b>STORMWATER MANAGEMENT FUND</b>					
<b>Five-Year Revenue and Tax Rate Projections</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Property Taxes	\$ 50,280	\$ 55,899	\$ 60,724	\$ 65,549	\$ 66,031
Investment Income & Miscellaneous Revenue	1,000	900	900	900	1,100
Sewer Permit Fees	1,000	1,000	1,000	1,000	1,000
Grants	1,360	1,000	1,000	1,000	1,000
Net Assets Appropriable	68,560	34,871	29,042	23,920	23,080
Equity Transfer (Debt Service for Alternate Revenue Bonds)	(5,962)	(10,694)	(12,933)	(15,434)	(15,434)
<b>Total Revenue &amp; Appropriable Resources (\$ in thousands)</b>	<b>\$ 116,238</b>	<b>\$ 82,976</b>	<b>\$ 79,732</b>	<b>\$ 76,935</b>	<b>\$ 76,777</b>
Projected EAV	\$ 165.28	\$ 170.23	\$ 175.34	\$ 180.60	\$ 186.02
(Based on 2018 EAV, assumes 3.0% increase for 2019 and then 3.0% annually)	billion	billion	billion	billion	billion
Projected Tax Rate Cents per \$100 of EAV	3.2¢	3.4¢	3.6¢	3.8¢	3.7¢
Gross Levy - assumes 3.5% uncollectible rate.	\$ 52,103	\$ 57,926	\$ 62,926	\$ 67,926	\$ 68,426
<b>Projected Appropriations</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Employee Cost - Salaries	\$ 9,560	\$ 9,751	\$ 9,946	\$ 10,145	\$ 10,348
Employee Cost - Health Care	879	924	983	1,040	1,102
Contractual Services	21,259	30,865	38,278	21,502	8,684
Capital Projects	26,315	3,725	2,222	8,124	12,078
Other Charges	58,225	37,711	28,303	36,123	44,566
<b>Total (\$ in thousands)</b>	<b>\$ 116,238</b>	<b>\$ 82,976</b>	<b>\$ 79,732</b>	<b>\$ 76,935</b>	<b>\$ 76,777</b>
<b>Projection Appropriation Distribution by Program</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
4000 Flood & Pollution Control	\$ 116,238	\$ 82,976	\$ 79,732	\$ 76,935	\$ 76,777
<b>Total (\$ in thousands)</b>	<b>\$ 116,238</b>	<b>\$ 82,976</b>	<b>\$ 79,732</b>	<b>\$ 76,935</b>	<b>\$ 76,777</b>

Note: Totals are rounded.

**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

**TABLE IV**

<b>CAPITAL IMPROVEMENTS BOND FUND*</b>					
<b>Appropriable Resources (Cash)</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Bond Sales - Limited	\$ 100,000	\$ —	\$ —	\$ 100,000	\$ —
Bond Sales - Unlimited	25,000	—	—	25,000	—
Bond Sales - Unlimited Stormwater Management	—	—	—	—	—
State Revolving Loan Fund Receipts	70,000	100,000	95,000	75,000	75,000
Investment Income & Grant Revenue	21,372	17,535	16,697	17,747	17,947
Beginning Cash	251,316	302,688	195,223	81,920	49,667
Total Assets Appropriable (\$ in thousands)	\$ 467,688	\$ 420,223	\$ 306,920	\$ 299,667	\$ 142,614
Expenditures	\$ 165,000	\$ 225,000	\$ 225,000	\$ 250,000	\$ 250,000
Ending Cash (\$ in thousands)	\$ 302,688	\$ 195,223	\$ 81,920	\$ 49,667	\$ (107,387)
<b>Projected Appropriations by Major Categories</b>					
Professional Consulting Services	\$ 21,204	\$ 13,888	\$ 13,172	\$ 9,593	\$ 13,172
Capital Projects	187,768	211,796	303,205	175,015	182,560
Other Charges	1,566	2,644	2,561	2,273	2,561
Total (\$ in thousands)	\$ 210,538	\$ 228,329	\$ 318,939	\$ 186,881	\$ 198,294
<b>Projected Appropriation Distribution by Program</b>					
1000 Collection	\$ 40,463	\$ 45,622	\$ 67,913	\$ 31,844	\$ 30,428
2000 Treatment	73,787	86,034	107,554	81,893	90,754
3000 Solids Processing	16,149	24,682	49,615	23,729	11,815
4000 Flood & Pollution Control	79,389	67,784	92,573	48,309	64,013
5000 Solids Disposal	500	3,767	856	737	856
7000 General Support	250	440	428	369	428
Total (\$ in thousands)	\$ 210,538	\$ 228,329	\$ 318,939	\$ 186,881	\$ 198,294

\*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>					
<u>EXISTING DEBT</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
January 1 Debt	\$ 2,810,056	\$ 2,884,976	\$ 2,861,510	\$ 2,826,653	\$ 2,890,143
Annual Current Debt Retirement	(120,080)	(122,101)	(123,699)	(124,122)	(124,881)
Net Debt	\$ 2,689,976	\$ 2,762,875	\$ 2,737,811	\$ 2,702,530	\$ 2,765,261
<u>PROPOSED FUTURE DEBT</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Annual Sale of Bonds:					
Capital Bonds - Limited	\$ 100,000	\$ —	\$ —	\$ 100,000	\$ —
Capital Bonds - Unlimited	25,000	—	—	25,000	—
Alternate Bonds - Unlimited Stormwater	—	—	—	—	—
State Revolving Fund Bond Issues	70,000	100,000	95,000	75,000	75,000
Future Debt Retirement	—	(1,365)	(6,158)	(12,388)	(15,949)
Proposed New Debt (\$ in thousands)	\$ 195,000	\$ 98,635	\$ 88,842	\$ 187,613	\$ 59,051
<b>PROJECTED DEBT OUTSTANDING</b>	\$ 2,884,976	\$ 2,861,510	\$ 2,826,653	\$ 2,890,143	\$ 2,824,312
Gross Levy for Existing Debt	\$ 244,404	\$ 245,480	\$ 242,511	\$ 237,734	\$ 233,631
Gross Levy for Future Debt	—	9,088	12,082	20,522	21,462
Total Debt Levy	\$ 244,404	\$ 254,567	\$ 254,592	\$ 258,256	\$ 255,093
Tax Rate (cents)	14.8¢	15.0¢	14.5¢	14.3¢	13.7¢
Projected Stormwater Alternate Revenue Abatement**	\$ (5,962)	\$ (10,694)	\$ (12,933)	\$ (15,434)	\$ (15,434)
Projected Levy After Abatement	\$ 238,442	\$ 243,874	\$ 241,659	\$ 242,823	\$ 239,659
Projected Equalized Assessed Valuation (EAV)***	\$ 165.28	\$ 170.23	\$ 175.34	\$ 180.60	\$ 186.02
	billion	billion	billion	billion	billion

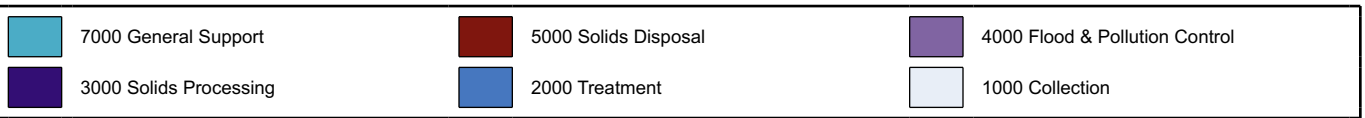
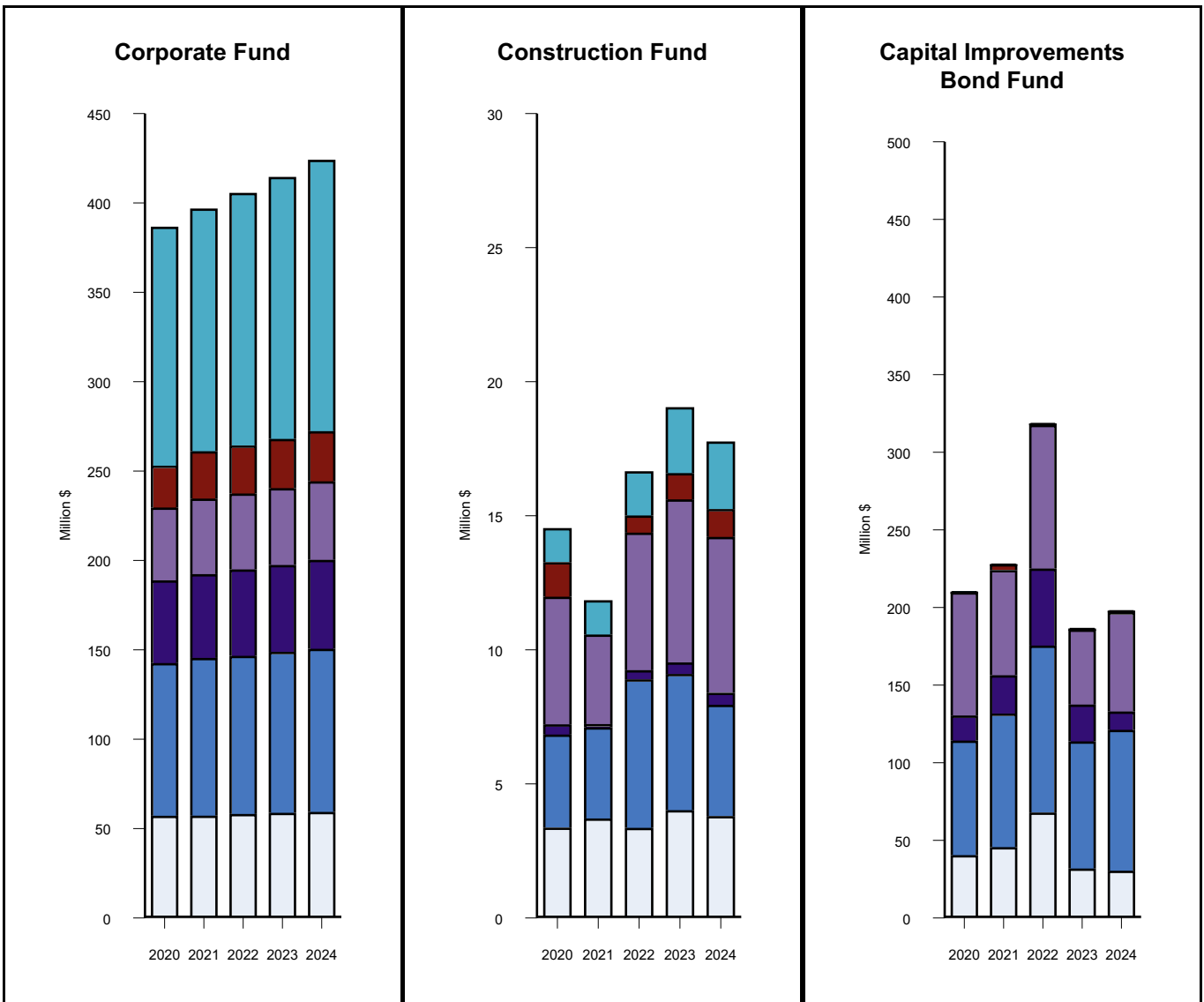
\*\*As part of the plan of financing, it is intended and anticipated that tax revenues deposited in the Stormwater Fund be transferred to the Bond Fund

Note: Totals are rounded.

\*\*\*Assumes a 3.0% increase in 2019, and a 3.0% increase annually thereafter.

**FIVE-YEAR FINANCIAL FORECAST, 2020 - 2024**

**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, 2020 - 2024**

Combined GAAP Balance Sheets - General Corporate Fund  
(in Thousands)

<b>Assets</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Cash	\$ 7,932	\$ 8,091	\$ 8,253	\$ 8,418	\$ 8,586
Prepaid Insurance	5,411	5,519	5,629	5,742	5,857
Investments	221,708	226,142	230,665	235,278	239,984
Receivables:					
Property Taxes	273,955	284,393	289,391	301,834	314,744
Less Allowance for Uncollectible Taxes	(9,588)	(9,954)	(10,129)	(10,564)	(11,016)
Net Property Taxes Receivable	264,367	274,439	279,262	291,270	303,728
Personal Property Replacement Tax	19,000	19,000	18,250	18,000	18,000
User Charges	—	—	—	—	—
Miscellaneous	8,935	9,114	9,296	9,482	9,672
Due from Stormwater Management Fund					
Restricted Deposits					
Inventories	34,787	35,483	36,193	36,917	37,655
<b>Total Assets</b>	<b>\$ 543,140</b>	<b>\$ 558,788</b>	<b>\$ 569,298</b>	<b>\$ 587,107</b>	<b>\$ 605,482</b>
<b>Liabilities and Fund Equity</b>					
<b>Liabilities:</b>					
Deferred Tax Revenue	\$ 191,447	\$ 193,361	\$ 195,295	\$ 197,248	\$ 199,220
Accounts Payable and Other Liabilities	24,611	24,119	23,637	23,164	23,627
Unearned Revenue	—	—	—	—	—
<b>Total Liabilities</b>	<b>\$ 216,058</b>	<b>\$ 217,480</b>	<b>\$ 218,932</b>	<b>\$ 220,412</b>	<b>\$ 222,847</b>
<b>Fund Equity:</b>					
Fund Balances					
Prepaid Insurance	\$ 5,411	\$ 5,519	\$ 5,629	\$ 5,742	\$ 5,857
Non-spendable - Inventory	34,787	35,483	36,193	36,917	37,655
Restricted - Working Cash	293,450	299,319	305,305	311,411	317,639
Real Estate Escrow	2,407	2,409	2,412	2,414	2,416
Reserve Claim	29,414	30,002	30,602	31,214	31,838
Deposits	—	—	—	—	—
Unassigned:					
Unassigned	(38,387)	(31,424)	(29,775)	(21,003)	(12,770)
<b>Total Fund Equity</b>	<b>\$ 327,082</b>	<b>\$ 341,308</b>	<b>\$ 350,366</b>	<b>\$ 366,695</b>	<b>\$ 382,635</b>
<b>Total Liabilities and Fund Equity</b>	<b>\$ 543,140</b>	<b>\$ 558,788</b>	<b>\$ 569,298</b>	<b>\$ 587,107</b>	<b>\$ 605,482</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 2018 through the Budget Year 2020. 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.

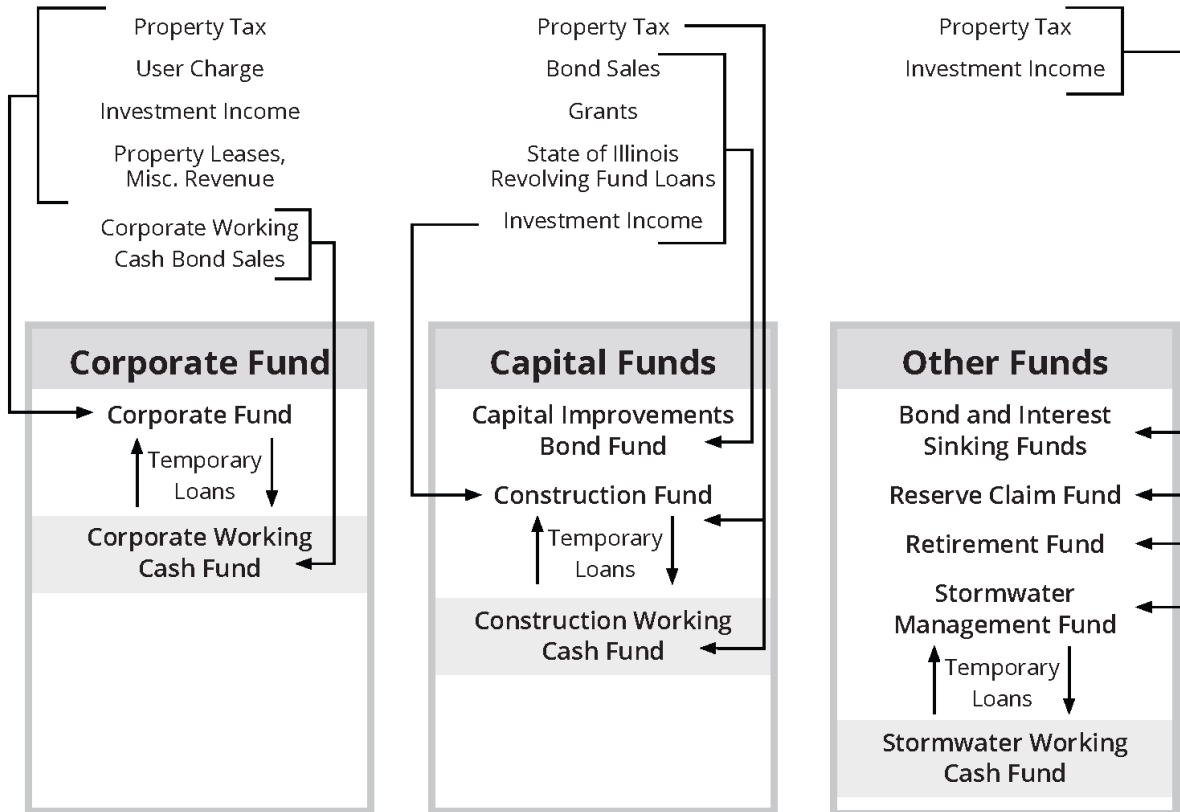
Major fund category narratives are presented for the Corporate Fund, Capital Funds, and Other Funds, which discuss revenue sources, trends in revenue and expenditures, fiscal/financial policies, and other elements of these funds. Estimated balance sheets, statements of appropriable revenue, and statements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

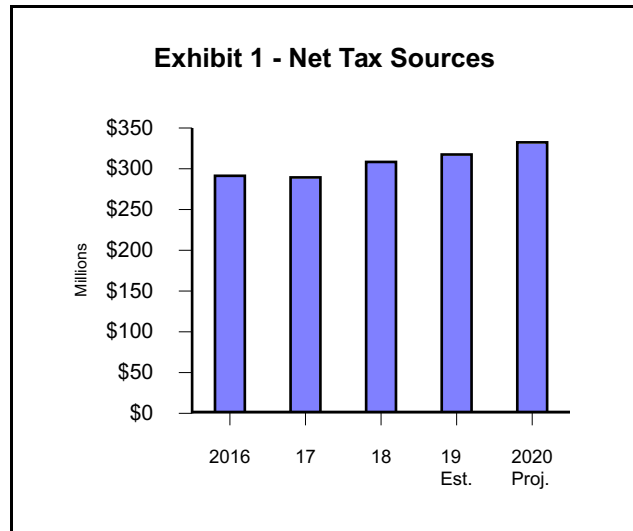
The District is a special district government created by the State of Illinois. Its powers and authority, in regard to revenue sources, are generally restricted to those powers granted by applicable state statutes. The following exhibits, 1 - 5, are derived from the summary of revenue and expenditures found on pages 76 - 78 of the 2020 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 71.4 percent of the 2020 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 2020 is 3.5 percent, based on annual review of prior years' tax collections.

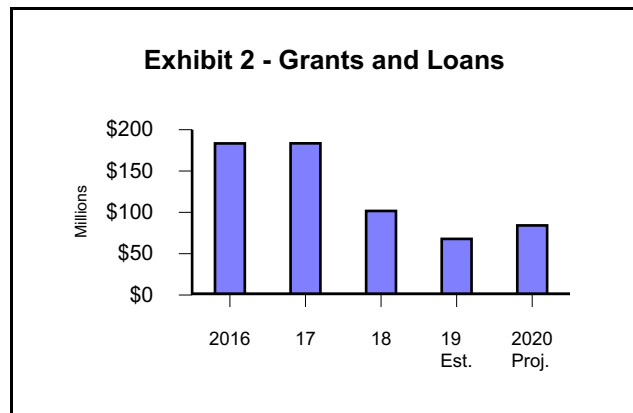
A Personal Property Replacement Tax (PPRT) provides income tax revenue from corporations, partnerships, and the invested capital of public utilities to replace the personal property taxes, which were once received from these sources. These revenues are received directly from the State of Illinois. Revenue from this source is estimated at \$37.4 million for 2020, an increase of \$4.2 million from the 2019 Original Budget, or 12.5 percent. This revenue source typically trends with the state of the economy.

Exhibit 1 presents revenue from net tax sources for the years 2016 - 2020. 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. For 2020, 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. The Stormwater Management Fund and the payment of Bond principal and interest are exempt from the tax cap extension limitations.



**GRANTS AND LOANS**

Federal and state grants, and state loans contribute to finance the District's capital programs. For 2020, \$70.0 million in Wastewater/Stormwater State Revolving Fund (SRF) loan revenue and \$15.8 million in federal and state grants are budgeted. The District has been successful in obtaining some grant funding and will continue to pursue grants for Stormwater and other projects. In 2019, the District received \$5 million Community Development Block Grant for the Addison Creek Reservoir. Exhibit 2 shows the grants and loans for the years 2016 - 2020. The District anticipates receiving an annual allocation of up to \$100.0 million in SRF loans in each of the next four years.



**BOND SALES**

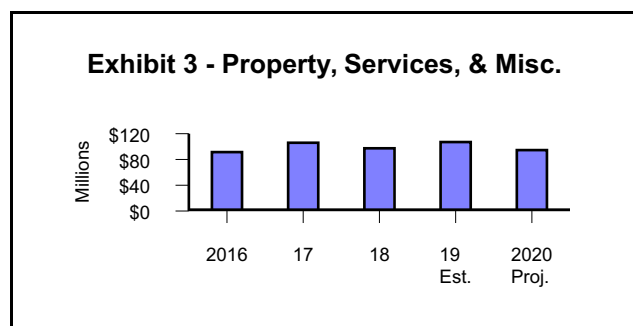
The District's Capital Program is financed primarily with SRF loans and general obligation bond sale proceeds. Bonds are used to provide necessary revenue for capital project cash flows. The District is planning a \$125.0 million bond sale in 2020.

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 are 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.

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 91 provides a more detailed discussion. The statement of outstanding bonds and statutory debt margin on pages 53 and 54 shows the District's strong position. The Five-Year Financial Forecast on pages 60 and 68 details future bond sale projections.

**PROPERTY, SERVICES, AND MISCELLANEOUS**

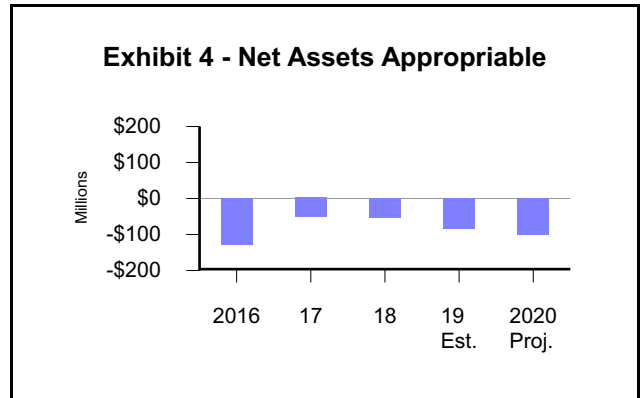
Exhibit 3 summarizes revenue from property, services, and miscellaneous items. A major revenue source is the user charge system, which imposes a surcharge above property tax payments for commercial, industrial, and tax-exempt users of the sewage systems. Estimated User Charge revenues in 2020 are \$43.0 million. Land rentals, investment income, sewer permit fees, connection impact fees, and other revenues will



provide an estimated \$53.6 million in 2020. 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 2020. Interest rates on short-term securities are expected to decrease slightly or remain flat during 2020. Our investments are predominately short-term in nature. Sewer permit revenue estimates are based on anticipated projects and 2019 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**

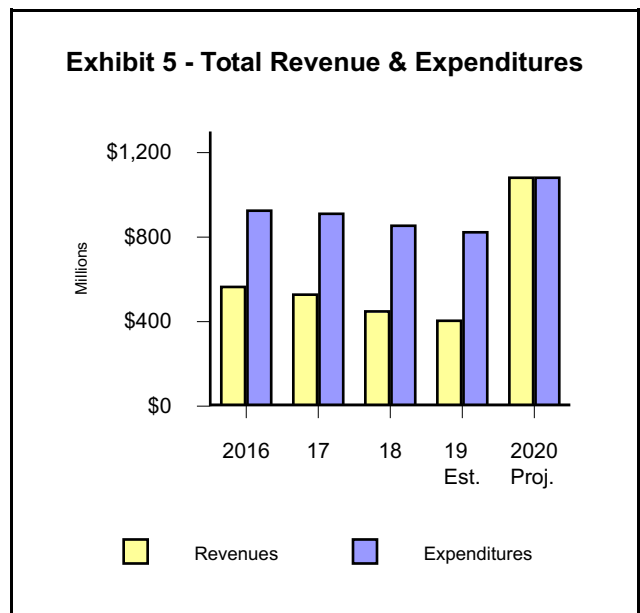
Exhibit 4 shows the trend in net assets appropriable, which is primarily impacted by bond sales, expenditures for capital projects, and the reservation of future years’ principal and interest payments in the debt service funds. Net assets appropriable have been used to reduce future years’ taxes. Beginning 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 2016 - 2020 are attributable to use of the obligation basis of budgetary accounting for the Capital Improvements Bond Fund and indicate that future bond sales or SRF loans are necessary to finance projects.



**TOTAL REVENUES AND EXPENDITURES**

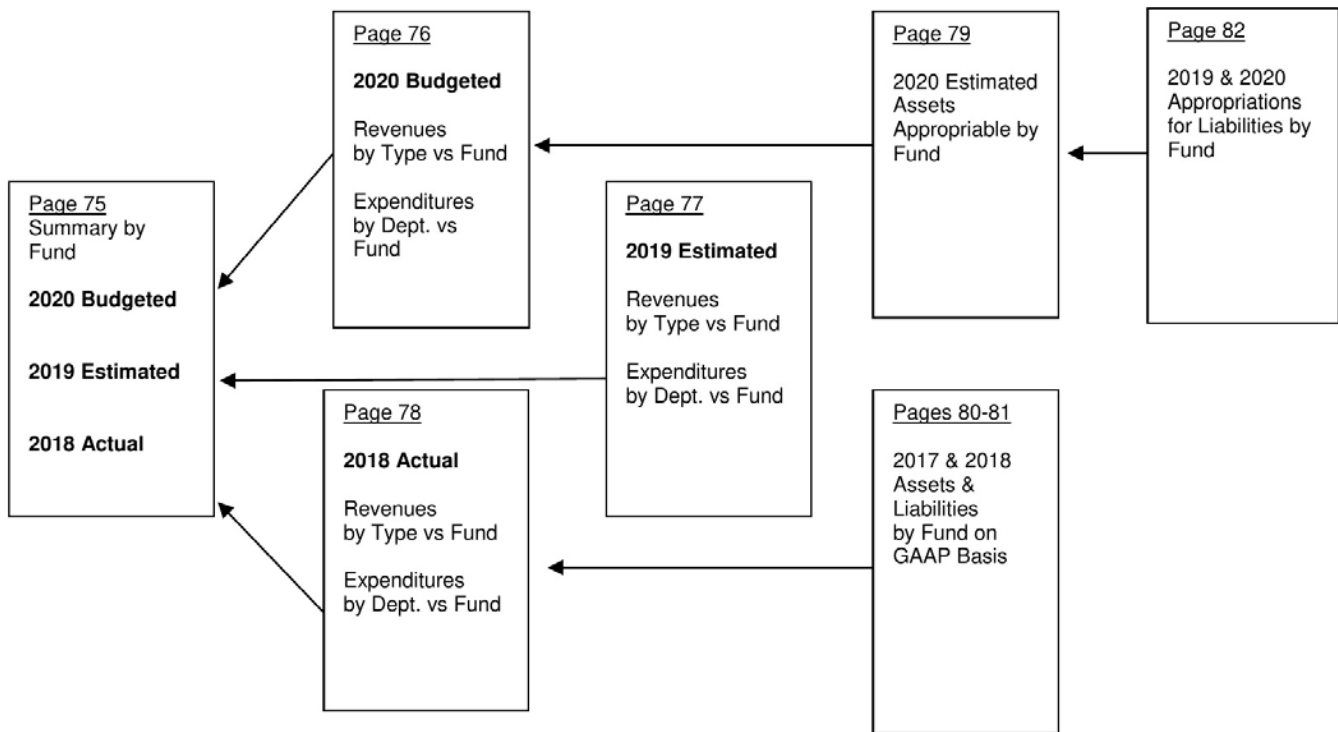
Exhibit 5 displays the relationship between revenues and expenditures. The difference between revenues and expenditures is primarily accounted for by bond sale proceeds to finance future payments for capital projects. In general, the Capital Improvements Bond Fund aside, a balance is maintained between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

For 2020, a portion of the Corporate Fund projected net assets will remain unappropriated to ensure a fiscally responsible fund balance. A strong Corporate Fund fund balance is 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 75 - 78 provide comparisons of revenues and expenditures for all funds for the years 2018 - 2020. These statements provide a financial summarization by fund of the 2020 Budget as proposed, the estimated status at 2019 fiscal year-end, and the actual results of operations for fiscal year 2018. The relationships among the pages are diagrammed below.



The table of taxes receivable on page 83 provides detailed data on property tax levies and tax receipts from 2015 to 2019. While 2015 through 2017 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 2015 are summarized.

Specific details about all revenue sources, assets, liabilities, and appropriable revenue are presented in the various funds' financial narratives and statements on pages 85 - 105.

**ALL FUNDS**

**SUMMARY OF REVENUE, EXPENDITURES, AND NET ASSETS APPROPRIABLE (b)  
2020 BUDGETED, 2019 ESTIMATED, AND 2018 ACTUAL**

(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT (d)	BOND REDEMPTION & INTEREST (d)	RESERVE CLAIM (d)	
<b>2020 BUDGETED</b>								
Net Assets Appropriable	\$ 131,295.1	\$ (653,354.3)	\$ 8,223.4	\$ 68,559.6	\$ 87,319.0	\$ 225,460.3	\$ 33,695.0	\$ (98,801.9)
Net Assets Appropriated	\$ 27,052.7	\$ (653,354.3)	\$ 8,223.4	\$ 68,559.6	\$ 87,319.0	\$ 225,460.3	\$ 33,695.0	\$ (203,044.3)
Revenue	359,645.0	867,660.5	7,120.0	47,698.4	—	7,561.6	700.0	1,290,385.5
Appropriation	\$ 386,697.7	\$ 214,306.2	\$ 15,343.4	\$ 116,258.0	\$ 87,319.0	\$ 233,021.9	\$ 34,395.0	\$ 1,087,341.2
<b>2019 ESTIMATED</b>								
Beginning Net Assets Appropriable as adjusted (c)	\$ 131,481.8	\$ (636,126.1)	\$ 14,578.6	\$ 59,291.7	\$ 87,281.0	\$ 229,469.6	\$ 31,140.8	\$ (82,882.6)
Revenue (a)	354,320.3	68,684.0	7,647.0	52,009.5	—	8,887.9	681.0	492,229.7
Adjustment for 2018 receipts	1,167.3	—	(554.6)	434.7	—	—	—	1,047.4
Expenditures	(355,674.3)	(85,912.2)	(13,447.6)	(43,176.3)	(87,281.0)	(238,357.5)	(5,400.0)	(829,248.9)
Ending Net Assets Appropriable	\$ 131,295.1	\$ (653,354.3)	\$ 8,223.4	\$ 68,559.6	\$ —	\$ —	\$ 26,421.8	\$ (418,854.4)
<b>2018 ACTUAL</b>								
Beginning Net Assets Appropriable as adjusted (c)	\$ 140,974.1	\$ (615,827.5)	\$ 18,526.9	\$ 36,706.1	\$ 89,604.0	\$ 248,026.5	\$ 30,350.0	\$ (51,639.9)
Revenue	339,004.5	107,119.5	11,079.1	40,303.9	—	8,277.6	465.5	506,250.1
Expenditures	(348,496.7)	(127,418.2)	(15,027.4)	(17,718.3)	(89,604.0)	(256,304.2)	(5,497.1)	(860,065.9)
Ending Net Assets Appropriable	\$ 131,481.8	\$ (636,126.1)	\$ 14,578.6	\$ 59,291.7	\$ —	\$ —	\$ 25,318.4	\$ (405,455.6)
Adjusted NAA 1/1/2019	\$ 132,649.1		\$ 14,024.0	\$ 59,726.4				
Adjustment (a)	\$ 1,167.3		\$ (554.6)	\$ 434.7				

(a) Adjustment to NAA required due to current 2019 estimate on collection of property tax levies and PPRT. See the Balance Sheets and Appropriable Revenue statements 01/01/2019 for the Corporate (pages 87 - 88), Construction (pages 95 - 96), and Stormwater Management (pages 99 - 100) Funds. The adjustment is reflected in the 2019 revenues.

(b) This statement is a summary presentation of pages 76 - 78, separating current revenue and NAA from the revenue category.

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

(d) Revenue for the Retirement, 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**  
**2020 BUDGETED**  
(In Thousands)

	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
<b>REVENUE</b>								
Net Assets Appropriable	\$ 131,295.1	\$ (653,354.3)	\$ 8,223.4	\$ 68,559.6	\$ 87,319.0	\$ 225,460.3	\$ 33,695.0	\$ (98,801.9)
Budget Reserve	(104,242.4)	—	—	—	—	—	—	(104,242.4)
Net Property Taxes	257,129.4	—	6,755.0	51,073.6	—	—	—	314,958.0
Personal Property Replacement Tax	19,000.0	—	—	—	—	—	—	19,000.0
Working Cash Borrowings Adjustment	(4,929.4)	—	(55.0)	(773.6)	—	—	—	(5,758.0)
Bond Sales (Present & Future)	—	779,788.5	—	—	—	—	—	779,788.5
Grants (Federal & State)	—	14,472.0	—	1,360.0	—	—	—	15,832.0
Investment Income	2,100.0	6,900.0	400.0	1,000.0	—	1,600.0	700.0	12,700.0
State Revolving Fund Loans	—	70,000.0	—	—	—	—	—	70,000.0
Property & Services	23,000.0	—	—	1,000.0	—	—	—	24,000.0
User Charge	43,000.0	—	—	—	—	—	—	43,000.0
TIF Differential Fee & Impact Fee	8,225.0	—	—	—	—	—	—	8,225.0
Equity Transfer	5,500.0	(5,500.0)	—	(5,961.6)	—	5,961.6	—	—
Resource Recovery	600.0	—	—	—	—	—	—	600.0
Miscellaneous	6,020.0	2,000.0	20.0	—	—	—	—	8,040.0
<b>TOTAL REVENUE</b>	<b>\$ 386,697.7</b>	<b>\$ 214,306.2</b>	<b>\$ 15,343.4</b>	<b>\$ 116,258.0</b>	<b>\$ 87,319.0</b>	<b>\$ 233,021.9</b>	<b>\$ 34,395.0</b>	<b>\$ 1,087,341.2</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 5,242.2	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 5,242.2
General Administration	21,305.2	—	—	—	—	—	—	21,305.2
Monitoring & Research	31,546.7	—	—	—	—	—	—	31,546.7
Procurement & Materials Mgmt.	9,809.7	—	—	—	—	—	—	9,809.7
Human Resources	61,329.2	—	—	—	—	—	—	61,329.2
Information Technology	18,353.5	—	—	—	—	—	—	18,353.5
Law	7,234.1	—	—	—	—	—	—	7,234.1
Finance	3,834.4	—	—	—	—	—	—	3,834.4
Engineering	25,452.9	214,306.2	15,343.4	—	—	—	—	255,102.5
Maintenance & Operations	202,589.8	—	—	—	—	—	—	202,589.8
Stormwater Management Fund	—	—	—	116,258.0	—	—	—	116,258.0
Retirement Fund	—	—	—	—	87,319.0	—	—	87,319.0
Bond Redemption & Interest Fund	—	—	—	—	—	233,021.9	—	233,021.9
Reserve Claim Fund	—	—	—	—	—	—	34,395.0	34,395.0
<b>TOTAL EXPENDITURES</b>	<b>\$ 386,697.7</b>	<b>\$ 214,306.2</b>	<b>\$ 15,343.4</b>	<b>\$ 116,258.0</b>	<b>\$ 87,319.0</b>	<b>\$ 233,021.9</b>	<b>\$ 34,395.0</b>	<b>\$ 1,087,341.2</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**  
**2019 ESTIMATED**  
(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
<b>REVENUE</b>								
Net Assets Appropriable	\$ 131,481.8	\$ (636,126.1)	\$ 14,578.6	\$ 59,291.7	\$ 87,281.0	\$ 229,469.6	\$ 31,140.8	\$ (82,882.6)
Adjustment for Receipts	1,167.3	—	(554.6)	434.7	—	—	—	1,047.4
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)	—	—	—	—	—	—	—	—
Grants (Federal & State)	—	14,177.0	—	5,316.4	—	—	—	19,493.4
Investment Income	3,337.0	6,707.0	427.0	1,265.0	—	3,116.0	681.0	15,533.0
State Revolving Fund Loans	—	50,000.0	—	—	—	—	—	50,000.0
Property & Services	26,073.3	—	—	900.0	—	—	—	26,973.3
User Charge	47,000.0	—	—	—	—	—	—	47,000.0
TIF Differential Fee & Impact Fee	10,425.0	—	—	—	—	—	—	10,425.0
Equity Transfer	4,200.0	(4,200.0)	—	(5,771.9)	—	5,771.9	—	—
Miscellaneous	7,185.0	2,000.0	20.0	—	—	—	—	9,205.0
<b>TOTAL REVENUE</b>	<b>\$ 486,969.4</b>	<b>\$ (567,442.1)</b>	<b>\$ 21,671.0</b>	<b>\$ 111,735.9</b>	<b>\$ 87,281.0</b>	<b>\$ 238,357.5</b>	<b>\$ 31,821.8</b>	<b>\$ 410,394.5</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,745.5	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,745.5
General Administration	17,083.9	—	—	—	—	—	—	17,083.9
Monitoring & Research	29,731.7	—	—	—	—	—	—	29,731.7
Procurement & Materials Mgmt.	9,241.2	—	—	—	—	—	—	9,241.2
Human Resources	56,310.8	—	—	—	—	—	—	56,310.8
Information Technology	15,156.6	—	—	—	—	—	—	15,156.6
Law	6,110.2	—	—	—	—	—	—	6,110.2
Finance	3,627.6	—	—	—	—	—	—	3,627.6
Engineering	24,073.9	85,912.2	13,447.6	—	—	—	—	123,433.7
Maintenance & Operations	189,592.9	—	—	—	—	—	—	189,592.9
Stormwater Management Fund	—	—	—	43,176.3	—	—	—	43,176.3
Retirement Fund	—	—	—	—	87,281.0	—	—	87,281.0
Bond Redemption & Interest Fund	—	—	—	—	—	238,357.5	—	238,357.5
Reserve Claim Fund	—	—	—	—	—	—	5,400.0	5,400.0
<b>TOTAL EXPENDITURES</b>	<b>\$ 355,674.3</b>	<b>\$ 85,912.2</b>	<b>\$ 13,447.6</b>	<b>\$ 43,176.3</b>	<b>\$ 87,281.0</b>	<b>\$ 238,357.5</b>	<b>\$ 5,400.0</b>	<b>\$ 829,248.9</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 ACTUAL**  
(In Thousands)

	FUND							TOTAL
	CORPORATE	CAPITAL IMPROVEMENTS BOND*	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	
<b>REVENUE</b>								
Net Assets Appropriable	\$ 140,974.1	\$ (615,827.5)	\$ 18,526.9	\$ 36,706.1	\$ 89,604.0	\$ 248,026.5	\$ 30,350.0	\$ (51,639.9)
Adjustment for Receipts	(105.6)	—	(461.8)	(369.2)	—	—	—	(936.6)
Net Property Taxes	232,713.4	—	11,290.5	46,152.1	—	—	—	290,156.0
Personal Property Replacement Tax	19,849.5	—	—	—	—	—	—	19,849.5
Working Cash Borrowings Adjustment	(4,562.9)	—	(190.5)	(752.1)	—	—	—	(5,505.5)
Bond Sales	—	—	—	—	—	—	—	—
Grants (Federal & State)	—	15,304.0	—	347.4	—	—	—	15,651.4
Investment Income	3,033.7	5,647.2	402.7	688.8	—	2,471.6	465.5	12,709.5
State Revolving Fund Loans	—	87,614.4	—	—	—	—	—	87,614.4
Property & Services	24,100.5	—	—	—	—	—	—	24,100.5
User Charge	41,301.8	—	—	—	—	—	—	41,301.8
TIF Differential Fee & Impact Fee	10,936.9	—	—	—	—	—	—	10,936.9
Equity Transfer	4,200.0	(4,200.0)	—	(5,770.6)	—	5,770.6	—	—
Miscellaneous	7,537.2	2,754.0	38.2	7.4	—	35.5	—	10,372.3
<b>TOTAL REVENUE</b>	<b>\$ 479,978.6</b>	<b>\$ (508,707.9)</b>	<b>\$ 29,606.0</b>	<b>\$ 77,009.9</b>	<b>\$ 89,604.0</b>	<b>\$ 256,304.2</b>	<b>\$ 30,815.5</b>	<b>\$ 454,610.3</b>
<b>EXPENDITURES</b>								
Board of Commissioners	\$ 4,148.4	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,148.4
General Administration	15,921.0	—	—	—	—	—	—	15,921.0
Monitoring & Research	29,577.5	—	—	—	—	—	—	29,577.5
Procurement & Materials Mgmt.	8,731.9	—	—	—	—	—	—	8,731.9
Human Resources	53,676.5	—	—	—	—	—	—	53,676.5
Information Technology	15,430.2	—	—	—	—	—	—	15,430.2
Law	6,138.7	—	—	—	—	—	—	6,138.7
Finance	3,447.7	—	—	—	—	—	—	3,447.7
Engineering	26,023.8	127,418.2	15,027.4	—	—	—	—	168,469.4
Maintenance & Operations	185,401.1	—	—	—	—	—	—	185,401.1
Stormwater Management Fund	—	—	—	17,718.3	—	—	—	17,718.3
Retirement Fund	—	—	—	—	89,604.0	—	—	89,604.0
Bond Redemption & Interest Fund	—	—	—	—	—	256,304.2	—	256,304.2
Reserve Claim Fund	—	—	—	—	—	—	5,497.1	5,497.1
Equity Transfer	—	—	—	—	—	—	—	—
<b>TOTAL EXPENDITURES</b>	<b>\$ 348,496.8</b>	<b>\$ 127,418.2</b>	<b>\$ 15,027.4</b>	<b>\$ 17,718.3</b>	<b>\$ 89,604.0</b>	<b>\$ 256,304.2</b>	<b>\$ 5,497.1</b>	<b>\$ 860,066.0</b>

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

**SUMMARY OF ESTIMATED ASSETS APPROPRIABLE FOR THE CORPORATE, CAPITAL IMPROVEMENTS BOND, RETIREMENT, CONSTRUCTION, STORMWATER MANAGEMENT, BOND REDEMPTION & INTEREST, AND RESERVE CLAIM FUNDS FOR THE YEAR 2020**

DESCRIPTION	FUND							
	CORPORATE	CAPITAL IMPROVEMENTS BOND	CONSTRUCTION	STORMWATER MANAGEMENT	RETIREMENT	BOND REDEMPTION & INTEREST	RESERVE CLAIM	TOTAL
2020 Revenue	\$ 354,145,000	\$ 873,160,538	\$ 7,120,000	\$ 53,660,024	\$ —	\$ 1,600,000	\$ 700,000	\$ 1,290,385,562
Resources Available at 01/01/2020	358,090,827	335,788,000	21,062,400	102,006,994	87,319,000	331,564,138	33,973,800	1,269,805,159
Total Resources	\$ 712,235,827	\$ 1,208,948,538	\$ 28,182,400	\$ 155,667,018	\$ 87,319,000	\$ 333,164,138	\$ 34,673,800	\$ 2,560,190,721
Liabilities:								
Payable From Restricted Assets	—	—	—	—	—	—	—	—
Liabilities and Designations at 01/01/2020	226,795,678	989,142,338	12,839,000	33,447,418	—	106,103,871*	278,800	1,368,607,105
Equity Transfer	5,500,000	(5,500,000)	—	(5,961,600)	—	5,961,600	—	—
Budget Reserve	104,242,449	—	—	—	—	—	—	104,242,449
<b>ASSETS APPROPRIABLE</b>	<b>\$ 386,697,700</b>	<b>\$ 214,306,200</b>	<b>\$ 15,343,400</b>	<b>\$ 116,258,000</b>	<b>\$ 87,319,000</b>	<b>\$ 233,021,867</b>	<b>\$ 34,395,000</b>	<b>\$ 1,087,341,167</b>

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

**GAAP Basis Statement From 2018 CAFR - Exhibit A-1**  
**Governmental Funds Balance Sheets / Statements of Net Assets**

December 31, 2018 (with comparative amounts for prior year)

(in thousands of dollars)	General Corporate Fund		Debt Service Fund		Capital Improvement Bond Funds	
	2018	2017	2018	2017	2018	2017
<b>Assets and deferred outflows of resources</b>						
Assets:						
Cash	\$ 7,624	\$ 21,162	\$ 5,256	\$ 11,145	\$ 11,717	\$ 14,113
Certificates of deposit	63,695	116,881	19,037	10,051	109,514	56,219
Investments (note 4)	149,404	99,282	61,587	88,768	169,738	255,468
Prepaid insurance	5,201	4,101	—	—	—	—
Taxes receivable, net (note 5)	237,839	221,802	230,351	224,578	—	—
Other receivables, net (note 5)	8,588	8,599	—	—	9,263	42,497
Due from other funds (note 12)	132	101	—	—	—	—
Restricted deposits	350	527	—	—	—	—
Inventories	33,436	34,787	—	—	—	—
Capital assets not being depreciated/amortized (note 6)	—	—	—	—	—	—
Capital assets being depreciated/amortized, net (note 6)	—	—	—	—	—	—
Total assets	<u>506,269</u>	<u>507,242</u>	<u>316,231</u>	<u>334,542</u>	<u>300,232</u>	<u>368,297</u>
Deferred outflows of resources:						
Loss on prior debt refunding	—	—	—	—	—	—
Deferred outflows for pension and OPEB related amounts	—	—	—	—	—	—
Total deferred outflows of resources	—	—	—	—	—	—
Total assets and deferred outflows of resources	<u>\$ 506,269</u>	<u>\$ 507,242</u>	<u>\$ 316,231</u>	<u>\$ 334,542</u>	<u>\$ 300,232</u>	<u>\$ 368,297</u>
<b>Liabilities, deferred inflows of resources, and fund balances/net position</b>						
Liabilities:						
Accounts payable and other liabilities (note 5)	\$ 25,626	\$ 21,924	\$ —	\$ —	\$ 29,156	\$ 55,356
Due to Pension Trust Fund (note 12)	—	—	—	—	—	—
Due to other funds (note 12)	—	—	—	—	—	—
Accrued interest payable	—	—	—	—	—	—
Unearned Revenue (note 5)	8,427	8,139	—	—	—	—
Long-term liabilities: (note 11)						
Due within one year	—	—	—	—	—	—
Due in more than one year	—	—	—	—	—	—
Total liabilities	<u>34,053</u>	<u>30,063</u>	<u>—</u>	<u>—</u>	<u>29,156</u>	<u>55,356</u>
Deferred inflows of resources:						
Unavailable tax revenue (note 5)	187,674	185,236	181,781	187,542	—	—
Other unavailable revenue (note 5)	—	—	—	—	948	944
Deferred inflows for pension and OPEB related amounts	—	—	—	—	—	—
Total deferred inflows of resources	<u>187,674</u>	<u>185,236</u>	<u>181,781</u>	<u>187,542</u>	<u>948</u>	<u>944</u>
Fund balances:						
Nonspendable:						
Prepaid insurance	5,201	4,101	—	—	—	—
Inventories	33,436	34,787	—	—	—	—
Restricted for:						
Deposits	350	527	—	—	—	—
Working cash	282,055	280,437	—	—	—	—
Reserve claims	28,272	25,890	—	—	—	—
Debt service	—	—	134,450	147,000	—	—
Capital projects	—	—	—	—	111,809	164,524
Construction	—	—	—	—	—	—
Assigned	—	—	—	—	158,319	147,473
Unassigned (Deficit)	(64,772)	(53,799)	—	—	—	—
Total fund balances	<u>284,542</u>	<u>291,943</u>	<u>134,450</u>	<u>147,000</u>	<u>270,128</u>	<u>311,997</u>
Total liabilities, deferred inflows, and fund balances	<u>\$ 506,269</u>	<u>\$ 507,242</u>	<u>\$ 316,231</u>	<u>\$ 334,542</u>	<u>\$ 300,232</u>	<u>\$ 368,297</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	
2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
\$ —	\$ —	\$ 1,695	\$ 2,590	\$ 26,292	\$ 49,010	\$ —	\$ —	\$ 26,292	\$ 49,010
—	—	45,523	29,069	237,769	212,220	—	—	237,769	212,220
—	—	40,926	32,958	421,655	476,476	—	—	421,655	476,476
—	—	76	79	5,277	4,180	—	—	5,277	4,180
73,515	75,042	57,442	55,128	599,147	576,550	—	—	599,147	576,550
—	—	954	746	18,805	51,842	—	—	18,805	51,842
—	—	—	—	132	101	(132)	(101)	—	—
—	—	—	—	350	527	—	—	350	527
—	—	—	—	33,436	34,787	—	—	33,436	34,787
—	—	—	—	—	—	5,979,354	5,910,375	5,979,354	5,910,375
—	—	—	—	—	—	1,672,681	1,684,067	1,672,681	1,684,067
<u>73,515</u>	<u>75,042</u>	<u>146,616</u>	<u>120,570</u>	<u>1,342,863</u>	<u>1,405,693</u>	<u>7,651,903</u>	<u>7,594,341</u>	<u>8,994,766</u>	<u>9,000,034</u>
—	—	—	—	—	—	4,372	4,899	4,372	4,899
—	—	—	—	—	—	167,580	200,467	167,580	200,467
—	—	—	—	—	—	171,952	205,366	171,952	205,366
<u>\$ 73,515</u>	<u>\$ 75,042</u>	<u>\$ 146,616</u>	<u>\$ 120,570</u>	<u>\$ 1,342,863</u>	<u>\$ 1,405,693</u>	<u>\$ 7,823,855</u>	<u>\$ 7,799,707</u>	<u>\$ 9,166,718</u>	<u>\$ 9,205,400</u>
\$ —	\$ —	\$ 12,107	\$ 4,886	\$ 66,889	\$ 82,166	\$ —	\$ —	\$ 66,889	\$ 82,166
19,034	15,868	—	—	19,034	15,868	68,133	73,990	87,167	89,858
—	—	132	101	132	101	(132)	(101)	—	—
—	—	—	—	—	—	17,129	15,899	17,129	15,899
—	—	—	—	8,427	8,139	—	—	8,427	8,139
—	—	—	—	—	—	148,202	167,351	148,202	167,351
—	—	—	—	—	—	4,117,855	4,313,689	4,117,855	4,313,689
<u>19,034</u>	<u>15,868</u>	<u>12,239</u>	<u>4,987</u>	<u>94,482</u>	<u>106,274</u>	<u>4,351,187</u>	<u>4,570,828</u>	<u>4,445,669</u>	<u>4,677,102</u>
54,481	59,174	45,330	46,028	469,266	477,980	(469,266)	(477,980)	—	—
—	—	—	—	948	944	(948)	(944)	—	—
—	—	—	—	—	—	100,669	15,102	100,669	15,102
<u>54,481</u>	<u>59,174</u>	<u>45,330</u>	<u>46,028</u>	<u>470,214</u>	<u>478,924</u>	<u>(369,545)</u>	<u>(463,822)</u>	<u>100,669</u>	<u>15,102</u>
—	—	76	79	5,277	4,180	(5,277)	(4,180)	—	—
—	—	—	—	33,436	34,787	(33,436)	(34,787)	—	—
—	—	—	—	350	527	(350)	(527)	—	—
—	—	60,093	59,713	342,148	340,150	(342,148)	(340,150)	—	—
—	—	—	—	28,272	25,890	(28,272)	(25,890)	—	—
—	—	—	—	134,450	147,000	(134,450)	(147,000)	—	—
—	—	21,711	4,146	133,520	168,670	(133,520)	(168,670)	—	—
—	—	7,243	5,696	7,243	5,696	(7,243)	(5,696)	—	—
—	—	—	—	158,319	147,473	(158,319)	(147,473)	—	—
—	—	(76)	(79)	(64,848)	(53,878)	64,848	53,878	—	—
—	—	89,047	69,555	778,167	820,495	(778,167)	(820,495)	—	—
<u>\$ 73,515</u>	<u>\$ 75,042</u>	<u>\$ 146,616</u>	<u>\$ 120,570</u>	<u>\$ 1,342,863</u>	<u>\$ 1,405,693</u>				
Net position:									
Net investment in capital assets						4,822,532	4,710,123	4,822,532	4,710,123
Restricted for corporate working cash						282,055	280,437	282,055	280,437
Restricted for reserve claim						11,728	9,976	11,728	9,976
Restricted for debt service						299,106	318,646	299,106	318,646
Restricted for capital projects						53,443	32,067	53,443	32,067
Restricted for construction working cash						22,395	22,204	22,395	22,204
Restricted for stormwater working cash						37,698	37,509	37,698	37,509
Unrestricted (Deficit)						(908,577)	(897,766)	(908,577)	(897,766)
Total net position						<u>\$ 4,620,380</u>	<u>\$ 4,513,196</u>	<u>\$ 4,620,380</u>	<u>\$ 4,513,196</u>

Notes reference the 2018 CAFR of the District - Available on the internet at www.mwr.org

**APPROPRIATION FOR LIABILITIES - BY FUND  
JANUARY 1, 2020 AND 2019**

<b>CORPORATE FUND</b>	<b>2020</b>	<b>2019</b>
Unpaid Bills:		
Accrued Salaries & Wages	\$ 3,820,000	\$ 3,685,000
Personal Services - Other	3,160,000	2,700,000
Payroll Withholding & Miscellaneous	2,100,000	2,000,000
Contractual Services	27,715,678	28,983,016
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>\$ 226,795,678</b>	<b>\$ 227,368,016</b>
<b>CONSTRUCTION FUND</b>		
Unpaid Bills:		
Contracts Payable	\$ 1,250,000	\$ 2,075,700
Contractual Services	489,000	276,000
Machinery & Equipment	—	—
Due to Construction Working Cash Fund	11,100,000	12,000,000
<b>Total Liabilities of Construction Fund</b>	<b>\$ 12,839,000</b>	<b>\$ 14,351,700</b>
<b>CAPITAL IMPROVEMENTS BOND FUND</b>		
Unpaid Bills:		
Contractual Services	\$ 53,000,000	\$ 74,000,000
Contracts Payable	936,142,337.5	888,357,685
<b>Total Liabilities of Capital Improvements Bond Fund</b>	<b>\$ 989,142,337.5</b>	<b>\$ 962,357,685</b>
<b>RESERVE CLAIM FUND</b>		
Accounts Payable & Other Liabilities	\$ 278,800	\$ 378,893
<b>BOND REDEMPTION &amp; INTEREST FUND</b>		
Future Payment of Principal & Interest	\$ 233,021,867	\$ 238,357,524
<b>STORMWATER MANAGEMENT FUND</b>		
Accrued Salaries & Wages	\$ 300,000	\$ 100,000
Vouchers Payable	4,301,039	1,300,000
Contracts Payable	2,346,379	2,000,666
Due to Stormwater Working Cash Fund	26,500,000	26,500,000
<b>Total Liabilities of Stormwater Management Fund</b>	<b>\$ 33,447,418</b>	<b>\$ 29,900,666</b>
<b>TOTAL LIABILITIES JANUARY 1, 2020 AND 2019</b>	<b>\$ 1,495,525,100.5</b>	<b>\$ 1,472,714,484</b>

**STATEMENT OF TAXES RECEIVABLE FOR 2019 AND PRIOR YEARS AT JANUARY 1, 2020  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2020**

YEAR FUND	TAX EXTENSION	COLLECTED THRU 12/31/19	%	UNCOLLECTED AT 12/31/19	RESERVE \$	%	ESTIMATED NET TAXES RECEIVABLE	CASH ESTIMATED IN 2020
<b>2019</b>								
Corporate	\$ 254,574,100	\$ —	—%	\$ 254,574,100	\$ 8,910,094	3.5%	\$ 245,664,007	\$ 248,209,748
Bond Redemption & Interest	249,208,510	—	—%	249,208,510	8,722,298	3.5%	240,486,212	242,978,297
Retirement	71,565,400	—	—%	71,565,400	2,504,789	3.5%	69,060,600	69,060,600
Construction	7,600,000	—	—%	7,600,000	266,000	3.5%	7,334,000	7,410,000
Stormwater Management	52,926,000	—	—%	52,926,000	1,852,410	3.5%	51,073,590	51,602,850
Reserve Claim	7,500,000	—	—%	7,500,000	262,500	3.5%	7,237,500	7,312,500
Total	\$ 643,374,010	\$ —	—%	\$ 643,374,010	\$ 22,518,090	3.5%	\$ 620,855,909	\$ 626,573,995
<b>2018</b>								
Corporate	\$ 241,153,834	\$ 235,124,988	97.5%	\$ 6,028,846	\$ 8,440,384	3.5%	\$ —	\$ 2,652,692
Bond Redemption & Interest	238,732,075	232,763,773	97.5%	5,968,302	8,355,623	3.5%	—	2,626,053
Retirement	71,534,197	69,745,842	97.5%	1,788,355	2,503,697	3.5%	—	—
Construction	11,700,000	11,407,500	97.5%	292,500	409,500	3.5%	—	128,700
Stormwater Management	47,826,000	46,630,350	97.5%	1,195,650	1,673,910	3.5%	—	526,086
Reserve Claim	6,000,000	5,850,000	97.5%	150,000	210,000	3.5%	—	66,000
Total	\$ 616,946,106	\$ 601,522,453	97.5%	\$ 15,423,653	\$ 21,593,114	3.5%	\$ —	\$ 5,999,531
<b>2017</b>								
Corporate	\$ 224,824,731	\$ 221,677,185	98.6%	\$ 3,147,546	\$ 7,868,866	3.5%	\$ —	\$ (1,573,773)
Bond Redemption & Interest	232,751,026	229,492,512	98.6%	3,258,514	8,146,286	3.5%	—	(1,629,257)
Retirement	73,438,135	70,867,800	96.5%	2,570,335	2,570,335	3.5%	—	—
Construction	17,000,000	16,762,000	98.6%	238,000	595,000	3.5%	—	(119,000)
Stormwater Management	40,856,008	40,284,024	98.6%	571,984	1,429,960	3.5%	—	(285,992)
Reserve Claim	5,900,000	5,817,400	98.6%	82,600	206,500	3.5%	—	(41,300)
Total	\$ 594,769,900	\$ 584,900,921	98.3%	\$ 9,868,979	\$ 20,816,947	3.5%	\$ —	\$ (3,649,322)
<b>2016</b>								
Corporate	\$ 226,742,879	\$ 223,795,222	98.7%	\$ 2,947,657	\$ 7,936,001	3.5%	\$ —	\$ (1,587,200)
Bond Redemption & Interest	225,714,902	222,780,608	98.7%	2,934,294	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	13,605,752	98.7%	179,204	482,473	3.5%	—	(96,495)
Stormwater Management	34,250,000	33,804,750	98.7%	445,250	1,198,750	3.5%	—	(239,750)
Reserve Claim	5,800,000	5,724,600	98.7%	75,400	203,000	3.5%	—	(40,600)
Total	\$ 571,453,937	\$ 562,591,489	98.4%	\$ 8,862,448	\$ 20,000,888	3.5%	\$ —	\$ (3,544,049)
<b>2015</b>								
Corporate	\$ 227,659,785	\$ 222,878,930	97.9%	\$ 4,780,855	\$ 7,968,092	3.5%	\$ —	\$ (682,979)
Bond Redemption & Interest	224,487,727	219,773,485	97.9%	4,714,242	7,857,070	3.5%	—	(673,463)
Retirement	58,004,000	56,553,900	97.5%	1,450,100	2,030,140	3.5%	—	—
Construction	15,196,952	14,877,816	97.9%	319,136	531,893	3.5%	—	(45,591)
Stormwater Management	24,050,000	23,544,950	97.9%	505,050	841,750	3.5%	—	(72,150)
Reserve Claim	5,700,000	5,580,300	97.9%	119,700	199,500	3.5%	—	(17,100)
Total	\$ 555,098,464	\$ 543,209,380	97.9%	\$ 11,889,084	\$ 19,428,446	3.5%	\$ —	\$ (1,491,283)
<b>Prior Years'</b>								
Corporate								\$ (227,660)
Bond Redemption & Interest								(224,488)
<b>Levies</b>								
Retirement								—
Construction								(15,197)
Stormwater Management								(24,050)
Reserve Claim								(5,700)
Total								\$ (497,094)
<b>RECAPITULATION BY FUND</b>								
Corporate	\$ 1,174,955,329	\$ 903,476,324		\$ 271,479,005	\$ 41,123,437		\$ 245,664,007	\$ 246,790,827
Bond Redemption & Interest	1,170,894,240	904,810,378		266,083,862	40,981,298		240,486,212	241,497,138
Retirement	339,702,932	260,048,100		79,654,832	11,889,603		69,060,600	69,060,600
Construction	65,281,908	56,653,068		8,628,840	2,284,867		7,334,000	7,262,418
Stormwater Management	199,908,008	144,264,074		55,643,934	6,996,780		51,073,590	51,506,994
Reserve Claim	30,900,000	22,972,300		7,927,700	1,081,500		7,237,500	7,273,800
Total	\$ 2,981,642,417	\$ 2,292,224,244		\$ 689,418,173	\$ 104,357,485		\$ 620,855,909	\$ 623,391,776



**STATEMENT OF PERSONAL PROPERTY REPLACEMENT TAXES  
RECEIVABLE FOR 2020 AND PRIOR YEARS AT JANUARY 1, 2020  
INCLUDING THE ESTIMATED COLLECTIONS FOR THE YEAR 2020**

LEVY YEAR	FUND	BUDGETED RECEIVABLE	ACTUAL/ESTIMATED COLLECTED THROUGH 2019	CASH ESTIMATED IN 2020
<b>2020</b>	Corporate	\$ 19,000,000	\$ —	\$ —
	Retirement	18,427,400	—	—
	Construction	—	—	—
	Total	\$ 37,427,400	\$ —	\$ —
<b>2019</b>	Corporate	\$ 15,000,000	\$ —	\$ 15,000,000
	Retirement	18,258,400	—	18,258,400
	Construction	—	—	—
	Total	\$ 33,258,400	\$ —	\$ 33,258,400
<b>2018</b>	Corporate	\$ 19,849,500	\$ 21,066,300	\$ —
	Retirement	18,250,500	18,250,500	—
	Construction	—	—	—
	Total	\$ 38,100,000	\$ 39,316,800	\$ —
<b>2017</b>	Corporate	\$ 18,164,000	\$ 17,970,367	\$ —
	Retirement	18,736,200	18,736,200	—
	Construction	—	—	—
	Total	\$ 36,900,200	\$ 36,706,567	\$ —
<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	\$ —

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 2020 Budget is \$386.7 million, an increase of \$9.1 million, or 2.4 percent, from the 2019 Adjusted Budget. Property taxes are the major source of revenue for the Corporate Fund. In 2020, the net property tax levy will provide 66.5 percent of the fund's revenue. The property tax levy for 2020 is \$266.5 million, an increase of \$11.9 million, or 4.7 percent, from the 2019 Adjusted Levy.

The Corporate Fund receives significant funding from user charge revenue, estimated at \$43.0 million in 2020, a decrease of \$3.0 million from the 2019 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 2019 year-end estimated revenue is \$47.0 million, a \$1 million positive variance from the 2019 budget.

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 \$19.0 million for 2020, an increase of \$4.2 million compared to the 2019 Budget of \$15.0 million for the Corporate Fund. PPRT revenues are accounted for in arrears and compared against the prior year tax estimate. PPRT receipts have not been stable over the last several years due to changes in the State of Illinois allocations to local governments and changes in tax laws. The District projects revenue received in 2019 to be \$21.1 million, exceeding budgetary expectations. PPRT is allocated first to the Retirement Fund to pay 20.9 percent of the Retirement Fund total levy.

In 2020, land rental revenue is budgeted at \$23.0 million, an increase of \$1.5 million from the 2019 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 2020, the District anticipates a \$8.0 million Tax Increment Financing (TIF) surplus distribution primarily from the expiration of TIF districts within the City of Chicago. A \$5.5 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 2020 at \$2.1 million, a decrease of \$0.5 million from the 2019 Original Budget.

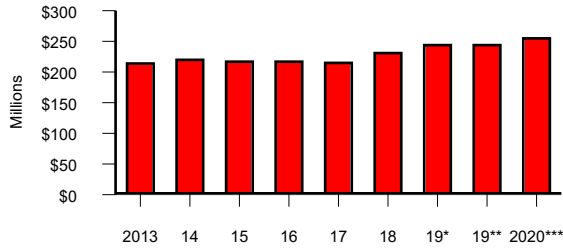
Overall, 2019 non-tax revenue is projected to end the year over 2019 Budget by \$8.8 million, or 10.4 percent. This increase is the result of a \$3.1 million land sale, land rentals ending the year \$1.5 million over budget, user charge revenues ending the year over budget by \$1.0 million, and strong investment returns.

Maintaining a strong fund is necessary to maintain financial stability and sustain us through economic uncertainties. 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 2020, a portion amounting to \$104.2 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 2020. The estimated amount the District will allocate as available for loan in 2020 is \$271.2 million, or 95.0 percent, of the maximum.

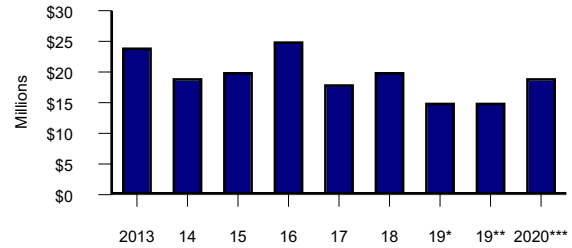
**REVENUE - CORPORATE FUND (BUDGETARY BASIS)**

**Net Property Tax Levy**



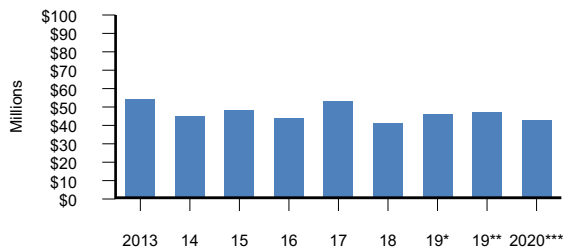
The property tax levy is the primary source of revenue for the Corporate Fund. Its increase, therefore, trends with increases in appropriations.

**Personal Property Replacement Tax**



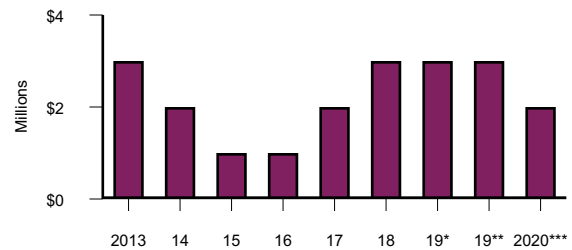
Beginning in 2014, the District's distribution to the Retirement Fund increased. Errors in the State's calculations and changes in the allocation have resulted in decreased PPRT revenue.

**User Charge**



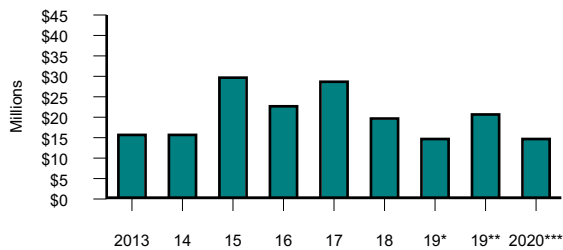
The growth in the food processing, chemical, government-operated airport, and water filtration plant facility industries has been offset by improvements in processing and reduced discharges, resulting in steady revenue projections.

**Investment Income**



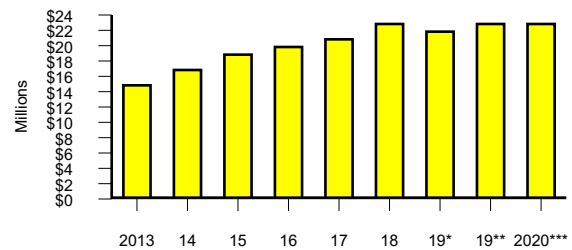
Investment income is expected to decrease due to anticipated rate decreases in 2020. In both 2015 and 2016, low rates and smaller investment balances resulted in lower returns.

**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**



In 2020, the revenue is expected to remain stable at \$23.0 million. Land rentals have continued to gradually increase since 2014.

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 are recorded to the Stormwater Management Fund.

- 2013-2018 actual
- \* 2019 as budgeted
- \*\* 2019 adjusted estimated
- \*\*\* 2020 estimate

**CORPORATE FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	<b>ASSETS</b>			
	<b>2020</b>		<b>2019</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 96,300,000	\$ 96,300,000	\$ 110,213,700	\$ 110,213,700
Taxes Receivable	245,664,007	246,790,827	232,049,497	232,815,081
Replacement Tax	15,000,000	15,000,000	15,849,500	15,849,500
<b>Total Current Assets</b>	<b>\$ 356,964,007</b>	<b>\$ 358,090,827</b>	<b>\$ 358,112,697</b>	<b>\$ 358,878,281</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 3,820,000	\$ 3,820,000	\$ 3,685,000	\$ 3,685,000
Personal Services - Other	3,160,000	3,160,000	2,700,000	2,700,000
Payroll Withholding & Miscellaneous	2,100,000	2,100,000	2,000,000	2,000,000
Contractual Services	27,715,678	27,715,678	28,983,016	28,983,016
Due to Corporate Working Cash Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Liabilities</b>	<b>\$ 226,795,678</b>	<b>\$ 226,795,678</b>	<b>\$ 227,368,016</b>	<b>\$ 227,368,016</b>
<b>Total Liabilities</b>		<b>\$ 226,795,678</b>		<b>\$ 227,368,016</b>
<b>ASSETS APPROPRIABLE FOR 2020 &amp; 2019</b>				
Net Assets Appropriable		\$ 131,295,149		\$ 131,510,265
Budget Reserve		(104,242,449)		(99,393,765)
Net Assets Appropriated		\$ 27,052,700		\$ 32,116,500
Estimated Revenue		359,645,000		345,496,000
<b>Total Assets Appropriable</b>		<b>\$ 386,697,700</b>		<b>\$ 377,612,500</b>
<b>FUND EQUITY</b>				
Undesignated	\$ 130,168,329		\$ 130,744,681	
<b>Total Fund Equity</b>	<b>\$ 130,168,329</b>		<b>\$ 130,744,681</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 356,964,007</b>		<b>\$ 358,112,697</b>	

**CORPORATE FUND  
APPROPRIABLE REVENUE  
2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
<b>Revenue from Property Taxes</b>					
Gross Tax Levy	\$ 266,455,300	\$ 254,574,100	\$ 254,574,100	\$ 241,153,834	\$ 224,824,731
Less Allowance for Uncollectible Taxes	(9,325,936)	(8,910,093.5)	(8,910,093.5)	(8,440,384)	(7,868,866)
Net Property Taxes	\$ 257,129,364	\$ 245,664,007	\$ 245,664,007	\$ 232,713,450	\$ 216,955,865
<b>Revenue from Personal Property</b>					
Replacement Tax	\$ 19,000,000	\$ 15,000,000	\$ 15,000,000	\$ 19,849,500	\$ 18,164,000
Net Tax Sources	\$ 276,129,364	\$ 260,664,007	\$ 260,664,007	\$ 252,562,950	\$ 235,119,865
Adjustment to match working cash borrowings	(4,929,365)	(4,564,007)	(4,564,007)	(4,562,950)	(4,319,865)
Working Cash Financing at 95% of Gross Tax Sources	\$ 271,200,000	\$ 256,100,000	\$ 256,100,000	\$ 248,000,000	\$ 230,800,000
Investment Income	\$ 2,100,000	\$ 3,337,000	\$ 2,600,000	\$ 3,033,675	\$ 1,523,399
Land Rentals	23,000,000	23,000,000	21,500,000	23,036,179	20,628,245
Sewer Permit Fees	—	—	—	1,064,300	1,100,992
Sewer Service Agreement Revenue	1,750,000	2,500,000	1,500,000	1,448,371	2,286,078
User Charge	43,000,000	47,000,000	46,000,000	41,301,817	53,252,035
Resource Recovery	600,000	625,000	600,000	559,373	295,602
Lockport Electrical Energy Generation	1,200,000	1,200,000	1,200,000	1,386,344	1,323,132
Miscellaneous (details below)	11,295,000	16,358,329	11,796,000	15,639,376	15,620,329
Subtotal	\$ 82,945,000	\$ 94,020,329	\$ 85,196,000	\$ 87,469,435	\$ 96,029,812
Adjustment to Net Assets Available for Projected Receipts	—	1,167,300	—	(105,600)	7,254,500
Equity Transfer	5,500,000	4,200,000	4,200,000	4,200,000	6,000,000
<b>GRAND TOTAL</b>	<b>\$ 359,645,000</b>	<b>\$ 355,487,629</b>	<b>\$ 345,496,000</b>	<b>\$ 339,563,835</b>	<b>\$ 340,084,312</b>
<hr/>					
<b>TIF Surplus Distribution</b>	\$ 8,000,000	\$ 10,200,000	\$ 9,500,000	\$ 10,711,878	\$ 11,811,280
TIF Differential Fee	225,000	225,000	225,000	225,000	225,000
Land Sales	—	3,073,329	—	—	50,200
Claims & Damage Settlements	—	10,000	—	178,781	213,158
Scrap Sales	50,000	75,000	50,000	118,865	116,041
Sales of Automobiles	20,000	27,000	18,000	29,262	42,440
Interest on Taxes - Cook County Treasurer	—	48,000	3,000	34,321	10,265
Other	3,000,000	2,700,000	2,000,000	4,341,269	3,151,945
<b>Total</b>	<b>\$ 11,295,000</b>	<b>\$ 16,358,329</b>	<b>\$ 11,796,000</b>	<b>\$ 15,639,376</b>	<b>\$ 15,620,329</b>

**CORPORATE FUND FINANCING  
2020 - 2015**

	ESTIMATED			ACTUAL			
	2020 (1)	2019 REVISED	2019 ORIGINAL	2018	2017	2016	2015
<b>BORROWINGS</b>							
Working Cash Loans Current Year	\$ 271,200,000	\$ 190,000,000	\$ 256,100,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000
Working Cash Loans Prior Year	—	—	—	—	—	—	—
<b>Total Borrowings</b>	<b>\$ 271,200,000</b>	<b>\$ 190,000,000</b>	<b>\$ 256,100,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000	\$ 190,000,000
Working Cash Loans Repaid							
Prior	—	—	—	—	—	—	—
<b>Total Repayments</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>	<b>\$ 190,000,000</b>

**(1) FINANCING LIMITATION**

		2020
		(In Millions)
Property Tax Levy	\$	266.5
Personal Property Replacement Tax		19.0
Total	\$	285.5
* Borrowing Limitation		95.0%
Total Available for Financing	\$	271.2
* Statutory limitation is 100%		

**CORPORATE WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2020 AND 2019**

	ASSETS			
	2020		2019	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 94,000,000	\$ 94,000,000	\$ 91,228,000	\$ 91,228,000
Due from Corporate Fund	190,000,000	190,000,000	190,000,000	190,000,000
<b>Total Current Assets</b>	<u>\$ 284,000,000</u>	<u>\$ 284,000,000</u>	<u>\$ 281,228,000</u>	<u>\$ 281,228,000</u>
	FUND EQUITY			
Estimated Revenue & Other Financing Sources		\$ 2,400,000		\$ 2,100,000
<b>ASSETS AVAILABLE FOR 2020 AND 2019</b>		<u>\$ 286,400,000</u>		<u>\$ 283,328,000</u>
<b>FUND EQUITY</b>		<u>\$ 284,000,000</u>		<u>\$ 281,228,000</u>

**CORPORATE WORKING CASH FUND  
REVENUES  
2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Money & Property					
Investment Income	\$ 2,400,000	\$ 2,082,000	\$ 2,100,000	\$ 1,705,082	\$ 817,809
Revenue from Miscellaneous Sources	—	—	—	—	—
<b>TOTAL</b>	<u>\$ 2,400,000</u>	<u>\$ 2,082,000</u>	<u>\$ 2,100,000</u>	<u>\$ 1,705,082</u>	<u>\$ 817,809</u>

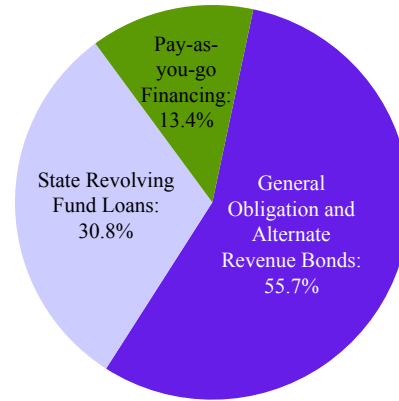
**CAPITAL FUNDS FINANCIAL NARRATIVE**

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 2020 revenue sources include 13.4 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 2020 revenues, while General Obligation and Alternate Revenue Bonds account for 55.7 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.

**2020 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 2020 appropriation is \$214.3 million, a decrease of \$163.9 million from the 2019 Adjusted Budget, or 43.3 percent. The appropriation varies by the scheduled awards of major projects.

The CIBF balance sheet on page 93 estimates the net assets appropriable for 2020 at (\$653.4) million and (\$609.4) million for 2019. The CIBF balance sheet estimated negative net assets appropriable for 2020 and 2019 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 Improvement Bonds in any one year, plus amounts unissued from the prior three years. Bonds for State Revolving Fund loans are excluded. The District's non-referendum bonding authority was extended to 2034 by state statute, effective January 1, 2020, and the annual debt issuance authorization was increased from \$100.0 million to \$150.0 million in 2003. This level of authority allows the District to proceed with the award of multi-year contracts, then sell bonds as cash flow requirements demand during the course of the project. The Five-Year Financial Forecast on pages 59 - 70 presents detailed projections of the financial aspects of the capital program into the future.

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 2019 levy year is \$169.2 million and \$174.3 million for the 2020 levy year.

Illinois' Wastewater/Stormwater Revolving Loan Fund (SRF) provides low-interest loans to finance qualifying projects. The current interest rate for new loans to the District is 2.0 percent. The District expects to receive an allocation of \$70.0 million in 2020 and \$100.0 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 49.0 percent of construction cost financing for projects currently under construction and those with projected 2020 construction contract award dates. For 2019 and 2020, 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 \$5.5 million in accumulated interest income will be transferred to the Corporate Fund.

The District received \$33.8 million in federal funds to complete McCook Reservoir Stage 2. This lump sum payment to the District comes as a result of a pilot program established under the Water Resources Development Act of 2014, which evaluates the cost-effectiveness and project delivery efficiency of allowing non-federal interests to carry out construction of projects for flood risk management. The funds, which complete the federal cost share for the project, are held in a Restricted Asset account. The District will budget for these funds as grant revenue to be received in increments as the work progresses and are not expected to be depleted until 2029 when the project is completed.

### **Construction Fund**

The 2020 tax levy for the Construction Fund is \$7.0 million, a decrease of \$0.6 million, or 7.9 percent, from the 2019 Adjusted Budget. The fund will also be supported by existing assets appropriable to fund capital projects. The 2020 appropriation is \$15.3 million, a decrease of \$3.0 million, or 16.3 percent, from the 2019 Adjusted Budget. This decreased appropriation level reflects the anticipated expenditures for existing projects and the appropriations required to fund projects with 2020 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 2020, there is \$7.2 million budgeted for projects currently under construction and \$4.1 million for projects scheduled for award in 2020.

**CAPITAL IMPROVEMENTS BOND FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	<b>ASSETS</b>			
	<b>2020</b>		<b>2019</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 251,316,000	\$ 251,316,000	\$ 232,000,000	\$ 232,000,000
Grants Receivable	14,472,000	14,472,000	1,000,000	1,000,000
State Revolving Fund Loans Receivable	70,000,000	70,000,000	120,000,000	120,000,000
<b>Total Current Assets</b>	<b>\$ 335,788,000</b>	<b>\$ 335,788,000</b>	<b>\$ 353,000,000</b>	<b>\$ 353,000,000</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Contractual Services	\$ 53,000,000	\$ 53,000,000	\$ 74,000,000	\$ 74,000,000
Contracts Payable	936,142,338	936,142,338	888,357,685	888,357,685
<b>Total Current Liabilities</b>	<b>\$ 989,142,338</b>	<b>\$ 989,142,338</b>	<b>\$ 962,357,685</b>	<b>\$ 962,357,685</b>
Designated for Future Claims Liabilities	—	—	—	—
<b>Total Liabilities &amp; Designations</b>	<b>\$ 989,142,338</b>	<b>\$ 989,142,338</b>	<b>\$ 962,357,685</b>	<b>\$ 962,357,685</b>
<b>ASSETS APPROPRIABLE</b>				
Net Assets Appropriable		\$ (653,354,338)		\$ (609,357,685)
Net Assets Appropriated		\$ (653,354,338)		\$ (609,357,685)
Estimated Revenue		867,660,538		987,531,485
<b>Total Assets Appropriable</b>		<b>\$ 214,306,200</b>		<b>\$ 378,173,800</b>
<b>FUND EQUITY</b>				
	\$ (653,354,338)		\$ (609,357,685)	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 335,788,000</b>		<b>\$ 353,000,000</b>	

**CAPITAL IMPROVEMENTS BOND FUND**  
**APPROPRIABLE REVENUE**  
**2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Money & Property					
Bond Sales (Present & Future)	\$ 779,788,538	\$ —	\$ 850,664,185	\$ —	\$ —
Investment Income	6,900,000	6,707,000	7,800,000	5,647,153	3,938,820
<b>Subtotal</b>	<b>\$ 786,688,538</b>	<b>\$ 6,707,000</b>	<b>\$ 858,464,185</b>	<b>\$ 5,647,153</b>	<b>\$ 3,938,820</b>
Revenue from Miscellaneous Sources					
Federal & State Grants	\$ 14,472,000	\$ 14,177,000	\$ 11,267,300	\$ 15,304,009	\$ 16,137,198
State Revolving Fund Loans	70,000,000	50,000,000	120,000,000	87,614,400	168,986,700
Miscellaneous	2,000,000	2,000,000	2,000,000	2,753,981	2,179,586
<b>Subtotal</b>	<b>\$ 86,472,000</b>	<b>\$ 66,177,000</b>	<b>\$ 133,267,300</b>	<b>\$ 105,672,391</b>	<b>\$ 187,303,484</b>
<b>Total Revenue</b>	<b>\$ 873,160,538</b>	<b>\$ 72,884,000</b>	<b>\$ 991,731,485</b>	<b>\$ 111,319,543</b>	<b>\$ 191,242,304</b>
Other Financing Sources (Uses)					
Equity Transfer	\$ (5,500,000)	\$ (4,200,000)	\$ (4,200,000)	\$ (4,200,000)	\$ (13,000,000)
<b>GRAND TOTAL</b>	<b>\$ 867,660,538</b>	<b>\$ 68,684,000</b>	<b>\$ 987,531,485</b>	<b>\$ 107,119,543</b>	<b>\$ 178,242,304</b>

**CONSTRUCTION FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	<b>ASSETS</b>			
	<b>2020</b>		<b>2019</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 13,800,000	\$ 13,800,000	\$ 13,650,000	\$ 13,650,000
Taxes Receivable	7,334,000	7,262,400	11,290,500	11,322,000
Replacement Tax	—	—	—	—
<b>Total Current Assets</b>	<b>\$ 21,134,000</b>	<b>\$ 21,062,400</b>	<b>\$ 24,940,500</b>	<b>\$ 24,972,000</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Contracts Payable	\$ 1,250,000	\$ 1,250,000	\$ 2,075,700	\$ 2,075,700
Contractual Services	489,000	489,000	276,000	276,000
Due to:				
Construction Working Cash Fund	11,100,000	11,100,000	12,000,000	12,000,000
<b>Total Current Liabilities</b>	<b>\$ 12,839,000</b>	<b>\$ 12,839,000</b>	<b>\$ 14,351,700</b>	<b>\$ 14,351,700</b>
<b>Total Liabilities</b>		<b>\$ 12,839,000</b>		<b>\$ 14,351,700</b>
<b>ASSETS APPROPRIABLE FOR 2020 AND 2019</b>				
Net Assets Appropriable		<u>\$ 8,223,400</u>		<u>\$ 10,620,300</u>
Net Assets Appropriated		\$ 8,223,400		\$ 10,620,300
Estimated Revenue		<u>7,120,000</u>		<u>7,720,000</u>
<b>Total Assets Appropriable</b>		<u>\$ 15,343,400</u>		<u>\$ 18,340,300</u>
<b>FUND EQUITY</b>				
Designated for Future Claims Liabilities	\$ —		\$ —	
Undesignated	<u>8,295,000</u>		<u>10,588,800</u>	
<b>Total Fund Equity</b>	<b>\$ 8,295,000</b>		<b>\$ 10,588,800</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 21,134,000</b>		<b>\$ 24,940,500</b>	

**CONSTRUCTION FUND FINANCING**

**2020 - 2015**

	ESTIMATED			ACTUAL			
	2020 (1)	2019 REVISED	2019 ORIGINAL	2018	2017	2016	2015
<b>BORROWINGS</b>							
Working Cash Loans	\$ 6,700,000	\$ 7,200,000	\$ 7,200,000	\$ 11,100,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000
<b>Total Borrowings</b>	<b>\$ 6,700,000</b>	<b>\$ 7,200,000</b>	<b>\$ 7,200,000</b>	<b>\$ 11,100,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>	<b>\$ 12,000,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 7,200,000	\$ 11,100,000	\$ 11,100,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 10,000,000
Prior Year	—	—	—	—	—	—	—
<b>Total Repayments</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>

**(1) FINANCING LIMITATION**

2020	
(In Millions)	
Property Tax Levy	\$ 7.0
Personal Property Replacement Tax	—
<b>Total</b>	<b>\$ 7.0</b>
* Borrowing Limitation	95.0%
<b>Total Available for Financing</b>	<b>\$ 6.7</b>
* Statutory limitation is 100%	

**CONSTRUCTION FUND**

**APPROPRIABLE REVENUE**

**2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Property Taxes					
Gross Tax Levy	\$ 7,000,000	\$ 7,600,000	\$ 7,600,000	\$ 11,700,000	\$ 17,000,000
Less: Allowance for Uncollectible Taxes	(245,000)	(266,000)	(266,000)	(409,500)	(595,000)
Net Property Taxes	\$ 6,755,000	\$ 7,334,000	\$ 7,334,000	\$ 11,290,500	\$ 16,405,000
Adjustment to Match Working Cash Borrowings	(55,000)	(134,000)	(134,000)	(190,500)	(205,000)
Working Cash Financing (Maximum 95% of Gross Tax Sources)	\$ 6,700,000	\$ 7,200,000	\$ 7,200,000	\$ 11,100,000	\$ 16,200,000
Connection Impact Fees	—	—	20,000	—	740,250
Investment Income	400,000	427,000	500,000	402,688	196,389
Miscellaneous	20,000	20,000	—	38,213	624
User Charge	—	—	—	—	—
Equity Transfer from the Capital Improvements Bond Fund	—	—	—	—	7,000,000
Subtotal	\$ 420,000	\$ 447,000	\$ 520,000	\$ 440,902	\$ 7,937,263
Adjustment to Net Assets Available for Projected Receipts	—	(554,600)	—	(461,800)	(1,201,100)
<b>Total</b>	<b>\$ 7,120,000</b>	<b>\$ 7,092,400</b>	<b>\$ 7,720,000</b>	<b>\$ 11,079,102</b>	<b>\$ 22,936,163</b>

**CONSTRUCTION WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019  
AND ESTIMATED AMOUNTS AVAILABLE FOR 2020 AND 2019**

	ASSETS			
	2020		2019	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 11,500,000	\$ 11,500,000	\$ 11,260,000	\$ 11,260,000
Due from Construction Fund	7,200,000	7,200,000	11,100,000	11,100,000
<b>Total Current Assets</b>	<b>\$ 18,700,000</b>	<b>\$ 18,700,000</b>	<b>\$ 22,360,000</b>	<b>\$ 22,360,000</b>
	FUND EQUITY			
Estimated Revenue & Other Financing Sources		\$ 300,000		\$ 300,000
<b>ASSETS APPROPRIABLE FOR 2020 &amp; 2019</b>		<b>\$ 19,000,000</b>		<b>\$ 22,660,000</b>
<b>FUND EQUITY</b>	<b>\$ 18,700,000</b>		<b>\$ 22,360,000</b>	

**CONSTRUCTION WORKING CASH FUND  
REVENUES  
2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Money & Property					
Investment Income	\$ 300,000	\$ 294,000	\$ 300,000	\$ 227,837	\$ 116,028
Revenue from Miscellaneous Sources	—	—	—	—	—
<b>TOTAL</b>	<b>\$ 300,000</b>	<b>\$ 294,000</b>	<b>\$ 300,000</b>	<b>\$ 227,837</b>	<b>\$ 116,028</b>

## OTHER FUNDS FINANCIAL NARRATIVE

**The Stormwater Management Fund** was established in 2005 to fund stormwater management activities throughout all of Cook County. The 2020 property tax levy for the Stormwater Management Fund is \$52.9 million, no change from the 2019 Adjusted Budget. An equity transfer to the Bond Redemption & Interest Fund is planned in the amount of \$6.0 million to pay the principal and interest on two Stormwater Alternative Revenue Bonds and State Revolving Fund loans. 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 \$116.3 million appropriation for 2020 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 2020 property tax levy for the B&I Fund is \$246.5 million, a decrease of \$2.7 million, or 1.1 percent, from the 2019 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or State Revolving Fund loans. The 2020 appropriation for this fund is \$233.0 million, a decrease of \$5.3 million, or 2.2 percent from the 2019 Original Budget.

Property tax levy collections are invested prior to the time when actual principal and interest payments must be made. Investment income earned on tax collections is credited to the specific sub-funds for each bond issue. The amount of estimated investment income for 2019 projected year end is \$3.1 million, while the 2020 estimate is \$1.6 million, an increase of \$0.3 million from the 2019 Original Budget. An equity transfer from the Stormwater Management Fund of \$6.0 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 524 - 528.

**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 2020, 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 2020 appropriation for this fund is \$34.4 million, an increase of \$2.6 million, or 8.3 percent, from the 2019 Adjusted Budget. The maximum fund balance that can be accumulated is 0.05 percent of the last known EAV. For the 2020 Budget, using the last known EAV of 2018, the maximum accumulation is estimated at \$77.9 million. The allowance for accounts payable and estimated liabilities is estimated at \$0.3 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 521.

**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 2020 is \$72.2 million, an increase of \$662,200 from the 2019 Adjusted Levy. The levy is calculated based on a statutory multiplier of 4.19 times employee contributions made two years prior, or 2018 and 2017, respectively. Additionally, \$18.4 million from Personal Property Replacement Tax is allocated to the Retirement Fund tax levy for 2020.

The appropriable resources and appropriation consist of the collection of the previous year's property tax levy plus personal property replacement tax receipts. The 2020 appropriation is \$87.3 million, an increase of \$0.04 million, or 0.04 percent, from the 2019 Adjusted Budget. An expanded presentation on the Retirement Fund is made on pages 529 - 531.

**STORMWATER MANAGEMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	ASSETS			
	2020		2019	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 50,500,000	\$ 50,500,000	\$ 29,120,000	\$ 29,120,000
Taxes Receivable	51,073,590	51,506,994	46,152,090	46,587,666
<b>Total Current Assets</b>	<b>\$ 101,573,590</b>	<b>\$ 102,006,994</b>	<b>\$ 75,272,090</b>	<b>\$ 75,707,666</b>
	<b>LIABILITIES &amp; FUND EQUITY</b>			
<b>CURRENT LIABILITIES</b>				
Unpaid Bills:				
Accrued Salaries & Wages	\$ 300,000	\$ 300,000	\$ 100,000	\$ 100,000
Contracts Payable	2,346,379	2,346,379	2,000,666	2,000,666
Vouchers Payable	4,301,039	4,301,039	1,300,000	1,300,000
Due to:				
Stormwater Working Cash Fund	26,500,000	26,500,000	26,500,000	26,500,000
<b>Total Current Liabilities</b>	<b>\$ 33,447,418</b>	<b>\$ 33,447,418</b>	<b>\$ 29,900,666</b>	<b>\$ 29,900,666</b>
Designated for Future Claims Liabilities		\$ —		\$ —
<b>Total Current Liabilities and Designations</b>		<b>\$ 33,447,418</b>		<b>\$ 29,900,666</b>
<b>ASSETS APPROPRIABLE FOR 2020 &amp; 2019</b>				
Net Assets Appropriable		\$ 68,559,576		\$ 45,807,000
Net Assets Appropriated		\$ 68,559,576		\$ 45,807,000
Equity Transfer to Bond and Interest Fund				
Estimated Revenue		47,698,424		45,603,100
<b>Total Assets Appropriable</b>		<b>\$ 116,258,000</b>		<b>\$ 91,410,100</b>
<b>FUND EQUITY</b>	\$ 68,126,172		\$ 45,371,424	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 101,573,590</b>		<b>\$ 75,272,090</b>	



**STORMWATER MANAGEMENT FUND FINANCING**  
**2020 - 2015**

	ESTIMATED			ACTUAL			
	2020 (1)	2019 REVISED	2019 ORIGINAL	2018	2017	2016	2015
<b>BORROWINGS</b>							
Working Cash Loans	\$ 50,300,000	\$ 26,500,000	\$ 50,300,000	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000
<b>Total Borrowings</b>	<b>\$ 50,300,000</b>	<b>\$ 26,500,000</b>	<b>\$ 50,300,000</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 26,500,000</b>	<b>\$ 12,400,000</b>
<b>REPAYMENTS</b>							
Working Cash Loans Repaid							
Current	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 26,500,000	\$ 12,400,000	\$ 10,000,000
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>\$ 26,500,000</b>	<b>\$ 12,400,000</b>	<b>\$ 10,000,000</b>

**(1) FINANCING LIMITATION**

2020	
(In Millions)	
Property Tax Levy	\$ 52.9
Personal Property Replacement Tax	—
<b>Total</b>	<b>\$ 52.9</b>
* Borrowing Limitation	95.0%
<b>Total Available for Financing</b>	<b>\$ 50.3</b>
* Statutory limitation is 100%	

**STORMWATER MANAGEMENT FUND**  
**APPROPRIABLE REVENUE**  
**2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Property Taxes					
Gross Tax Levy	\$ 52,926,000	\$ 52,926,000	\$ 52,926,000	\$ 47,826,000	\$ 40,856,008
Less: Allowance for Uncollectible Taxes	(1,852,410)	(1,852,410)	(1,852,410)	(1,673,910)	(1,429,960)
Net Property Taxes	\$ 51,073,590	\$ 51,073,590	\$ 51,073,590	\$ 46,152,090	\$ 39,426,048
Adjustment to Match Working Cash Borrowings	(773,590)	(773,590)	(773,590)	(752,090)	(626,048)
Working Cash Financing at 95% of Gross Tax Sources	\$ 50,300,000	\$ 50,300,000	\$ 50,300,000	\$ 45,400,000	\$ 38,800,000
Revenue from Money & Property					
Investment Income	\$ 1,000,000	\$ 1,264,961	\$ 800,000	\$ 688,837	\$ 222,780
Sewer Permit Fees	1,000,000	900,000	900,000	—	—
Miscellaneous	—	—	—	7,429	28,745
Grants	1,360,024	5,316,400	—	347,406	—
Subtotal	\$ 3,360,024	\$ 7,481,361	\$ 1,700,000	\$ 1,043,672	\$ 251,525
Adjustment to Net Assets Available for Projected Receipts	\$ —	\$ 434,700	\$ —	\$ (369,200)	\$ 212,750
Equity Transfer to Bond Redemption & Interest Fund	(5,961,600)	(5,771,900)	(6,396,900)	(5,770,550)	—
<b>Total</b>	<b>\$ 47,698,424</b>	<b>\$ 52,444,161</b>	<b>\$ 45,603,100</b>	<b>\$ 40,303,922</b>	<b>\$ 39,264,275</b>

**STORMWATER WORKING CASH FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	ASSETS			
	2020		2019	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 11,128,000	\$ 11,128,000	\$ 11,128,000	\$ 11,128,000
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>\$ 37,628,000</b>	<b>\$ 37,628,000</b>
<b>FUND EQUITY</b>				
Estimated Revenue & Other Financing Sources		\$ 200,000		\$ 300,000
<b>ASSETS APPROPRIABLE FOR 2020 AND 2019</b>		<b>\$ 37,828,000</b>		<b>\$ 37,928,000</b>
<b>FUND EQUITY</b>	<b>\$ 37,628,000</b>		<b>\$ 37,628,000</b>	

**STORMWATER WORKING CASH FUND  
APPROPRIABLE REVENUE  
2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Investment Income	\$ 200,000	\$ 335,000	\$ 300,000	\$ 186,430	\$ 94,365
<b>GRAND TOTAL</b>	<b>\$ 200,000</b>	<b>\$ 335,000</b>	<b>\$ 300,000</b>	<b>\$ 186,430</b>	<b>\$ 94,365</b>

**BOND REDEMPTION & INTEREST FUND**  
**ESTIMATED BALANCE SHEET**  
**JANUARY 1, 2020 AND 2019**

	<b>ASSETS</b>			
	<b>2020</b>		<b>2019</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 90,067,000	\$ 90,067,000	\$ 112,000,000	\$ 112,000,000
Restricted Cash	—	—	—	—
Deposits with Escrow Agent	—	—	—	—
Taxes Receivable	240,486,212	241,497,138	235,258,891	236,244,870
<b>Total Current Assets</b>	<b>\$ 330,553,212</b>	<b>\$ 331,564,138</b>	<b>\$ 347,258,891</b>	<b>\$ 348,244,870</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Bonds Payable	\$ 120,079,531		\$ 123,343,361	
Interest Payable	112,942,336		115,014,180	
Program Expense Payable			—	
Equity Transfer	—		—	
<b>Total Current Liabilities</b>	<b>\$ 233,021,867</b>		<b>\$ 238,357,541</b>	
<b>ASSETS APPROPRIABLE FOR 2020 AND 2019</b>				
Net Assets Appropriable		\$ 331,564,138		\$ 348,244,870
Equity Transfer from Stormwater Management Fund		5,961,600		6,396,900
Estimated Revenue		1,600,000		1,900,000
Total Assets Available		\$ 339,125,738		\$ 356,541,770
Liabilities Payable from Restricted Assets		—		—
Less: Assets Available for Future Years (Principal & Interest Payments)		(106,103,871)		(118,184,229)
<b>Total Assets Appropriable</b>		<b>\$ 233,021,867</b>		<b>\$ 238,357,541</b>
<b>FUND EQUITY</b>				
Undesignated	\$ 97,531,345		\$ 108,901,350	
<b>TOTAL FUND EQUITY</b>	<b>\$ 97,531,345</b>		<b>\$ 108,901,350</b>	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 330,553,212</b>		<b>\$ 347,258,891</b>	

**BOND REDEMPTION & INTEREST FUND**  
**APPROPRIABLE REVENUE**  
**2020-2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Taxes					
Real Estate					
Current	\$ 242,978,297	\$ 237,696,807	\$ 237,696,807	\$ 228,039,945	\$ 224,164,748
Prior	(1,481,160)	(1,451,937)	(1,451,937)	(1,422,340)	(1,191,583)
<b>Total</b>	<b>\$ 241,497,138</b>	<b>\$ 236,244,870</b>	<b>\$ 236,244,870</b>	<b>\$ 226,617,605</b>	<b>\$ 222,973,165</b>
Revenue from Money & Property					
Investment Income	\$ 1,600,000	\$ 3,116,000	\$ 1,900,000	\$ 2,471,557	\$ 1,346,189
Revenue from Miscellaneous Sources					
Cash Available	90,067,000	112,000,000	112,000,000	112,917,005	110,265,700
Other	—	—	—	35,531	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	5,961,600	5,771,900	6,396,900	5,770,550	3,269,250
Less: Amount to Be Expended After Budget Year	(106,103,871)	(118,775,229)	(118,184,229)	(91,508,062)	(122,217,224)
<b>GRAND TOTAL</b>	<b>\$ 233,021,867</b>	<b>\$ 238,357,541</b>	<b>\$ 238,357,541</b>	<b>\$ 256,304,186</b>	<b>\$ 215,647,300</b>

**RESERVE CLAIM FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	ASSETS			
	2020		2019	
	AMOUNT	AVAILABLE FOR APPROPRIATION	AMOUNT	AVAILABLE FOR APPROPRIATION
<b>CURRENT ASSETS</b>				
Cash & Investments	\$ 26,700,000	\$ 26,700,000	\$ 25,724,293	\$ 25,724,293
Taxes Receivable	7,237,500	7,273,800	5,790,000	5,822,400
<b>Total Current Assets</b>	<b>\$ 33,937,500</b>	<b>\$ 33,973,800</b>	<b>\$ 31,514,293</b>	<b>\$ 31,546,693</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>ACCOUNTS PAYABLE &amp; OTHER LIABILITIES</b>	\$ 278,800	\$ 278,800	\$ 378,893	\$ 378,893
<b>ASSETS APPROPRIABLE FOR 2020 AND 2019</b>				
Net Assets Appropriable		\$ 33,695,000		\$ 31,167,800
Equity Transfer to Bond and Interest Fund		—		—
Estimated Revenue		700,000		600,000
<b>Total Assets Appropriable</b>		<b>\$ 34,395,000</b>		<b>\$ 31,767,800</b>
<b>FUND EQUITY</b>	\$ 33,658,700		\$ 31,135,400	
<b>Total Liabilities &amp; Fund Equity</b>	<b>\$ 33,937,500</b>		<b>\$ 31,514,293</b>	

**RESERVE CLAIM FUND  
APPROPRIABLE REVENUE  
2020 - 2017**

REVENUE DESCRIPTION	ESTIMATED			ACTUAL	
	2020 BUDGET	2019 ADJUSTED	2019 BUDGET	2018	2017
Revenue from Taxes					
Real Estate - Current	\$ 7,312,500	\$ 5,850,000	\$ 5,850,000	\$ 5,752,500	\$ 5,655,000
Real Estate - Prior	(38,700)	(27,600)	(27,600)	(21,784)	(28,177)
Replacement Tax	—	—	—	—	—
<b>SUBTOTAL</b>	<b>\$ 7,273,800</b>	<b>\$ 5,822,400</b>	<b>\$ 5,822,400</b>	<b>\$ 5,730,716</b>	<b>\$ 5,626,823</b>
Investment Income & Miscellaneous	700,000	681,000	600,000	465,514	309,988
<b>GRAND TOTAL</b>	<b>\$ 7,973,800</b>	<b>\$ 6,503,400</b>	<b>\$ 6,422,400</b>	<b>\$ 6,196,230</b>	<b>\$ 5,936,811</b>

**RETIREMENT FUND  
ESTIMATED BALANCE SHEET  
JANUARY 1, 2020 AND 2019**

	<b>ASSETS</b>			
	<b>2020</b>		<b>2019</b>	
	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>	<b>AMOUNT</b>	<b>AVAILABLE FOR APPROPRIATION</b>
<b>CURRENT ASSETS</b>				
Taxes Receivable	\$ 69,060,600	\$ 69,060,600	\$ 69,030,500	\$ 69,030,500
Replacement Tax	18,258,400	18,258,400	18,250,500	18,250,500
<b>Total Current Assets</b>	<b>\$ 87,319,000</b>	<b>\$ 87,319,000</b>	<b>\$ 87,281,000</b>	<b>\$ 87,281,000</b>
<b>LIABILITIES &amp; FUND EQUITY</b>				
<b>ASSETS APPROPRIABLE FOR 2020 AND 2019</b>				
Net Assets Appropriable		\$ 87,319,000		\$ 87,281,000
<b>Total Assets Appropriable Due to Retirement Fund</b>		<b>\$ 87,319,000</b>		<b>\$ 87,281,000</b>
<b>FUND EQUITY</b>				
<b>Total Fund Equity</b>	<b>\$ 87,319,000</b>		<b>\$ 87,281,000</b>	

**RETIREMENT FUND  
APPROPRIABLE REVENUE  
2020 - 2017**

REVENUE DESCRIPTION	<b>ESTIMATED</b>			<b>ACTUAL</b>	
	<b>2020 BUDGET</b>	<b>2019 ADJUSTED</b>	<b>2019 BUDGET</b>	<b>2018</b>	<b>2017</b>
Revenue from Taxes					
Real Estate - Current	\$ 69,060,600	\$ 69,030,500	\$ 69,030,500	\$ 70,867,800	\$ 62,880,558
Replacement Tax	18,258,400	18,250,500	18,250,500	18,736,200	16,624,500
<b>GRAND TOTAL</b>	<b>\$ 87,319,000</b>	<b>\$ 87,281,000</b>	<b>\$ 87,281,000</b>	<b>\$ 89,604,000</b>	<b>\$ 79,505,058</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 2011 through 2020. The structure of sub-units and sections, the number of actual 2018 full-time equivalent (FTE) positions, as well as FTE positions budgeted for 2019 and 2020 are shown in the organization chart. In this section, and throughout the Budget, actual expenditures are used for 2018 with estimated costs for 2019 and budgeted costs for 2020. Additional information for each department includes:

- A *Department Head Transmittal Letter* provides an outline of department plans for the 2020 budget year.
- A *Narrative* explanation of the responsibilities of the department, changes in appropriation from the 2019 Budget, accomplishments during 2019, and significant features for the 2020 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 2019. Actual costs are shown for 2018.
- *Performance Data* measures specific department activities by cost and, where possible, measurable units, and compares budgeted costs for 2020 and 2019 with actual costs for 2018.
- The *Line Item Analysis* provides detailed line item appropriations over a three-year period. Appropriations for 2020 are shown as proposed by the Executive Director. Original and adjusted appropriations and estimated expenditures are shown for 2019. Actual 2018 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 2020 salary appropriation is adjusted for vacancies in the Line Item Analysis.

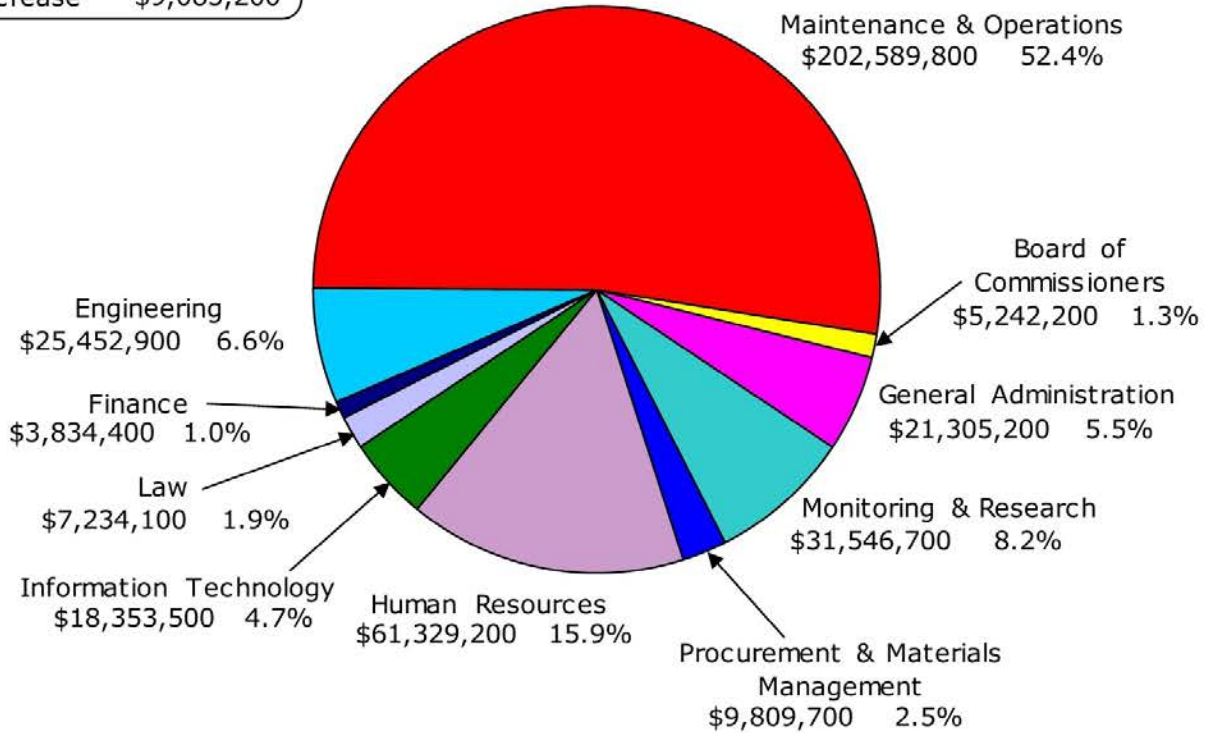
<a href="#">Corporate Fund Appropriations, Expenditures, and Budgeted FTE Positions, 2011 - 2020</a> .....	<a href="#">107</a>
<a href="#">Corporate Fund Organization Chart</a> .....	<a href="#">108</a>
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Detailed Appropriations by Department:	
<a href="#">Board of Commissioners</a> .....	<a href="#">113</a>
<a href="#">General Administration</a> .....	<a href="#">123</a>
<a href="#">Monitoring &amp; Research</a> .....	<a href="#">141</a>
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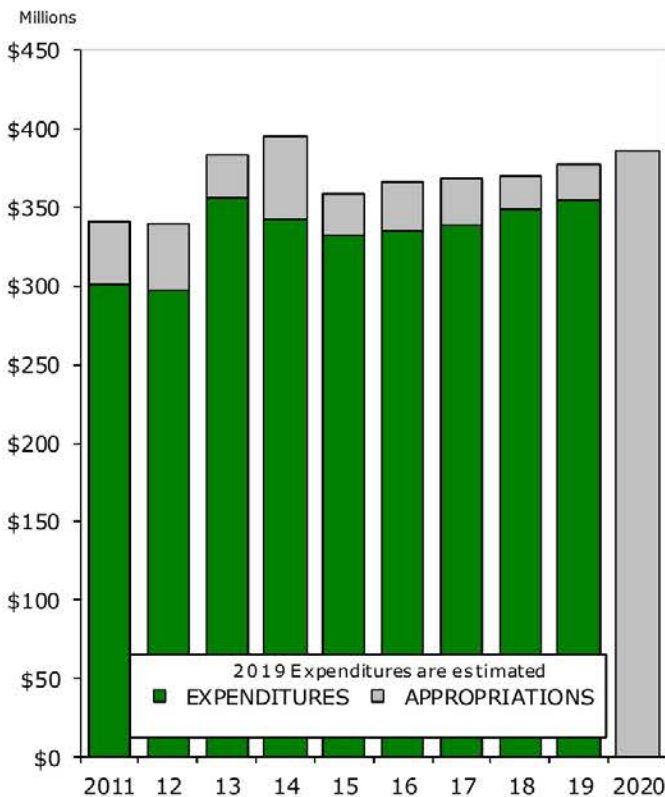
# CORPORATE FUND

## FUNCTIONS

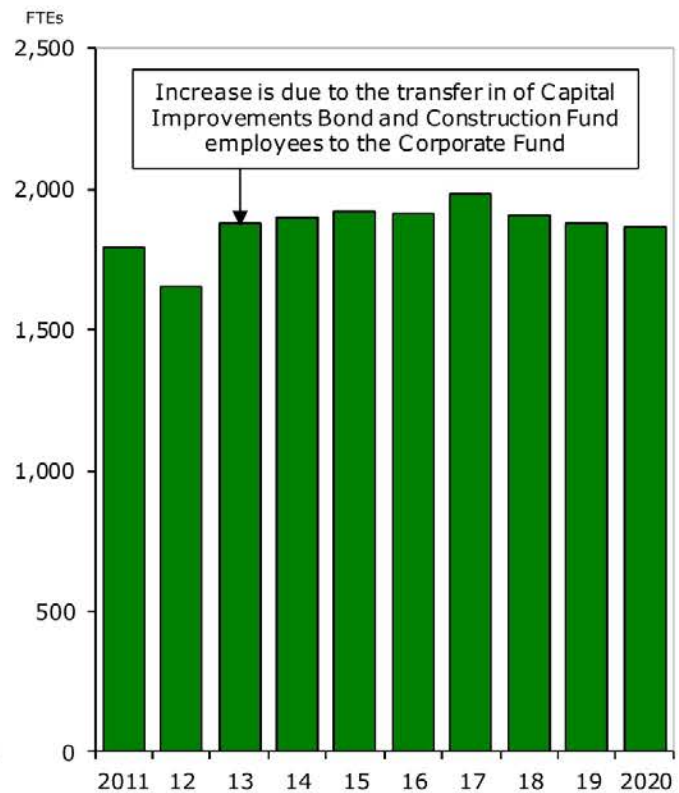
2020	\$386,697,700
2019	\$377,612,500
Increase	\$9,085,200



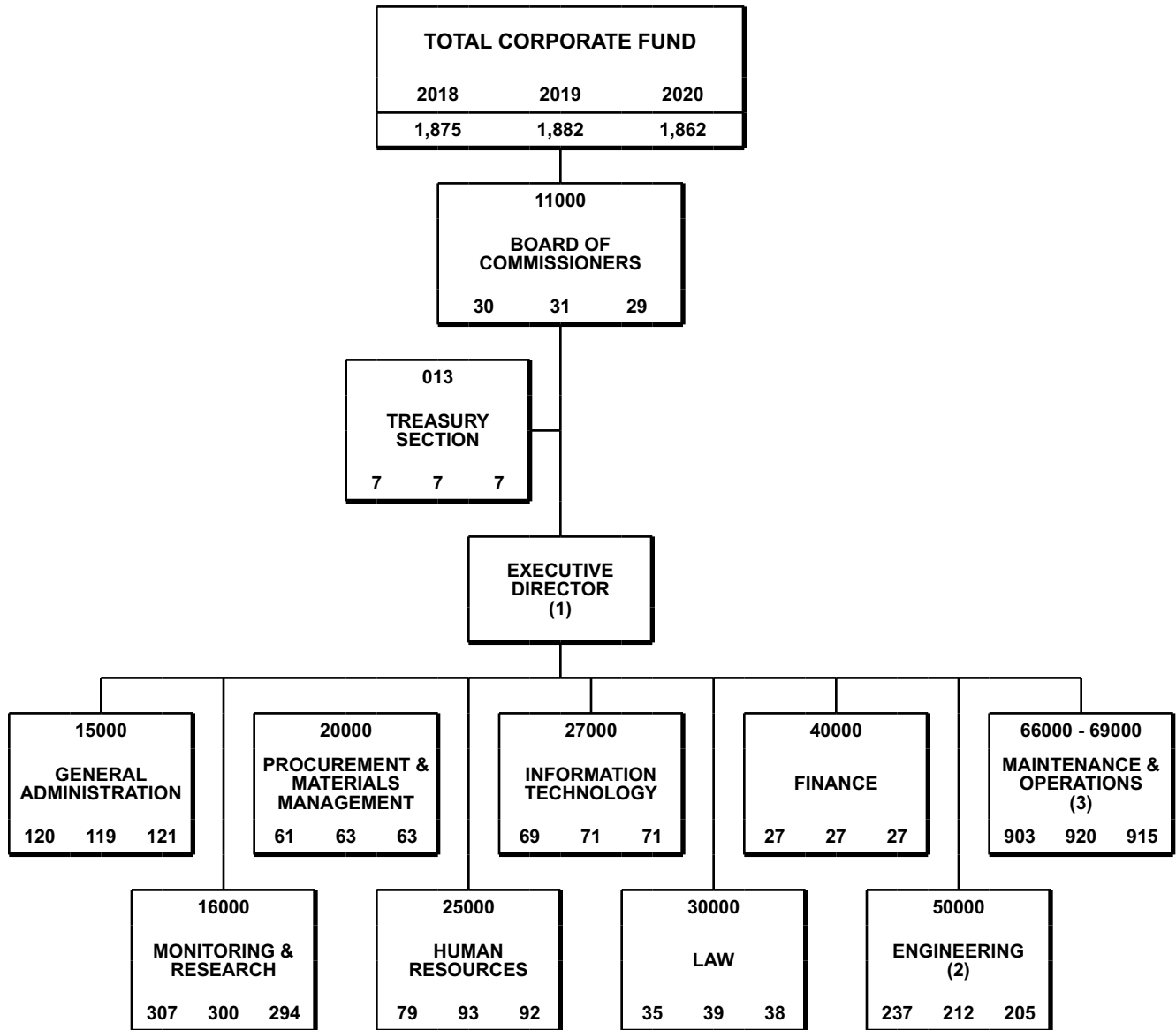
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# CORPORATE FUND



- (1) Personnel count for the Executive Director's Office is reflected in General Administration.
- (2) 64 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.

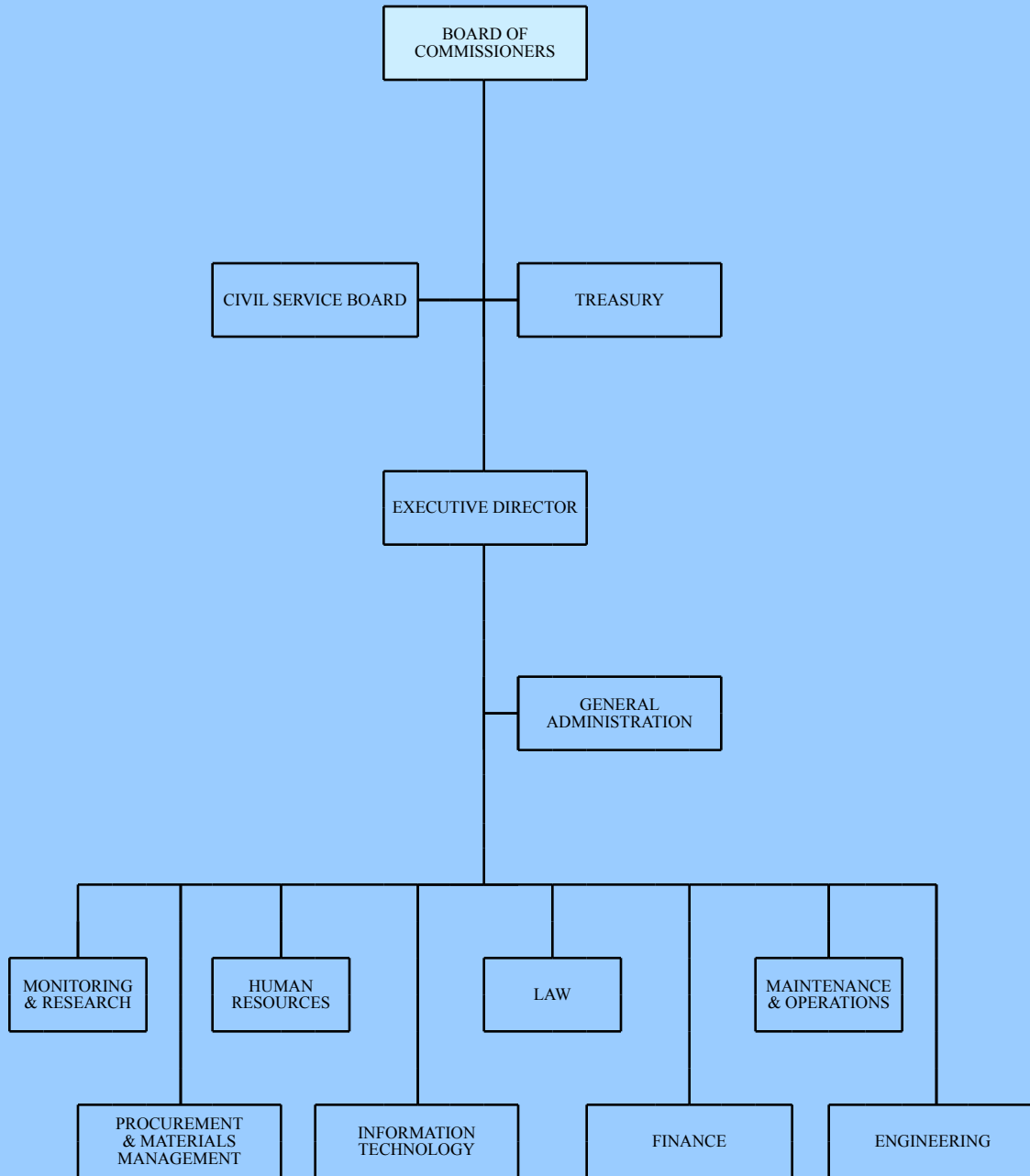
101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$178,939,010	\$ 189,425,600	\$ 188,074,500	\$ 126,650,517	\$179,562,800	\$189,124,700	\$ —
601060	Compensation Plan Adjustments	7,480,251	7,730,900	8,825,800	6,115,895	7,366,500	9,006,500	—
601070	Social Security and Medicare Contributions	2,633,667	2,853,500	2,853,500	1,947,285	2,664,000	2,900,500	—
601080	Salaries of Nonbudgeted Employees	—	5,300	136,400	73,922	137,900	5,300	—
601090	Employee Claims	64,171	60,000	110,000	64,974	96,000	100,000	—
601100	Tuition and Training Payments	830,198	1,243,400	1,243,500	684,431	1,037,500	1,391,800	—
601250	Health and Life Insurance Premiums	42,874,277	46,804,400	46,804,400	30,571,333	44,202,600	47,509,500	—
601270	General Salary Adjustments	—	—	—	—	—	2,390,800	—
601300	Personal Services, N.O.C.	578,201	788,000	788,000	411,105	721,800	977,000	—
100	TOTAL PERSONAL SERVICES	233,399,776	248,911,100	248,836,100	166,519,461	235,789,100	253,406,100	—
612010	Travel	73,124	111,700	109,000	46,536	81,700	107,600	—
612030	Meals and Lodging	194,098	200,700	206,900	128,427	174,900	223,900	—
612040	Postage, Freight, and Delivery Charges	110,292	122,900	122,900	96,925	120,700	119,800	—
612050	Compensation for Personally-Owned Automobiles	146,366	158,500	158,300	121,421	147,300	155,000	—
612080	Motor Vehicle Operating Services	64,782	65,000	65,400	59,193	50,700	65,400	—
612090	Reprographic Services	99,192	126,400	141,300	138,887	88,900	78,300	—
612150	Electrical Energy	39,114,277	36,770,400	36,770,400	24,700,652	39,456,400	38,686,900	—
612160	Natural Gas	3,131,449	2,970,200	2,970,200	1,837,988	2,878,000	3,416,200	—
612170	Water and Water Services	2,045,898	2,120,200	2,120,200	1,467,814	1,986,900	2,195,300	—
612210	Communication Services	2,030,846	1,578,200	1,664,800	1,629,297	1,571,900	1,531,800	—
612240	Testing and Inspection Services	189,320	166,700	163,700	137,260	119,900	240,500	—
612250	Court Reporting Services	68,591	88,500	91,000	86,021	80,800	91,000	—
612260	Medical Services	90,437	121,100	121,100	106,600	109,900	127,600	—
612280	Subscriptions and Membership Dues	836,166	961,200	936,200	769,430	931,700	993,300	—
612290	Insurance Premiums	2,776,920	3,471,100	3,468,600	1,528,989	3,464,900	3,463,400	—
612330	Rental Charges	482,499	753,300	717,400	662,093	620,300	690,600	—
612340	Discount Lost	1,559	3,000	3,000	1,721	3,000	3,000	—
612360	Advertising	92,503	133,000	134,800	102,574	125,000	145,000	—
612370	Administration Building Operation	1,145,339	1,313,200	1,382,200	1,381,767	1,105,400	1,314,700	—
612390	Administration Building McMillan Pavilion Operation	691,856	782,900	828,900	828,775	631,700	782,900	—
612400	Intergovernmental Agreements	—	49,600	49,600	49,547	49,600	49,600	—
612410	Governmental Service Charges	3,780,003	3,667,100	3,667,100	2,967,681	3,664,200	3,921,200	—

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
612420	Maintenance of Grounds and Pavements	809,111	1,430,900	630,100	543,675	611,100	1,432,900	—
612430	Payments for Professional Services	3,028,204	4,950,100	4,475,800	3,658,114	3,207,000	5,303,800	—
612490	Contractual Services, N.O.C.	1,035,071	1,588,000	1,409,300	1,322,538	1,234,500	1,457,100	—
612520	Waste Material Disposal Charges	9,664,769	10,823,400	11,454,100	11,433,872	9,831,300	10,745,600	—
612530	Farming Services	20,000	24,000	18,200	18,200	18,200	60,000	—
612590	Sludge Disposal	3,785,843	4,100,000	4,100,000	4,100,000	3,700,000	4,100,000	—
612600	Repairs to Collection Facilities	2,974,998	3,486,100	3,783,900	3,763,343	3,653,700	3,380,500	—
612620	Repairs to Waterway Facilities	82,678	119,000	113,000	112,715	112,800	120,300	—
612650	Repairs to Process Facilities	5,330,334	5,982,800	6,402,800	6,363,984	5,819,300	9,946,100	—
612670	Repairs to Railroads	312,917	266,900	417,600	302,749	216,000	396,700	—
612680	Repairs to Buildings	737,631	1,589,700	1,630,800	1,125,769	1,333,900	1,470,900	—
612760	Repairs to Material Handling and Farming Equipment	328,799	315,900	315,900	296,422	293,400	310,200	—
612780	Safety Repairs and Services	309,763	442,000	502,000	495,936	444,000	446,100	—
612790	Repairs to Marine Equipment	96,375	89,000	89,000	88,301	86,400	100,100	—
612800	Repairs to Office Furniture and Equipment	101,516	54,500	80,800	73,799	65,600	67,400	—
612810	Computer Equipment Maintenance	182,898	340,100	340,100	117,664	174,700	247,500	—
612820	Computer Software Maintenance	4,133,437	4,341,200	4,342,100	3,780,973	3,324,000	4,251,800	—
612840	Communications Equipment Maintenance (Includes Software)	758,251	802,000	752,000	664,550	502,300	699,800	—
612860	Repairs to Vehicle Equipment	545,037	588,200	600,800	589,892	492,100	569,500	—
612970	Repairs to Testing and Laboratory Equipment	320,241	396,800	396,800	388,062	385,400	339,100	—
612990	Repairs, N.O.C.	12,581	38,000	38,000	28,348	31,700	36,300	—
200	TOTAL CONTRACTUAL SERVICES	91,735,969	97,503,500	97,786,100	78,118,502	93,001,200	103,884,700	—
623030	Metals	114,214	134,800	174,800	141,157	163,900	126,100	—
623070	Electrical Parts and Supplies	2,726,383	3,006,400	3,156,400	2,926,975	2,946,400	2,849,900	—
623090	Plumbing Accessories and Supplies	1,002,911	1,178,800	1,147,000	1,003,371	1,058,700	1,123,400	—
623110	Hardware	97,919	104,100	104,100	96,059	93,900	108,300	—
623130	Buildings, Grounds, Paving Materials, and Supplies	441,706	502,400	421,400	276,862	372,200	425,900	—
623170	Fiber, Paper, and Insulation Materials	46,502	53,800	63,800	63,650	61,200	76,300	—
623190	Paints, Solvents, and Related Materials	54,933	64,300	64,300	47,128	51,300	56,900	—
623250	Vehicle Parts and Supplies	165,069	178,400	200,200	198,594	166,000	180,300	—
623270	Mechanical Repair Parts	3,611,738	3,849,100	4,107,900	3,618,606	3,527,300	4,099,800	—

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623300	Manhole Materials	6,045	25,000	25,000	23,743	23,000	5,000	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	310,312	360,300	373,400	316,692	333,000	370,900	—
623530	Farming Supplies	29,382	32,000	27,000	18,466	18,900	19,000	—
623560	Processing Chemicals	9,573,111	12,445,500	11,627,100	11,377,817	9,937,700	11,087,300	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	1,009,414	1,068,600	1,050,200	989,148	1,049,600	1,036,000	—
623660	Cleaning Supplies	259,639	269,400	269,400	252,573	247,600	269,500	—
623680	Tools and Supplies	299,873	355,600	374,300	359,803	341,100	333,900	—
623700	Wearing Apparel	191,558	245,100	245,100	187,616	214,900	223,000	—
623720	Books, Maps, and Charts	17,978	20,100	21,400	15,710	17,600	20,400	—
623780	Safety and Medical Supplies	268,514	279,500	279,500	230,695	269,800	357,600	—
623800	Computer Software	139,890	138,800	157,200	76,456	82,500	477,000	—
623810	Computer Supplies	495,260	766,700	786,700	744,150	645,000	750,200	—
623820	Fuel	556,357	631,000	631,000	501,814	516,000	685,100	—
623840	Gases	64,181	85,700	85,700	81,875	74,500	84,700	—
623850	Communications Supplies	128,238	203,700	256,700	234,848	166,100	324,200	—
623860	Lubricants	164,728	234,100	235,700	207,833	217,600	208,600	—
623990	Materials and Supplies, N.O.C.	265,558	285,700	281,200	202,152	206,500	241,600	—
300	TOTAL MATERIALS AND SUPPLIES	22,041,412	26,518,900	26,166,500	24,193,792	22,802,300	25,540,900	—
634600	Equipment for Collection Facilities	44,118	60,000	51,700	50,476	50,500	40,000	—
634650	Equipment for Process Facilities	175,621	176,700	285,400	279,533	168,500	274,000	—
634670	Railroad Equipment	—	—	20,800	20,779	20,800	—	—
634760	Material Handling and Farming Equipment	11,627	467,200	404,000	373,612	378,000	44,500	—
634790	Marine Equipment	—	80,000	80,000	78,500	78,500	—	—
634810	Computer Equipment	5,680	202,000	145,100	145,066	144,400	200,000	—
634820	Computer Software	14,200	207,000	307,000	97,000	129,200	727,000	—
634840	Communications Equipment (Includes Software)	14,680	—	—	—	—	24,000	—
634860	Vehicle Equipment	—	2,099,000	2,092,000	1,956,751	1,868,600	1,411,000	—
634970	Testing and Laboratory Equipment	359,420	384,300	494,300	490,402	419,600	53,000	—
634990	Machinery and Equipment, N.O.C.	11,225	130,800	139,500	44,219	38,600	337,500	—
400	TOTAL MACHINERY AND EQUIPMENT	636,571	3,807,000	4,019,800	3,536,338	3,296,700	3,111,000	—
645680	Buildings	—	117,000	109,000	98,500	102,000	—	—
500	TOTAL CAPITAL PROJECTS	—	117,000	109,000	98,500	102,000	—	—

101 11000 - 69000	Fund: Corporate Department: All	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
667130	Taxes on Real Estate	683,013	755,000	695,000	682,846	683,000	755,000	—
700	TOTAL FIXED AND OTHER CHARGES	683,013	755,000	695,000	682,846	683,000	755,000	—
<b>TOTAL CORPORATE FUND</b>		<b>\$348,496,742</b>	<b>\$ 377,612,500</b>	<b>\$ 377,612,500</b>	<b>\$ 273,149,440</b>	<b>\$355,674,300</b>	<b>\$386,697,700</b>	<b>\$ —</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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Board of Commissioners

The Board of Commissioners' program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Board of Commissioners budget for 2020.

Respectfully submitted,



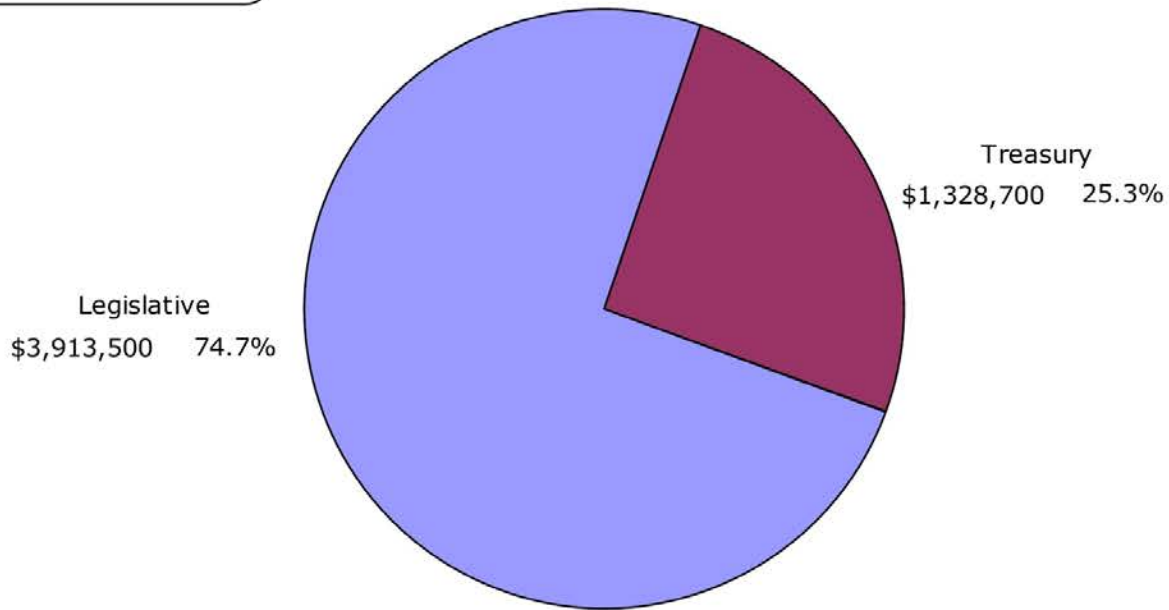
Mary Ann Boyle  
Treasurer



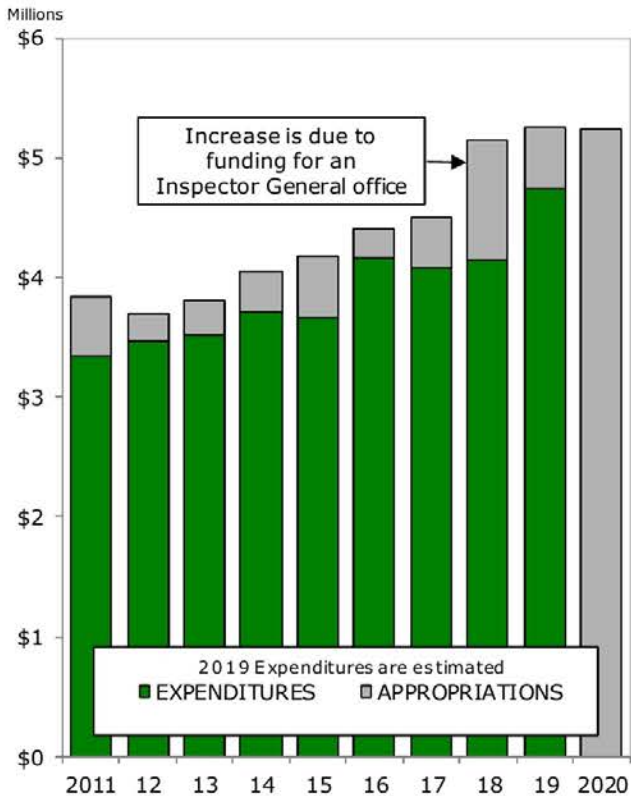
# BOARD OF COMMISSIONERS

## FUNCTIONS

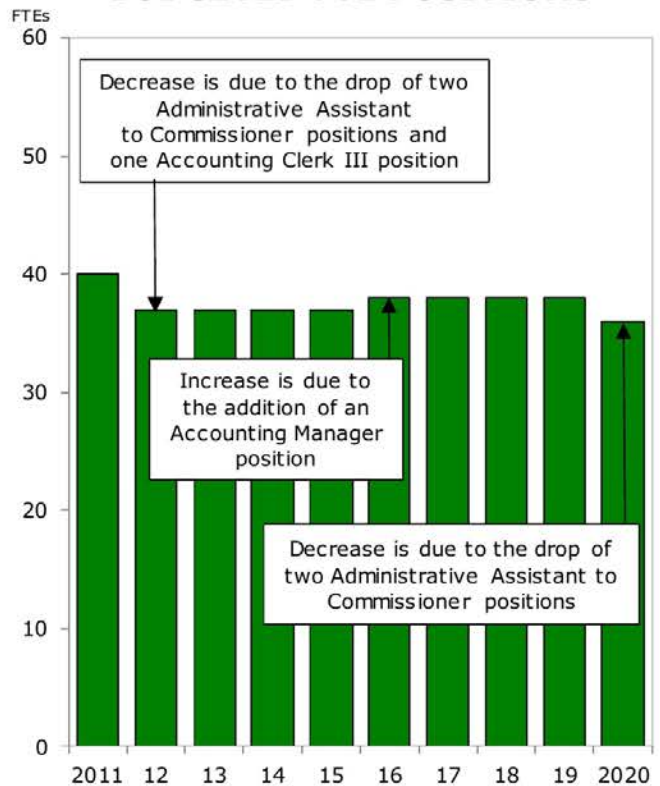
2020	\$5,242,200
2019	\$5,256,000
Decrease	(\$13,800)



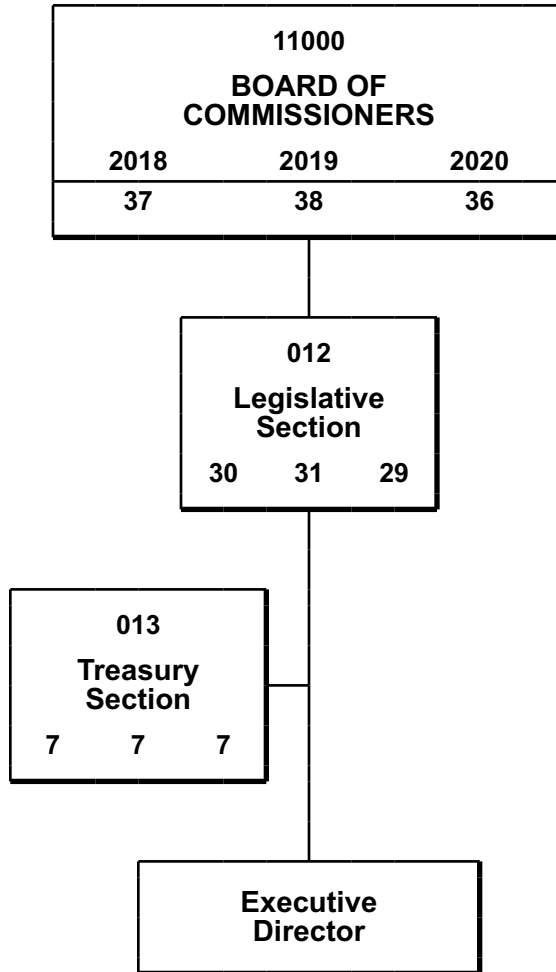
## APPROPRIATIONS & EXPENDITURES



## 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 2019 Accomplishments**

- The District entered into an Intergovernmental Agreement with Cook County, hiring the Office of the Independent Inspector General to provide Inspector General Services to the District for the first time in agency history;
- Investment interest income earned for the year was approximately \$18.2 million reflecting higher yields on interest-bearing investments due to four interest rate increases by the Federal Reserve during 2018;
- For the seventh 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, 2018, the Retirement Fund's funded ratio was 56.5 percent and the OPEB Trust Fund's funded ratio was 58.6 percent (based upon the update roll-forward procedures from 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 2018 Retiree Health Care Trust Comprehensive Annual Financial Report. This marks the 12th consecutive year that the Retiree Health Care Trust has been presented with the award;
- The District's banking and investment custody fees were reduced by 49 percent. This substantial decrease was the result of a Request for Proposal seeking banking and investment custody services for the next five years.

### **Budget Highlights**

The 2020 appropriation for the Board of Commissioners is \$5,242,200, a decrease of \$13,800, or 0.3 percent, from 2019. The staffing level has decreased from 38 to 36 positions to reflect the standard staffing level for the Board of Commissioners, which includes the drop of two Administrative Assistant to Commissioner positions.

The significant feature of the Treasury Section 2020 Budget is:

- Investment Interest Income Estimate: \$15.6 million or less - The Federal Reserve is expected to decrease rates in 2020, which will lead to lower investment yields for the year.

### **2020 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**

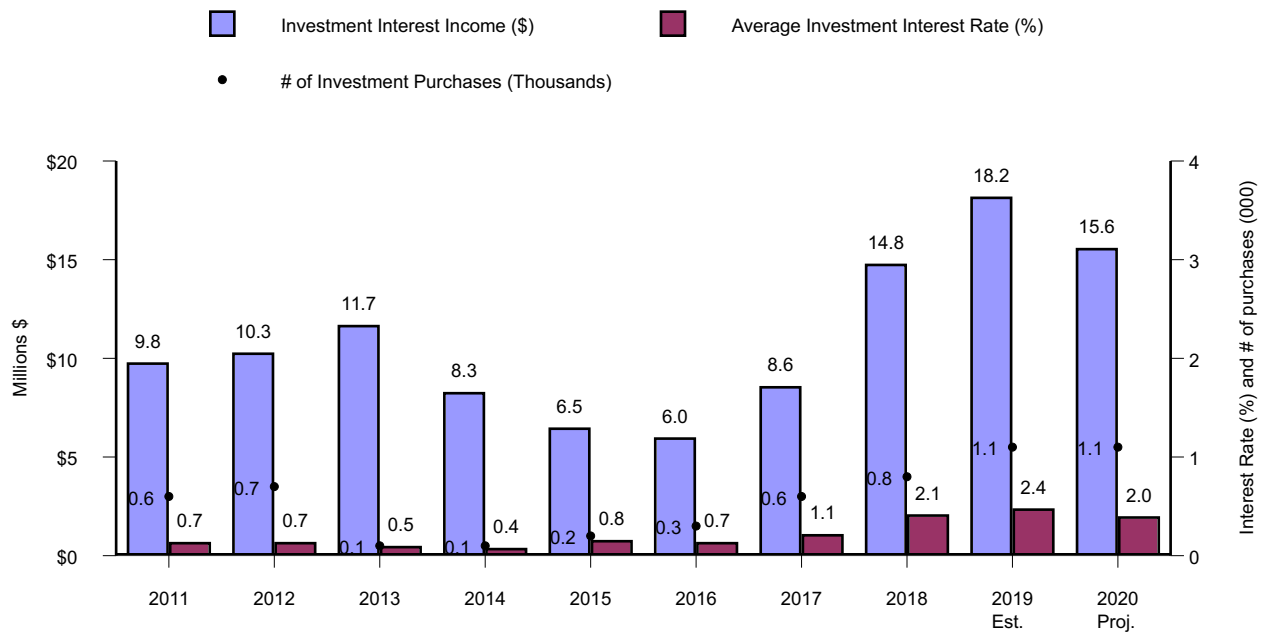
The Legislative Section continues to appropriate funds for an Inspector General. Inspectors General are accountable to the taxpayers. Their role is to detect and prevent waste, fraud, and abuse and thereby build trust in government. The Inspector General investigates complaints or allegations of wrongdoing 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 2011-2020**



Ending Investment Inventory (Par Value) (Dollars in Millions)	2011	2012	2013	2014	2015	2016	2017	2018	2019 Est.	2020 Proj.
	\$990.4	\$975.0	\$717.0	\$547.2	\$715.2	\$711.3	\$736.7	\$684.0	\$704.2	\$674.2

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 2020 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.	\$ 3,913,500	74.7%
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.	\$ 1,328,700	25.3%
Enhance the District's image in national financial markets through the prudent use of debt financing for capital needs and debt service savings.		
<b>Totals</b>	<b>\$ 5,242,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018 Actual	2019 Estimated	2020 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/women/veteran broker/dealer investment participation at 33 percent or more of applicable investment purchases.	60%	60%	33%

PROGRAMS BY PRIORITY: Number Name	2018 Actual	Budgeted		Change		
		FTEs	Dollars	Dollars	Percent	
7110 Legislative	\$ 2,826,625	2020	29	\$ 3,825,500	\$ (18,500)	(0.5)
		2019	31	\$ 3,844,000		
7210 Treasury Activities	\$ 685,830	2020	4	\$ 760,200	\$ (53,300)	(6.6)
		2019	4	\$ 813,500		
7316 Other Postemployment Benefits Trust Management and Report Preparation	\$ 150,977	2020	1	\$ 156,100	\$ 1,500	1.0
		2019	1	\$ 154,600		
7601 Capital Financing Program and Other Related Costs	\$ 406,359	2020	2	\$ 412,400	\$ 55,200	15.5
		2019	2	\$ 357,200		
7604 Social Security and Medicare Contributions	\$ 78,550	2020	—	\$ 88,000	\$ 1,300	1.5
		2019	—	\$ 86,700		
<b>Totals</b>	<b>\$ 4,148,341</b>	2020	36	\$ 5,242,200	\$ (13,800)	(0.3)%
		2019	38	\$ 5,256,000		

a) Increase is due to an increase in legal and financial advisory fees (\$52,600).

**11000 BOARD OF COMMISSIONERS**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7110	Legislative	Cost	\$ 2,826,625	\$ 3,844,000	\$ 3,825,500	
7210	Treasury Activities	Cost	\$ 685,830	\$ 813,500	\$ 760,200	
7316	Other Postemployment Benefits Trust Management and Report Preparation	Cost	\$ 150,977	\$ 154,600	\$ 156,100	
7601	Capital Financing Program and Other Related Costs	Cost	\$ 406,359	\$ 357,200	\$ 412,400	a)
7604	Social Security and Medicare Contributions	Cost	\$ 78,550	\$ 86,700	\$ 88,000	
		Totals	\$ 4,148,341	\$ 5,256,000	\$ 5,242,200	

a) Increase is due to an increase in legal and financial advisory fees (\$52,600).

101 11000	Fund: Corporate Department: Board of Commissioners	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 3,426,857	\$ 3,712,400	\$ 3,712,400	\$ 2,447,468	\$ 3,463,800	\$ 3,577,400	\$ —
601060	Compensation Plan Adjustments	35,748	54,900	54,900	5,967	20,000	47,300	—
601070	Social Security and Medicare Contributions	78,550	86,700	86,700	53,891	72,900	88,000	—
601100	Tuition and Training Payments	11,337	20,100	20,100	13,305	19,000	19,900	—
601300	Personal Services, N.O.C.	327,365	428,000	428,000	232,875	361,800	517,000	—
100	TOTAL PERSONAL SERVICES	3,879,857	4,302,100	4,302,100	2,753,505	3,937,500	4,249,600	—
612010	Travel	11,274	19,700	19,700	3,714	16,000	26,000	—
612030	Meals and Lodging	16,321	21,700	21,700	12,150	19,000	32,500	—
612280	Subscriptions and Membership Dues	19,260	27,700	27,700	27,700	27,700	27,700	—
612430	Payments for Professional Services	218,364	858,800	858,700	846,008	726,700	890,100	—
612490	Contractual Services, N.O.C.	435	500	600	560	600	800	—
200	TOTAL CONTRACTUAL SERVICES	265,653	928,400	928,400	890,132	790,000	977,100	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	2,859	25,500	25,500	4,637	18,000	15,500	—
300	TOTAL MATERIALS AND SUPPLIES	2,859	25,500	25,500	4,637	18,000	15,500	—
TOTAL BOARD OF COMMISSIONERS		\$ 4,148,369	\$ 5,256,000	\$ 5,256,000	\$ 3,648,274	\$ 4,745,500	\$ 5,242,200	\$ —

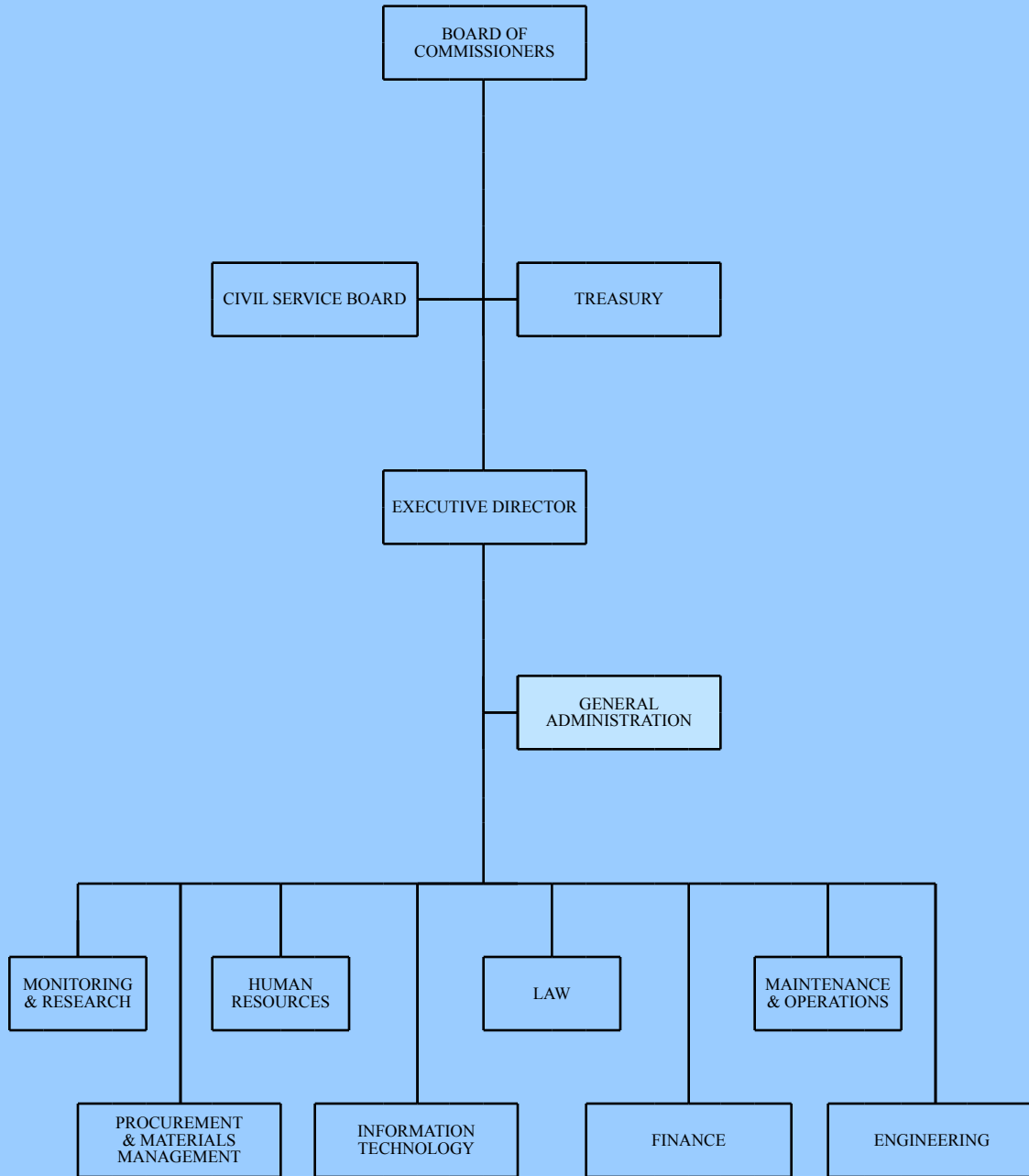
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

Fund: Corporate Dept: Board of Commissioners		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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		19	
TOTAL 012	Legislative Section	30	31	2,707,723	29	2,550,346
<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 013	Treasury Section	7	7	1,023,368	7	1,045,051
TOTAL	Board of Commissioners	37	38	3,731,091	36	3,595,397

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. Dollar amounts may not add up due to rounding.



**NOTE PAGE**



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

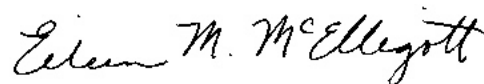
Subject: 2020 Program for General Administration

General Administration's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of General Administration's organization, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed General Administration budget for 2020.

Respectfully submitted,

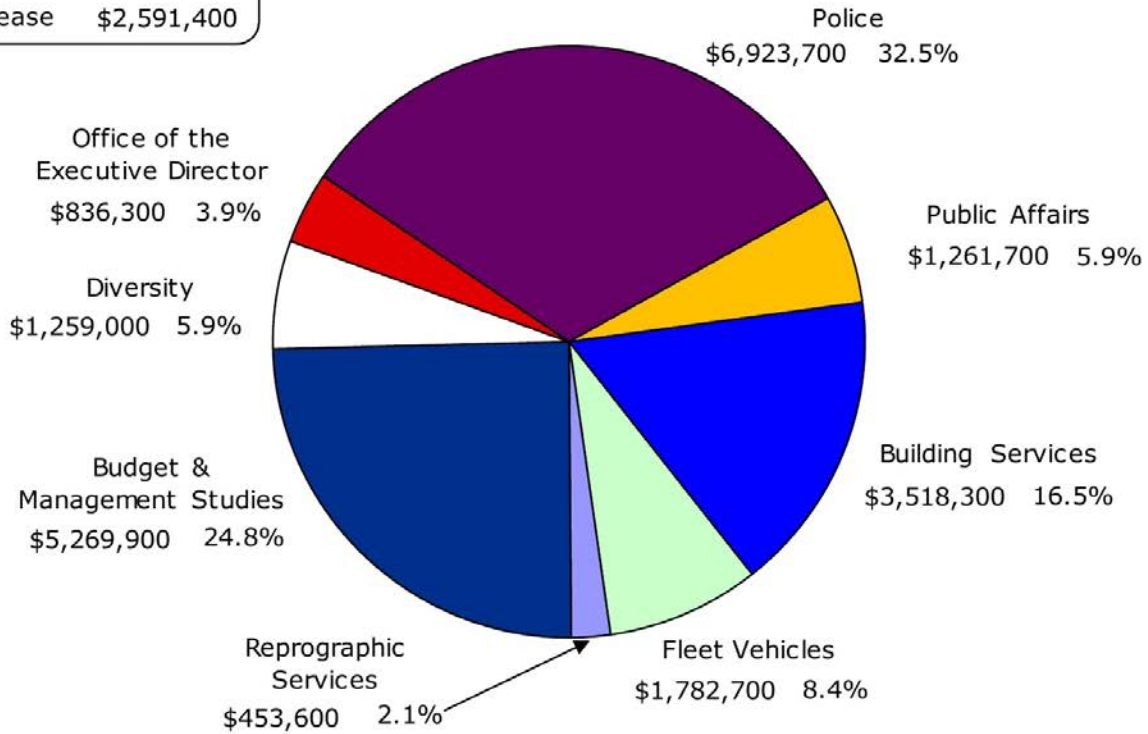


Eileen M. McElligott  
Administrative Services Officer

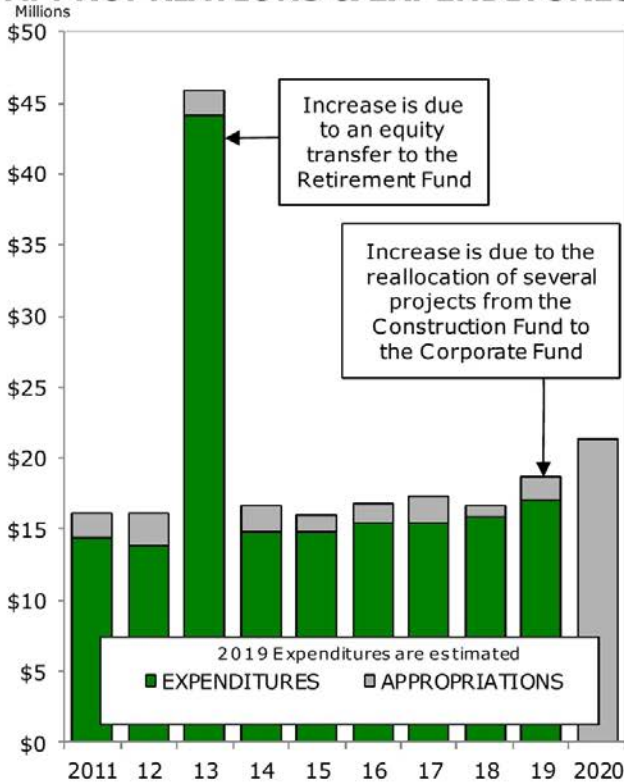
# GENERAL ADMINISTRATION

2020	\$21,305,200
2019	\$18,713,800
Increase	\$2,591,400

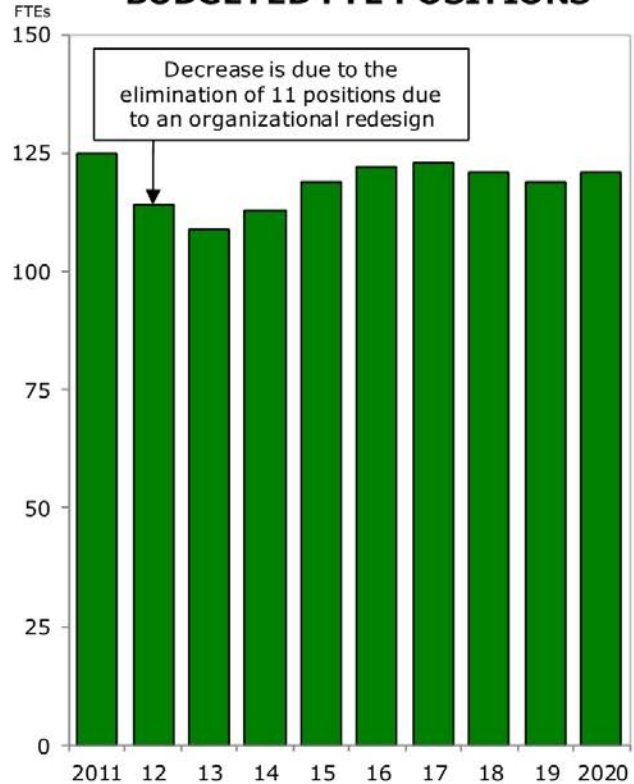
## FUNCTIONS



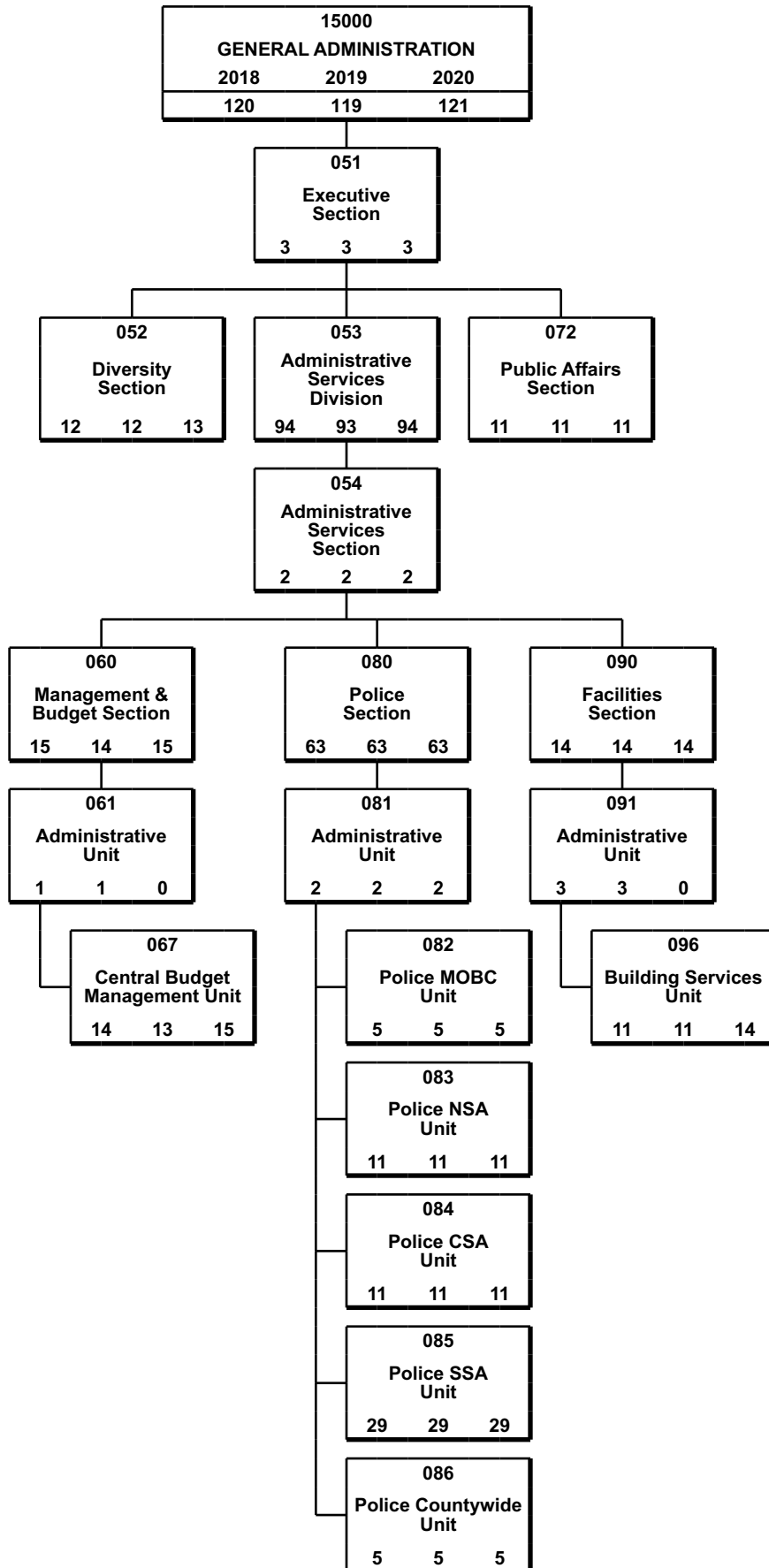
## APPROPRIATIONS & EXPENDITURES



## 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), small (SBE), and veteran owned (VBE) 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 2019 Accomplishments

- The 2019 Budget received the 35th 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 using additional features available in the financial reporting tool implemented in 2018;
- Completed modernization of two elevators at the Main Office Building (MOB) with the goal of eliminating service stoppage;
- Completed the replacement of two chillers at the Main Office Building Annex (MOBA);
- Constructed a plenum fan array to improve the air handling reliability at the MOBA;
- Finished carpet and paint projects at the MOBC with the completion of the second floor of the MOB;
- Installed new production print systems and rolled out a new job submittal program to improve visibility;
- Continued to increase the number of Socially and Economically Disadvantaged vendors included on the District's vendor list;
- Hosted two MBE/WBE/SBE/VBE vendor outreach events, servicing over 400 subcontractors;
- Participated in two of the United States Drug Enforcement Administration's National Prescription Drug Take Back Day Initiatives at three water reclamation plants and the MOBC;
- Continued to manage the District's Prescription Drug Take Back Program at four District locations;
- Worked with the Information Technology Department to unveil the new mwrdd.org website;
- Celebrated the District's 130th Anniversary with an Open House and tours at the Calumet, O'Brien, and Stickney Water Reclamation Plants;
- Organized groundbreaking ceremonies on the Addison Creek Reservoir and Arrowhead Lake Reservoir expansion projects, and the 7th Annual Sustainability Summit, honoring individuals and organizations promoting a sustainable environment;
- Hosted the District's African American History Celebration titled "Commemorating Our Trailblazers", which gave an overview of women in media and government who served as the first female in their respective positions;
- Hosted 188 tours/open houses with over 4,800 visitors, attended over 140 outreach events impacting more than 117,000 people, and visited over 120 schools and other organizations to educate more than 9,000 people.

### Budget Highlights

The 2020 appropriation for General Administration is \$21,305,200, an increase of \$2,591,400, or 13.8 percent, from 2019. The staffing level has increased from 119 to 121 positions, which includes the addition of one Diversity Officer and the transfer in of one Senior Budget and Management Analyst from the Law Department.

Significant features of the 2020 Budget include:

- Major projects include replacement of two boilers at the MOB;
- Replacement of aging Police equipment including STARCOM radios and Livescan systems;
- 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.

## **2020 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 2020.

- **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. We continue to transition other documents into the tool to further increase efficiencies.

- **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 analyzes recent expenditure data to develop base budget targets for all departments. Budget requests above the base are reviewed and analyzed to ensure such requests are aligned to strategic initiatives.

The Management & Budget Section continually strives to produce a budget document 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 support staff services.

The Facilities Section will continue to explore a future project to add automation capability for various heating, ventilation, and air conditioning systems at the MOB.

- **Recover Resources**

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 the MOB cafeteria food waste compost recycling program.

- **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 works 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 works with the GFOA, the Civic Federation, and other agencies to promote best practices and continuous improvement in our budget document.

The Police Section participates as a member of the Law Enforcement Mutual Aid Agreement and works with other agencies and municipalities to protect people and assets.

- **Information Technology**

The Management & Budget Section implemented a new budget publishing solution in 2018 for the preparation of the 2019 Budget. This application streamlined the budget document preparation process. Other processes will be evaluated to see if they can be transitioned to the new solution.

**2020 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 2020.

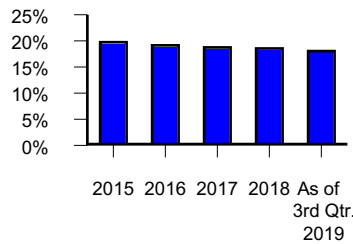
• **Add Value**

To add value, the Diversity Section implemented a VBE policy, which provides greater access of opportunity to military veterans. Additionally, 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 and professional 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, SBE, and VBE vendors and the community at large. 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, SBE, and VBE vendor list in 2020.

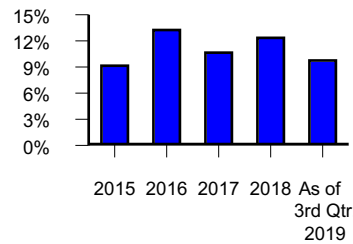
Construction & Consulting Contracts	2015	2016	2017	2018	As of 2019 3rd Quarter
Minority-owned Business Enterprises	\$23,292,180	\$39,402,363	\$9,800,078	\$16,469,827	\$23,125,048
Women-owned Business Enterprises	\$10,855,589	\$27,298,129	\$5,565,425	\$10,931,146	\$12,546,676
Small Business Enterprises	\$375,118	\$307,759	\$1,364,898	\$2,287,186	\$672,690
Veteran-owned Business Enterprises	\$—	\$—	\$—	\$—	\$82,953
Total Contracts Awarded	\$116,523,512	\$202,973,188	\$51,475,204	\$87,762,251	\$126,570,866

For years 2016-2020, SBE contract award amounts only include non-MBEs and non-WBEs.

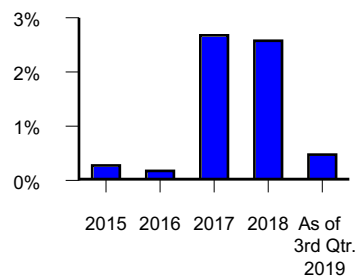
**Minority-owned Business Enterprises**



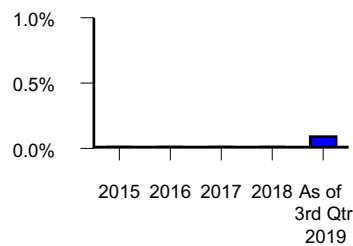
**Women-owned Business Enterprises**



**Small Business Enterprises**



**Veteran-owned 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 2019, 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 2020, Diversity staff will continue to be trained in team building, interviewing, and investigative 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, SBE, and VBE opportunities on District contracts.

## **2020 Public Affairs Section Initiatives in Support of the Strategic Business Plan Include the Following:**

The Public Affairs Section is committed to using established and new strategies to maintain the District's positive public image in 2020.

- **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. In 2020, the Water Wellness Campaign will strive to encourage residents to make modest-to-extreme lifestyle modifications that will result in fewer contaminants entering the waterways. This initiative speaks to prevention as an essential component that begins at home and flows throughout one's social and work life. Residents are asked to "Think, Consider, Choose":

- Think about how you will use or discard a product before you purchase it. Is there an environmentally friendly alternative?
- Consider how the things you use in your everyday life and your actions affect the waterways and the environment.
- Choose to do something different - use environmentally friendly products; eat healthier food options; pick up your pet waste, discard waste properly, and teach your children to do the same. The Public Affairs Section will also continue to oversee the distribution of tree saplings and compost, while promoting the District's stormwater management mission.

- **Excellence**

The Public Affairs Section is determined to achieve excellence in all work products and through interactions with colleagues, stakeholders, reporters, and the public. Communications will continue to feature professionally written and designed materials that reflect the organization's role and history of excellence. The Public Affairs Section will work to inform the public about the District's work by continuing to produce fact sheets, talking points, photos, videos, press releases, and other materials that will help educate the public. The Public Affairs Section will continue to work with subject matter experts, to research and prepare press releases and social media postings, while continuing to participate in and support community events by scheduling presenters, hosting tours and special events, and providing photos and imagery to targeted audiences.

- **Recover Resources**

The Public Affairs Section will educate and inform the public about the District's work to recover resources 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 compost marketing efforts.

- **Develop Employees**

The Public Affairs Section will also continue to keep abreast of changes and new developments within the District and current trends in the water industry reported throughout the world. Staff are encouraged to pursue classroom and online training, webinars, and to read publications and books. Since all employees influence the District's public image, the Public Affairs Section will continue to prepare fact sheets and talking points for staff. The Public Affairs Section will continue to send out daily "MWRD in the News" emails that help all employees with District email access to remain knowledgeable about new developments at the District and in the water industry. Public Affairs produces a quarterly employee newsletter and creates a monthly wall calendar every year that features photos taken by the Public Affairs Section.

- **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.

- **Information 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 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, maintain electronic message signs at all seven water reclamation plants, and generate online photo archives which will include both 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.	\$ 6,923,700	32.5%
2. Carry out policies established by the elected Board of Commissioners for the protection of the water environment of the District.	\$ 836,300	3.9%
3. Reach participation goals established by the Board of Commissioners for Minority-owned Business Enterprises, Women-owned Business Enterprises, Small Business Enterprises, and Veteran-owned Business Enterprises for construction and professional services contracts.	\$ 1,259,000	5.9%
4. Prepare and administer the District's annual budget to be used as a policy, financial, operations, and communications plan in the furtherance of the District's mission and statutory requirements.	\$ 4,899,700	23.0%
5. Operate and maintain the Main Office Building Complex to provide a functional and cost-effective office environment for staff, contractors, and visitors.	\$ 3,518,300	16.5%
6. Provide public understanding of District functions and activities through media, publications, and tours.	\$ 1,261,700	5.9%
7. Provide fleet management services by administering the operation, maintenance, repair, and procurement of the District's fleet.	\$ 1,782,700	8.4%
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.	\$ 453,600	2.1%
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.	\$ 370,200	1.8%
<b>Totals</b>	<b>\$ 21,305,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018 Actual	2019 Actual	2020 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
2020 - Proposed	4,700	18%	3,800	19%	2,900	16%	250	11%	600	50%
2019 - Estimated	4,000	19%	3,200	16%	2,500	19%	225	88%	400	111%
2018 - Actual	3,350	27%	2,750	30%	2,100	22%	120	100%	190	100%

**15000 GENERAL ADMINISTRATION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
7100	Office of the Executive Director	\$ 405,078	2020	3	\$ 494,500	\$ 8,300	1.7	
			2019	3	\$ 486,200			
7110	Legislative	\$ 396,383	2020	—	\$ 341,800	\$ —	—	
			2019	—	\$ 341,800			
7220	Reprographic Services	\$ 478,402	2020	2	\$ 453,600	\$ (77,200)	(14.5)	
			2019	2	\$ 530,800			
7240	Public Affairs	\$ 1,142,866	2020	11	\$ 1,261,700	\$ 30,400	2.5	
			2019	11	\$ 1,231,300			
7251	Corporate Budget Preparation, Monitoring, and Administration	\$ 1,631,913	2020	7	\$ 4,279,400	\$ 2,366,500	123.7	a)
			2019	8	\$ 1,912,900			
7252	Management and Organization Studies	\$ 319,881	2020	3	\$ 370,200	\$ 19,500	5.6	
			2019	3	\$ 350,700			
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ 222,828	2020	5	\$ 529,600	\$ 243,100	84.9	b)
			2019	3	\$ 286,500			
7254	Enterprise System	\$ 83,421	2020	1	\$ 90,700	\$ 1,700	1.9	
			2019	1	\$ 89,000			
7340	Security of Plants and Properties	\$ 6,248,292	2020	63	\$ 6,758,700	\$ 358,600	5.6	c)
			2019	63	\$ 6,400,100			
7460	Main Office Building Complex Services	\$ 3,232,108	2020	11	\$ 3,518,300	\$ (567,900)	(13.9)	d)
			2019	11	\$ 4,086,200			
7470	Contract Diversity	\$ 972,388	2020	13	\$ 1,259,000	\$ 103,400	8.9	
			2019	12	\$ 1,155,600			
7490	Automotive Fleet Operations	\$ 632,538	2020	2	\$ 1,782,700	\$ 102,100	6.1	
			2019	2	\$ 1,680,600			
7604	Social Security and Medicare Contributions	\$ 154,919	2020	—	\$ 165,000	\$ 2,900	1.8	
			2019	—	\$ 162,100			
Totals		\$15,921,017	2020	121	\$ 21,305,200	\$ 2,591,400	13.8%	
			2019	119	\$ 18,713,800			

a) Increase is due to the contingency for District-wide Corporate Fund general salary adjustments (\$2,390,800), offset by the reallocation of salaries to more accurately reflect current activities (\$67,700).

b) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$151,900) and the addition of one FTE position (\$88,400).

c) Increase is due to the replacement of Police portable radios (\$125,000) and Police Livescan Systems (\$46,600) due to the end of life of the existing equipment and the anticipated increase in Police overtime (\$95,200).

d) Decrease is due to the completion of the paint and carpet replacement project in the Main Office Building (\$425,000), the reduced need for the Main Office Building Annex common area major projects (\$90,000), and the reallocation of salaries to more accurately reflect current activities (\$62,200), offset by an increase in expected JOC projects to be completed at the Main Office Building Complex (\$26,100).

**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		PERFORMANCE DATA		
			2018 Actual	2019 Budgeted	2020 Estimated
7100	Office of the Executive Director	Cost	\$ 405,078	\$ 486,200	\$ 494,500
7110	Legislative	Cost	\$ 396,383	\$ 341,800	\$ 341,800
7220	Reprographic Services				
7221	Duplication Services	# of Impressions	2,956,838	3,030,000	3,111,438
		Cost	\$ 469,081	\$ 509,500	\$ 437,300
		Cost/Impression	\$ 0.16	\$ 0.17	\$ 0.14
7224	Design Services	Cost	\$ 9,321	\$ 21,300	\$ 16,300
7240	Public Affairs				
7247	Internal Public Affairs				
	Interdepartmental Support	Cost	\$ 315,755	\$ 337,300	\$ 326,600
7248	External Public Affairs				
	Respond to Public Inquiries and Furnish Public Information Pamphlets	# of Responses	47,000	48,000	48,000
		Cost	\$ 276,172	\$ 298,460	\$ 312,181
		Cost/Response	\$ 5.88	\$ 6.22	\$ 6.50
	Coordinate District Communications with Public, Civic, and Social Groups	# of Contacts	24,000	25,000	25,000
		Cost	\$ 150,865	\$ 163,079	\$ 170,577
		Cost/Contact	\$ 6.29	\$ 6.52	\$ 6.82
	Monitor Public Hearings, Board Meetings, Internet, and Media and Issue Press Releases	Cost	\$ 194,785	\$ 210,569	\$ 220,249
	Special Public Events	Cost	\$ 205,289	\$ 221,892	\$ 232,093
7250	Budget Preparation and Management Studies				
7251	Corporate Budget Preparation, Monitoring, and Administration	Cost	\$ 1,631,913	\$ 1,912,900	\$ 4,279,400
7252	Management and Organization Studies	Cost	\$ 319,881	\$ 350,700	\$ 370,200
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ 222,828	\$ 286,500	\$ 529,600
7254	Enterprise Systems	Cost	\$ 83,421	\$ 89,000	\$ 90,700

a) Decrease in cost per impression is due to the reduction in print production costs resulting from the replacement of the obsolete Xerox printing systems with the more efficient Konica system.

b) Decrease is due to the reduced need for graphic art supplies (\$5,000).

c) Increase is due to the contingency for District-wide Corporate Fund general salary adjustments (\$2,390,800), offset by the reallocation of salaries to more accurately reflect current activities (\$67,700).

d) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$151,900) and the addition of one FTE position (\$88,400).

**15000 GENERAL ADMINISTRATION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7340	Security of Plants and Properties					
	Patrol of District Facilities	# of Miles	162,603	136,600	136,610	
		Cost	\$ 1,209,669	\$ 1,238,975	\$ 1,308,396	
		Cost/Mile	\$ 7.44	\$ 9.07	\$ 9.58	
	Patrol of District Real Estate	# of Miles	315,642	265,200	265,182	
		Cost	\$ 3,420,315	\$ 3,503,609	\$ 3,699,917	e)
		Cost/Mile	\$ 10.84	\$ 13.21	\$ 13.95	
	Access Control to Facilities	# of Hours	46,121	46,100	46,121	
		Cost	\$ 1,618,308	\$ 1,657,516	\$ 1,750,387	
		Cost/Hour	\$ 35.09	\$ 35.95	\$ 37.95	
7460	Main Office Building Complex Services					
7461	Main Office Building Complex Operations	Area (Sq. Ft.)	198,901	198,901	198,901	
		Cost	\$ 2,842,764	\$ 3,680,200	\$ 3,134,400	f)
		Cost/Sq. Ft.	\$ 14.29	\$ 18.50	\$ 15.76	
7463	Collect and Distribute Mail	# of Pieces	439,400	893,300	600,000	
		Cost	\$ 304,543	\$ 317,900	\$ 308,700	
		Cost/Piece	\$ 0.69	\$ 0.36	\$ 0.51	g)
7464	Telephone Switchboard Operations at Main Office Building Complex	Cost	\$ 84,801	\$ 88,100	\$ 75,200	
7470	Contract Diversity					
7471	Contract Compliance	Cost	\$ 439,579	\$ 518,100	\$ 570,400	
7472	Community Activity	Cost	\$ 321,871	\$ 382,200	\$ 412,800	
7473	Contract Diversity Support	Cost	\$ 210,938	\$ 255,300	\$ 275,800	
7490	Automotive Fleet Operations					
7491	Automotive Fleet Procurement	Cost	\$ —	\$ 900,000	\$ 900,000	
7499	Automotive Fleet Operations	Cost	\$ 632,538	\$ 780,600	\$ 882,700	
7604	Social Security and Medicare Contributions	Cost	\$ 154,919	\$ 162,100	\$ 165,000	
		Totals	\$ 15,921,017	\$ 18,713,800	\$ 21,305,200	

e) Increase is due to the replacement of Police portable radios due to the end of life of the existing equipment (\$125,000) and the anticipated increase in Police overtime (\$95,200), offset by the completion of the replacement of Police holsters (\$15,000) and the transfer of the security camera maintenance (\$6,400) and the leased computer line (\$3,000) to the Information Technology Department.

f) Decrease is due to the completion of the paint and carpet replacement project in the Main Office Building (\$425,000), the reduced need for the Main Office Building Annex common area major projects (\$90,000), and the reallocation of salaries to more accurately reflect current activities (\$43,900), offset by an increase in expected JOC projects to be completed at the Main Office Building Complex (\$26,100).

g) Increase is due to an estimated drop in pieces of mail to be handled which has not yet been offset by a reduction in postage meter funding. Future budgets will be analyzed for possible drops in postage meter funding.

101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 10,426,621	\$ 11,019,100	\$ 11,019,100	\$ 7,516,882	\$ 10,634,300	\$ 11,351,400	\$ —
601060	Compensation Plan Adjustments	634,874	666,700	666,700	499,163	637,300	774,200	—
601070	Social Security and Medicare Contributions	154,919	162,100	162,100	115,767	157,500	165,000	—
601100	Tuition and Training Payments	14,549	33,000	33,000	18,043	15,200	44,500	—
601270	General Salary Adjustments	—	—	—	—	—	2,390,800	—
100	TOTAL PERSONAL SERVICES	11,230,963	11,880,900	11,880,900	8,149,853	11,444,300	14,725,900	—
612010	Travel	5,427	10,000	10,000	6,492	7,500	9,000	—
612030	Meals and Lodging	12,944	17,200	17,200	11,812	11,100	18,100	—
612040	Postage, Freight, and Delivery Charges	101,342	109,700	109,700	84,640	109,600	109,700	—
612050	Compensation for Personally-Owned Automobiles	3,515	3,700	3,700	3,521	5,500	4,100	—
612080	Motor Vehicle Operating Services	63,757	62,700	62,700	58,351	48,900	63,100	—
612090	Reprographic Services	93,298	103,400	118,300	117,559	82,000	55,300	—
612150	Electrical Energy	325,538	325,200	325,200	193,609	318,300	325,200	—
612160	Natural Gas	26,981	24,900	24,900	14,793	21,200	24,900	—
612170	Water and Water Services	6,142	6,500	6,500	4,551	6,400	6,500	—
612210	Communication Services	3,000	3,000	3,000	1,500	1,500	—	—
612280	Subscriptions and Membership Dues	816,906	933,500	908,500	741,730	904,000	965,600	—
612330	Rental Charges	8,353	93,500	93,500	57,413	57,600	71,000	—
612360	Advertising	9,938	13,000	13,000	1,750	12,500	15,000	—
612370	Administration Building Operation	1,145,339	1,313,200	1,382,200	1,381,767	1,105,400	1,314,700	—
612390	Administration Building McMillan Pavilion Operation	691,856	782,900	828,900	828,775	631,700	782,900	—
612430	Payments for Professional Services	378,805	324,000	256,800	256,776	250,100	324,000	—
612490	Contractual Services, N.O.C.	283,186	331,800	331,800	315,357	282,300	337,000	—
612680	Repairs to Buildings	2,800	566,300	502,300	6,000	425,000	77,400	—
612800	Repairs to Office Furniture and Equipment	95,017	47,900	74,200	72,599	59,200	60,800	—
612840	Communications Equipment Maintenance (Includes Software)	31,239	22,800	22,800	22,784	20,800	22,800	—
612860	Repairs to Vehicle Equipment	382,318	440,500	440,500	429,770	355,100	417,000	—
200	TOTAL CONTRACTUAL SERVICES	4,487,699	5,535,700	5,535,700	4,611,550	4,715,700	5,004,100	—
623070	Electrical Parts and Supplies	4,344	8,600	8,600	7,600	7,800	8,600	—
623090	Plumbing Accessories and Supplies	19,249	8,500	8,500	7,000	7,900	8,500	—
623110	Hardware	14,400	16,000	16,000	15,219	13,900	16,000	—

101 15000	Fund: Corporate Department: General Administration	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623130	Buildings, Grounds, Paving Materials, and Supplies	933	—	—	—	—	—	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	102,407	136,600	136,600	126,840	121,100	155,100	—
623660	Cleaning Supplies	967	1,300	1,300	1,000	1,200	1,300	—
623700	Wearing Apparel	27,845	53,400	53,400	44,687	41,800	37,500	—
623720	Books, Maps, and Charts	44	1,000	1,000	263	900	1,000	—
623850	Communications Supplies	—	25,000	25,000	21,861	25,000	150,000	—
623990	Materials and Supplies, N.O.C.	32,165	52,000	52,000	23,166	27,000	47,200	—
300	TOTAL MATERIALS AND SUPPLIES	202,355	302,400	302,400	247,636	246,600	425,200	—
634860	Vehicle Equipment	—	900,000	900,000	764,992	677,300	900,000	—
634990	Machinery and Equipment, N.O.C.	—	94,800	94,800	—	—	250,000	—
400	TOTAL MACHINERY AND EQUIPMENT	—	994,800	994,800	764,992	677,300	1,150,000	—
TOTAL GENERAL ADMINISTRATION		\$ 15,921,017	\$ 18,713,800	\$ 18,713,800	\$ 13,774,031	\$ 17,083,900	\$ 21,305,200	\$ —

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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



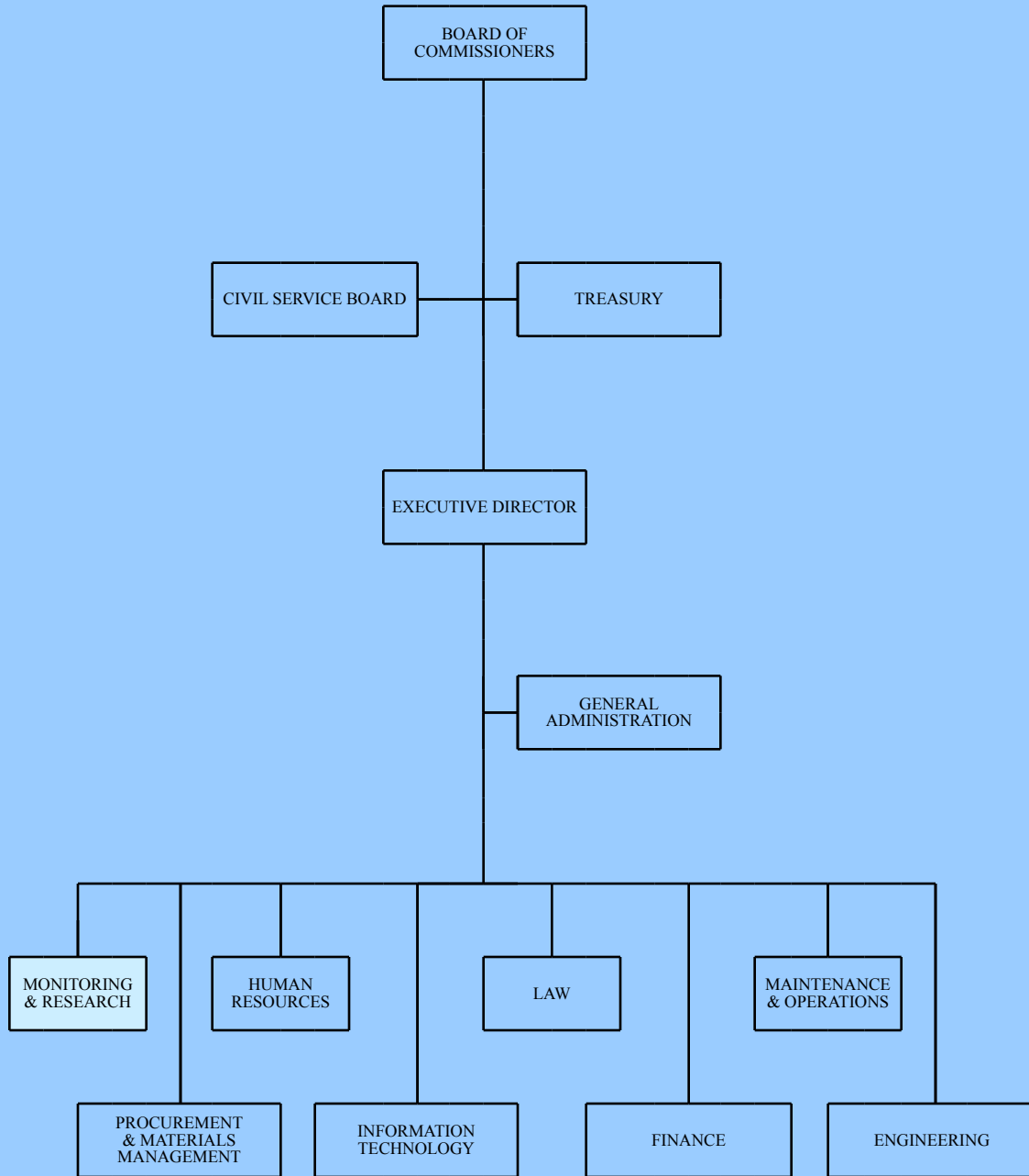
Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>051</b>	<b>Executive Section</b>					
EX07	Executive Director	1	1		1	
EX06	Secretary to Officer	2	2		2	
TOTAL 051	Executive Section	3	3	483,504	3	488,168
<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)	1	—		—	
HP14	Diversity Officer	5	6		7	
HP11	Administrative Specialist	2	2		2	
HP09	Administrative Clerk	1	1		1	
TOTAL 052	Diversity Section	12	12	1,055,745	13	1,165,561
<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 054	Administrative Services Section	2	2	346,584	2	346,584
<b>060</b>	<b>Management &amp; Budget Section</b>					
<b>061</b>	<b>Administrative Unit</b>					
HP20	Budget Officer	1	1		—	
TOTAL 061	Administrative Unit	1	1	166,379	—	—
<b>067</b>	<b>Central Budget Management Unit</b>					
HP20	Budget Officer	—	—		1	
HP18	Supervising Budget & Management Analyst	1	1		1	
HP16	Senior Budget & Management Analyst	4	4		5	
HP14	Budget & Management Analyst	8	8		8	
HP11	Administrative Specialist	1	—		—	
TOTAL 067	Central Budget Management Unit	14	13	1,313,511	15	1,572,639
TOTAL 060	Management & Budget Section	15	14	1,479,890	15	1,572,639

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 081	Administrative Unit	2	2	250,408	2	250,408
<b>082</b>	<b>Police Main Office Building Complex Unit</b>					
NR2483	Police Officer	5	5		5	
TOTAL 082	Police Main Office Building Complex Unit	5	5	421,928	5	431,392
<b>083</b>	<b>Police North Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	10		10	
TOTAL 083	Police North Service Area Unit	11	11	945,676	11	964,604
<b>084</b>	<b>Police Calumet Service Area Unit</b>					
HP14	Police Sergeant	1	1		1	
NR2483	Police Officer	10	10		10	
TOTAL 084	Police Calumet Service Area Unit	11	11	955,591	11	974,519
<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	
TOTAL 085	Police Stickney Service Area Unit	29	29	2,643,153	29	2,694,710
<b>086</b>	<b>Police Countywide Unit</b>					
NR2483	Police Officer	5	5		5	
TOTAL 086	Police Countywide Unit	5	5	421,928	5	431,392
TOTAL 080	Police Section	63	63	5,638,684	63	5,747,025
<b>090</b>	<b>Facilities Section</b>					
<b>091</b>	<b>Administrative Unit</b>					
HP16	Senior Budget & Management Analyst	1	1		—	

Fund: Corporate Dept: General Administration		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP11	Administrative Specialist	2	2		—	
TOTAL 091	Administrative Unit	3	3	220,968	—	—
<b>096</b>	<b>Building Services Unit</b>					
HP16	Senior Budget & Management Analyst	—	—		1	
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		4	
HP09	Administrative Clerk	3	3		3	
NR8661	Motor Vehicle Dispatcher Supervisor	1	1		1	
NR8660	Motor Vehicle Dispatcher	2	2		2	
TOTAL 096	Building Services Unit	11	11	759,847	14	983,318
TOTAL 090	Facilities Section	14	14	980,815	14	983,318
TOTAL 053	Administrative Services Division	94	93	8,445,973	94	8,649,566
<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	Public Affairs Specialist #2 (New Grade HP14)	3	3		3	
HP14	Public Affairs Specialist	1	1		1	
HP13	Graphic Artist	2	2		2	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL 072	Public Affairs Section	11	11	1,085,427	11	1,105,468
TOTAL	General Administration	120	119	11,070,649	121	11,408,763

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. Dollar amounts may not add up due to rounding.

**NOTE PAGE**



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Monitoring & Research Department

The Monitoring & Research Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Monitoring & Research Department budget for 2020.

Respectfully submitted,

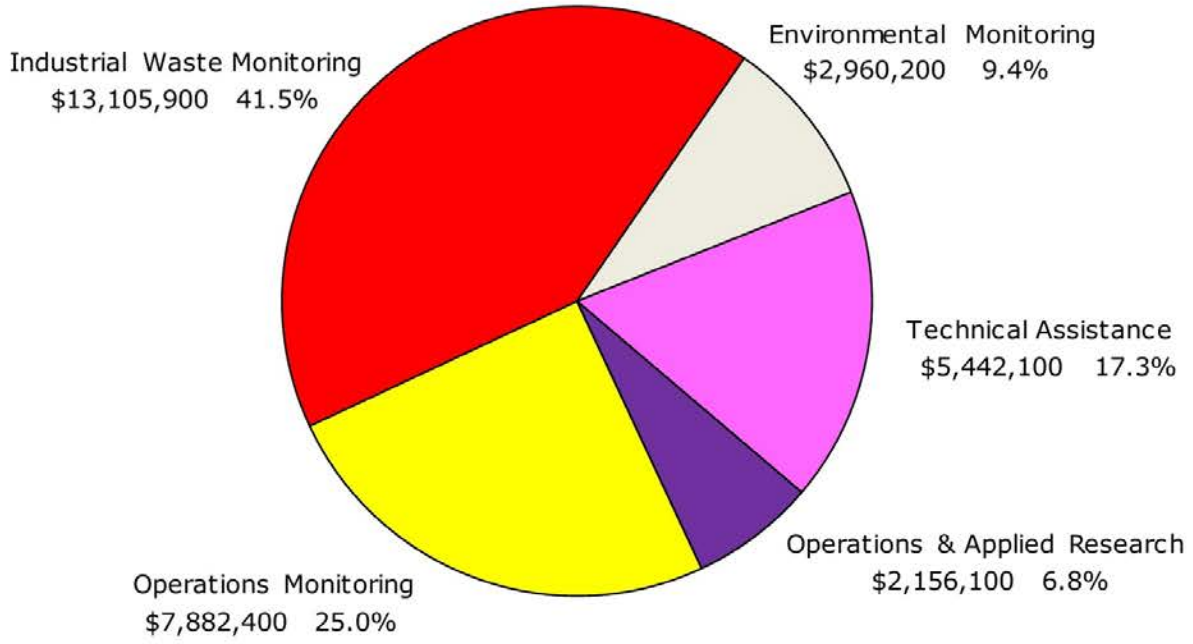


Edward W. Podczerwinski  
Director of Monitoring & Research

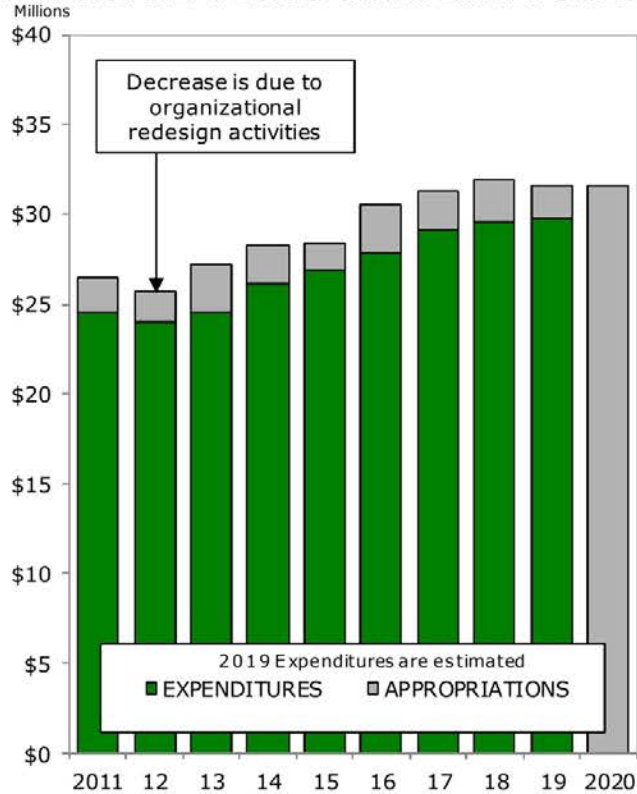
# MONITORING & RESEARCH

2020	\$31,546,700
2019	\$31,548,300
Decrease	(\$1,600)

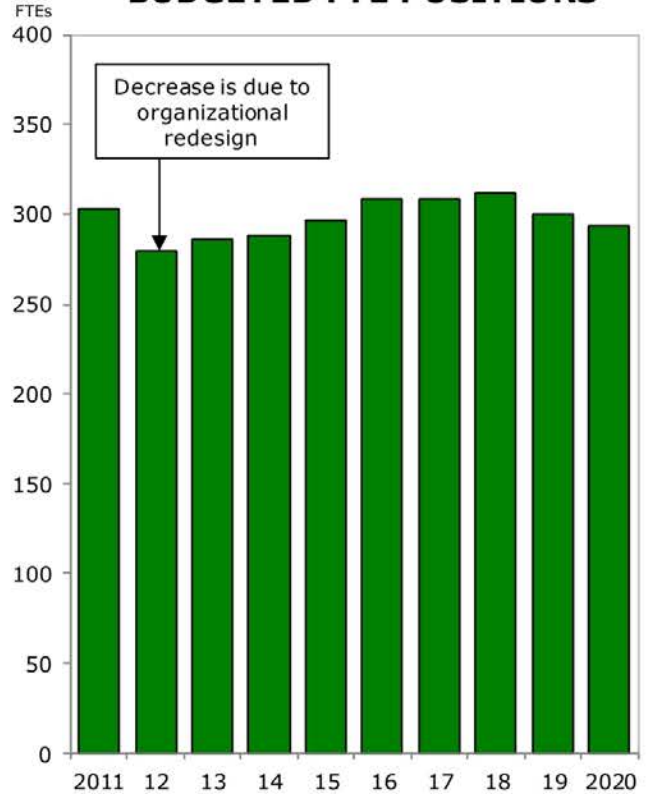
## FUNCTIONS



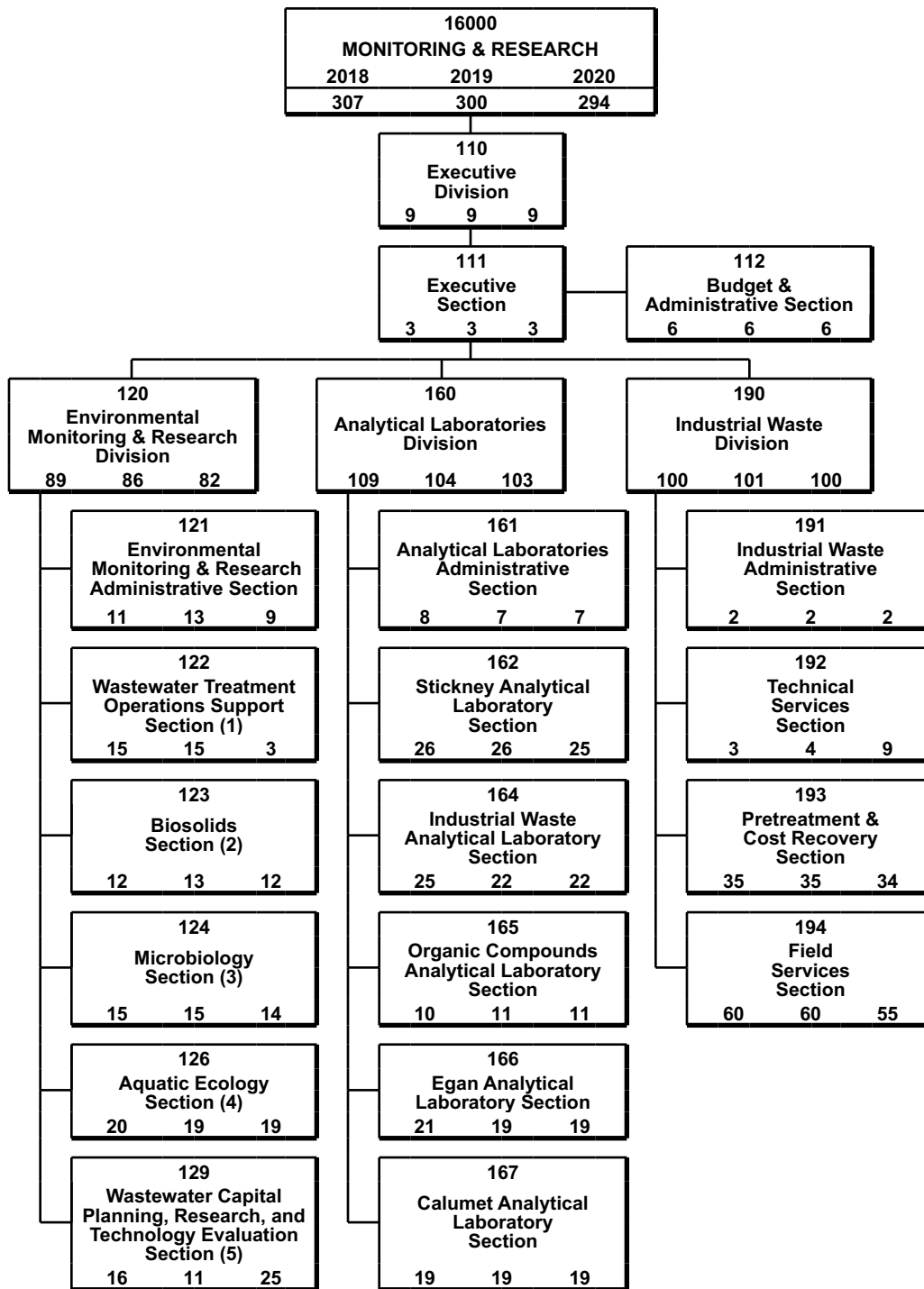
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MONITORING & RESEARCH



- (1) Effective 01/01/20, Section 122 was retitled from Wastewater Treatment Process Research Section to Wastewater Treatment Operations Support Section.
- (2) Effective 01/01/20, Section 123 was retitled from Biosolids Utilization & Soil Science Section to Biosolids Section.
- (3) Effective 01/01/20, Section 124 was retitled from Analytical Microbiology & Biomonitoring Section to Microbiology Section.
- (4) Effective 01/01/20, Section 126 was retitled from Aquatic Ecology & Water Quality Section to Aquatic Ecology Section.
- (5) Effective 01/01/20, Section 129 was retitled from Process Facilities Capital Planning Section to Wastewater Capital Planning, Research, and Technology Evaluation Section.



## 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 2019 Accomplishments

- Screened and tested 47 high strength organic materials (HSOM) samples to determine their suitability for acceptance under the Resource Recovery Program and began receiving materials at the Calumet Water Reclamation Plant;
- Held a field day at the Fulton County site in collaboration with the Illinois Farm Bureau, Fulton County Farm Bureau, and the University of Illinois to demonstrate several best management practices for reducing the nutrient loss from agricultural fields;
- Conducted wet weather monitoring in the Chicago and Des Plaines River Systems to assess the effectiveness of the McCook Stage I Reservoir portion of the Tunnel and Reservoir Plan (TARP);
- Assessed approximately 37 stream miles in the Cook County portion of the North Branch Chicago River Watershed in order to update the existing Watershed-Based Plan and ensure eligibility for Illinois Environmental Protection Agency (IEPA) grant funding to address water quality issues throughout the watershed;
- Established real-time telemetry at select Continuous Dissolved Oxygen Monitoring Program stations;
- Worked collaboratively with the Maintenance & Operations and Law Departments to complete a technical report in support of the Chicago Area Waterway System (CAWS) Time Limited Water Quality Standard petition for chlorides;
- Awarded contract to begin CAWS Phosphorus Assessment and Reduction Plan, in collaboration with IEPA and Environmental Advocacy Groups;
- Fostered holistic approach to water quality improvements by actively participating in three local watershed workgroups (DuPage River Salt Creek Workgroup, Lower Des Plaines Watershed Group, and North Branch Watershed Workgroup).

### Budget Highlights

The 2020 appropriation for M&R is \$31,546,700, a decrease of \$1,600, or 0.0 percent, from 2019. The staffing level has decreased from 300 to 294 positions, which includes the addition of one Senior Environmental Research Technician, offset by the drop of one Laboratory Technician II, one Pollution Control Technician I, one Environmental Research Scientist, one Administrative Specialist, one Environmental Soil Scientist, one Principal Environmental Scientist, and one Laboratory Technician I #1. In addition, two Instrumentation Chemist II and two Instrumentation Chemist positions will be reclassified as Environmental Chemists to consolidate to one title, one test, and promote flexibility and uniformity within the Analytical Laboratories Division. Also, a crosshatch #1 was added to one Environmental Research Technician, and a crosshatch #2 was added to an Environmental Chemist position.

Significant features of the 2020 budget include:

- Continue to develop a District-wide Biosolids Strategy to increase use of Exceptional Quality biosolids and ensure continued sustainability of the District's biosolids management program;
- Continue to conduct permit-required groundwater monitoring for four TARP systems, three reservoirs, four biosolids management sites, and Fischer Farm in Hanover Park;
- Manage the contract to develop the Phosphorus Assessment and Reduction Plan for the CAWS, and continue to participate on the CAWS Nutrient Oversight Committee;
- Continue the Biological Oxygen Demand (BOD) to Total Organic Carbon (TOC) study and establish reliable data to modify National Pollutant Discharge Elimination System (NPDES) permits to include TOC monitoring. This analysis provides a much more environmentally beneficial analysis by eliminating the use of mercury reagents;
- Continue implementation of a Dental Amalgam Program to abate mercury discharges from dental offices to the District's collection system and ultimately the water environment;
- Completion of the wet weather monitoring in the Chicago and Des Plaines River Systems to assess the effectiveness of the McCook Stage I Reservoir portion of TARP;
- Develop Climate Action and Resiliency Plan for the District through an interdepartmental task force;

- Continue to lead the phosphorus studies and implement biological phosphorus removal at District WRPs;
- Continue implementation of a District-wide Odor Reduction Strategy and odor monitoring at some District facilities;
- Continue to lead and develop the Resource Recovery Program for supporting the District’s energy recovery, phosphorus removal, and biosolids composting initiatives.

**2020 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 2020 User Charge revenue, based on 2020 rates and a three-year (2016-2018) trend of user clearing data, is \$43.0 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 and infrastructures.

<b>Year</b>	<b>User Charge Receipts</b>
2016	\$44,487,370
2017	\$53,252,035
2018	\$41,301,817
2019 Estimated	\$47,000,000
2020 Projected	\$43,000,000

In 2020, 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 2020, has a goal of identifying and classifying 50 new users to be administered to offset any reductions in existing users 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 to provide technical support to the Maintenance & Operations Department in 2020 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 to increase data processing and reporting and to enhance data acquisition from automated instruments. M&R will seek to further streamline operations by consolidating staffing and analyses. This is made possible in large part by reductions in discretionary monitoring of WRP processes, industrial users, and environmental impacts of District operations through a series of service level agreements between M&R, other departments, and permitting authorities. M&R will continue to evaluate technological improvements in analytical instrumentation that are helpful in conserving resources and are less expensive to operate.

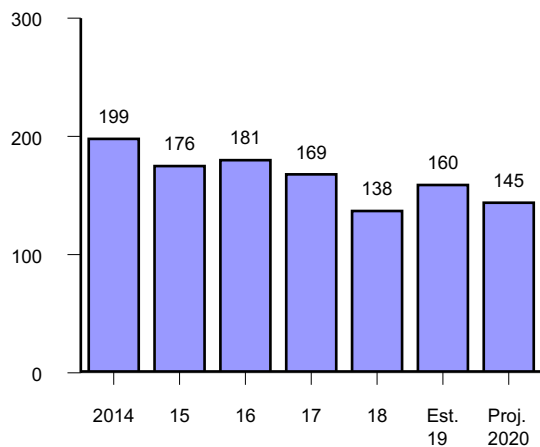
M&R is also committed to stopping pollution at its source by operating an effective Industrial Waste Pretreatment Program in full compliance with all federal and state statutes. During 2020, the administration of the District’s Industrial Waste Pretreatment Program will require the issuance or renewal of Discharge Authorizations for approximately 70 Significant Industrial Users and the review of approximately 700 Continued Compliance Reports and 20 Slug Control or Spill Prevention, Control, and Countermeasure Plans. During 2020, M&R expects to perform 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 2020, 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 2020 are expected to meet the highest quality criteria for trace metals under the United States Environmental Protection Agency Biosolids Rule (40 CFR Part 503) and the WRP effluents are expected to meet all NPDES permit limits for regulated industrial pollutants.

**Five-Year Trend in Enforcement Activities**

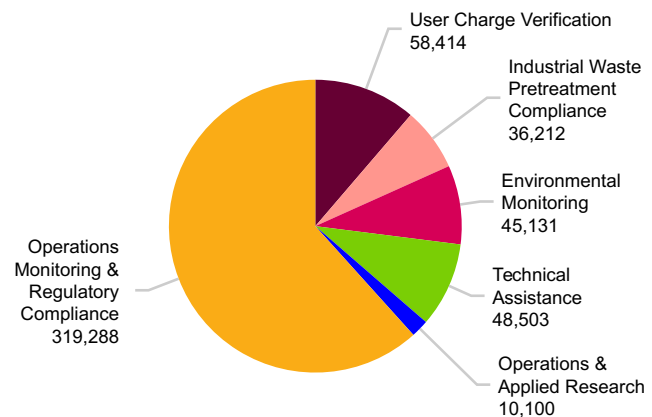
Year	Cease and Desist Orders
2016	56
2017	72
2018	72
2019 Estimated	70
2020 Projected	70

**Number of Emergency Responses**



2015, 2018 - Decrease due to more effective spill precaution and slug control outreach effort to industry, along with fewer heavy precipitation events.

**2020 Projected Laboratory Analyses by Program**



M&R provides first-response services for hazardous materials emergencies and complaints of pollution to surface water and sewage systems and will conduct approximately 145 investigations in response to requests from federal, state, and local agencies, municipalities, private citizens, industrial sources, and requests from the M&O Department in 2020.

In 2020, M&R will collect and analyze approximately 750 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 four biosolids management facilities, including Fischer Farm in Hanover Park, in accordance with permits issued by the IEPA. In 2020, a total of 32 monitoring reports will be submitted to the IEPA.

M&R monitors the liquid and solids process trains daily at multiple critical control points at each of the seven WRPs to inform process control and to improve operations and the quality of effluents and biosolids, which will generate 517,648 projected tests in 2020. This includes chemical, biological, and microbiological monitoring. Whole effluent toxicity tests and fecal bacteria indicator analyses will be conducted as required by NPDES 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.

The M&R Department has increased its Service Level Agreement Meetings with the M&O Department to every six months from the previous frequency of every twelve months. This is designed to provide closer support and communication with the M&O Department and to allow for faster feedback about service levels and operational concerns regarding the support provided.

The District conducts an Odor Monitoring Program to document occurrences of odors with the purpose of minimizing or eliminating nuisance odors in the communities surrounding its facilities. In 2020, 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 time frame. In 2020, M&R will continue to address issues such as updating the WRP process and hydraulic models, as well as incorporating findings from the ongoing development of the District's Biosolids Strategy and Odor Reduction Strategy.

- **Recover Resources**

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, and Kirie 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 2020. M&R is leading the effort to permit haulers and monitor the HSOM to screen out material that is harmful to WRP operations or unsuitable for use in phosphorus removal. M&R is continuing the investigation of technologies to reduce energy costs such as mainstream shortcut biological nitrogen removal, membrane aerated bioreactors, ammonia-based aeration control, and co-digestion. M&R will also continue to 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 Cecil 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 2,000 attendees in 2019, it is anticipated that attendance for 2020 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 2020, 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, an M&R staff member has been certified to handle the radioactive materials at the laboratory in a safe and secure manner.

- **Leading Partnerships**

M&R will provide support to outreach activities, such as school science fair projects, District laboratory tours, local public meetings, and parades. M&R will continue to represent the District as a member in local watershed groups. M&R will provide water quality data and analysis to support the CAWS Chloride Reduction Initiative and the Chloride Time Limited Water Quality Standard annual requirements.

M&R has been providing assistance to oversight agencies studying and controlling the migration of invasive aquatic species for decades. In 2020, 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 will continue to represent the District on technical committees for the Illinois Association of Wastewater Agencies, and will have a representative on their executive board in 2020.

M&R provides support to the IEPA 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 2020 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. M&R is conducting a four-season study of TOC and BOD correlation from samples of each of the seven WRPs. Upon completion of the study, M&R will seek approval from the IEPA to use TOC analysis in place of the BOD. The TOC analysis provides a more environmentally beneficial analysis by eliminating the use of the mercury reagent that is required for oxygen demand index analysis to predict BOD concentrations.

- **Information Technology**

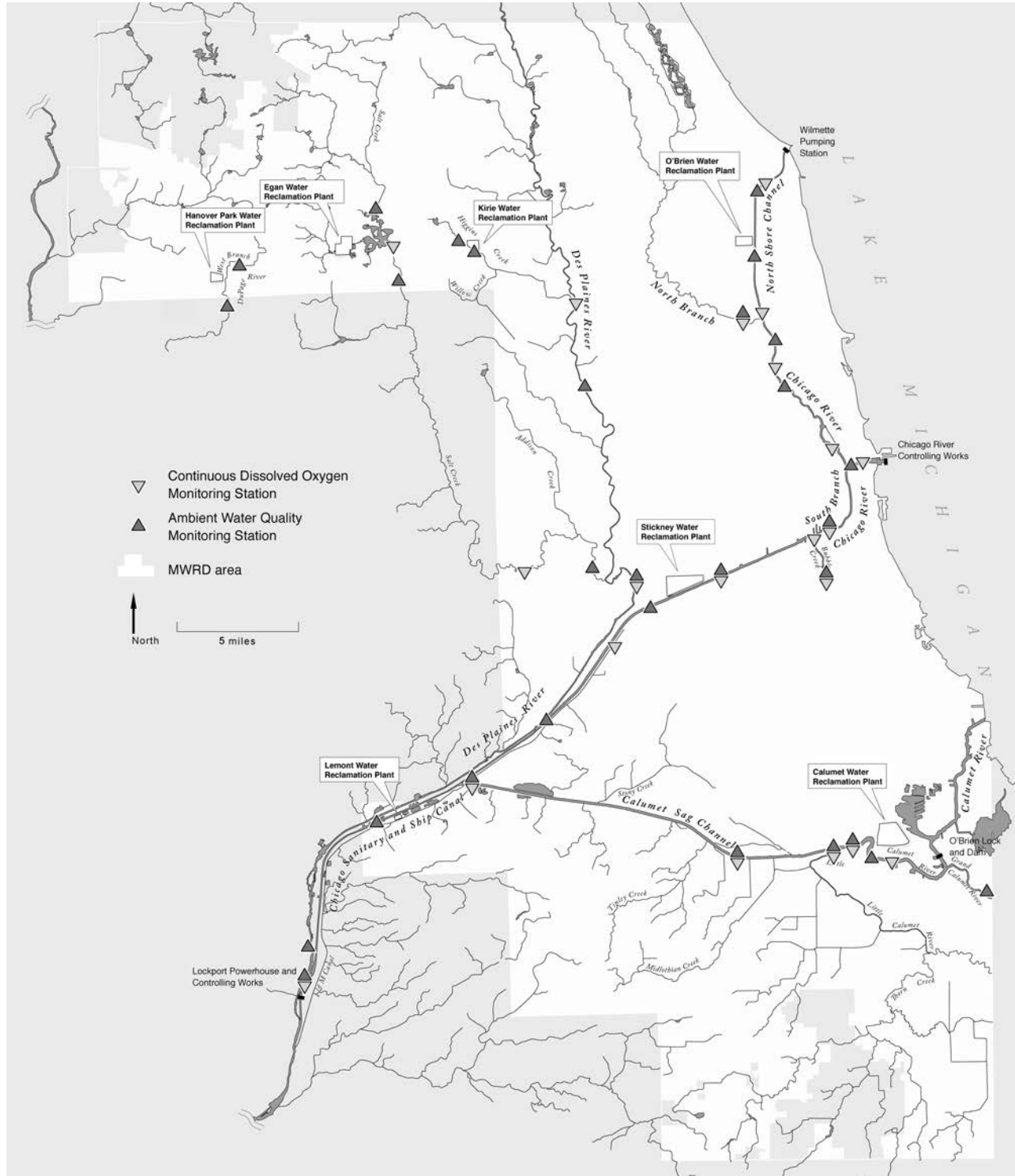
The internet-based Publicly owned treatment works Administration and Compliance System is used to monitor Commercial/Industrial User compliance with United States Environmental Protection Agency regulations. In 2020, enhancements to the internet-based Publicly owned treatment works Administration and Compliance System will allow M&R to continue implementing electronic management of assignment scheduling and reporting, as well as Industrial User self-reporting.

In 2020, the Analytical Laboratories Division will spearhead an acquisition of a new laboratory data management system. Research to upgrade the current system and reduce custom code determined a new system with enhanced technology is necessary. The goal is to procure and implement a system that is configurable without customization; therefore, eliminating the need for outside consultants. The new system will provide for traceability of reagents' and analysts', training which will improve error prevention and reduce the use of paper. The new system will be adaptable to the use of mobile devices, which will enable electronic chain of custody of samples in the future.

The newly acquired TOC Analyzer is being used to measure total organic carbon in the NPDES permit samples at each of the seven WRPs. The TOC Analyzer also provides significant reduction in the number of "No Data" reports as a result of failed BOD analyses. The TOC is reproducible, automated, and fast; samples can be preserved and reanalyzed. In 2020, the study to use TOC in place of BOD is expected to be approved and implemented.

# Monitoring & Research

## Waterways Monitoring Program 4672 - Waterways Monitoring Stations



Operations of the District meet stringent standards contained in NPDES permits issued for each WRP. Processing and utilization of solids are regulated by IEPA permits and federal regulations. M&R monitors ambient water quality at 29 sampling locations, and operates 21 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	\$ 5,180,500	16.4%	
	Solids Process Analyses	\$ 2,535,900	8.1%	
	Air Quality Monitoring	\$ 166,000	0.5%	
		<b>\$ 7,882,400</b>	<b>25.0%</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	\$ 319,900	1.0%	
	Tax-Exempt Users	\$ 1,237,200	3.9%	
	Large Commercial/Industrial Users	\$ 4,679,800	14.8%	
	Environmental Remediation	\$ 133,100	0.4%	
	Chemical Toilet Waste	\$ 186,400	0.6%	
	* Note: "SIUs" refers to Significant Industrial Users.	SIUs* - Pretreatment Program	\$ 4,549,100	14.4%
	SIUs* - Extraordinary Monitoring/ Enforcement	\$ 1,018,900	3.2%	
	Other Industrial Users	\$ 555,600	1.8%	
	All Other - General	\$ 425,900	1.4%	
		<b>\$ 13,105,900</b>	<b>41.5%</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	\$ 71,700	0.2%	
	Waterways Monitoring	\$ 2,194,800	7.0%	
	Inspection Events	\$ 212,800	0.7%	
	Groundwater Monitoring	\$ 480,900	1.5%	
		<b>\$ 2,960,200</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	\$ 1,522,900	4.8%	
	General Assistance	\$ 616,400	2.0%	
	Regulatory Review and Response	\$ 926,900	3.0%	
	Engineering Process Design Support	\$ 1,311,600	4.2%	
	Regulatory Compliance Reporting	\$ 260,100	0.8%	
	Facility Capital Planning	\$ 804,200	2.5%	
		<b>\$ 5,442,100</b>	<b>17.3%</b>	
5. OPERATIONS & APPLIED RESEARCH: Conduct operations and applied research for process improvement and cost reduction in District operations.		\$ 2,156,100	6.8%	
	<b>Totals</b>	<b>\$ 31,546,700</b>	<b>100.0%</b>	

**16000 MONITORING & RESEARCH**

**OBJECTIVES AND PROGRAM SUMMARY**

MEASURABLE GOALS:	2018	2019	2020
	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.	90%	100%	N/A
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 the 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.	138	160	145

PROGRAMS BY PRIORITY:		2018	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
4650	Operations Monitoring	\$ 7,367,124	2020	77	\$ 7,882,400	\$ (130,200)	(1.6)	
			2019	79	\$ 8,012,600			
4660	Industrial Waste Monitoring	\$11,113,505	2020	120	\$ 12,680,000	\$ 184,000	1.5	a)
			2019	121	\$ 12,496,000			
4670	Environmental Monitoring	\$ 2,811,694	2020	28	\$ 2,960,200	\$ (1,600)	(0.1)	
			2019	28	\$ 2,961,800			
4680	Technical Assistance	\$ 5,787,637	2020	48	\$ 5,442,100	\$ 126,800	2.4	
			2019	49	\$ 5,315,300			
4690	Operations and Applied Research	\$ 2,122,233	2020	21	\$ 2,156,100	\$ (195,000)	(8.3)	b)
			2019	23	\$ 2,351,100			
7604	Social Security and Medicare Contributions	\$ 375,280	2020	—	\$ 425,900	\$ 14,400	3.5	
			2019	—	\$ 411,500			
Totals		\$29,577,473	2020	294	\$ 31,546,700	\$ (1,600)	—%	
			2019	300	\$ 31,548,300			

a) Increase is due to the addition of Cross-Media Electronic Reporting Rule software (\$250,000), offset by a reduction of planned spending on equipment for the Industrial Waste Analytical Laboratory (\$61,700).

b) Decrease is due to the drop of two FTE positions (\$147,400).



**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	258,556	246,737	235,832	
		Program Cost	\$ 4,736,572	\$ 5,196,400	\$ 5,180,500	
		Program Cost/Analysis	\$ 18.32	\$ 21.06	\$ 21.97	
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	86,208	90,905	79,172	
		Program Cost	\$ 2,471,008	\$ 2,645,700	\$ 2,535,900	
		Program Cost/Analysis	\$ 28.66	\$ 29.10	\$ 32.03	
4654	Air Monitoring: Air quality monitoring at the District's WRPs and solids management areas to comply with regulations and identify odors affecting surrounding areas resulting in citizen complaints	Number of Analyses	4,254	3,250	4,284	a)
		Sampling Events	407	450	441	
		Program Cost	\$ 159,544	\$ 170,500	\$ 166,000	
		Program Cost/Analysis	\$ 37.50	\$ 52.46	\$ 38.75	
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	6,129	6,200	6,000	
		Program Cost	\$ 157,844	\$ 314,100	\$ 319,900	
		Program Cost/User	\$ 25.75	\$ 50.66	\$ 53.32	
4662	User Charge Ordinance - Tax-Exempt Users	Number of Users	2,934	2,970	2,940	
		Program Cost	\$ 1,318,827	\$ 1,248,300	\$ 1,237,200	
		Program Cost/User	\$ 449.50	\$ 420.30	\$ 420.82	
		Revenue	\$ 10,325,454	\$ 13,000,000	\$ 10,750,000	b)
		Revenue/User	\$ 3,519.24	\$ 4,377.10	\$ 3,656.46	
4663	User Charge Ordinance - Large Commercial/Industrial Users	Number of Users	633	630	630	
		Program Cost	\$ 3,432,785	\$ 4,498,500	\$ 4,679,800	c)
		Program Cost/User	\$ 5,423.04	\$ 7,140.48	\$ 7,428.25	
		Revenue	\$ 30,976,363	\$ 33,000,000	\$ 32,250,000	b)
		Revenue/User	\$ 48,935.80	\$ 52,380.95	\$ 51,190.48	
		Industrial Waste Monitoring Analyses	64,234	59,296	58,414	
		Program Cost/Analysis	\$ 53.44	\$ 75.87	\$ 80.11	
4664	Environmental Remediation Wastewater Ordinance	Permits Issued	12	15	15	
		Program Cost	\$ 99,325	\$ 132,300	\$ 133,100	
		Program Cost/Permit	\$ 8,277.08	\$ 8,820.00	\$ 8,873.33	

a) Increase is due to a new odor monitoring program at the McCook Reservoir.

b) Decrease is due to an anticipated decline in User Charge revenue from \$46M in 2019 to \$43M in 2020, based on historical trends, estimated rates, and the industrial community's ad valorem property tax credits.

c) Increase is due to the addition of Cross-Media Electronic Reporting Rule software (\$250,000), offset by a reduction of planned spending on equipment for the Industrial Waste Analytical Laboratory (\$61,700).

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
4665	Chemical Toilet Wastes Disposal Ordinance	Permits Issued	4	4	3	d)
		Program Cost	\$ 56,322	\$ 207,600	\$ 186,400	
		Program Cost/Permit	\$ 14,080.50	\$ 51,900.00	\$ 62,133.33	
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	338	345	340	
		Waste Monitoring Analyses	42,548	33,770	36,212	
		Program Cost	\$ 3,615,486	\$ 4,514,700	\$ 4,549,100	
		Program Cost/Analysis	\$ 84.97	\$ 133.69	\$ 125.62	
		Program Cost/SIU	\$ 10,696.70	\$ 13,086.09	\$ 13,379.71	
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	122	120	120	
		Program Cost	\$ 1,809,918	\$ 1,002,200	\$ 1,018,900	
		Program Cost/SIU	\$ 14,835.39	\$ 8,351.67	\$ 8,490.83	
4668	Other Regulatory Activities - Industrial Users	Number of IUs	329	300	300	
		Program Cost	\$ 622,998	\$ 578,300	\$ 555,600	
		Program Cost/IU	\$ 1,893.61	\$ 1,927.67	\$ 1,852.00	
4670	Environmental Monitoring: Regulatory required monitoring or discretionary sampling and analysis to address or evaluate the impact of wastewater conveyance, treatment, and discharge of treated effluent on local surface water and groundwater					
4671	Lake Michigan Monitoring: Sampling and analysis to determine the impact of Combined Sewer Overflow backflow, due to storm events, on the water quality of Lake Michigan	Environmental Analyses	—	383	—	e)
		Program Cost	\$ 64,230	\$ 69,000	\$ 71,700	
		Program Cost/Analysis	\$ —	\$ 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	875	1,000	875	
		Environmental Analyses	36,274	33,663	26,761	f)
		Program Cost	\$ 2,086,491	\$ 2,209,500	\$ 2,194,800	
		Program Cost/Analysis	\$ 57.52	\$ 65.64	\$ 82.01	
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	138	160	145	
		Program Cost	\$ 248,912	\$ 216,600	\$ 212,800	
		Program Cost/Inspection	\$ 1,803.71	\$ 1,353.75	\$ 1,467.59	
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	23,246	15,967	18,370	g)
		Sampling Events	757	650	750	g)
		Number of Sites	165	165	165	
		Program Cost	\$ 412,061	\$ 466,700	\$ 480,900	
		Program Cost/Analysis	\$ 17.73	\$ 29.23	\$ 26.18	

d) Decrease is due to one permit holder that did not reapply for 2019 and the applicant is not expected to apply in 2020.

e) Decrease is due to no backflow events occurring as a result of increased capacity of the TARP system with the Thornton Composite Reservoir.

f) Decrease is due to reclassifying samples under other Program Numbers.

g) Increase is due to the revised methodology for sampling at TARP.

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	480	218	470	h)
		Number of Analyses	40,422	41,103	30,589	i)
		Sampling Events	383	300	438	h)
		Program Cost	\$ 1,922,197	\$ 1,625,700	\$ 1,522,900	
		Program Cost/Analysis	\$ 47.55	\$ 39.55	\$ 49.79	
		Program Cost/Event	\$ 5,018.79	\$ 5,419.00	\$ 3,476.94	
4682	General Assistance to All Other Departments: Technical assistance based on requests, primarily to the Law Department	Responses Completed	359	240	224	
		Number of Analyses	909	342	466	i)
		Sampling Events	25	35	10	
		Program Cost	\$ 619,804	\$ 639,800	\$ 616,400	
		Program Cost/Analysis	\$ 681.85	\$ 1,870.76	\$ 1,322.75	
		Program Cost/Event	\$ 24,792.16	\$ 18,280.00	\$ 61,640.00	
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	168	141	92	
		Program Cost	\$ 766,643	\$ 629,800	\$ 926,900	j)
4684	Engineering Process Design Support: Technical assistance to the Engineering Department to improve District facilities and optimize process design	Number of Analyses	17,596	14,861	17,448	i)
		Responses Completed	55	130	60	
		Sampling Events	9	10	—	
		Program Cost	\$ 1,276,402	\$ 1,329,700	\$ 1,311,600	
		Program Cost/Analysis	\$ 72.54	\$ 89.48	\$ 75.17	
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	55	
		Number of Analyses	—	5	—	k)
		Program Cost	\$ 298,869	\$ 274,600	\$ 260,100	
		Program Cost/Report	\$ 5,336.95	\$ 4,903.57	\$ 4,729.09	
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	\$ 903,722	\$ 815,700	\$ 804,200	
<p>h) The increase in sampling is due to support to the Maintenance &amp; Operations Department on a biosolids composting program now being reported.</p> <p>i) The increase or decrease is due to varying requests and special projects that require analyses.</p> <p>j) Increase is due to the anticipated award of 19-RFP-11 for the Chicago Area Waterway System Phosphorus Assessment (\$329,400), offset by the 2019 completion of the microbiome microbial source monitoring study (\$14,700).</p> <p>k) Decrease is due to more appropriately classifying analyses needed for regulatory reports under other Program Numbers.</p>						

**16000 MONITORING & RESEARCH**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	2,621	1,000	4,070	l)
		Research Projects	65	60	60	
		Laboratory Analyses	17,286	16,975	10,100	m)
		Program Cost	\$ 2,122,233	\$ 2,351,100	\$ 2,156,100	n)
		Program Cost/Analysis	\$ 122.77	\$ 138.50	\$ 213.48	
7604	Social Security and Medicare Contributions	Program Cost	\$ 375,280	\$ 411,500	\$ 425,900	
		Totals	\$ 29,577,473	\$ 31,548,300	\$ 31,546,700	
l) Increase is due to sampling related to Fulton County projects. m) The decrease in sampling is due to differences between the types of projects and the number of analyses done for each project. Additionally, the Argonne Microbial Source tracking project was completed in 2019 and no further analyses are budgeted for 2020. n) Decrease is due to the drop of two FTE positions (\$147,400).						

101 16000	Fund: Corporate Department: Monitoring & Research	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 26,765,317	\$ 28,311,400	\$ 28,256,300	\$ 18,987,443	\$ 26,802,100	\$ 28,171,700	\$ —
601060	Compensation Plan Adjustments	944,953	819,500	819,500	309,737	639,700	823,900	—
601070	Social Security and Medicare Contributions	375,280	411,500	411,500	279,181	382,400	425,900	—
601080	Salaries of Nonbudgeted Employees	—	—	55,100	55,082	55,100	—	—
601100	Tuition and Training Payments	47,193	77,700	77,700	58,776	75,000	27,800	—
100	TOTAL PERSONAL SERVICES	28,132,743	29,620,100	29,620,100	19,690,219	27,954,300	29,449,300	—
612010	Travel	16,338	18,000	18,300	13,860	15,000	10,500	—
612030	Meals and Lodging	41,139	39,700	41,900	25,663	35,000	22,000	—
612040	Postage, Freight, and Delivery Charges	5,595	8,700	8,700	8,599	8,000	5,700	—
612050	Compensation for Personally-Owned Automobiles	24,236	27,400	27,400	18,465	25,700	17,700	—
612080	Motor Vehicle Operating Services	529	300	500	230	300	300	—
612170	Water and Water Services	578	—	—	—	—	—	—
612330	Rental Charges	—	1,300	1,300	—	900	1,100	—
612400	Intergovernmental Agreements	—	49,600	49,600	49,547	49,600	49,600	—
612410	Governmental Service Charges	17,000	17,000	17,000	13,600	17,000	17,000	—
612430	Payments for Professional Services	62,528	92,400	92,400	88,610	82,400	334,400	—
612490	Contractual Services, N.O.C.	169,169	335,600	222,900	210,450	214,600	258,600	—
612790	Repairs to Marine Equipment	29,839	24,000	24,000	23,301	24,000	33,600	—
612970	Repairs to Testing and Laboratory Equipment	317,649	391,800	391,800	384,626	380,400	333,600	—
200	TOTAL CONTRACTUAL SERVICES	684,599	1,005,800	895,800	836,949	852,900	1,084,100	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	26,356	30,000	35,000	32,947	33,200	20,300	—
623530	Farming Supplies	25,982	28,000	23,000	15,500	15,400	15,000	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	321,179	415,000	396,600	350,590	396,600	337,100	—
623700	Wearing Apparel	13,033	12,600	12,600	12,000	12,000	16,300	—
623720	Books, Maps, and Charts	450	600	600	326	400	400	—
623800	Computer Software	—	—	18,400	18,340	—	—	—
623810	Computer Supplies	2,054	500	500	—	—	—	—
623820	Fuel	11,508	13,800	13,800	13,755	13,600	18,000	—
623990	Materials and Supplies, N.O.C.	30,642	37,600	37,600	34,087	33,700	53,200	—
300	TOTAL MATERIALS AND SUPPLIES	431,204	538,100	538,100	477,545	504,900	460,300	—

101 16000	Fund: Corporate Department: Monitoring & Research	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
634820	Computer Software	—	—	—	—	—	500,000	—
634970	Testing and Laboratory Equipment	328,928	384,300	494,300	490,402	419,600	53,000	—
400	TOTAL MACHINERY AND EQUIPMENT	328,928	384,300	494,300	490,402	419,600	553,000	—
TOTAL MONITORING & RESEARCH		\$ 29,577,473	\$ 31,548,300	\$ 31,548,300	\$ 21,495,116	\$ 29,731,700	\$ 31,546,700	\$ —

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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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		1	
HP11	Administrative Specialist	1	—		—	
TOTAL 111	Executive Section	3	3	460,194	3	460,194
<b>112</b>	<b>Budget &amp; Administrative Section</b>					
HP22	Assistant Director of Monitoring & Research	1	1		1	
HP18	Supervising Budget & Management Analyst	1	1		1	
HP16	Senior Budget & Management Analyst	1	1		1	
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL 112	Budget & Administrative Section	6	6	750,713	6	766,072
TOTAL 110	Executive Division	9	9	1,210,907	9	1,226,266
<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		—	
HP18	Biostatistician	1	1		1	
HP18	Principal Environmental Scientist	—	2		—	
HP15	Associate Civil Engineer	1	1		1	
HP13	Senior Administrative Specialist	2	2		2	
HP11	Administrative Specialist	4	4		3	
TOTAL 121	Environmental Monitoring & Research Administrative Section	11	13	1,586,356	9	1,105,107
<b>122</b>	<b>Wastewater Treatment Operations Support Section (formerly Wastewater Treatment Process Research Section)</b>					
HP18	Principal Environmental Scientist	1	1		—	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018		2019		2020
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP17	Senior Environmental Research Scientist	3	3		2	
HP15	Environmental Research Scientist	3	3		1	
HP13	Senior Environmental Research Technician	1	1		—	
HP11	Environmental Research Technician	6	7		—	
HP10	Laboratory Technician I	1	—		—	
TOTAL 122	Wastewater Treatment Operations Support Section (formerly Wastewater Treatment Process Research Section)	15	15	1,341,396	3	382,206
<b>123</b>	<b>Biosolids Section (formerly Biosolids Utilization &amp; Soil Science Section)</b>					
HP18	Principal Environmental Scientist	1	1		1	
HP17	Senior Environmental Soil Scientist	1	2		2	
HP15	Environmental Soil Scientist	3	3		2	
HP15	Environmental Chemist	1	1		—	
HP15	Environmental Chemist #2 (Senior Environmental Research Technician)	—	—		1	
HP11	Environmental Research Technician	5	5		5	
HP09	Laboratory Assistant	1	1		1	
TOTAL 123	Biosolids Section (formerly Biosolids Utilization & Soil Science Section)	12	13	1,209,652	12	1,039,849
<b>124</b>	<b>Microbiology Section (formerly Analytical Microbiology &amp; Biomonitoring Section)</b>					
HP18	Principal Environmental Scientist	1	1		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	
HP13	Senior Laboratory Technician	1	1		1	
HP11	Laboratory Technician II	7	8		7	
HP11	Laboratory Technician II #4	1	—		—	
HP09	Laboratory Assistant	2	2		2	
TOTAL 124	Microbiology Section (formerly Analytical Microbiology & Biomonitoring Section)	15	15	1,186,878	14	1,149,286



Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>126</b>	<b>Aquatic Ecology Section (formerly Aquatic Ecology &amp; Water Quality Section)</b>					
HP18	Principal Environmental Scientist	1	1		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		1	
HP14	Assistant Aquatic Biologist #1	1	—		—	
HP13	Senior Environmental Research Technician	1	1		1	
HP11	Environmental Research Technician	5	5		5	
NR6441	Patrol Boat Operator	2	2		2	
NR3642	Pollution Control Technician II	2	2		2	
NR3641	Pollution Control Technician I	4	4		4	
TOTAL 126	Aquatic Ecology Section (formerly Aquatic Ecology & Water Quality Section)	20	19	1,585,238	19	1,611,510
<b>129</b>	<b>Wastewater Capital Planning, Research, and Technology Evaluation Section (formerly Process Facilities Capital Planning Section)</b>					
HP20	Managing Civil Engineer	—	—		1	
HP18	Principal Civil Engineer	1	1		1	
HP18	Principal Environmental Scientist	—	—		2	
HP17	Senior Civil Engineer	2	2		2	
HP17	Senior Electrical Engineer	1	—		—	
HP17	Senior Environmental Research Scientist	2	3		4	
HP17	Senior Mechanical Engineer	2	1		1	
HP15	Associate Civil Engineer	2	1		1	
HP15	Associate Electrical Engineer	2	—		—	
HP15	Associate Mechanical Engineer	2	1		1	
HP15	Environmental Research Scientist	2	2		3	
HP13	Senior Environmental Research Technician	—	—		2	

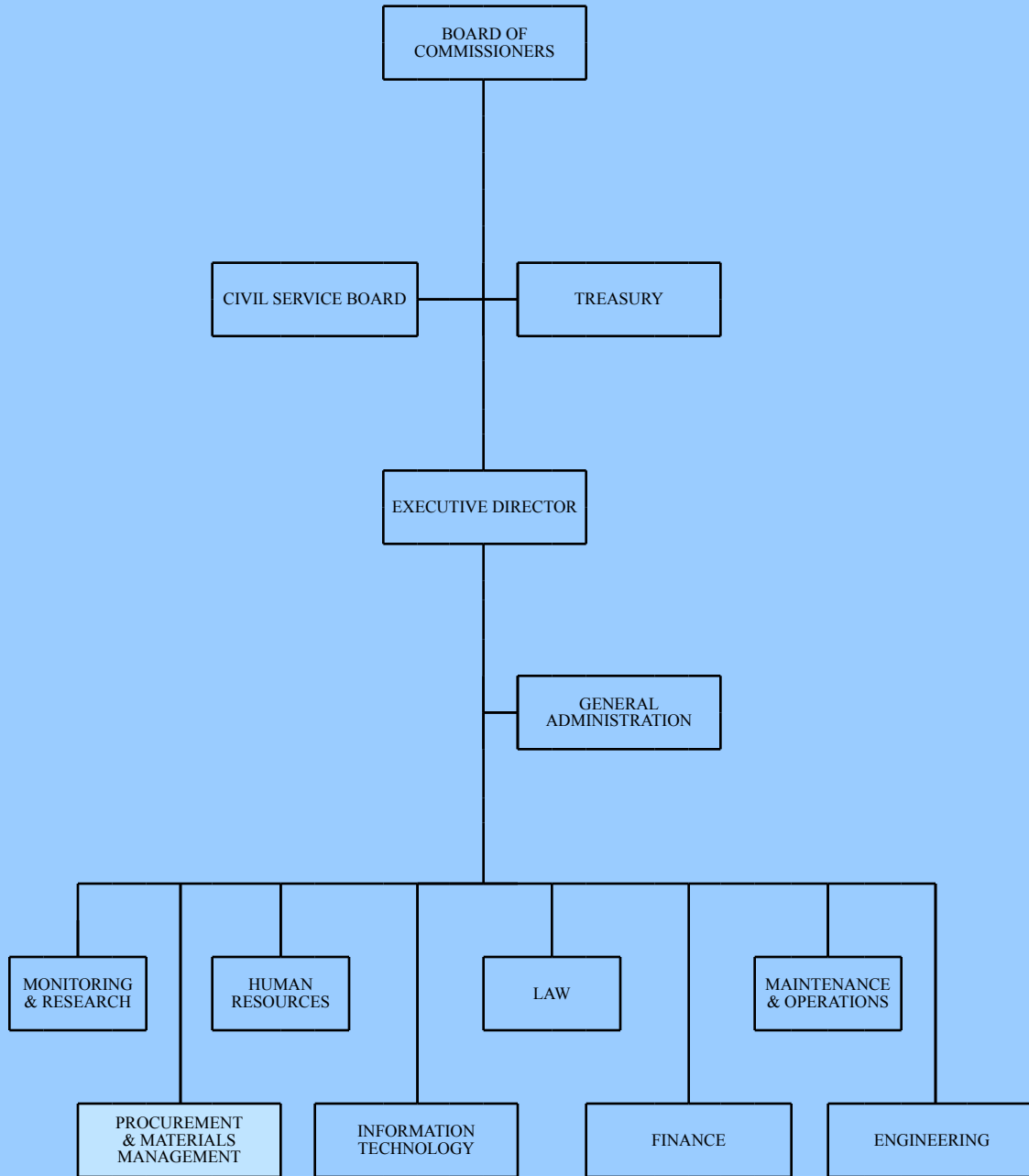
Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP11	Environmental Research Technician	—	—		6	
HP11	Environmental Research Technician #1	—	—		1	
TOTAL 129	Wastewater Capital Planning, Research, and Technology Evaluation Section (formerly Process Facilities Capital Planning Section)	16	11	1,316,192	25	2,622,853
TOTAL 120	Environmental Monitoring & Research Division	89	86	8,225,713	82	7,910,811
<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	2	2		2	
HP13	Senior Administrative Specialist	1	2		2	
HP11	Administrative Specialist	1	—		—	
TOTAL 161	Analytical Laboratories Administrative Section	8	7	813,784	7	801,394
<b>162</b>	<b>Stickney Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	2	2		2	
HP15	Environmental Chemist	5	4		4	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Administrative Specialist	1	1		1	
HP11	Laboratory Technician II	9	11		11	
HP10	Laboratory Technician I	2	—		—	
HP10	Laboratory Technician I #1	—	2		1	
HP09	Laboratory Assistant	3	2		2	
TOTAL 162	Stickney Analytical Laboratory Section	26	26	2,059,646	25	2,090,742
<b>164</b>	<b>Industrial Waste Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	2	2		2	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP15	Environmental Chemist	5	4		4	
HP14	Assistant Environmental Chemist #1	1	—		—	
HP13	Senior Laboratory Technician	3	3		3	
HP11	Laboratory Technician II	12	10		10	
HP09	Laboratory Assistant	1	2		2	
TOTAL 164	Industrial Waste Analytical Laboratory Section	25	22	1,894,794	22	1,920,667
<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 (Environmental Chemist) (New Grade HP15)	—	—		2	
HP16	Instrumentation Chemist II #2 (Instrumentation Chemist) (New Grade HP15)	2	2		—	
HP15	Environmental Chemist	—	—		2	
HP15	Instrumentation Chemist	2	2		—	
HP13	Senior Laboratory Technician	1	1		1	
HP11	Laboratory Technician II	2	3		3	
TOTAL 165	Organic Compounds Analytical Laboratory Section	10	11	1,184,211	11	1,207,054
<b>166</b>	<b>Egan Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	2	2		2	
HP15	Environmental Chemist	4	3		3	
HP14	Assistant Environmental Chemist #1	1	—		—	
HP13	Senior Laboratory Technician	1	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	7		7	
HP11	Laboratory Technician II #4	1	1		1	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP10	Laboratory Technician I	1	—		—	
HP09	Laboratory Assistant	2	2		2	
TOTAL 166	Egan Analytical Laboratory Section	21	19	1,562,844	19	1,593,078
<b>167</b>	<b>Calumet Analytical Laboratory Section</b>					
HP18	Supervising Environmental Chemist	1	1		1	
HP17	Senior Environmental Chemist	2	2		2	
HP15	Environmental Chemist	4	3		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	8		8	
HP09	Laboratory Assistant	2	2		2	
TOTAL 167	Calumet Analytical Laboratory Section	19	19	1,592,335	19	1,635,760
TOTAL 160	Analytical Laboratories Division	109	104	9,107,614	103	9,248,695
<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 191	Industrial Waste Administrative Section	2	2	307,165	2	252,358
<b>192</b>	<b>Technical Services Section</b>					
HP18	Supervising Environmental Specialist	—	1		—	
HP17	Senior Environmental Specialist	1	1		1	
HP15	Environmental Specialist	2	2		5	
HP11	Administrative Specialist	—	—	—	1	
NR3642	Pollution Control Technician II	—	—	—	2	
TOTAL 192	Technical Services Section	3	4	454,429	9	901,290
<b>193</b>	<b>Pretreatment &amp; Cost Recovery Section</b>					
HP18	Supervising Environmental Specialist	2	2		2	
HP17	Senior Civil Engineer	1	1		1	

Fund: Corporate Dept: Monitoring & Research		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
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	—		—	
HP11	Administrative Specialist	2	3		2	
HP09	Administrative Clerk	2	2		2	
TOTAL 193	Pretreatment & Cost Recovery Section	35	35	3,636,667	34	3,663,830
<b>194</b>	<b>Field Services Section</b>					
HP18	Supervising Environmental Specialist	1	1		3	
HP17	Senior Environmental Specialist	5	5		4	
HP15	Environmental Specialist	29	29		26	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	1	1		1	
NR3642	Pollution Control Technician II	2	2		—	
NR3641	Pollution Control Technician I	21	21		20	
TOTAL 194	Field Services Section	60	60	5,528,040	55	5,175,645
TOTAL 190	Industrial Waste Division	100	101	9,926,302	100	9,993,123
TOTAL	Monitoring & Research	307	300	28,470,536	294	28,378,895

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. Dollar amounts may not add up due to rounding.



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for Procurement & Materials Management Department

The Procurement & Materials Management Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Procurement & Materials Management Department budget for 2020.

Respectfully submitted,

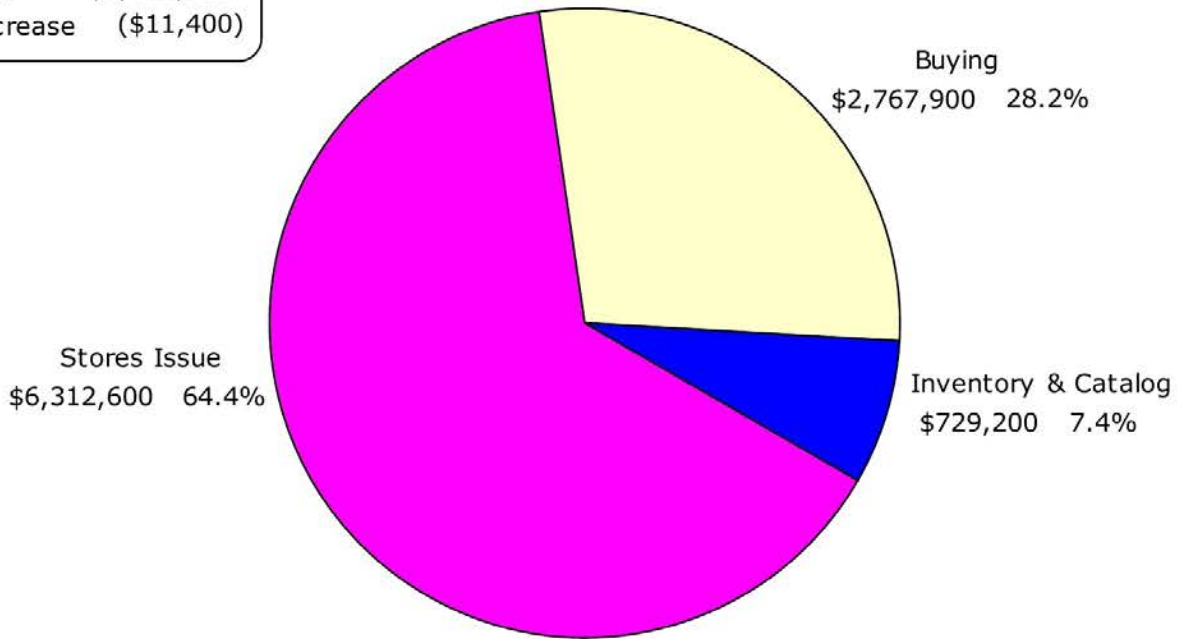


Darlene A. LoCascio  
Director of Procurement & Materials Management

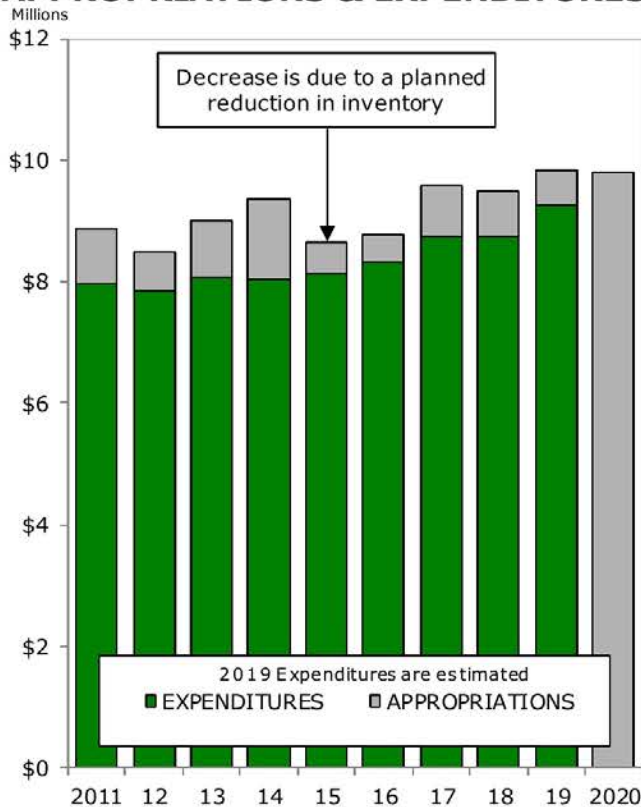
# PROCUREMENT & MATERIALS MANAGEMENT

2020	\$9,809,700
2019	\$9,821,100
Decrease	(\$11,400)

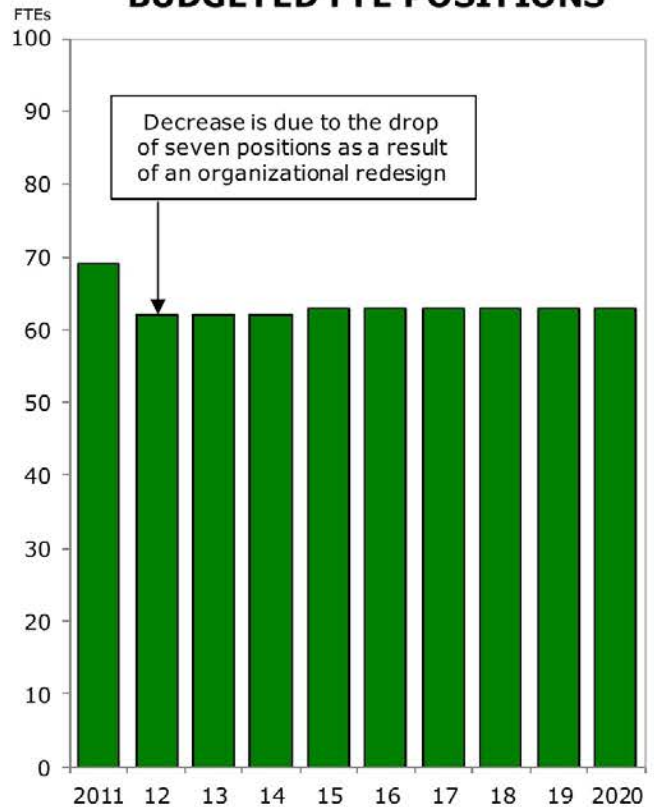
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES

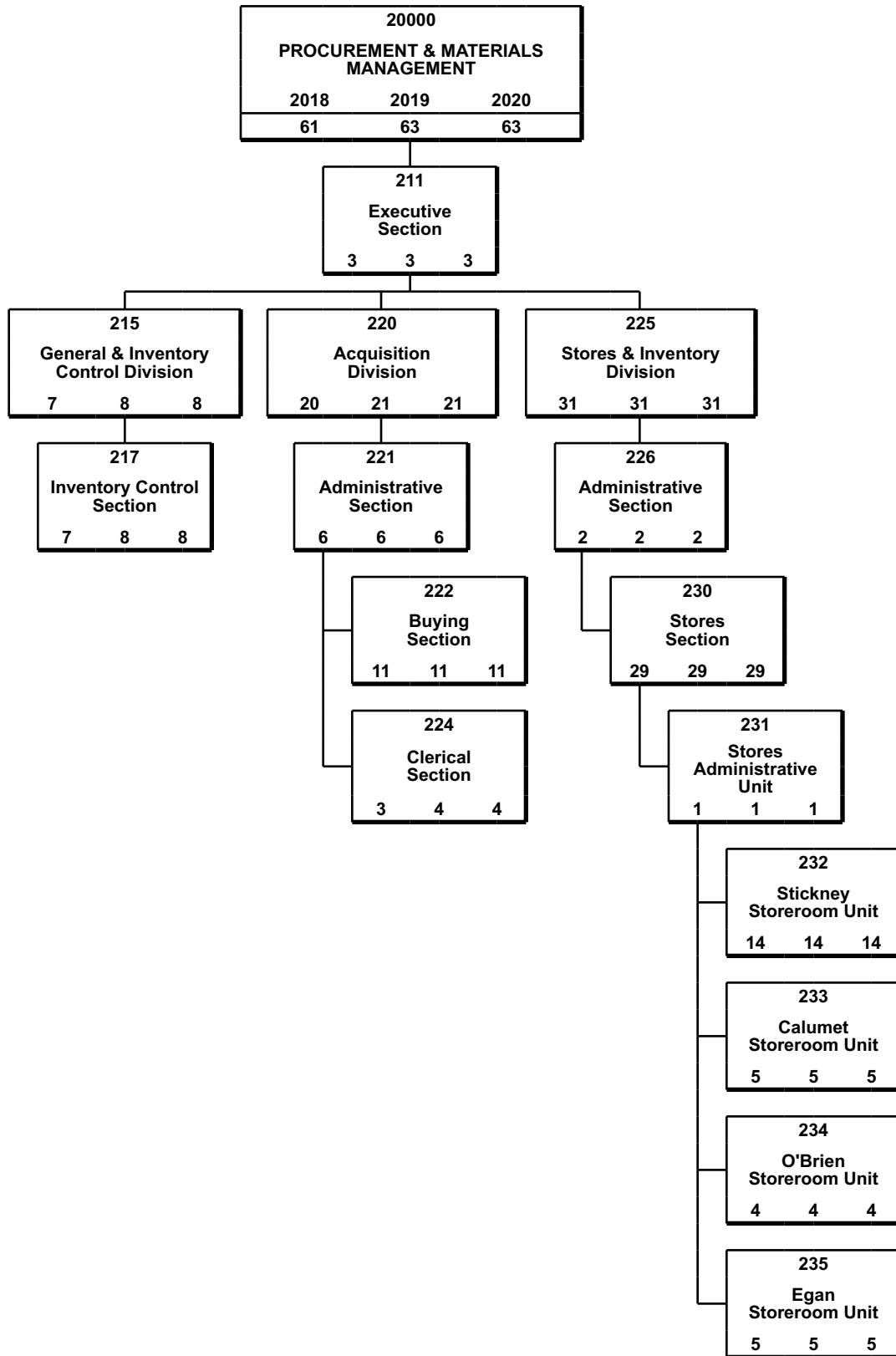


## BUDGETED FTE POSITIONS





# 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 2019 Accomplishments

- Developed a Request for Proposal to solicit bids for e-procurement software for the online submission of bids;
- Developed a Request for Proposal to solicit bids for an interactive vendor portal;
- Revised the bid deposit policy to require bid deposits for construction projects only;
- Implemented improvements to the Fertilizer Building at the Stickney Water Reclamation Plant to secure and store materials from outlying areas;
- Included engineering consultant firms in the vendor database;
- Sold renewable energy credits as a Pennsylvania-New Jersey-Maryland Interconnection service provider on the wholesale market for a total purchase price of \$70,985.

### Budget Highlights

The 2020 appropriation for P&MM is \$9,809,700, a decrease of \$11,400, or 0.1 percent, from 2019. The staffing level remains unchanged at 63 positions.

Significant features of the 2020 Budget are:

- Implementation of e-procurement software for the online submission of bids;
- Implementation of an interactive vendor portal;
- Continue efforts to secure electrical energy supply for 2021 with a potential cost savings to the District;
- In conjunction with the Law Department, development of a Request for Proposal to solicit bids for an automated Freedom Of Information Act response system.

### 2020 Initiatives in Support of the Strategic Business Plan Include the Following:

#### • Add Value

P&MM will continue to collaborate with the Maintenance & Operations Department 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. In 2019, the turnaround time is 7.4 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 2021.

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

On July 11, 2019, the Board of Commissioners gave authorization to exercise an option to extend the agreement with Dynegy Energy Services for one year to accept pricing on electrical energy for 2021. In 2020, the District will continue efforts to secure the electrical energy supply for 2021 with a potential cost savings to the District. This reflects our commitment to ensure the best use of current spending.

#### • Recover Resources

In 2019, the District sold Renewable Energy Credits on the wholesale market for a total purchase price of \$70,985. The District will continue to sell Renewable Energy Credits on the wholesale market in 2020.

#### • Develop Employees

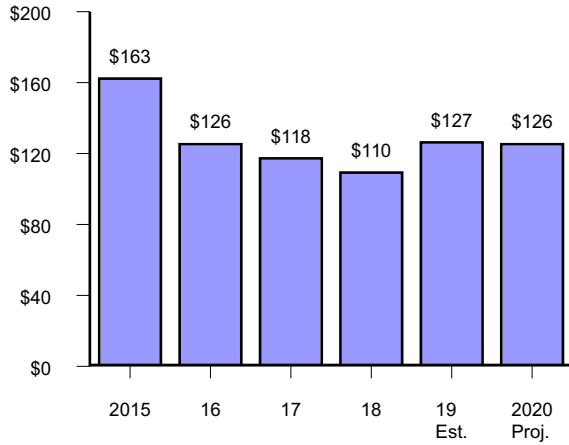
The development of employees is important to P&MM. We continue to develop and implement leadership initiatives that support succession planning.

**• Information Technology**

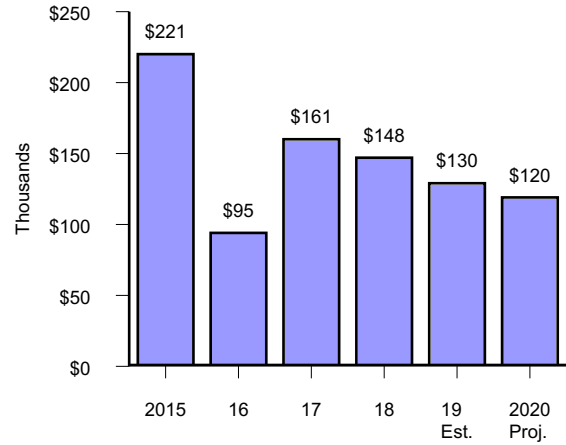
P&MM will continue to collaborate with the Information Technology Department to implement software for the online submission of bids and the vendor portal. The vendor portal will allow vendors to update information in their vendor profile, and obtain purchase orders and payment information. This enhancement will ensure that vendor information is current and accurate.

As always, P&MM is committed to supporting the District’s Strategic Business Plan.

**Cost to Prepare a Purchase Order**



**Sales of Surplus Goods**



- 2016 - Decrease is due to vacancies in Acquisition Division  
 - 2019 - Increase is due to the filling of two Buyer positions in the second half of 2018

- 2016 - Decrease is due to fewer materials being identified as surplus  
 - 2018 - Decrease is due to fewer materials being identified as surplus  
 - 2019 - Decrease is due to fewer materials being identified as surplus  
 - 2020 - Decrease is due to a projected reduction of surplus materials

**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 \$387.7 million. The estimated number of contracts and purchase orders is 142 and 5,600, respectively. Maximize participation in District purchases by administering the Minority-owned Business Enterprise, Women-owned Business Enterprise, Small Business Enterprise, and Veteran-owned Business Enterprise programs. Support for the department's budget preparation.	\$ 2,767,900	28.2%
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 \$34,200,000 and consisting of 69,800 items.	\$ 6,312,600	64.4%
3. Support the material and supply requirements of the District by planning, monitoring, cataloging, and controlling \$34,200,000 of inventory consisting of 69,800 items.	\$ 729,200	7.4%
<b>Totals</b>	<b>\$ 9,809,700</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018	2019	2020
	Actual	Estimated	Proposed
1. Process all requisitions and issue the related purchase orders within 25 days.			
Percent of Purchase Orders Processed within 25 days	81%	85%	92%
Percent of Purchase Orders Processed within 10 days	56%	74%	70%
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	68,395	69,000	69,800
Total Stock-outs (Storeroom stock items only)	553	420	400
Stock Issues (Number of Stock Documents)	16,663	16,850	17,000
Total Quantity SKUs (Individual Items) Issued	1,266,355	860,000	900,000
Multi-Issues of Like Items	38,846	38,422	38,600
Total Stock Transports and Two-Steps	26,303	24,800	24,500
Percent of Stock-outs (Maintain a level below three percent)	1.4%	1.1%	1.0%
3. Achieve inventory accuracy of 98 percent of operating supplies.			
Total Cycle Counts (Periodic physical inventory)	73,119	73,608	73,997
Total Errors	406	350	398
Percent Accuracy	99.4%	99.5%	99.5%
4. Maximize participation in District purchases under \$10,000 by pursuing Minority-owned Business Enterprise, Women-owned Business Enterprise, Small Business Enterprise, and Veteran-owned Business Enterprise solicitation initiatives.			
Minority-owned Business Enterprises Solicited	3.1%	6.6%	6.0%
Women-owned Business Enterprises Solicited	5.2%	8.5%	6.0%
Small Business Enterprises Solicited	0.1%	0.2%	1.0%
Veteran-owned Business Enterprises Solicited	N/A	0.3%	0.5%
Total Percent Solicited	8.4%	15.6%	13.5%

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
7253	Support Department Budget Preparation, Monitoring, and Administration	\$ 115,874	2020	1 \$ 129,200	\$ 2,100	1.7	
			2019	1 \$ 127,100			
7260	Buying Procedures	\$ 2,198,026	2020	23 \$ 2,638,700	\$ 172,400	7.0	a)
			2019	23 \$ 2,466,300			
7270	Inventory and Cataloging	\$ 609,424	2020	8 \$ 729,200	\$ 16,300	2.3	
			2019	8 \$ 712,900			
7280	Stores Operation and Issue	\$ 5,733,905	2020	31 \$ 6,226,500	\$ (204,200)	(3.2)	b)
			2019	31 \$ 6,430,700			
7604	Social Security and Medicare Contributions	\$ 74,651	2020	— \$ 86,100	\$ 2,000	2.4	
			2019	— \$ 84,100			
Totals		\$ 8,731,880	2020	63 \$ 9,809,700	\$ (11,400)	(0.1)%	
			2019	63 \$ 9,821,100			

a) Increase is due to the development of an interactive vendor portal (\$100,000), acquisition of e-procurement software (\$30,000), and maintenance of the interactive vendor portal (\$20,000) in 2020.

b) Decrease is due to the purchase in 2019 of cantilever racking (\$117,000) and a multi-directional forklift (\$82,000) and a decrease in demand for Buildings and Grounds materials and supplies (\$78,400), offset by an increase in demand for laboratory test supplies (\$43,000) and fuel (\$54,200).

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity		PERFORMANCE DATA		
			2018 Actual	2019 Budgeted	2020 Estimated
7253	Support Department Budget Preparation, Monitoring, and Administration	Cost	\$ 115,874	\$ 127,100	\$ 129,200
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	5,736	5,500	5,600
		Cost	\$ 438,360	\$ 487,600	\$ 484,700
		Cost/Purchase Order	\$ 76.42	\$ 88.65	\$ 86.55
7262	Process Requisition Requirements into Inquiries for Competitive Purchases	Requisitions	8,627	8,000	8,400
		Cost	\$ 220,297	\$ 249,500	\$ 257,500
		Cost/Requisition	\$ 25.54	\$ 31.19	\$ 30.65
7263	Purchase all Labor, Materials, Services, and Equipment through Formal Contracts	Contracts Advertised	177	150	142
		Cost	\$ 924,850	\$ 991,100	\$ 989,500
		Cost/Contract	\$ 5,225.14	\$ 6,607.33	\$ 6,968.31
7264	Prepare, Receive, and Evaluate Quotations from Various Suppliers	Inquiries	28,403	35,000	30,000
		Cost	\$ 230,729	\$ 265,500	\$ 276,200
		Cost/Inquiry	\$ 8.12	\$ 7.59	\$ 9.21
7265	Advertise, Evaluate Bids, and Award the Sale of Obsolete Inventory, Scrap, Surplus Materials, and Document Fees	Revenue	\$ 148,127	\$ 130,000	\$ 120,000
		Cost	\$ 98,728	\$ 109,100	\$ 110,300
		Cost/\$1,000 Revenue	\$ 666.51	\$ 839.23	\$ 919.17
7269	Buying Procedures - All Other (General)	Cost	\$ 285,062	\$ 363,500	\$ 520,500
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	\$ 33,461,618	\$ 33,400,000	\$ 34,200,000
		Cost	\$ 158,967	\$ 181,100	\$ 187,700
		Cost/Million	\$ 4,750.73	\$ 5,422.16	\$ 5,488.30
7272	Cycle Counting and Transaction File Maintenance to Ensure Optimum Levels of Inventory and Accountability of District Stock	Inventory	\$ 33,461,618	\$ 33,400,000	\$ 34,200,000
		Cost	\$ 285,673	\$ 361,400	\$ 366,100
		Cost/Million	\$ 8,537.33	\$ 10,820.36	\$ 10,704.68
7273	Requirement Planning, Controlling, Monitoring, and Analyzing Commodity Index Coded Items in an Optimum and Economic Manner	Cost	\$ 139,028	\$ 143,700	\$ 148,000
7279	Inventory and Cataloging - All Other (General)	Cost	\$ 25,756	\$ 26,700	\$ 27,400

a) Increase is due to the development of an interactive vendor portal (\$100,000), acquisition of e-procurement software (\$30,000), and maintenance of the interactive vendor portal (\$20,000) in 2020.

**20000 PROCUREMENT & MATERIALS MANAGEMENT**

**PERFORMANCE DATA**

Program Number	Measurable Activity	PERFORMANCE DATA		
		2018 Actual	2019 Budgeted	2020 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 10,898	6,700	12,000
		Cost \$ 472,716	\$ 484,400	\$ 492,500
		Cost/Requisition \$ 43.38	\$ 72.30	\$ 41.04
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 22,739	20,000	21,000
		Cost \$ 648,014	\$ 682,100	\$ 688,400
		Cost/Receipt \$ 28.50	\$ 34.11	\$ 32.78
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 \$ 33,461,618	\$ 33,400,000	\$ 34,200,000
		Cost \$ 616,905	\$ 853,400	\$ 728,700
		Cost/Million \$ 18,436.20	\$ 25,550.90	\$ 21,307.02
7285	Provide Controlled Disbursement of Stored Materials and Supplies to Requesting Departments	Issue Slips 16,663	16,200	17,000
		Cost \$ 625,531	\$ 646,000	\$ 662,800
		Cost/Issue Slip \$ 37.54	\$ 39.88	\$ 38.99
7286	Stores Operation and Issue - All Other (General)	Cost \$ 265,197	\$ 355,600	\$ 261,500
7289	Inventory Purchases	Cost \$ 3,105,542	\$ 3,409,200	\$ 3,392,600
7604	Social Security and Medicare Contributions	Cost \$ 74,651	\$ 84,100	\$ 86,100
	Totals	\$ 8,731,880	\$ 9,821,100	\$ 9,809,700

b) Decrease is due to the one-time request in 2019 for bar-coding computer equipment (\$55,000) and the reduced demand for materials and supplies (\$32,200).

101 20000	Fund: Corporate Department: Procurement & Materials Management	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 5,276,249	\$ 5,714,700	\$ 5,714,700	\$ 3,862,611	\$ 5,476,700	\$ 5,797,000	\$ —
601060	Compensation Plan Adjustments	76,190	80,600	80,500	18,569	78,800	87,300	—
601070	Social Security and Medicare Contributions	74,651	84,100	84,100	56,015	76,700	86,100	—
601100	Tuition and Training Payments	1,140	600	700	645	700	1,000	—
100	TOTAL PERSONAL SERVICES	5,428,230	5,880,000	5,880,000	3,937,840	5,632,900	5,971,400	—
612010	Travel	535	1,500	1,500	—	200	600	—
612030	Meals and Lodging	871	800	800	10	100	700	—
612050	Compensation for Personally-Owned Automobiles	844	1,100	1,100	657	900	1,200	—
612360	Advertising	82,565	120,000	120,000	100,370	110,700	123,000	—
612430	Payments for Professional Services	—	15,000	—	—	—	—	—
612490	Contractual Services, N.O.C.	415	—	—	—	—	—	—
612680	Repairs to Buildings	5,341	8,400	118,600	118,589	53,600	101,800	—
612800	Repairs to Office Furniture and Equipment	1,578	1,600	1,600	1,200	1,400	1,600	—
612820	Computer Software Maintenance	—	—	—	—	—	20,000	—
612840	Communications Equipment Maintenance (Includes Software)	—	—	—	—	—	2,500	—
612860	Repairs to Vehicle Equipment	8,856	7,100	7,100	7,043	6,700	8,900	—
200	TOTAL CONTRACTUAL SERVICES	101,005	155,500	250,700	227,868	173,600	260,300	—
623030	Metals	85,144	104,300	138,300	107,128	133,100	95,600	—
623070	Electrical Parts and Supplies	255,153	303,100	303,100	257,106	278,900	280,300	—
623090	Plumbing Accessories and Supplies	329,053	342,500	342,500	310,001	318,500	345,800	—
623110	Hardware	76,254	79,800	79,800	74,054	72,600	81,400	—
623130	Buildings, Grounds, Paving Materials, and Supplies	328,247	356,500	271,500	140,400	241,100	278,100	—
623170	Fiber, Paper, and Insulation Materials	41,861	42,700	52,700	52,634	51,700	62,800	—
623190	Paints, Solvents, and Related Materials	48,509	51,300	51,300	34,464	45,200	50,500	—
623250	Vehicle Parts and Supplies	11,871	10,400	13,400	13,046	13,400	12,300	—
623270	Mechanical Repair Parts	223,416	237,500	237,500	121,631	204,200	225,300	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	10,548	15,000	20,000	16,458	19,200	13,400	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	667,866	625,000	625,000	612,443	625,000	668,000	—
623660	Cleaning Supplies	255,488	265,900	265,900	249,791	244,600	266,000	—



101 20000	Fund: Corporate Department: Procurement & Materials Management	LINE ITEM ANALYSIS						
		2018	2019				2020	
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623680	Tools and Supplies	77,566	100,000	110,000	107,723	99,000	100,500	—
623700	Wearing Apparel	144,111	175,000	175,000	130,684	157,500	165,100	—
623780	Safety and Medical Supplies	70,612	71,300	71,300	68,864	68,500	72,800	—
623810	Computer Supplies	45,501	40,000	60,000	50,305	58,000	57,200	—
623820	Fuel	232,316	285,000	285,000	157,085	228,000	339,200	—
623840	Gases	64,123	85,100	85,100	81,275	74,000	84,100	—
623850	Communications Supplies	4,911	7,400	10,400	10,174	10,400	7,200	—
623860	Lubricants	157,405	226,400	226,400	199,625	210,500	200,400	—
623990	MATERIALS and Supplies, N.O.C.	41,312	72,200	72,200	47,632	62,100	42,000	—
300	TOTAL MATERIALS AND SUPPLIES	3,171,267	3,496,400	3,496,400	2,842,523	3,215,500	3,448,000	—
634650	Equipment for Process Facilities	19,752	—	—	—	—	—	—
634760	Material Handling and Farming Equipment	11,627	117,200	85,000	80,622	85,000	—	—
634810	Computer Equipment	—	55,000	—	—	—	—	—
634820	Computer Software	—	—	140,000	—	32,200	130,000	—
400	TOTAL MACHINERY AND EQUIPMENT	31,379	172,200	225,000	80,622	117,200	130,000	—
645680	Buildings	—	117,000	109,000	98,500	102,000	—	—
500	TOTAL CAPITAL PROJECTS	—	117,000	109,000	98,500	102,000	—	—
TOTAL PROCUREMENT & MATERIALS MANAGEMENT		\$ 8,731,880	\$ 9,821,100	\$ 9,961,100	\$ 7,187,353	\$ 9,241,200	\$ 9,809,700	\$ —

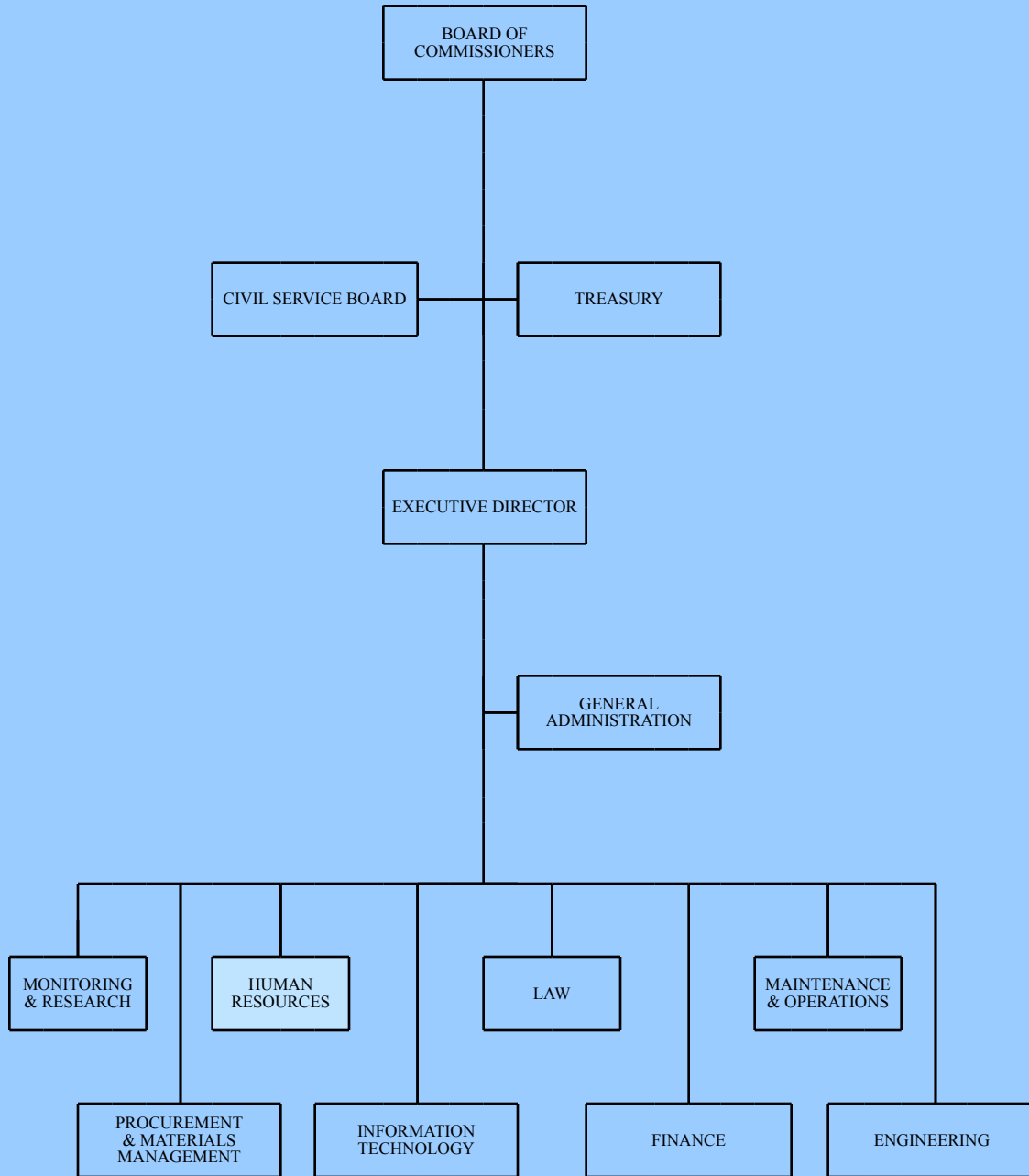
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 211	Executive Section	3	3	450,921	3	450,921
<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	4	5		5	
HP09	Administrative Clerk	1	1		1	
TOTAL 217	Inventory Control Section	7	8	670,448	8	698,414
TOTAL 215	General & Inventory Control Division	7	8	670,448	8	698,414
<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		—	
HP11	Administrative Specialist	2	2		3	
TOTAL 221	Administrative Section	6	6	593,620	6	573,225
<b>222</b>	<b>Buying Section</b>					
HP18	Head Buyer	2	2		2	
HP16	Senior Buyer	5	5		5	
HP14	Buyer	4	4		4	
TOTAL 222	Buying Section	11	11	1,166,626	11	1,197,345
<b>224</b>	<b>Clerical Section</b>					
HP11	Administrative Specialist	2	2		2	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP09	Administrative Clerk	1	2		2	
TOTAL 224	Clerical Section	3	4	222,853	4	233,938
TOTAL 220	Acquisition Division	20	21	1,983,099	21	2,004,508
<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 226	Administrative Section	2	2	284,951	2	284,950
<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 231	Stores Administrative Unit	1	1	132,558	1	132,558
<b>232</b>	<b>Stickney Storeroom Unit</b>					
HP11	Administrative Specialist	1	1		1	
HP09	Administrative Clerk	1	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 232	Stickney Storeroom Unit	14	14	1,145,827	14	1,153,201
<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 233	Calumet Storeroom Unit	5	5	385,756	5	395,918
<b>234</b>	<b>O'Brien Storeroom Unit</b>					
HP09	Administrative Clerk	1	1		1	
NR1857	Principal Storekeeper	1	1		1	

Fund: Corporate Dept: Procurement & Materials Management		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
NR1853	Storekeeper	1	1		1	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL 234	O'Brien Storeroom Unit	4	4	303,920	4	312,190
<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 235	Egan Storeroom Unit	5	5	385,756	5	393,369
TOTAL 230	Stores Section	29	29	2,353,817	29	2,387,236
TOTAL 225	Stores & Inventory Division	31	31	2,638,767	31	2,672,187
TOTAL	Procurement & Materials Management	61	63	5,743,235	63	5,826,029

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. Dollar amounts may not add up due to rounding.



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Human Resources Department

The Human Resources Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Human Resources Department budget for 2020.

Respectfully submitted,

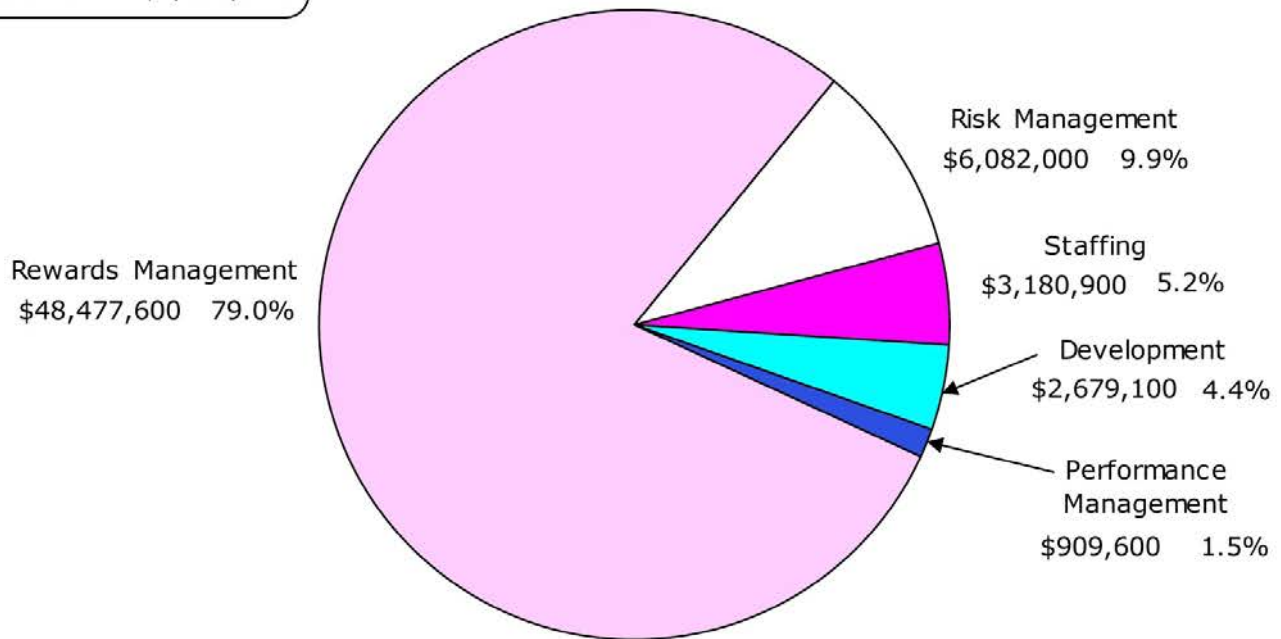


Beverly K. Sanders  
Director of Human Resources

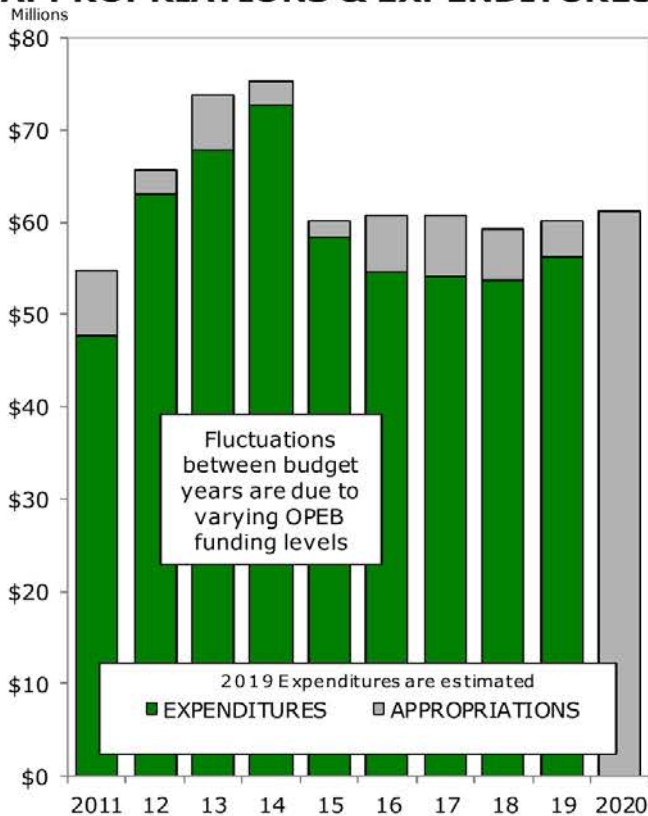
# HUMAN RESOURCES

2020	\$61,329,200
2019	\$60,229,600
Increase	\$1,099,600

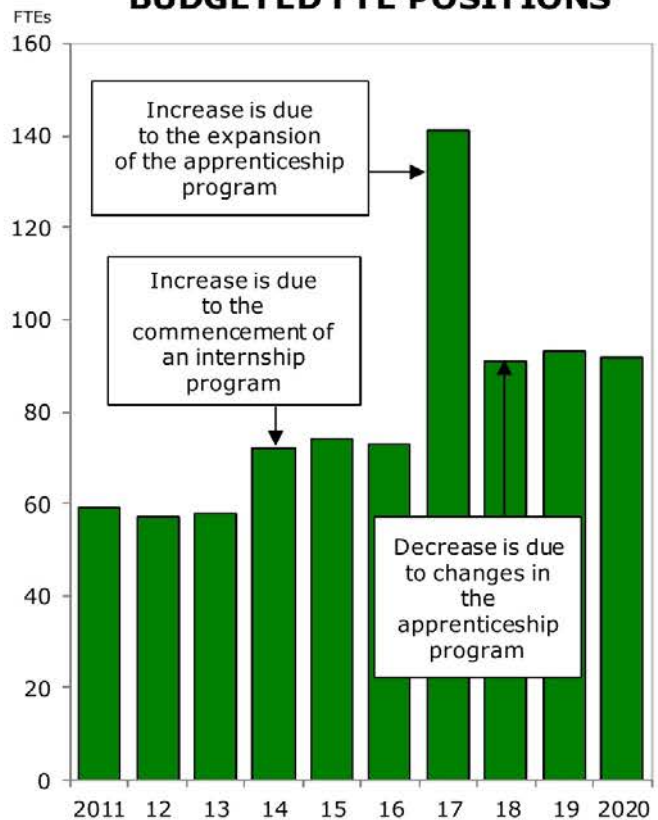
## FUNCTIONS



## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# HUMAN RESOURCES

25000		
HUMAN RESOURCES		
2018	2019	2020
79	93	92

252		
Executive Unit		
7	7	7

254		
Employee Selection Section		
14	14	13

255		
Employee Development Section		
27	39	39

256		
Classification, Compensation, & Benefits Section		
8	9	8

257		
Risk Management Section (1)		
0	4	4

258		
Employee Relations Section		
8	8	8

259		
Safety Section (1) (2)		
15	12	13

- (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, conduct safety inspections, and make recommendations to provide a safe working environment for employees and others on District property.

### Summary of 2019 Accomplishments

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

- The District's Emergency Operations Plan, Business Continuity Plan, and Critical Operational Guidance documents for the Maintenance & Operations Department were revised to incorporate more guidance on pandemic risk. Critical Operational Guidance documents were created for the Monitoring & Research Department as well as all other non-operational departments. Refresher training was conducted for plant-level business continuity staff;
- The District's Emergency Plans were successfully tested in two tabletop exercises for senior and plant management; the first being a workshop focused on pandemic risk, and the second through participation in "Operation Power Play 2019," a statewide, multi-jurisdictional exercise that allowed each participant to test its response procedures for low probability/high risk scenarios in a realistic environment. The District's exercise scenario focused on both short and long-term emergency responses.

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;
- Safety staff conducted approximately 1,500 Occupational Safety and Health Administration focused training sessions, with approximately 11,000 attendees, including training on the revised Hot Work Permit Program for 1,036 personnel, training of 546 on Hazard Communications, and training of 723 personnel on the Lockout/Tagout Program to safeguard employees from the unexpected startup of machinery and equipment;
- The District implemented an employee benefits platform to help employees make informed decisions regarding benefits elections and to streamline the administration of employee benefits. The communication portal associated with the platform will allow the District to move toward a paperless process for benefits administration.

Developed a culture that recognized the value of every employee:

- All employees received mandatory refresher compliance training for sexual harassment awareness in the workplace;
- Over 9,500 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.

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 47 classifications.

### Budget Highlights

The 2020 appropriation for the Human Resources Department is \$61,329,200, an increase of \$1,099,600, or 1.8 percent, from 2019. The staffing level has decreased from 93 to 92 positions, which includes the addition of one Safety Specialist and the drop of one Administrative Specialist and one Human Resources 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.

**2020 Initiatives in Support of the Strategic Business Plan Include the Following:**

**• Add Value**

In 2020, 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. A robust safety training schedule will continue, with needed participation identified and tracked. Training content is revised and maintained current, reflective of regulatory guidance. The emphasis will be on reducing the frequency and severity of injuries involving strains as well as slip and fall accidents. Safety staff will work closely with Claims staff to reduce overall workers’ compensation costs for the District. Additionally, Safety will collaborate with operations for monitoring of compliance with guidelines.

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 55 examinations in 2020. All full-time employment applications can only be submitted and received online. In 2020, the Internship Program will adopt the same process by transitioning away from a paper-based process.

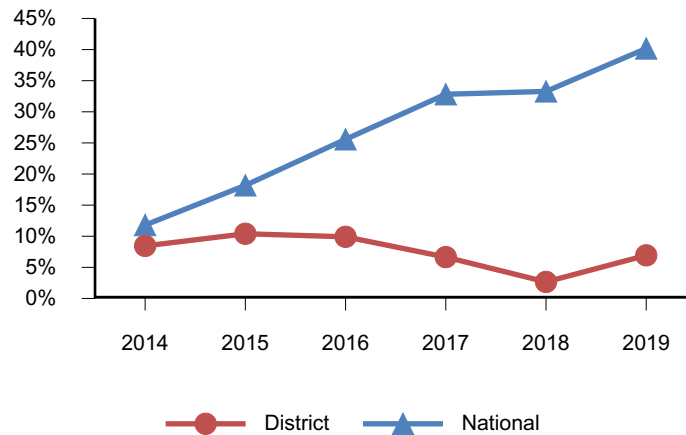
**• Excellence**

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 2,000 retirees. The core components of the program are a Participating Provider Option and Health Maintenance Organization, a Medicare Advantage Plan (Medicare-eligible retirees only), and prescription drug coverage. Dental and vision benefits are also provided to active employees.

The cost of these health care benefits has a significant impact on the District’s budget each year with total spending of approximately \$48 million. While these costs are partially offset by employee and retiree contributions, they must be actively managed to ensure the program is sustainable over the long term. 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 2014 through 2018, the national trend has been an average annual increase of 6.66 percent in health care costs resulting in a total increase of 33.28 percent during this period. The District’s health care trend over that same period has been 0.53 percent annually or a total of 2.66 percent. The District health care trend for 2019 is projected to be 4.27 percent, significantly below the projected national trend of 6.90 percent.

**Health Care Cost Trend  
(Compounded)**



The Labor Management Committee on Health Care continues to meet semiannually with union leadership to discuss health care utilization, cost trends, and cost containment strategies. This creates a forum for open communication between the District and

the unions on important health care issues. The goal is to develop strategies to contain future health care costs, while continuing to provide affordable health care benefits to employees.

In 2020, the District will be conducting a total compensation study to evaluate whether the compensation plan remains competitive in the marketplace. The study will look at the pay rates as well as the overall benefits package, including health insurance, retirement benefits, paid leave programs, voluntary benefits, and other benefits common in the marketplace. Given the low unemployment rate and the rising number of millennials in the workforce, it is critical that the District ensure that its total compensation program remains current and competitive in today's market. This will allow the District to continue to attract and retain top talent.

**• 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>
2017	53	3,977	4,912
2018	54	2,175	6,243
Estimated 2019	57	4,692	4,900
Projected 2020	55	5,350	5,000

\*Number of participants who were reimbursed

To ensure the ongoing professional development of all District employees in 2020, the Human Resources Department will implement a new eLearning and Talent Management software platform to continue to offer online classes in business, financial management, information technology, and development courses for specific classifications and supervisors, and specialized training as requested by departments. Additionally, the new platform will assist the District with transitioning from a paper performance management practice to online documentation; including assisting with selecting competencies that align with the job classification and refining the language for performance goals.

The Human Resources Department administers seven collective bargaining agreements for the District's approximately 779 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. All seven collective bargaining agreements will expire June 30, 2020. Human Resources staff will meet with the Executive Director and representatives from the departments to discuss contract issues, objectives and priorities, and to develop a strategy for negotiating successor agreements.

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 June 30, 2019, was 43 percent, which compares favorably with the Cook County minority labor force availability rate of 36 percent. The District's female workforce representation, as of June 30, 2019, was 26 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>							2000 Census External Availability	2010 Census External Availability
	<b>2015 Actual</b>	<b>2016 Actual</b>	<b>2017 Actual</b>	<b>2018 Actual</b>	<b>2019 Estimated</b>	<b>2020 Projected</b>		
Minorities	40%	41%	41%	42%	43%	42%	33%	36%
Females	26%	26%	26%	26%	26%	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 2020, 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.

- **Information Technology**

The Employee Selection Section completed implementation of a new applicant tracking system to manage the employee selection and appointment process. The system facilitates 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.

In 2019, the Employee Relations Section worked with the Information Technology Department to develop an electronic transfer program for represented employees. The benefit of this program reduces the use of paper and increases the speed, transparency, and accuracy of the transfer process.

The Employee Development Section will introduce a new eLearning and Talent Management/Performance Management Software platform in 2020 that is easier to use and administer. It will also transition employees from a current paper performance management process to an online documentation process.

**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. Review employment applications and develop and administer 55 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.	\$ 1,774,800	2.9%
2. Develop and administer a comprehensive risk management program and provide a safe work environment for District employees through training, accident prevention initiatives, and workplace monitoring.	\$ 6,082,000	9.9%
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.	\$ 29,289,500	47.7%
4. Administer seven collective bargaining agreements, covering 779 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.	\$ 909,600	1.5%
5. Provide health insurance benefits and administration for retirees and annuitants, which include Other Postemployment Benefits pre-funding for retiree health care expenses.	\$ 19,188,100	31.3%
6. Implement the District's equal employment opportunity and affirmative action objectives through targeted recruitment, counseling, and complaint investigation.	\$ 356,800	0.6%
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.	\$ 1,049,300	1.7%
8. Provide educational opportunities for employees through professional development, technical training, and tuition reimbursement.	\$ 2,679,100	4.4%
<b>Totals</b>	<b>\$ 61,329,200</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018	2019	2020
	Actual	Estimated	Proposed
1. Minimize the number of days between an original entrance appointment and the start date for the new employee.	37	38	35
2. Reduce the number of workers' compensation claims per 100 employees.	6.27	6.00	5.50
3. Reduce the number of lost time claims per 100 employees.	2.39	2.75	2.50

**25000 HUMAN RESOURCES**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
7290	Examinations and Employment Activities	\$ 1,634,646	2020	12	\$ 1,774,800	\$ (48,500)	(2.7)	
			2019	13	\$ 1,823,300			
7295	Equal Employment Opportunity Activities	\$ 363,904	2020	3	\$ 356,800	\$ (32,700)	(8.4)	
			2019	3	\$ 389,500			
7310	Training and Development Activities	\$ 1,406,534	2020	39	\$ 2,679,100	\$ 282,700	11.8	a)
			2019	39	\$ 2,396,400			
7315	Retiree Benefits	\$12,615,605	2020	1	\$ 14,188,100	\$ 761,400	5.7	b)
			2019	1	\$ 13,426,700			
7316	Other Postemployment Benefits Trust Management and Report Preparation	\$ 5,000,000	2020	—	\$ 5,000,000	\$ —	—	
			2019	—	\$ 5,000,000			
7320	Employee Benefits	\$25,844,383	2020	4	\$ 29,146,200	\$ (159,400)	(0.5)	c)
			2019	4	\$ 29,305,600			
7325	Labor and Employee Relations	\$ 781,750	2020	7	\$ 909,600	\$ 65,700	7.8	
			2019	7	\$ 843,900			
7330	Human Resources Administration	\$ 886,244	2020	9	\$ 1,049,300	\$ 60,000	6.1	
			2019	10	\$ 989,300			
7480	Safety Program	\$ 1,368,759	2020	13	\$ 1,819,800	\$ 192,600	11.8	d)
			2019	12	\$ 1,627,200			
7500	Risk Management Operations	\$ 3,674,509	2020	4	\$ 4,262,200	\$ (25,200)	(0.6)	
			2019	4	\$ 4,287,400			
7604	Social Security and Medicare Contributions	\$ 100,170	2020	—	\$ 143,300	\$ 3,000	2.1	
			2019	—	\$ 140,300			
Totals		\$53,676,504	2020	92	\$ 61,329,200	\$ 1,099,600	1.8%	
			2019	93	\$ 60,229,600			

a) Increase is due to workplace violence awareness training (\$100,000) and ethics training (\$100,000), and a projected wage increase for Interns (\$100,000).

b) Increase is due to the anticipated reinstatement of an Affordable Care Act fee in 2020 (\$932,000) and a projected increase in PPO insurance premiums for retirees (\$138,500), offset by a projected decrease in the Medicare Advantage Plan for retirees (\$155,700), HMO insurance premiums for retirees (\$114,900), and pharmacy costs for retirees (\$39,700).

c) Decrease is due to a projected reduction in the cost of PPO health insurance premiums (\$988,700) and dental insurance premiums (\$200,500) for active employees, work required for the Health and Welfare Consulting contract (\$50,000) and the one-time cost for Request for Proposal work for the Deferred Compensation Plan Consultant contract in 2019 (\$37,000), and a projected reduction in Human Resources Department employee retirement costs (\$23,300), offset by projected increases in the cost of employee pharmacy benefits (\$590,200), HMO premiums for active employees (\$497,400), and the Affordable Care Act fee for employees (\$60,400).

d) Increase is due to the addition of a Safety Specialist (\$81,600), the projected need for additional safety equipment, materials and supplies (\$74,100), and fire extinguisher training (\$9,900).

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7290	Examinations and Employment Activities					
		Candidates	1,760	2,100	2,000	
		Examinations	41	45	55	a)
		Applications	3,544	3,500	4,000	
		Requisitions	322	280	324	b)
		Cost	\$ 1,515,691	\$ 1,823,300	\$ 1,774,800	
	Recruitment and Marketing Activities					
	Diversity/Outreach Recruitment	Cost	\$ 59,906	\$ —	\$ —	
	Campus Recruitment	Cost	\$ 59,049	\$ —	\$ —	
7295	Equal Employment Opportunity Activities					
	Provide Counseling and Investigate Complaints	Actions	1,000	1,000	1,000	
		Cost	\$ 363,904	\$ 389,500	\$ 356,800	
		Cost/Action	\$ 363.90	\$ 389.50	\$ 356.80	
7310	Training and Development Activities					
	In-House Training and Professional Development	Courses	2,175	—	—	
		Cost	\$ 823,610	\$ —	\$ —	
		Cost/Course	\$ 378.67	\$ —	\$ —	
	Seminars and Conferences	Cost	\$ 14,751	\$ —	\$ —	
	eLearning	Courses	6,243	—	—	
		Cost	\$ 14,200	\$ —	\$ —	
		Cost/Course	\$ 2.27	\$ —	\$ —	
	Training and Professional Development	Training Courses	—	3,800	5,350	c)
		eLearning Courses	—	6,400	5,000	d)
		Cost	\$ —	\$ 967,700	\$ 1,140,600	e)
	Apprenticeship Program	Cost	\$ —	\$ 770,000	\$ 779,500	
	Administer and Finance the Tuition Reimbursement Program for the Entire District	Participants	54	55	55	
		Cost	\$ 303,136	\$ 298,700	\$ 299,000	
		Cost/Participant	\$ 5,613.63	\$ 5,430.91	\$ 5,436.36	
	Internship Program	Cost	\$ 250,837	\$ 360,000	\$ 460,000	f)

- a) Increase is due to the need for more promotional job classification examinations in 2020.
- b) Increase is due to employee turnover and more employment candidates declining employment offers.
- c) Increase is due to required compliance training for employees.
- d) Decrease is due a downward trend in the use of eLearning by injured workers, reflecting a reduction in the severity of injuries. Use of eLearning will fluctuate over time based on worker injury patterns.
- e) Increase is due to workplace violence awareness training (\$100,000) and ethics training (\$100,000).
- f) Increase is due to a projected wage increase for Interns (\$100,000).

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7315	Retiree Benefits					
	Health Insurance - Corporate Fund Retirees	Retirees	1,976	1,975	1,984	
		Cost	\$ 7,705,582	\$ 8,761,000	\$ 9,562,100	g)
		Cost/Retiree	\$ 3,899.59	\$ 4,435.95	\$ 4,819.61	
	Prescription Drug Retirees	Participants	1,976	1,975	1,984	
		Cost	\$ 4,910,023	\$ 4,665,700	\$ 4,626,000	
		Cost/Participant	\$ 2,484.83	\$ 2,362.38	\$ 2,331.65	
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	1,671	1,706	1,694	
		Cost	\$ 20,513,245	\$ 22,618,700	\$ 22,134,600	h)
		Cost/Participant	\$ 12,276.03	\$ 13,258.32	\$ 13,066.47	
	Prescription Drugs - Corporate Fund Employees <sup>1</sup>	Participants	1,671	1,706	1,694	
		Cost	\$ 3,862,011	\$ 4,462,000	\$ 5,052,200	i)
		Cost/Participant	\$ 2,311.20	\$ 2,615.47	\$ 2,982.41	
	Dental Insurance - Corporate Fund Employees <sup>1</sup>	Participants	1,663	1,700	1,685	
		Cost	\$ 1,129,026	\$ 1,351,500	\$ 1,151,000	j)
		Cost/Participant	\$ 678.91	\$ 795.00	\$ 683.09	
	Life Insurance - Corporate Fund Employees <sup>1</sup>	Employees	1,775	1,775	1,790	
		Cost	\$ 76,204	\$ 85,400	\$ 74,700	
		Cost/Employee	\$ 42.93	\$ 48.11	\$ 41.73	
	Deferred Compensation Administration	Cost	\$ 38,000	\$ 78,000	\$ 41,000	k)
	Other Benefits					
	Employee Assistance Program	Cost	\$ 39,522	\$ 42,000	\$ 42,000	
	Flexible Spending Accounts Program	Cost	\$ 45,826	\$ 43,000	\$ 49,500	l)
	Compensation and Classification Activities	Cost	\$ 140,549	\$ 625,000	\$ 601,200	

g) Increase is due to the anticipated reinstatement of an Affordable Care Act fee in 2020 (\$932,000) and a projected increase in PPO insurance premiums for retirees (\$138,500), offset by a projected decrease in the Medicare Advantage Plan for retirees (\$155,700) and HMO insurance premiums for retirees (\$114,900).

h) Decrease is due to a projected reduction in PPO health insurance premiums for active employees (\$988,700), offset by a projected increase in HMO insurance premiums for active employees (\$497,400).

i) Increase is due to an anticipated rise in the cost of employee pharmacy benefits (\$590,200).

j) Decrease is due to an anticipated reduction in the cost of dental insurance premiums for active employees (\$200,500).

k) Decrease is due to a one-time cost for Request for Proposal work required for the Deferred Compensation Plan Consultant contract in 2019 (\$37,000).

l) Increase is due to the rising trend in the cost of the Flexible Spending Accounts Program (\$6,500).

<sup>1</sup> Additional funds are budgeted in the Stormwater Management Fund.



**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7325	Labor and Employee Relations					
	Labor and Employee Relations Activities	Employees Served	1,932	1,967	1,953	
		Cost	\$ 583,398	\$ 649,700	\$ 670,400	
	Compliance with Unemployment Compensation Requirements	Claims	24	15	24	m)
		Cost	\$ 64,171	\$ 60,000	\$ 100,000	m)
		Cost/Claim	\$ 2,673.79	\$ 4,000.00	\$ 4,166.67	
	Employee Performance Management	Cost	134,181	134,200	139,200	
7330	Human Resources Administration					
	Personnel Activity Administration	Employees Served	1,932	1,967	1,953	
		Cost	\$ 720,735	\$ 763,700	\$ 829,100	
		Cost/Employee	\$ 373.05	\$ 388.26	\$ 424.53	
	Medical Services Payments and Record Maintenance	Examinations	500	—	—	
		Cost	\$ 66,515	\$ —	\$ —	
		Cost/Examination	\$ 133.03	\$ —	\$ —	
	Pre-employment Activities	New Hires	—	105	115	
		Cost	\$ —	\$ 66,000	\$ 58,600	
		Cost/New Hire	\$ —	\$ 628.57	\$ 509.57	
	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	16	35	25	
		Cost	\$ 98,994	\$ 159,600	\$ 161,600	
		Cost/Action	\$ 6,187.13	\$ 4,560.00	\$ 6,464.00	
7480	Safety Program					
	Occupational Safety and Health Administration Compliance, Inspections, Reporting, and Accident Investigation	Cost	\$ 596,510	\$ —	\$ —	
	Contract Review for Compliance with Safety Standards	# of Reviews	35	—	—	
		Cost	\$ 6,866	\$ —	\$ —	
		Cost/Review	\$ 196.17	\$ —	\$ —	
	Safety Equipment					
	New/Rental	Cost	\$ 98,822	\$ —	\$ —	
	Replacement	Cost	\$ 8,034	\$ —	\$ —	
	Maintenance	Cost	\$ 56,477	\$ —	\$ —	
	Medical Health Surveillance					
	First Aid Assistance	Cost	\$ 23,402	\$ —	\$ —	
	Hearing Tests	People Tested	316	—	—	
		Cost	\$ 5,338	\$ —	\$ —	
		Cost/Test	\$ 16.89	\$ —	\$ —	
	Respiratory Evaluations	People Tested	53	—	—	
		Cost	\$ 3,379	\$ —	\$ —	
		Cost/Test	\$ 63.75	\$ —	\$ —	

m) Increase is due to the rising trend in unemployment claims due to higher employee turnover (\$40,000).

**25000 HUMAN RESOURCES**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
	Safety Training					
	CPR and First Aid	People Trained	334	—	—	
		Cost	\$ 36,810	\$ —	\$ —	
		Cost/Trainee	\$ 110.21	\$ —	\$ —	
	Confined Spaces	People Trained	131	—	—	
		Cost	\$ 8,964	\$ —	\$ —	
		Cost/Trainee	\$ 68.43	\$ —	\$ —	
	Lockout/Tagout	People Trained	561	—	—	
		Cost	\$ 4,577	\$ —	\$ —	
		Cost/Trainee	\$ 8.16	\$ —	\$ —	
	General Safety	People Trained	9,219	—	—	
		Cost	\$ 404,148	\$ —	\$ —	
		Cost/Trainee	\$ 43.84	\$ —	\$ —	
	Professional Safety	Cost	\$ 15,449	\$ —	\$ —	
	Industrial Hygiene/Right to Know	People Trained	456	—	—	
		Cost	\$ 27,083	\$ —	\$ —	
		Cost/Trainee	\$ 59.39	\$ —	\$ —	
	Fire Prevention and Protection	Cost	\$ 22,163	\$ —	\$ —	
	Hazardous Materials Abatement	Cost	\$ 50,737	\$ —	\$ —	
	Occupational Safety and Health Administration Compliance, Inspections, Reporting, and Accident Investigation, Contract Review for Compliance with Safety Standards, Safety Training, and Professional Development	Cost	\$ —	\$ 1,318,100	\$ 1,429,700	
	Safety Training	# of Classes	—	1,100	1,400	n)
		# of Attendees	—	8,000	9,500	n)
	Safety Equipment Purchase, Rental, and Maintenance	Cost	\$ —	\$ 178,000	\$ 252,600	o)
	Payment for External Services to Support Safety Activities	Cost	\$ —	\$ 131,100	\$ 137,500	
7500	Risk Management Operations					
	Administration and Professional Development (formerly Administration)	Cost	\$ 452,770	\$ 481,300	\$ 483,800	
	Asset Appraisal and Other Services	Cost	\$ 228,729	\$ —	\$ —	
	Broker Services	Cost	\$ 216,500	\$ —	\$ —	
	Third Party Services	Cost	\$ —	\$ 551,500	\$ 531,500	
	Insurance Premiums (such as property insurance)	Cost	\$ 2,776,510	\$ 3,254,600	\$ 3,246,900	
7604	Social Security and Medicare Contributions	Cost	\$ 100,170	\$ 140,300	\$ 143,300	
	Totals		\$ 53,676,504	\$ 60,229,600	\$ 61,329,200	

n) Increase is due to the projection of additional training resulting from the reevaluation and updates made to programs within the Safety Section.

o) Increase is due to the projected need for additional safety equipment, materials and supplies (\$74,100).

101 25000	Fund: Corporate Department: Human Resources	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 5,666,384	\$ 6,802,900	\$ 6,802,900	\$ 4,127,447	\$ 5,853,000	\$ 6,721,500	\$ —
601060	Compensation Plan Adjustments	138,843	315,800	265,800	130,335	164,500	287,000	—
601070	Social Security and Medicare Contributions	100,170	140,300	140,300	75,782	97,200	143,300	—
601090	Employee Claims	64,171	60,000	110,000	64,974	96,000	100,000	—
601100	Tuition and Training Payments	449,883	709,800	709,800	394,674	613,200	895,500	—
601250	Health and Life Insurance Premiums	42,874,277	46,804,400	46,804,400	30,571,333	44,202,600	47,509,500	—
601300	Personal Services, N.O.C.	250,837	360,000	360,000	178,230	360,000	460,000	—
100	TOTAL PERSONAL SERVICES	49,544,566	55,193,200	55,193,200	35,542,774	51,386,500	56,116,800	—
612010	Travel	3,555	5,200	5,200	3,465	5,000	6,400	—
612030	Meals and Lodging	9,491	17,300	17,300	7,054	17,300	15,700	—
612040	Postage, Freight, and Delivery Charges	216	—	—	—	—	—	—
612050	Compensation for Personally-Owned Automobiles	329	1,100	1,100	331	600	1,100	—
612080	Motor Vehicle Operating Services	—	100	100	49	100	100	—
612250	Court Reporting Services	11,822	11,500	14,000	14,000	14,000	16,000	—
612260	Medical Services	90,437	121,100	121,100	106,600	109,900	127,600	—
612290	Insurance Premiums	2,776,920	3,471,100	3,468,600	1,528,989	3,464,900	3,463,400	—
612330	Rental Charges	10,062	21,500	21,500	17,445	21,500	13,500	—
612360	Advertising	—	—	1,800	454	1,800	7,000	—
612430	Payments for Professional Services	884,497	1,004,900	943,100	694,199	849,200	1,072,500	—
612490	Contractual Services, N.O.C.	37,787	72,100	72,100	59,842	70,100	83,500	—
612780	Safety Repairs and Services	98,719	107,500	167,500	162,391	167,400	109,500	—
200	TOTAL CONTRACTUAL SERVICES	3,923,834	4,833,400	4,833,400	2,594,819	4,721,800	4,916,300	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	43,894	30,500	30,500	29,371	30,500	47,500	—
623720	Books, Maps, and Charts	4,600	500	500	—	500	500	—
623780	Safety and Medical Supplies	142,846	166,500	166,500	129,186	166,500	241,100	—
623990	Materials and Supplies, N.O.C.	2,564	5,500	5,500	4,779	5,000	7,000	—
300	TOTAL MATERIALS AND SUPPLIES	193,904	203,000	203,000	163,336	202,500	296,100	—
634820	Computer Software	14,200	—	—	—	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	14,200	—	—	—	—	—	—
TOTAL HUMAN RESOURCES		\$ 53,676,504	\$ 60,229,600	\$ 60,229,600	\$ 38,300,930	\$ 56,310,800	\$ 61,329,200	\$ —

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.

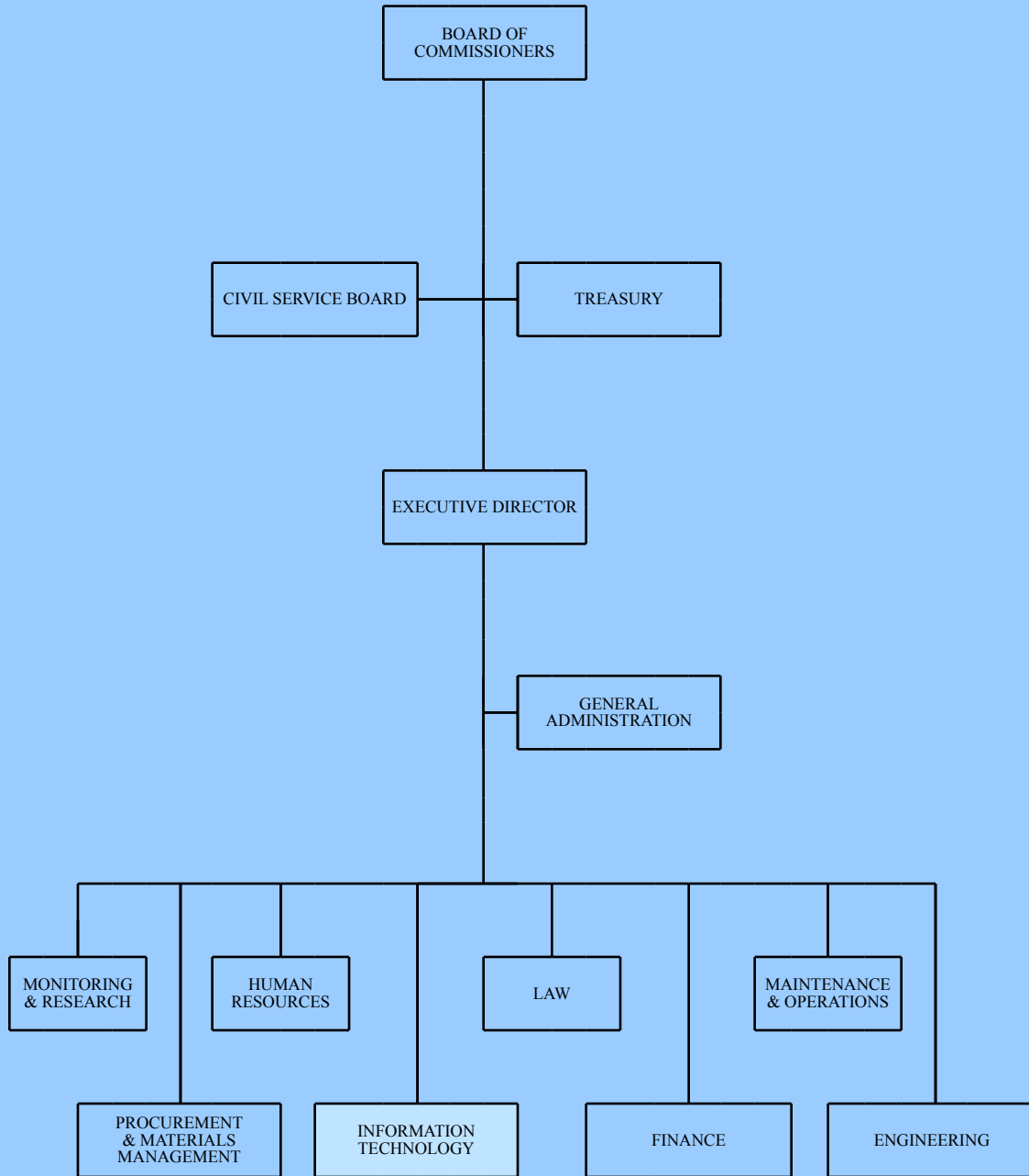
Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 252	Executive Unit	7	7	629,182	7	637,283
<b>254</b>	<b>Employee Selection Section</b>					
HP19	Human Resources Manager #1	—	1		—	
HP19	Human Resources Manager #2 (New Grade HP18)	1	—		—	
HP18	Human Resources Manager	—	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	5	5		5	
HP13	Senior Administrative Specialist	2	2		2	
HP11	Administrative Specialist	3	2		2	
TOTAL 254	Employee Selection Section	14	14	1,426,678	13	1,267,955
<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	—		—	
HP16	Senior Human Resources Analyst	—	1		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	20	20		20	
PR1025	Apprentice	1	13		13	
TOTAL 255	Employee Development Section	27	39	1,892,658	39	1,888,367

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<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	
HP14	Human Resources Analyst	3	3		3	
HP11	Administrative Specialist	1	1		1	
HP11	Administrative Specialist #1	—	1		—	
HP11	Administrative Specialist #4	1	1		1	
TOTAL 256	Classification, Compensation, & Benefits Section	8	9	918,923	8	847,568
<b>257</b>	<b>Risk Management Section</b>					
HP19	Risk Manager #2 (New Grade HP18)	—	1		1	
HP17	Claims Administrator #2 (New Grade HP16)	—	1		1	
HP17	Senior Risk Analyst #2 (New Grade HP16)	—	1		1	
HP11	Administrative Specialist	—	1		1	
TOTAL 257	Risk Management Section	—	4	472,801	4	478,560
<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 258	Employee Relations Section	8	8	837,165	8	845,778
<b>259</b>	<b>Safety Section (formerly Risk Management Section)</b>					
HP19	Risk Manager #2 (New Grade HP18)	1	—		—	
HP18	Safety Manager	—	1		1	
HP17	Claims Administrator #2 (New Grade HP16)	1	—		—	
HP17	Senior Risk Analyst #2 (New Grade HP16)	1	—		—	
HP17	Senior Safety Specialist #2 (New Grade HP16)	1	1		1	
HP15	Safety Coordinator #2 (Safety Specialist) (New Grade HP14)	3	3		3	

Fund: Corporate Dept: Human Resources		POSITION ANALYSIS				
		2018		2019		2020
				Proposed by the Executive Director		
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
HP14	Safety Specialist	6	6		7	
HP11	Administrative Specialist	2	1		1	
TOTAL 259	Safety Section (formerly Risk Management Section)	15	12	1,225,426	13	1,330,683
TOTAL	Human Resources	79	93	7,402,834	92	7,296,195
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. Dollar amounts may not add up due to rounding.						

**NOTE PAGE**





**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

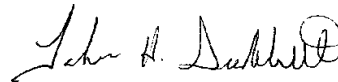
Subject: 2020 Program for the Information Technology Department

The Information Technology Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Information Technology Department budget for 2020.

Respectfully submitted,

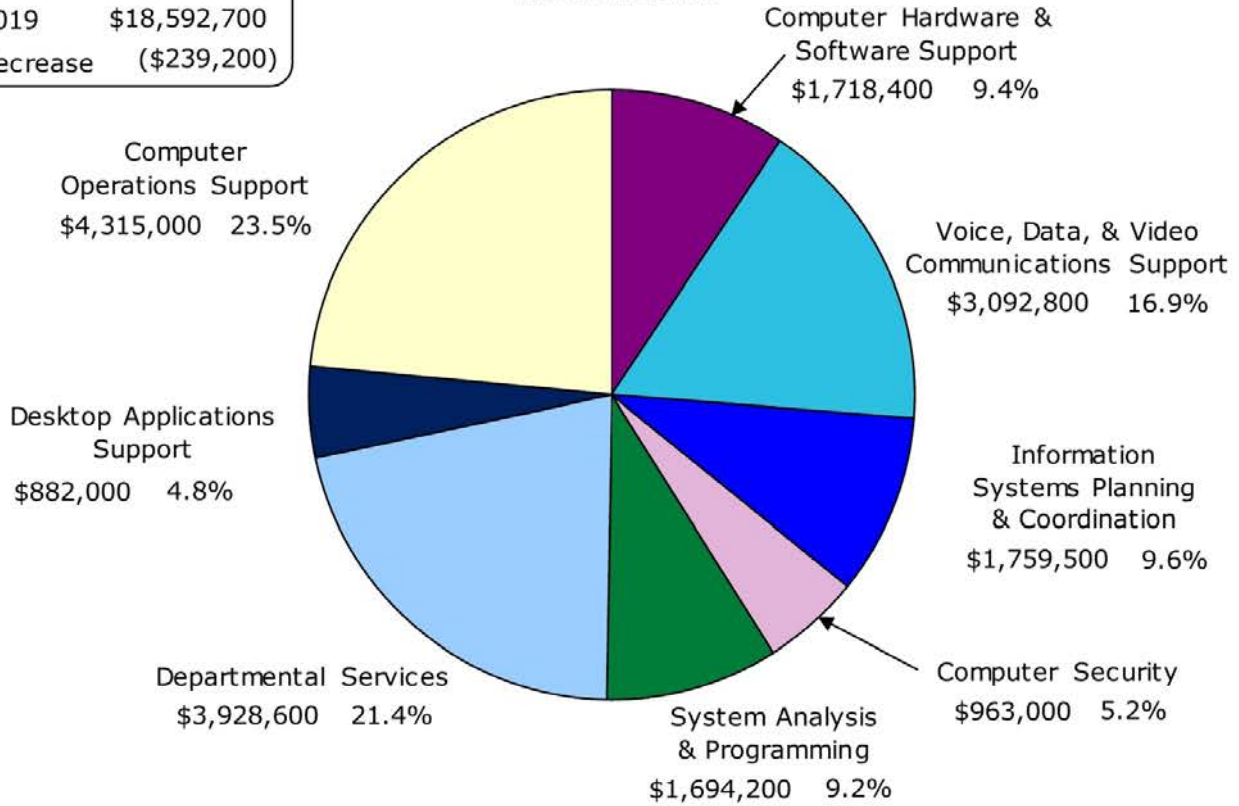


John H. Sudduth  
Director of Information Technology

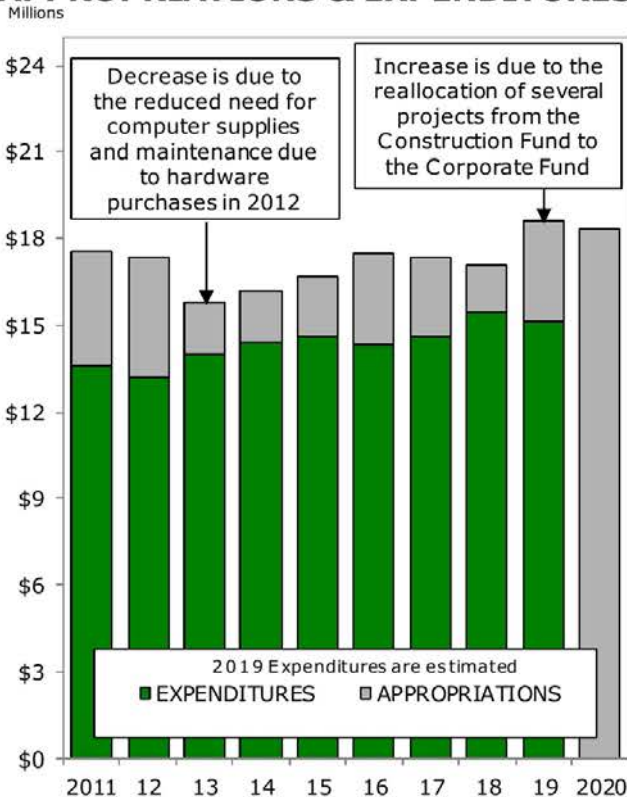
# INFORMATION TECHNOLOGY

2020	\$18,353,500
2019	\$18,592,700
Decrease	(\$239,200)

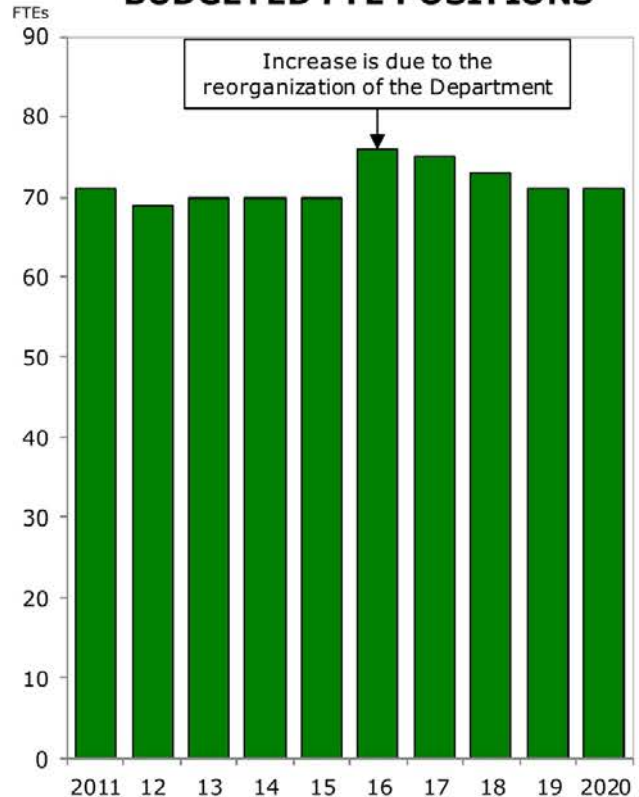
## FUNCTIONS



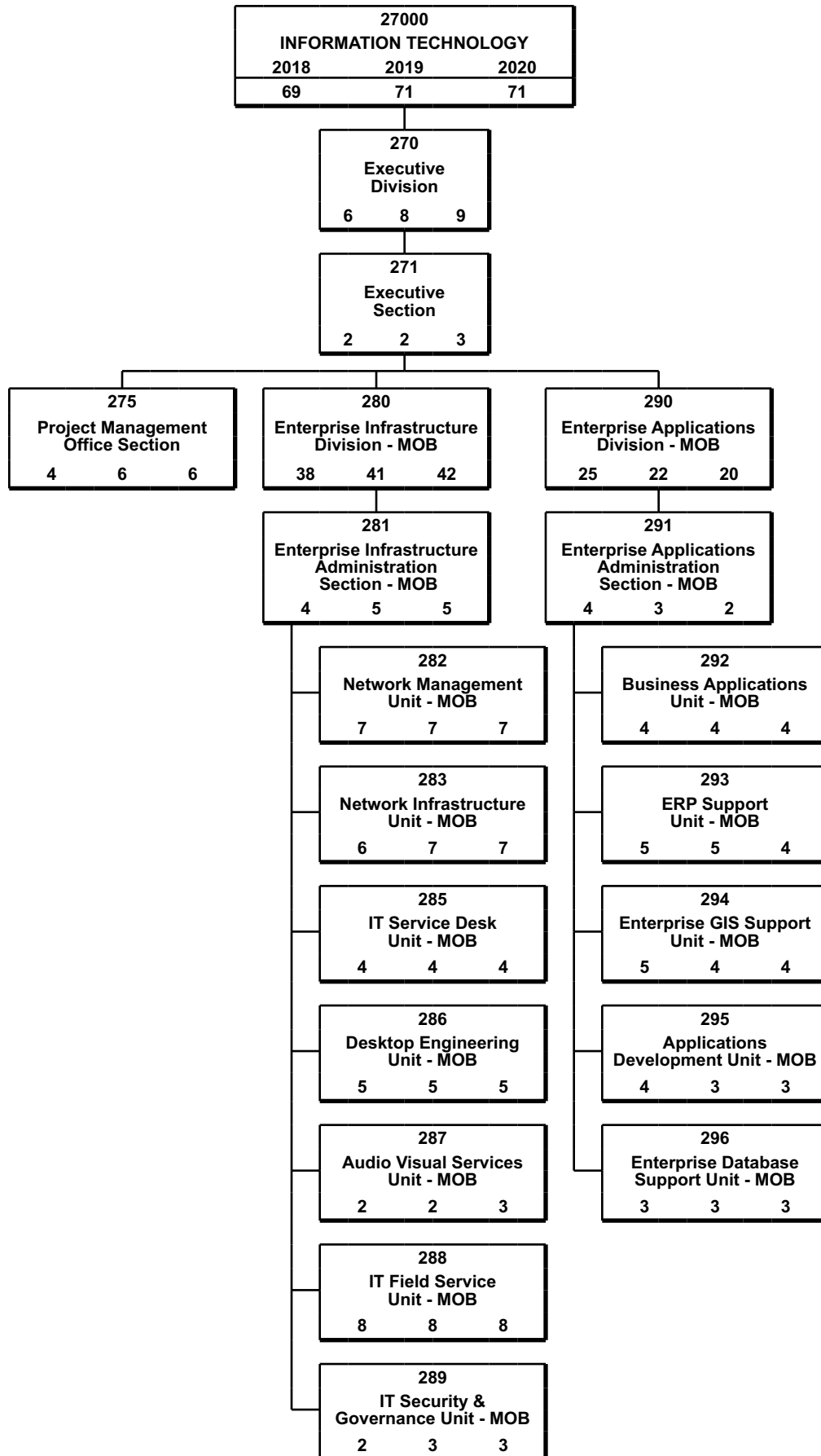
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# INFORMATION TECHNOLOGY



## INFORMATION TECHNOLOGY

**The mission of the Information Technology Department (ITD) is to promote successful achievement of the District's Strategic Business Plan through targeted information technology (IT) investments and services and to maintain technology infrastructures and architectures at levels that promote efficacy, efficiency, and sustainable practices throughout the District.**

### Departmental Summary

In pursuit of its mission, the ITD coordinates the planning and implementation of IT throughout the District. The ITD establishes District-wide computer standards and provides services in the following key areas: IT planning and program management, design and implementation, applications development and support, infrastructure operations and maintenance, user support, security, and disaster recovery.

### Summary of 2019 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;
- Continued the upgrade of the District's voicemail system;
- Launched the District's new website;
- Improved Graphic Information System (GIS) reporting of combined sewer overflow events;
- Received the Special Achievement in GIS award for an internally developed GIS application;
- Continued the replacement of antiquated communication lines.

### Budget Highlights

The 2020 appropriation for the ITD is \$18,353,500, a decrease of \$239,200, or 1.3 percent, from 2019. The staffing level remains unchanged at 71 positions, which includes the addition of a Senior Budget and Management Analyst, an A/V Administrator, a Senior IT Security Administrator, and an Assistant Director of Information Technology, offset by the drop of two Information Technology Managers, a Senior IT Security Administrator, and a Computer Systems Administrator.

Significant features of the 2020 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.

### 2020 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 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.

- **Recover Resources**

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 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.

The 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.

- **Information Technology**

The GIS 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 2020, the GIS program will continue to deliver data and applications to District field staff via mobile devices, providing them with a more streamlined and efficient mechanism to enter data at the point of origin.

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.	\$ 1,718,400	9.4%
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.	\$ 3,092,800	16.9%
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.	\$ 1,759,500	9.6%
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.	\$ 1,694,200	9.2%
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.	\$ 4,315,000	23.5%
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.	\$ 3,928,600	21.4%
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.	\$ 963,000	5.2%
8. <b>DESKTOP APPLICATIONS SUPPORT:</b> The assigned staff will continue to provide applications and technical support to approximately 1,953 computer system users.	\$ 882,000	4.8%
<b>Totals</b>	<b>\$ 18,353,500</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018 Actual	2019 Estimated	2020 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 20%	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.	4	4	4

**27000 INFORMATION TECHNOLOGY**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
7381	Systems Analysis and Programming	\$ 1,774,481	2020	14	\$ 1,694,200	\$ (109,200)	(6.1)	
			2019	16	\$ 1,803,400			
7382	Desktop Applications Support	\$ 878,723	2020	5	\$ 882,000	\$ 81,600	10.2	
			2019	5	\$ 800,400			
7383	Voice, Data, and Video Communications Support	\$ 2,244,578	2020	11	\$ 3,092,800	\$ 65,600	2.2	
			2019	10	\$ 3,027,200			
7384	Central Computer Hardware and Proprietary Software Support	\$ 1,665,396	2020	8	\$ 1,718,400	\$ 36,600	2.2	
			2019	8	\$ 1,681,800			
7385	Computer Operations, Maintenance, and Support	\$ 4,246,620	2020	7	\$ 4,315,000	\$ (268,100)	(5.9)	a)
			2019	7	\$ 4,583,100			
7387	Computer Security	\$ 319,977	2020	4	\$ 963,000	\$ 112,500	13.2	
			2019	3	\$ 850,500			
7388	Information Systems Planning	\$ 726,838	2020	5	\$ 908,500	\$ (90,600)	(9.1)	
			2019	6	\$ 999,100			
7389	Information Systems Coordination	\$ 411,402	2020	5	\$ 851,000	\$ 87,200	11.4	
			2019	4	\$ 763,800			
7800	Information Technology Services	\$ 3,053,299	2020	12	\$ 3,805,900	\$ (155,900)	(3.9)	b)
			2019	12	\$ 3,961,800			
7604	Social Security and Medicare Contributions	\$ 108,839	2020	—	\$ 122,700	\$ 1,100	0.9	
			2019	—	\$ 121,600			
Totals		\$15,430,153	2020	71	\$ 18,353,500	\$ (239,200)	(1.3)%	
			2019	71	\$ 18,592,700			

a) Decrease is due to decreased SAP software maintenance costs after contracting with a third party vendor (\$343,700), offset by the addition of an Office 365 backup subscription (\$96,000).

b) Decrease is due to the transfer of the Cross-Media Electronic Reporting Rule project to the Monitoring & Research Department (\$100,000) and the deferment of iPACS software updates and improvements (\$50,000).

**27000 INFORMATION TECHNOLOGY**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7380	Information Technology and Telecommunications					
7381	Systems Analysis and Programming	Application Modules Supported	90	90	90	
		Cost	\$ 1,774,481	\$ 1,803,400	\$ 1,694,200	
		Cost/Module	\$ 19,716.46	\$ 20,037.78	\$ 18,824.44	
7382	Desktop Applications Support	# of Service Calls	14,211	13,002	14,000	
		Cost	\$ 878,723	\$ 800,400	\$ 882,000	
		Cost/Service Call	\$ 61.83	\$ 61.56	\$ 63.00	
7383	Voice, Data, and Video Communications Support	Cost	\$ 2,244,578	\$ 3,027,200	\$ 3,092,800	
7384	Central Computer Hardware and Proprietary Software Support	Cost	\$ 1,665,396	\$ 1,681,800	\$ 1,718,400	
7385	Computer Operations, Maintenance, and Support	Cost	\$ 4,246,620	\$ 4,583,100	\$ 4,315,000	a)
7387	Computer Security	Cost	\$ 319,977	\$ 850,500	\$ 963,000	
7388	Information Systems Planning	Cost	\$ 726,838	\$ 999,100	\$ 908,500	
7389	Information Systems Coordination	Cost	\$ 411,402	\$ 763,800	\$ 851,000	
7800	Information Technology Services	# of Users	1,932	1,967	1,953	
		Cost	\$ 3,053,299	\$ 3,961,800	\$ 3,805,900	b)
		Cost/User	\$ 1,580.38	\$ 2,014.13	\$ 1,948.75	
7604	Social Security and Medicare Contributions	Cost	\$ 108,839	\$ 121,600	\$ 122,700	
		Totals	\$ 15,430,153	\$ 18,592,700	\$ 18,353,500	
<p>a) Decrease is due to decreased SAP software maintenance costs after contracting with a third party vendor (\$343,700), offset by the addition of an Office 365 backup subscription (\$96,000).</p> <p>b) Decrease is due to the transfer of the Cross-Media Electronic Reporting Rule project to the Monitoring &amp; Research Department (\$100,000) and the deferral of iPACS software updates and improvements (\$50,000).</p>						



101 27000	Fund: Corporate Department: Information Technology	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 7,790,836	\$ 8,352,500	\$ 8,352,500	\$ 5,446,747	\$ 7,700,000	\$ 8,430,200	\$ —
601060	Compensation Plan Adjustments	107,874	234,400	234,400	148,651	158,000	270,800	—
601070	Social Security and Medicare Contributions	108,839	121,600	121,600	79,010	109,200	122,700	—
601100	Tuition and Training Payments	46,816	38,000	38,000	10,530	12,500	48,500	—
100	TOTAL PERSONAL SERVICES	8,054,364	8,746,500	8,746,500	5,684,939	7,979,700	8,872,200	—
612010	Travel	881	2,000	3,000	1,785	1,800	2,000	—
612030	Meals and Lodging	684	5,000	5,000	3,766	4,000	5,000	—
612040	Postage, Freight, and Delivery Charges	1,179	1,500	1,500	1,500	1,200	1,500	—
612050	Compensation for Personally-Owned Automobiles	1,262	1,500	1,500	851	1,000	1,500	—
612210	Communication Services	1,101,668	1,575,200	1,658,800	1,624,880	1,570,400	1,528,800	—
612330	Rental Charges	314,004	475,500	439,600	437,107	394,800	433,000	—
612430	Payments for Professional Services	229,862	1,280,800	1,132,100	640,813	472,000	819,800	—
612490	Contractual Services, N.O.C.	9,675	10,000	10,000	5,150	5,200	10,000	—
612810	Computer Equipment Maintenance	182,898	340,100	340,100	117,664	174,700	247,500	—
612820	Computer Software Maintenance	4,124,260	4,333,700	4,333,700	3,772,577	3,315,600	4,222,800	—
612840	Communications Equipment Maintenance (Includes Software)	723,892	779,200	729,200	641,766	481,500	674,500	—
200	TOTAL CONTRACTUAL SERVICES	6,690,265	8,804,500	8,654,500	7,247,860	6,422,200	7,946,400	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	13,348	15,500	15,500	13,928	12,200	15,500	—
623800	Computer Software	120,651	99,700	99,700	23,767	49,100	390,000	—
623810	Computer Supplies	412,737	556,200	609,200	583,137	474,200	656,400	—
623850	Communications Supplies	118,427	156,300	206,300	188,030	115,900	152,000	—
300	TOTAL MATERIALS AND SUPPLIES	665,164	827,700	930,700	808,863	651,400	1,213,900	—
634810	Computer Equipment	5,680	7,000	7,000	7,000	6,300	200,000	—
634820	Computer Software	—	207,000	167,000	97,000	97,000	97,000	—
634840	Communications Equipment (Includes Software)	14,680	—	—	—	—	24,000	—
400	TOTAL MACHINERY AND EQUIPMENT	20,360	214,000	174,000	104,000	103,300	321,000	—
TOTAL INFORMATION TECHNOLOGY		\$ 15,430,153	\$ 18,592,700	\$ 18,505,700	\$ 13,845,662	\$ 15,156,600	\$ 18,353,500	\$ —

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

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

Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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	
HP16	Senior Budget & Management Analyst	—	—		1	
TOTAL 271	Executive Section	2	2	346,584	3	445,265
<b>275</b>	<b>Project Management Office Section</b>					
HP19	Project Management Office Manager	1	1		1	
HP18	Senior Project Manager	—	1		1	
HP16	Applications Administrator	1	—		—	
HP16	Applications Administrator #2 (Project Manager)	—	1		1	
HP16	Project Manager	—	2		2	
HP16	Senior Business Analyst	1	—		—	
HP14	Business Analyst	1	1		1	
TOTAL 275	Project Management Office Section	4	6	665,579	6	688,020
TOTAL 270	Executive Division	6	8	1,012,163	9	1,133,285
<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		2	
HP19	Information Technology Manager	2	3		2	
HP11	Administrative Specialist	1	1		1	
TOTAL 281	Enterprise Infrastructure Administration Section - MOB	4	5	664,987	5	689,419
<b>282</b>	<b>Network Management Unit - MOB</b>					
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	

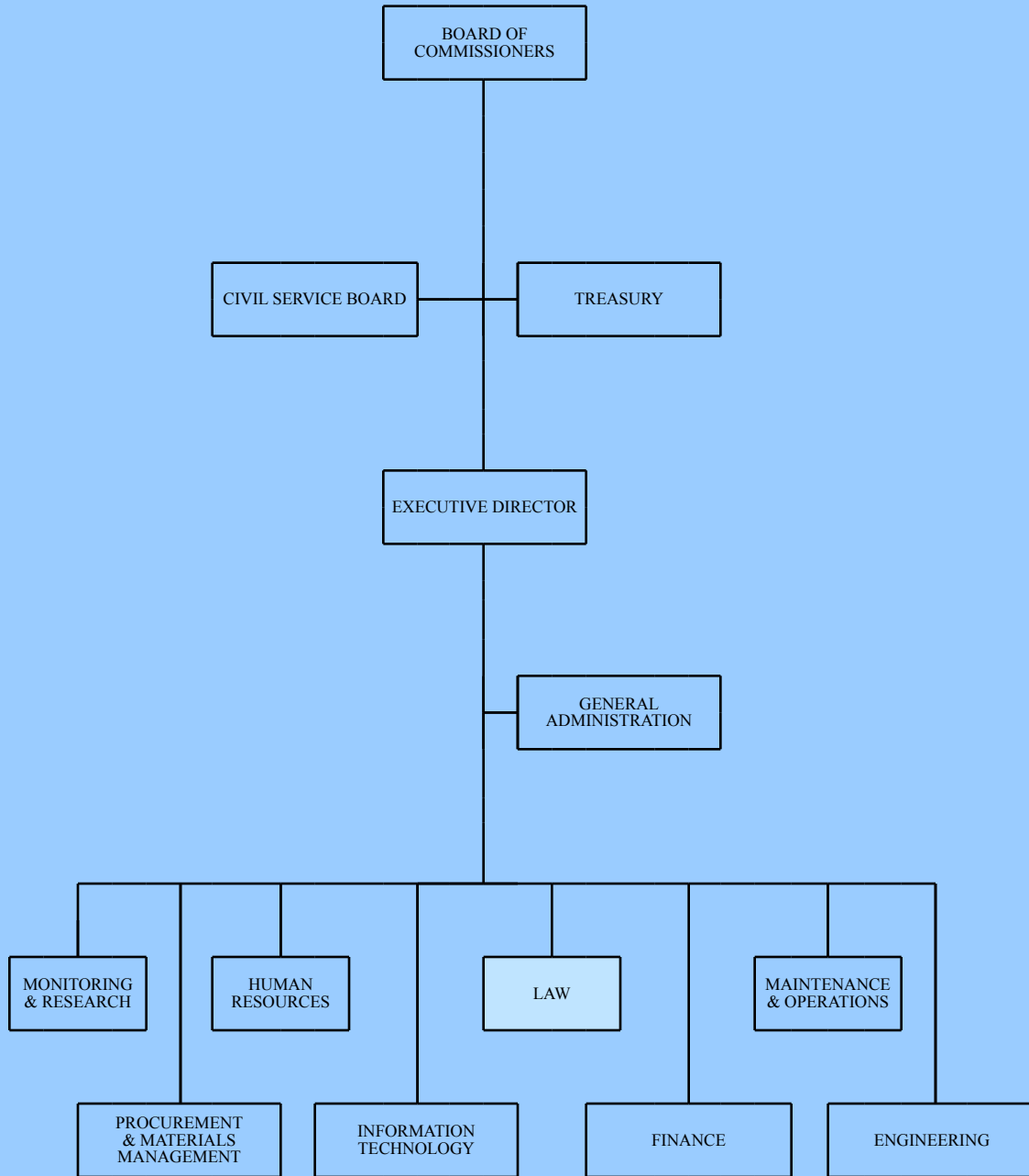
Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP16	Systems Administrator	1	1		1	
TOTAL 282	Network Management Unit - MOB	7	7	952,715	7	963,920
<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		1	
NR1541	Telecommunications Specialist	1	—		—	
NR1541	Telecommunications Specialist #1	—	1		1	
TOTAL 283	Network Infrastructure Unit - MOB	6	7	794,580	7	801,899
<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 285	IT Service Desk Unit - MOB	4	4	287,621	4	289,361
<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	2		2	
HP16	Desktop Engineer	—	1		1	
HP15	Computer Systems Coordinator #2 (Desktop Analyst) (New Grade HP14)	1	1		1	
TOTAL 286	Desktop Engineering Unit - MOB	5	5	638,765	5	638,765
<b>287</b>	<b>Audio Visual Services Unit - MOB</b>					
HP16	A/V Administrator	1	1		2	
HP14	A/V Analyst	1	1		1	
TOTAL 287	Audio Visual Services Unit - MOB	2	2	197,491	3	301,130
<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	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP17	Computer Systems Administrator #2 (IT Support Analyst II) (New Grade HP13)	2	1		1	
HP15	Computer Systems Coordinator #2 (IT Support Analyst II) (New Grade HP13)	1	2		2	
HP15	Computer Systems Coordinator #2 (IT Support Analyst I) (New Grade HP11)	1	—		—	
HP13	IT Support Analyst II	1	4		4	
HP11	IT Support Analyst I	2	—		—	
TOTAL 288	IT Field Service Unit - MOB	8	8	815,914	8	820,580
<b>289</b>	<b>IT Security &amp; Governance Unit - MOB</b>					
HP18	Senior IT Security Administrator	1	1		2	
HP17	Computer Systems Administrator #2 (IT Security Analyst) (New Grade HP14)	1	1		—	
HP16	IT Security Administrator	—	1		1	
TOTAL 289	IT Security & Governance Unit - MOB	2	3	401,808	3	379,983
TOTAL 280	Enterprise Infrastructure Division - MOB	38	41	4,753,882	42	4,885,057
<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	1		1	
HP19	Information Technology Manager #1	—	1		—	
HP11	Administrative Specialist	1	1		1	
TOTAL 291	Enterprise Applications Administration Section - MOB	4	3	391,451	2	217,261
<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	1	1		1	
HP14	Applications Analyst	1	1		1	
TOTAL 292	Business Applications Unit - MOB	4	4	512,455	4	524,031
<b>293</b>	<b>ERP Support Unit - MOB</b>					
HP18	Senior Applications Administrator	1	—		—	

Fund: Corporate Dept: Information Technology		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP18	Senior Applications Administrator #1	—	1		—	
HP17	Senior Systems Programmer #1	2	2		2	
HP16	Applications Administrator	1	1		1	
HP14	Applications Analyst	1	1		1	
TOTAL 293	ERP Support Unit - MOB	5	5	663,725	4	482,901
<b>294</b>	<b>Enterprise GIS Support Unit - MOB</b>					
HP18	Senior Applications Administrator	1	1		1	
HP16	Applications Administrator #2 (GIS Analyst) (New Grade HP14)	2	1		1	
HP14	GIS Analyst	2	2		2	
TOTAL 294	Enterprise GIS Support Unit - MOB	5	4	478,190	4	483,147
<b>295</b>	<b>Applications Development Unit - MOB</b>					
HP18	Senior Applications Developer	1	1		1	
HP16	Applications Developer	1	1		1	
HP14	Applications Analyst	2	1		1	
TOTAL 295	Applications Development Unit - MOB	4	3	335,795	3	346,884
<b>296</b>	<b>Enterprise Database Support Unit - MOB</b>					
HP18	Senior Database Administrator	1	1		1	
HP16	Database Administrator	2	2		2	
TOTAL 296	Enterprise Database Support Unit - MOB	3	3	394,521	3	399,965
TOTAL 290	Enterprise Applications Division - MOB	25	22	2,776,136	20	2,454,189
TOTAL	Information Technology	69	71	8,542,180	71	8,472,531

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. Dollar amounts may not add up due to rounding.

**NOTE PAGE**



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Law Department

The Law Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Law Department budget for 2020.

Respectfully submitted,



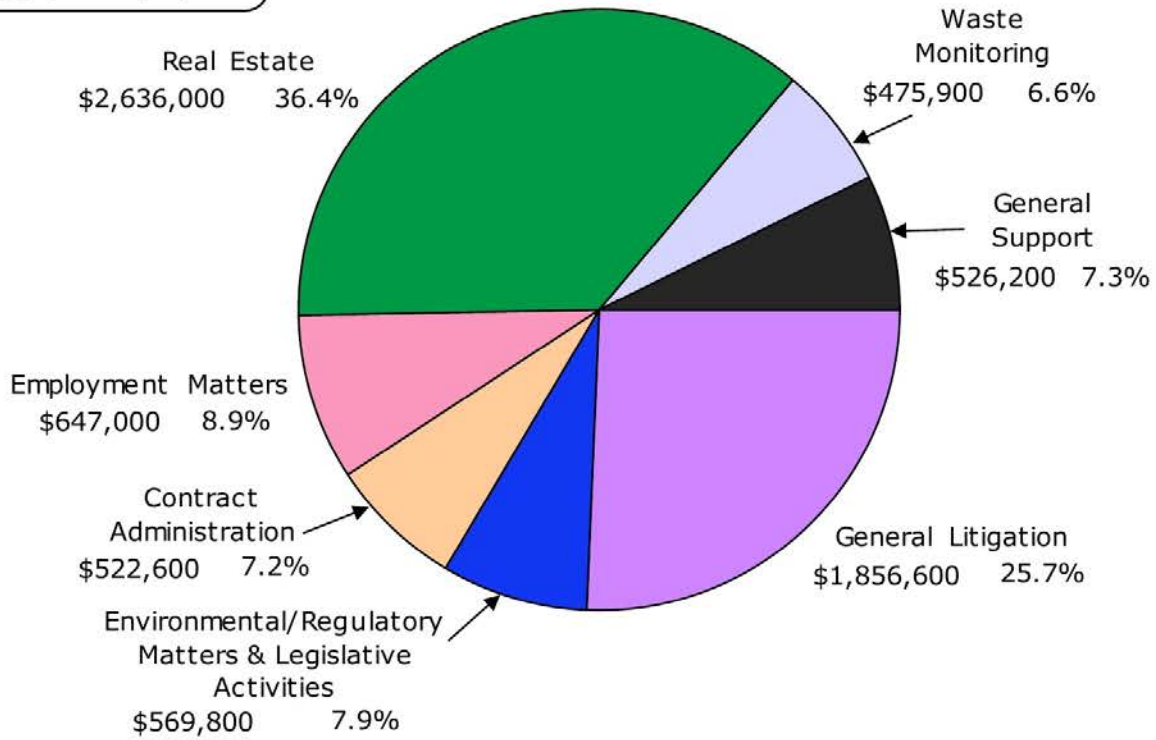
Susan T. Morakalis  
General Counsel



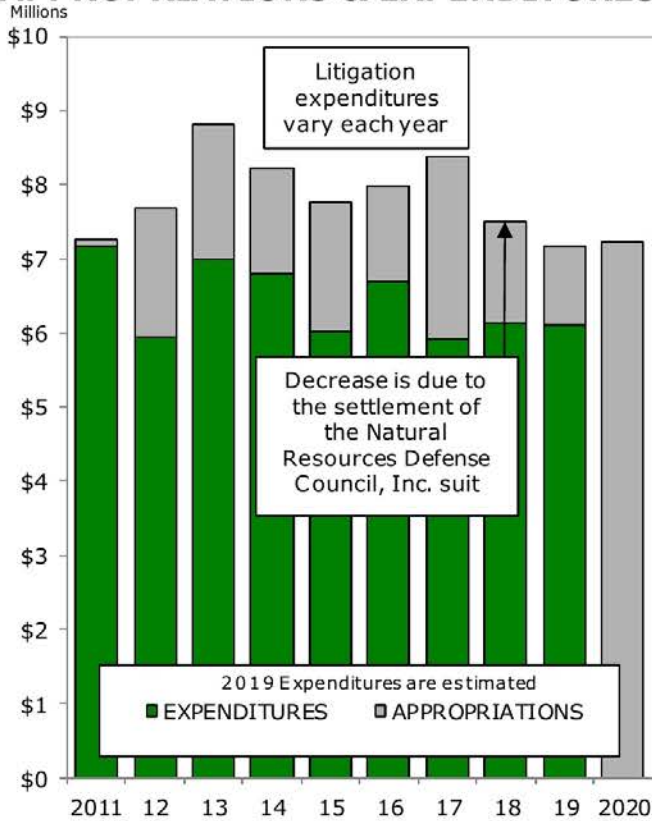
# LAW

## FUNCTIONS

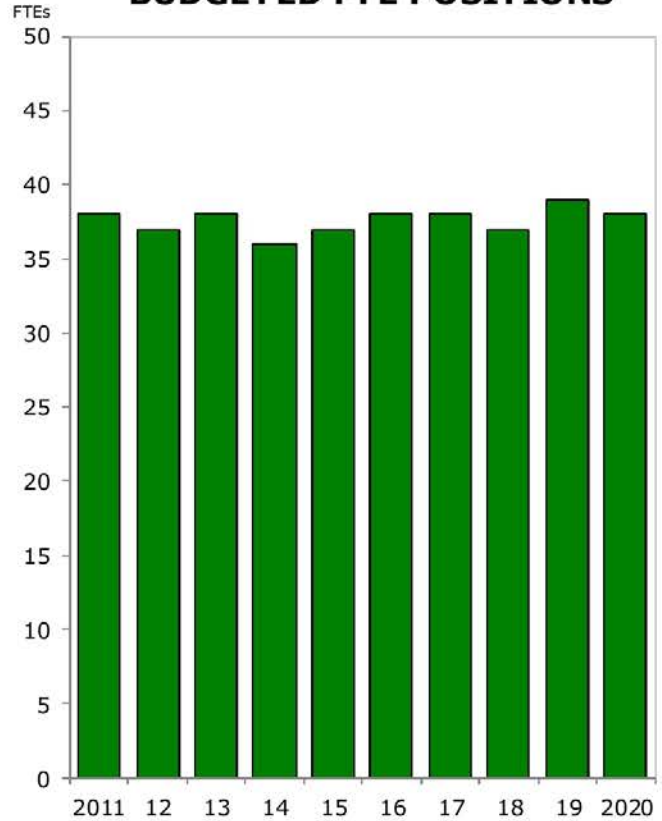
2020	\$7,234,100
2019	\$7,177,700
Increase	\$56,400



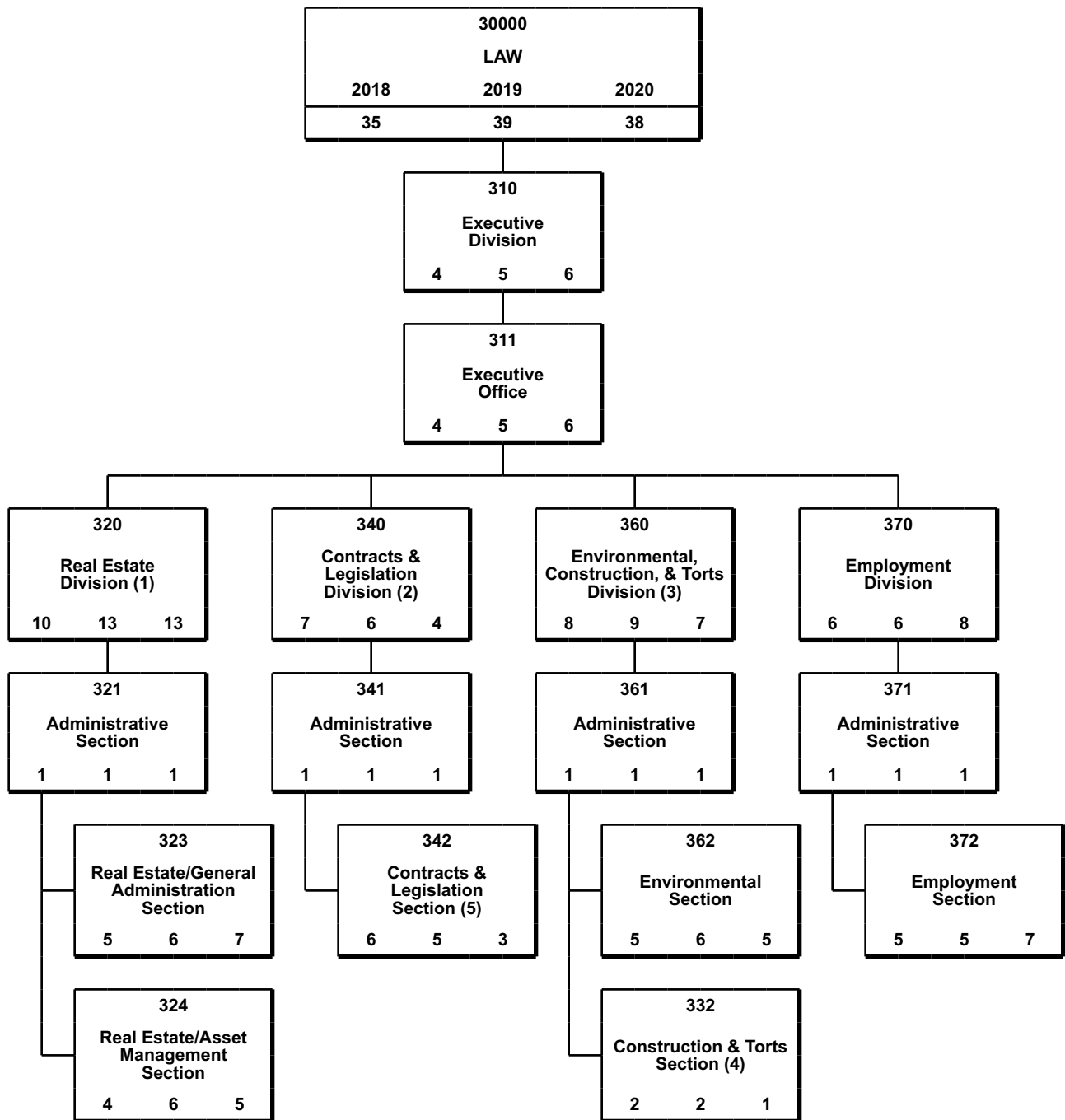
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# LAW



- (1) Effective 01/01/20, Section 320 was retitled from Real Estate/General Administration Division to Real Estate Division.
- (2) Effective 01/01/20, Section 340 was retitled from Contract & Finance Division to Contracts & Legislation Division.
- (3) Effective 01/01/20, Section 360 was retitled from Environmental, Construction, & Tort Division to Environmental, Construction, & Torts Division.
- (4) Effective 01/01/20, Section 332 was retitled from Construction & Tort Section to Construction & Torts Section.
- (5) Effective 01/01/20, Section 342 was retitled from Contract & Finance Section to Contracts & Legislation Section.

## 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 2019 Accomplishments

- Drafted and negotiated an Intergovernmental Agreement extending the services of the Cook County Office of the Independent Inspector General to the District;
- Drafted Appendix V (Veteran Business Participation), a policy that encourages the use of veteran-owned businesses as contractors and subcontractors on many District contracts;
- Obtained passage of Senate Bill 205 through the Illinois General Assembly and signature by the Illinois Governor into Public Act 101-0302, extending the District's non-referendum bonding authority from 2024 to 2034;
- Participated on a task force with the Procurement & Materials Management, Engineering, and Maintenance & Operations Departments to address requirements of bid deposits in contracts, resulting in modification of bid deposit requirements to increase bidder participation and achieve additional cost savings through more competitive bids;
- Reviewed approximately 110 contracts and agreements;
- Processed approximately 200 Certificates of Insurance for new and ongoing contracts;
- Processed 227 Freedom of Information Act Requests;
- Obtained a favorable decision from the U.S. Court of Appeals for the Seventh Circuit affirming the dismissal of a lawsuit alleging discriminatory discharge;
- Handled pre-trial proceedings (motions to dismiss, discovery, motions for summary judgment) in five pending federal employment lawsuits and one pending state lawsuit alleging discrimination, constitutional violations, and retaliatory discharge. No judgments or losses were incurred for employment claims in this period;
- Prevailed in three evidentiary hearings before the Civil Service Board, involving one discharge action and two employee appeals;
- Drafted and obtained the Civil Service Board's approval of a Standing Order to inform litigants of general case procedures and to facilitate efficient disposition of matters heard by the Civil Service Board;
- Defended an appeal in the Illinois Appellate Court for the First District following a dismissal of a proposed class action flooding claim by the trial court, and prepared a Petition for Leave to Appeal to the Illinois Supreme Court;
- Reviewed and commented on National Pollutant Discharge Elimination System Permits for the Stickney, Egan, Hanover Park, Lemont, and Kirie Water Reclamation Plants;
- Assisted the Engineering Department with the right-of-way acquisition for nine different stormwater projects. These projects involved over 200 affected parcels. Of particular note, the Law Department acquired 10 residential parcels for the Addison Creek Channel Improvements Project to date. The remaining five residential parcels are anticipated to be acquired by the end of 2019;
- Negotiated a \$4 million right-of-way acquisition agreement with the Illinois State Toll Highway Authority for its I-294 Mile Long Bridge Project. The agreement involved the purchase of a portion of District real estate located along the Main Channel, as well as permanent and temporary easements on adjacent parcels, to enable the Tollway to commence construction that will expand the Mile Long Bridge, which serves up to 150,000 vehicles daily, from four lanes to five lanes in both directions;
- Worked cooperatively with the Finance and Monitoring & Research Departments to collect outstanding user charges, fees and penalties owed pursuant to the User Charge Ordinance and Sewage and Waste Control Ordinance by demanding payment from users, recording liens, and/or prosecuting collection lawsuits, including three collection lawsuits that are currently pending in the Circuit Court of Cook County;
- Pursued proofs of claim seeking to recoup unpaid user charge fees and penalties from large commercial industrial users in five pending Chapter 7 or 11 bankruptcy proceedings.

## Budget Highlights

The 2020 appropriation for the Law Department is \$7,234,100, an increase of \$56,400, or 0.8 percent, from 2019. The staffing level has decreased from 39 to 38 positions, which includes the transfer of one Senior Budget & Management Analyst to General Administration. The significant features of the 2020 budget are:

- Generate real estate lease and easement income at approximately \$23,000,000;
- Conduct training with District personnel responsible for responding to Freedom of Information requests on implementing measures to increase the accessibility of certain categories of records and whether certain types of records may be exempt from production;
- Continue to support the Engineering Department's Stormwater Management Division in acquiring the right-of-way for flood control projects. This legal assistance includes obtaining the necessary easements, licenses, and permits, as well as negotiating Intergovernmental Agreements and filing condemnation actions, where appropriate;
- Continue to participate in an interdepartmental panel to actively pursue opportunities related to energy. In addition to increasing revenue from the sale of electrical energy and renewable energy credits, and through participation in demand response curtailment programs, the team continues to explore new and efficient means of procuring the electrical energy that powers District plants.

## 2020 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 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, 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, requiring environmental remediation by District tenants.

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 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, Forest Preserve Districts, and municipalities for the specific purpose of providing the general public with greater access to recreational opportunities along the waterways. The Real Estate Division plays an integral role in acquiring land rights necessary for the District's regional Stormwater Management projects.

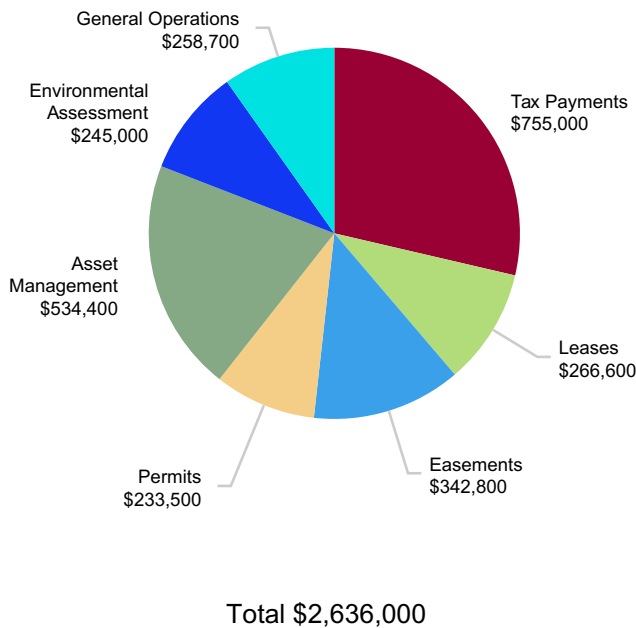
The Law Department evaluates a variety of contracts and agreements for the acquisition of equipment, labor, software, construction, and professional services. The different categories include sole source, furnish and deliver, emergency matters, as well as maintenance. The dollar amounts of the agreements reviewed range from the thousands to the hundreds of millions. The agreements also vary in complexity. The Contracts & Legislation Division reviews approximately 200 agreements per year. The average number of workdays to review all contracts, from the fairly routine to the more complex, is approximately seven workdays. The Contracts & Legislation Division continues to work with the Procurement & Materials Management Department in an effort to streamline the procurement process for vendors while complying with the statutory provisions of the Purchasing Act. In the upcoming year, the division will be working to standardize contract documents across departments. Such consistency will aim to decrease review time and allow for contracts to be executed and work to begin in a shorter time period.

The Law Department will 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.

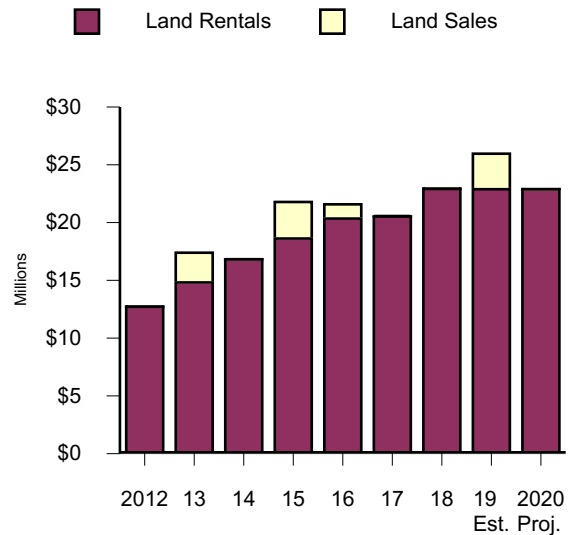
### • Excellence

The Law Department employs multiple strategies to achieve optimal results for the District in the legal arena. The department strives to minimize claim filings by ensuring the District complies with all applicable laws and continually counsels, trains, and advises management as to best practices. When potential claims do arise, the Law Department assesses the potential liability and costs and recommends actions to resolve them effectively or strengthen the District's position. If litigation cannot be avoided, the department attempts to obtain dismissal through motions to dismiss or summary judgment, to negotiate favorable settlements, or to prevail at trial. Where warranted, the Law Department will appeal cases to the highest applicable court. Its 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.

**2020 Real Estate Program Budget**



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



**Land Sale Details**  
 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  
 2019 - 17.2 acres sold to the IL State Toll Highway Authority

**• Recover Resources**

In 2020, the Law Department will continue the implementation of the District’s Resource Recovery Program 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.

Furthering this initiative, 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 and to obtain high strength liquid waste to aid in the biological removal of phosphorus from the District’s effluent water.

**• Develop Employees**

The Law Department encourages employees to attend professional conferences and seminars, as well as to complete eLearning courses and wellness programs that are beneficial to the District. In addition, staff attorneys have access to continuing legal education webinars through an economical subscription package. As a continuing legal education provider, the Law Department periodically offers accredited courses to its staff. The department will utilize cross-training to afford newer attorneys the opportunity to obtain experience in legal matters outside of their assigned divisions and circulate departmental highlights to increase awareness of significant legal developments or accomplishments. The Law Department will continue to support the Human Resources Department in connection with ethics, anti-harassment, and other District-wide training, and will conduct training with personnel responsible for responding to Freedom of Information Act requests for various departments.

**• Leading Partnerships**

In 2020, 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.

Established in 2015 by Law Department initiative, the Local Governmental Law Consortium continues to provide a professional network with other local government in-house counsel in Cook County through regular semiannual meetings hosted by the various member agencies. The Consortium is currently comprised of 25 public bodies, including eleven Cook County municipalities, the City of Chicago Corporation Counsel, City of Chicago Department of Water Management, City Colleges of Chicago, Chicago Housing Authority, Forest Preserve District of Cook County, Metropolitan Pier and Exposition Authority, Public Building Commission of Chicago, Metra, Chicago Transit Authority, Chicago Public Schools, Cook County Clerk, Chicago Park District, and Cook County Health and Hospital System.

In furtherance of the District's leadership role in the Local Governmental Law Consortium, during 2019 the Law Department hosted a continuing legal education event entitled "Ethics Update: Issues for Today's Government Practitioners," presented by senior litigation counsel for the Illinois Attorney Registration and Disciplinary Commission. The presentation was attended by 24 attorneys, representing eight governmental agencies. Building on the success of this program, plans are underway for the Law Department to host another continuing legal education event in the year 2020.

- **Information 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 before the federal and state courts, the Equal Employment Opportunity Commission, and the Illinois Pollution Control Board. Additionally, all of the Law Department's claims data is tracked electronically within its Legal Files Document and Case 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 its 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.	\$ 1,856,600	25.7%
2. Handle all environmental matters and monitor all state legislation and legislative activities.	\$ 569,800	7.9%
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.	\$ 647,000	8.9%
4. Provide for the administration of all vacant and unoccupied District real estate; administer the leasing and disposition or other use of District real estate when not presently needed for its corporate purposes; assist in and administer the acquisition of right-of-way for District construction and capital improvement projects and other corporate uses; administer environmental and remediation activities; supervise real estate tax litigation; provide assistance in developing and processing the real estate agenda for meetings of the Board of Commissioners.	\$ 2,636,000	36.4%
Through its leasing and easement grant activities, the Real Estate Division will generate approximately \$23 million in income in 2020.		
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; provide legal services for flood mitigation projects contracted with other governments and stormwater-related land and easement activities.	\$ 475,900	6.6%
6. Review proposed contracts, execute awarded contracts, review bond surety, and insurance matters.	\$ 522,600	7.2%
7. GENERAL SUPPORT: All costs pertaining to the duties of the Clerk's Office, including Board proceedings, agenda and legislative actions, and executive functions of the departments, as well as process Freedom of Information Act requests for the District and participate in budget preparation and monitoring activities for the department.	\$ 526,200	7.3%
<b>Totals</b>	<b>\$ 7,234,100</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2018 Actual	2019 Estimated	2020 Proposed
1. Revise lease procedures and policies to enhance the marketability of District real estate while increasing the use of Green Infrastructure.	Millions	\$23.0	\$23.0	\$23.0
2. Conduct training on Freedom of Information Act requests.	Training Sessions	—	1	3
3. Preparation of draft Intergovernmental Agreements for technical projects within 30 days of referral.	Percentage Completed	100%	100%	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	3%	85%	100%

**30000 LAW**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 47,233	2020	— \$ —	\$ (48,400)	(100.0)	a)
			2019	1 \$ 48,400			
4300	Stormwater Management	\$ —	2020	2 \$ 279,800	\$ 279,800	100.0	b)
			2019	— \$ —			
4660	Waste Monitoring	\$ 380,325	2020	1 \$ 196,100	\$ (222,500)	(53.2)	c)
			2019	3 \$ 418,600			
7000	General Support (excluding program numbers 7350, 7360, and 7604)	\$ —	2020	3 \$ 547,500	\$ 547,500	100.0	d)
			2019	— \$ —			
7350	General Legal Matters	\$ 3,353,119	2020	19 \$ 3,492,800	\$ (401,100)	(10.3)	e)
			2019	21 \$ 3,893,900			
7360	Real Estate Operations	\$ 2,289,518	2020	13 \$ 2,636,000	\$ (100,700)	(3.7)	
			2019	14 \$ 2,736,700			
7604	Social Security and Medicare Contributions	\$ 68,500	2020	— \$ 81,900	\$ 1,800	2.2	
			2019	— \$ 80,100			
Totals		\$ 6,138,695	2020	38 \$ 7,234,100	\$ 56,400	0.8%	
			2019	39 \$ 7,177,700			

a) Decrease is due to the reallocation of salaries to more accurately reflect the replacement of a legacy ordinance by the Watershed Management Ordinance (\$48,400).

b) Increase is due to the reallocation of salaries to more accurately reflect legal activities specific to the Stormwater Management Fund (\$279,800).

c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$216,500).

d) Increase is due to the reallocation of salaries to more accurately reflect Board proceedings and Freedom of Information Act activities (\$547,500).

e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$508,600) and the transfer of a Senior Budget & Management Analyst to General Administration (\$107,500), offset by the increase in outside legal counsel for employment matters (\$75,000) and the increase in special counsel for environmental matters (\$62,300).



**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Cases	2	20	—	a)
		Cost	\$ 47,233	\$ 48,400	\$ —	a)
		Cost/Case	\$ 23,616.50	\$ 2,420.00	\$ —	a)
4300	Stormwater Management Provide Legal Representation and Administrative Support for:					
4324	Watershed Management Ordinance Administration	Cases	—	—	15	b)
		Cost	\$ —	\$ —	\$ 42,200	b)
		Cost/Case	\$ —	\$ —	\$ 2,813.33	b)
4344	Flood Mitigation Projects Contracted with Other Governments	Cost	\$ —	\$ —	\$ 102,600	c)
4345	Land and Easements (Stormwater)	Cost	\$ —	\$ —	\$ 135,000	d)
4660	Waste Monitoring Provide Legal Representation and Administrative Support for:					
4662	User Charge Ordinance - Tax-Exempt Users	Cases	61	30	20	e)
		Cost	\$ 22,115	\$ 53,600	\$ 16,100	e)
		Cost/Case	\$ 362.54	\$ 1,786.67	\$ 805.00	e)
4663	User Charge - Large Commercial/Industrial Users	Cases	14	21	20	
		Cost	\$ 209,951	\$ 218,200	\$ 127,000	f)
		Cost/Case	\$ 14,996.50	\$ 10,390.48	\$ 6,350.00	f)
4667	Sewage and Waste Control Ordinance - Significant Industrial Users	Cases	9	13	12	
		Cost	\$ 148,259	\$ 146,800	\$ 53,000	g)
		Cost/Case	\$ 16,473.22	\$ 11,292.31	\$ 4,416.67	g)
7000	General Support (excluding program numbers 7350 - 7369 and 7604)	Cost	\$ —	\$ —	\$ 547,500	h)

a) Decrease is due to the reallocation of salaries to more accurately reflect the replacement of a legacy ordinance by the Watershed Management Ordinance (\$48,400).

b) Increase is due to the reallocation of salaries to more accurately reflect legal activities specific to the Stormwater Management Fund (\$42,200).

c) Increase is due to the reallocation of salaries to more accurately reflect legal activities specific to the Stormwater Management Fund (\$102,600).

d) Increase is due to the reallocation of salaries to more accurately reflect legal activities specific to the Stormwater Management Fund (\$135,000).

e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$37,500).

f) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$87,200).

g) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$90,800).

h) Increase is due to the reallocation of salaries to more accurately reflect Board proceedings and Freedom of Information Act activities (\$547,500).

**30000 LAW**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
7350	General Legal Matters Provide Prosecution and Defense Services to Protect the Interests of the District:					
7351	Legislative	Cost	\$ 185,671	\$ 199,800	\$ 181,300	
7352	Financial Matters	Cost	\$ 170,738	\$ 173,400	\$ 110,000	i)
7353	Environmental and Regulatory Matters	Cost	\$ 707,743	\$ 781,100	\$ 388,500	j)
7354	Contract Administration	Cost	\$ 302,906	\$ 376,600	\$ 522,600	k)
7355	Litigation	Cost	\$ 667,274	\$ 757,700	\$ 1,342,200	l)
7356	Employment Matters	Cost	\$ 633,639	\$ 685,200	\$ 625,700	
7359	General Legal Services	Cost	\$ 685,148	\$ 920,100	\$ 322,500	m)
7360	Real Estate Operations Provide Administration of All District Land:					
7361	Real Estate Leases - Administration of Leases and Granting of Leases	Leases	175	177	179	
		Cost	\$ 122,860	\$ 121,500	\$ 266,600	n)
		Cost/Lease	\$ 702.06	\$ 686.44	\$ 1,489.39	n)
7362	Real Estate Easements - Administration of Easements and Granting of New Easements	Easements	388	391	394	
		Cost	\$ 117,292	\$ 116,000	\$ 342,800	o)
		Cost/Easement	\$ 302.30	\$ 296.68	\$ 870.05	o)
7363	Real Estate Permits - Administration of Permits and Granting of New Permits	Permits	80	78	81	
		Cost	\$ 105,941	\$ 104,500	\$ 233,500	p)
		Cost/Permit	\$ 1,324.26	\$ 1,339.74	\$ 2,882.72	p)
7367	Real Estate Asset Management - Administer Plan to Increase Revenue by Lease/Sale of Real Estate Holdings	Cost	\$ 457,266	\$ 593,000	\$ 534,400	
7368	Real Estate Environmental Assessment - Administer Activities Related to Environmental Assessment and Remediation of Real Estate Holdings	Cost	\$ 250,642	\$ 377,800	\$ 245,000	q)
7369	Other Real Estate Operations, Including Development of Agenda, Providing Information, Tax Litigation, and Support Services to the Board of Commissioners	Cost	\$ 552,503.78	\$ 668,900	\$ 258,700	r)
	Payment of Real Estate Taxes	Cost	\$ 683,013.22	\$ 755,000	\$ 755,000	
7604	Social Security and Medicare Contributions	Cost	\$ 68,500	\$ 80,100	\$ 81,900	
	Totals		\$ 6,138,695	\$ 7,177,700	\$ 7,234,100	

- i) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$63,400).
- j) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$392,600).
- k) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$143,000).
- l) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$579,600).
- m) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$665,200).
- n) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$145,100).
- o) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$226,800).
- p) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$129,000).
- q) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$161,800).
- r) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$357,800).

101 30000		LINE ITEM ANALYSIS						
Fund: Corporate Department: Law								
		2018	2019				2020	
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 4,762,047	\$ 5,493,700	\$ 5,493,700	\$ 3,387,158	\$ 4,846,700	\$ 5,309,200	\$ —
601060	Compensation Plan Adjustments	134,244	140,400	140,400	99,915	104,000	239,100	—
601070	Social Security and Medicare Contributions	68,500	80,100	80,100	50,411	69,300	81,900	—
601100	Tuition and Training Payments	10,307	14,000	14,000	9,135	14,000	16,800	—
100	TOTAL PERSONAL SERVICES	4,975,098	5,728,200	5,728,200	3,546,618	5,034,000	5,647,000	—
612010	Travel	4,202	5,000	5,000	1,561	3,600	6,400	—
612030	Meals and Lodging	8,844	13,000	13,000	6,592	12,000	15,800	—
612040	Postage, Freight, and Delivery Charges	472	1,000	1,000	600	400	700	—
612050	Compensation for Personally-Owned Automobiles	1,356	5,100	5,100	2,656	4,600	5,100	—
612090	Reprographic Services	134	17,000	17,000	15,487	1,000	17,000	—
612250	Court Reporting Services	12,537	27,000	27,000	22,021	16,800	25,000	—
612430	Payments for Professional Services	354,854	500,000	560,000	515,880	263,000	634,300	—
612490	Contractual Services, N.O.C.	84,698	107,800	107,800	92,047	77,000	108,600	—
200	TOTAL CONTRACTUAL SERVICES	467,097	675,900	735,900	656,844	378,400	812,900	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	3,374	5,200	5,200	3,894	4,800	6,000	—
623720	Books, Maps, and Charts	10,112	13,000	13,000	11,035	10,000	13,000	—
623990	Materials and Supplies, N.O.C.	—	400	400	—	—	200	—
300	TOTAL MATERIALS AND SUPPLIES	13,486	18,600	18,600	14,929	14,800	19,200	—
667130	Taxes on Real Estate	683,013	755,000	695,000	682,846	683,000	755,000	—
700	TOTAL FIXED AND OTHER CHARGES	683,013	755,000	695,000	682,846	683,000	755,000	—
TOTAL LAW		\$ 6,138,695	\$ 7,177,700	\$ 7,177,700	\$ 4,901,238	\$ 6,110,200	\$ 7,234,100	\$ —

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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

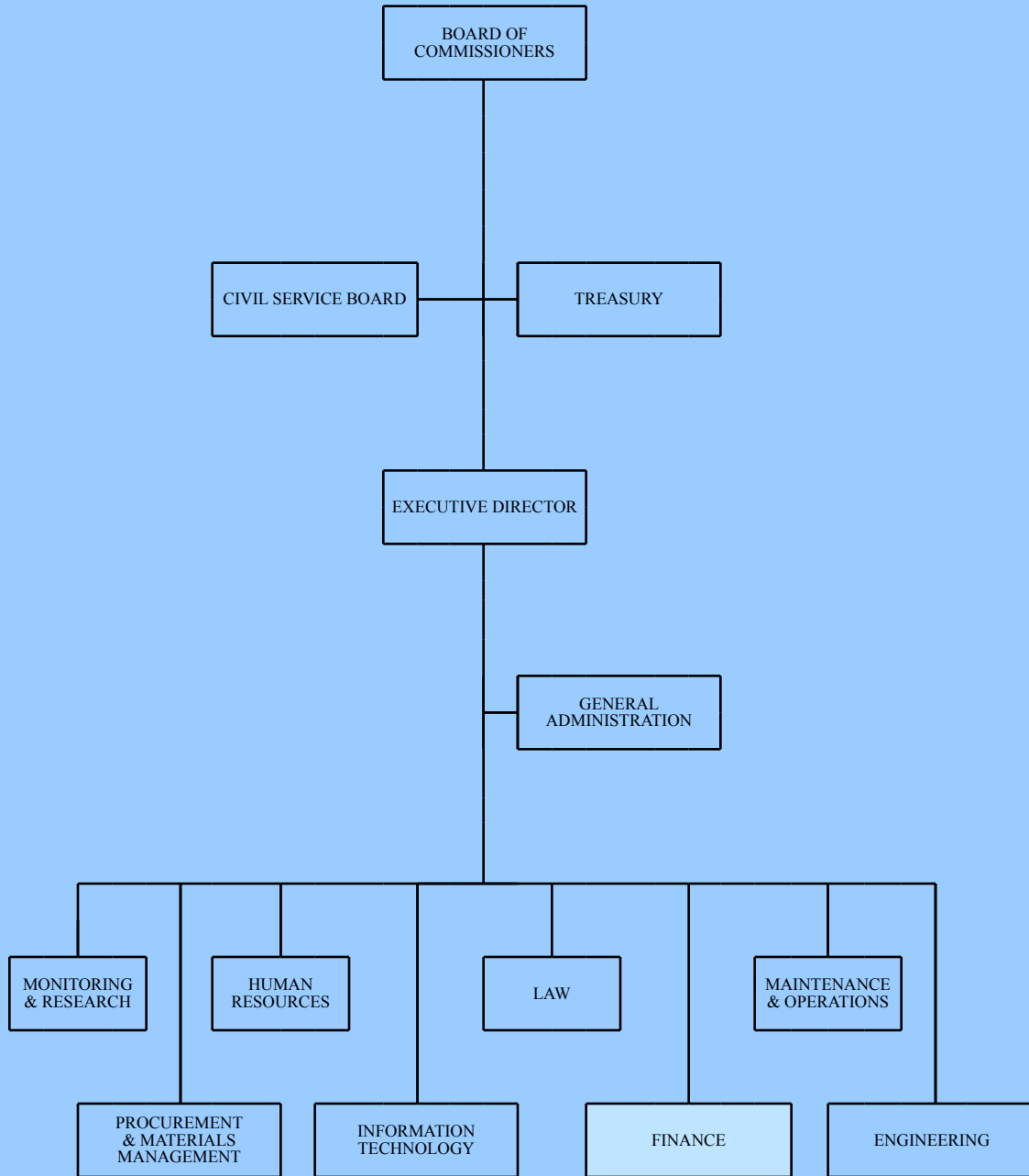
Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>310</b>	<b>Executive Division</b>					
<b>311</b>	<b>Executive Office</b>					
EX12	General Counsel	1	1		1	
HP23	Deputy General Counsel	—	1		1	
HP22	Head Assistant Attorney	1	1		1	
HP20	Principal Attorney	—	—		1	
EX06	Secretary to Officer	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL 311	Executive Office	4	5	889,090	6	1,082,477
TOTAL 310	Executive Division	4	5	889,090	6	1,082,477
<b>320</b>	<b>Real Estate Division (formerly Real Estate / General Administration Division)</b>					
<b>321</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL 321	Administrative Section	1	1	179,480	1	228,015
<b>323</b>	<b>Real Estate / General Administration Section</b>					
HP20	Principal Attorney	—	—		1	
HP18	Senior Attorney	1	1		1	
HP15	Senior Legal Assistant	2	2		2	
HP13	Investigator	1	1		1	
HP13	Investigator #1	—	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL 323	Real Estate / General Administration Section	5	6	611,405	7	754,586
<b>324</b>	<b>Real Estate / Asset Management Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	1	2		1	
HP13	Legal Assistant	1	1		1	
HP13	Senior Administrative Specialist	1	2		2	
TOTAL 324	Real Estate / Asset Management Section	4	6	700,602	5	565,827
TOTAL 320	Real Estate Division (formerly Real Estate / General Administration Division)	10	13	1,491,488	13	1,548,428

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>340</b>	<b>Contracts &amp; Legislation Division (formerly Contract &amp; Finance Division)</b>					
<b>341</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL 341	Administrative Section	1	1	237,722	1	228,015
<b>342</b>	<b>Contracts &amp; Legislation Section (formerly Contract &amp; Finance Section)</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		1	
HP17	Management Analyst III #2 (Senior Budget & Management Analyst) (New Grade HP16)	1	1		—	
HP15	Senior Legal Assistant	1	1		1	
HP14	Public Affairs Specialist	1	—		—	
TOTAL 342	Contracts & Legislation Section (formerly Contract & Finance Section)	6	5	744,000	3	436,073
TOTAL 340	Contracts & Legislation Division (formerly Contract & Finance Division)	7	6	981,722	4	664,088
<b>360</b>	<b>Environmental, Construction, &amp; Torts Division (formerly Environmental, Construction, &amp; Tort Division)</b>					
<b>361</b>	<b>Administrative Section</b>					
HP22	Head Assistant Attorney	1	1		1	
TOTAL 361	Administrative Section	1	1	208,602	1	218,309
<b>362</b>	<b>Environmental Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	3		2	
HP13	Legal Assistant	1	1		1	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL 362	Environmental Section	5	6	723,249	5	591,129
<b>332</b>	<b>Construction &amp; Torts Section (formerly Construction &amp; Tort Section)</b>					
HP20	Principal Attorney	2	2		—	
HP18	Senior Attorney	—	—		1	
TOTAL 332	Construction & Torts Section (formerly Construction & Tort Section)	2	2	349,821	1	116,123
TOTAL 360	Environmental, Construction, & Torts Division (formerly Environmental, Construction, & Tort Division)	8	9	1,281,672	7	925,561

Fund: Corporate Dept: Law		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 371	Administrative Section	1	1	237,722	1	228,015
<b>372</b>	<b>Employment Section</b>					
HP20	Principal Attorney	1	1		1	
HP18	Senior Attorney	2	2		4	
HP13	Legal Assistant	1	1		1	
HP11	Administrative Specialist	1	1		1	
TOTAL 372	Employment Section	5	5	639,392	7	887,339
TOTAL 370	Employment Division	6	6	877,115	8	1,115,354
TOTAL	Law	35	39	5,521,087	38	5,335,908

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. Dollar amounts may not add up due to rounding.

**NOTE PAGE**





**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Finance Department

The Finance Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Finance Department budget for 2020.

Respectfully submitted,

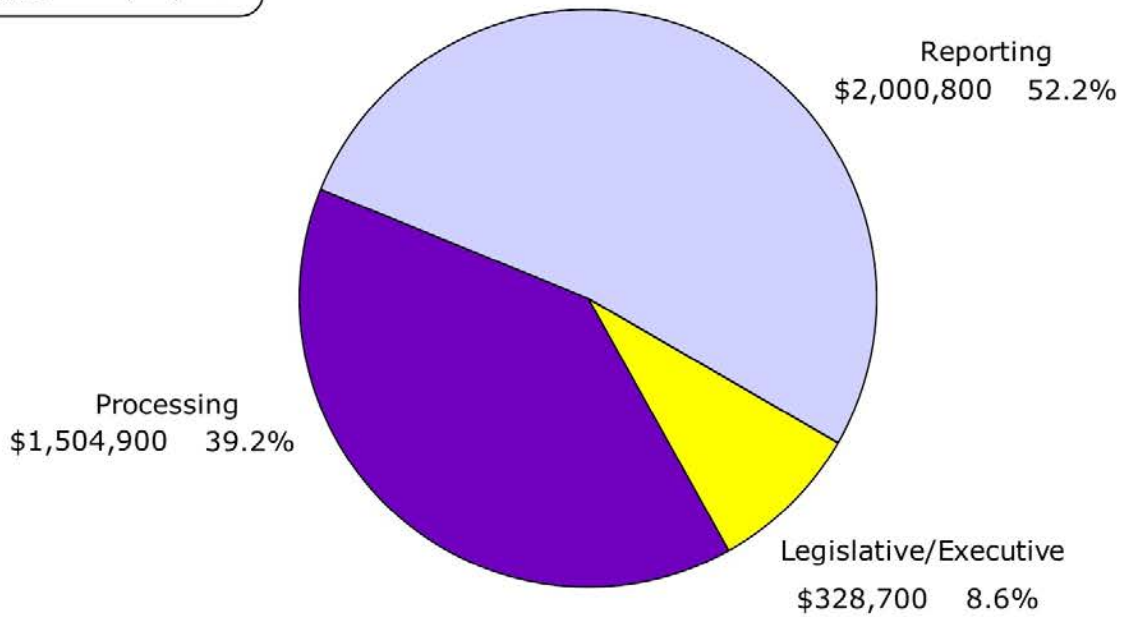


Jacqueline Torres  
Clerk/Director of Finance

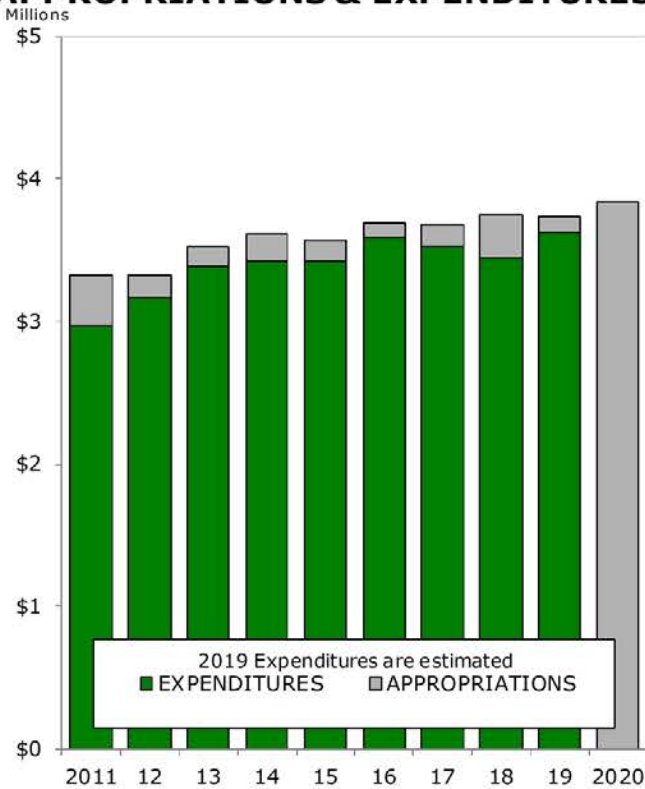
# FINANCE

## FUNCTIONS

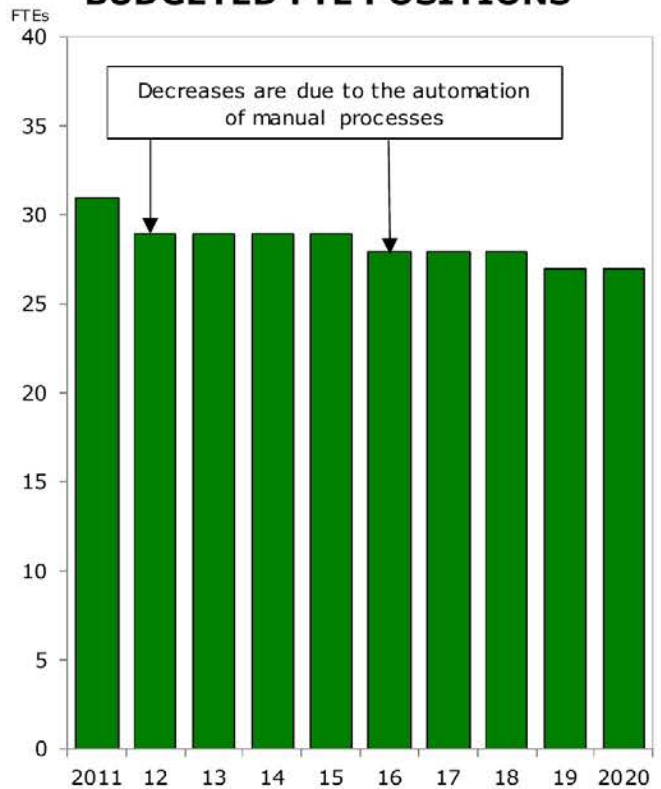
2020	\$3,834,400
2019	\$3,739,800
Increase	\$94,600



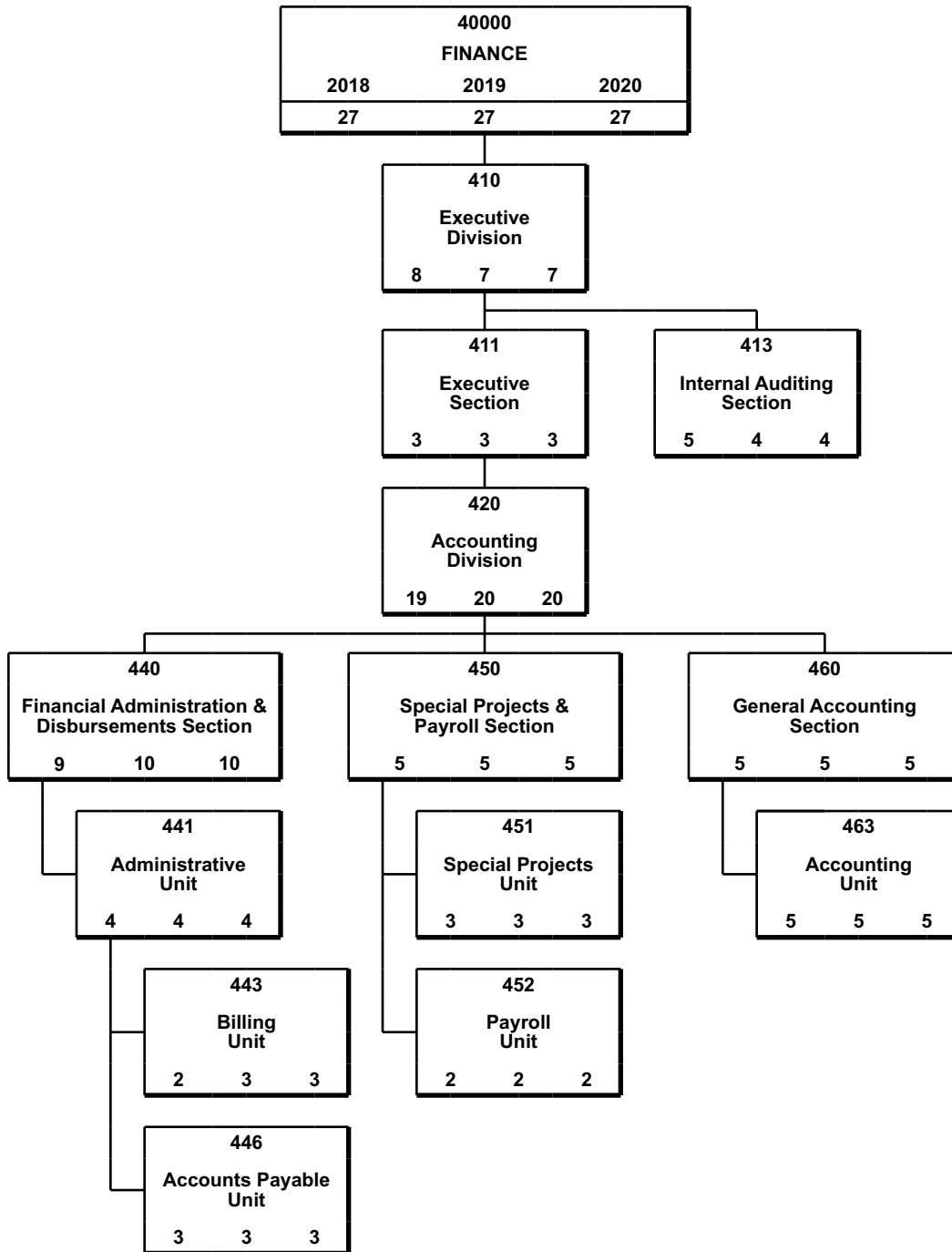
## APPROPRIATIONS & EXPENDITURES



## 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 2019 Accomplishments

- The District was presented with the Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting for the 2018 Comprehensive Annual Financial Report for the 44th consecutive year;
- The District received an unmodified opinion on the fair presentation, in all material aspects, of the District's 2018 financial statements from external auditors. This achievement aids in maintaining the District's excellent bond credit rating;
- Internal Audit reviewed and assessed District processes; provided recommendations to improve efficiencies, mitigate risk and suggested best practice improvements when applicable; and completed 12 audit projects. Routine internal audit projects included reviews and monitoring of internal system controls and procurement card expenditures. Internal Audit also completed complex financial assessments of prospective District tenants and rental calculations for current tenants. Internal Audit also assisted with special projects including the Human Resources Department's system implementations and SAP security risk assessments;
- Collaborated with the Human Resources Department with the implementation of a new employee benefits software entitled Benefit Focus. The software will allow employees to review and change their benefits online as well as allow the Finance Department to import benefit related deductions into SAP for payroll processing;
- Collaborated with the Information Technology Department in transitioning the payroll tax engine to the District's new SAP maintenance provider, Rimini Street.

### Budget Highlights

The 2020 appropriation for the Finance Department is \$3,834,400, an increase of \$94,600, or 2.5 percent, from 2019. The staffing level remains unchanged at 27 positions.

Significant features of the 2020 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;
- Continue implementation of Governmental Accounting Standards Board (GASB) 87, Leases, to improve accounting and financial reporting for leases by governments.

### 2020 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's Technical Exhibition and Conference and partner with operating departments to support the District's mission.

- **Information Technology**

The Finance Department will continue to embrace information technology to reduce transaction processing costs and optimize operations. Plans are underway for the following initiatives:

- Continue implementation of cloud-based travel and expense management software with the ability to capture expenses electronically;
- Implement a solution for data collection monitoring and ongoing updates for GASB 87, Leases;
- Improve the Accounts Payable System by increasing the number of vendors paid via the Automated Clearing House;
- Utilization of Wdesk throughout the District;
- 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.	\$ 1,504,900	39.2%
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.	\$ 2,000,800	52.2%
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.	\$ 328,700	8.6%
<b>Totals</b>	<b>\$ 3,834,400</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018 Actual	2019 Estimated	2020 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.	95%	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:		2018 Actual	Budgeted		Change		
Number	Name		FTEs	Dollars	Dollars	Percent	
4663	User Charge Ordinance - Large Commercial/Industrial Users	\$ 255,425	2020	3	\$ 279,100	\$ (1,800)	(0.6)
			2019	3	\$ 280,900		
7394	Transaction Processing	\$ 1,087,263	2020	11	\$ 1,225,800	\$ 51,800	4.4
			2019	11	\$ 1,174,000		
7396	Reporting	\$ 1,748,204	2020	11	\$ 1,952,600	\$ 38,000	2.0
			2019	11	\$ 1,914,600		
7398	Legislative/Executive	\$ 314,916	2020	2	\$ 328,700	\$ 4,900	1.5
			2019	2	\$ 323,800		
7604	Social Security and Medicare Contributions	\$ 41,895	2020	—	\$ 48,200	\$ 1,700	3.7
			2019	—	\$ 46,500		
<b>Totals</b>		<b>\$ 3,447,703</b>	2020	27	\$ 3,834,400	\$ 94,600	2.5%
			2019	27	\$ 3,739,800		

**40000 FINANCE**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated
4660	Waste Monitoring				
4663	User Charge Ordinance - Large Commercial/Industrial Users	Cost	\$ 255,425	\$ 280,900	\$ 279,100
7390	Accounting and Auditing				
7394	Transaction Processing	Transactions	74,000	77,700	77,000
		Cost	\$ 1,087,263	\$ 1,174,000	\$ 1,225,800
		Cost/Transaction	\$ 14.69	\$ 15.11	\$ 15.92
7396	Reporting	Cost	\$ 1,748,204	\$ 1,914,600	\$ 1,952,600
7398	Legislative/Executive	Cost	\$ 314,916	\$ 323,800	\$ 328,700
7604	Social Security and Medicare Contributions	Cost	\$ 41,895	\$ 46,500	\$ 48,200
		Totals	\$ 3,447,703	\$ 3,739,800	\$ 3,834,400

Account Number	Account Name	LINE ITEM ANALYSIS						
		2018	2019			2020		
Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment		
101 40000	Fund: Corporate Department: Finance							
601010	Salaries of Regular Employees	\$ 3,007,972	\$ 3,187,300	\$ 3,187,300	\$ 2,252,000	\$ 3,187,300	\$ 3,238,000	\$ —
601060	Compensation Plan Adjustments	6,429	115,400	115,400	757	7,400	116,400	—
601070	Social Security and Medicare Contributions	41,895	46,500	46,500	32,382	44,300	48,200	—
601100	Tuition and Training Payments	39,653	30,000	30,000	19,201	30,000	30,000	—
100	TOTAL PERSONAL SERVICES	3,095,948	3,379,200	3,379,200	2,304,340	3,269,000	3,432,600	—
612010	Travel	1,933	11,000	7,000	2,579	6,000	8,000	—
612030	Meals and Lodging	7,118	6,100	10,100	5,793	10,000	12,000	—
612040	Postage, Freight, and Delivery Charges	29	500	500	86	200	500	—
612050	Compensation for Personally-Owned Automobiles	—	100	100	73	100	200	—
612090	Reprographic Services	2,260	2,500	2,500	2,340	2,400	2,500	—
612250	Court Reporting Services	44,232	50,000	50,000	50,000	50,000	50,000	—
612340	Discount Lost	1,559	3,000	3,000	1,721	3,000	3,000	—
612430	Payments for Professional Services	279,610	257,800	257,800	252,800	257,800	307,600	—
612490	Contractual Services, N.O.C.	1,095	2,000	2,000	860	2,000	2,000	—
612800	Repairs to Office Furniture and Equipment	4,922	5,000	5,000	—	5,000	5,000	—
200	TOTAL CONTRACTUAL SERVICES	342,757	338,000	338,000	316,252	336,500	390,800	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	8,842	20,600	20,600	8,352	20,600	10,000	—
623720	Books, Maps, and Charts	96	1,500	1,500	230	1,000	500	—
623990	Materials and Supplies, N.O.C.	60	500	500	—	500	500	—
300	TOTAL MATERIALS AND SUPPLIES	8,998	22,600	22,600	8,582	22,100	11,000	—
TOTAL FINANCE		\$ 3,447,703	\$ 3,739,800	\$ 3,739,800	\$ 2,629,174	\$ 3,627,600	\$ 3,834,400	\$ —

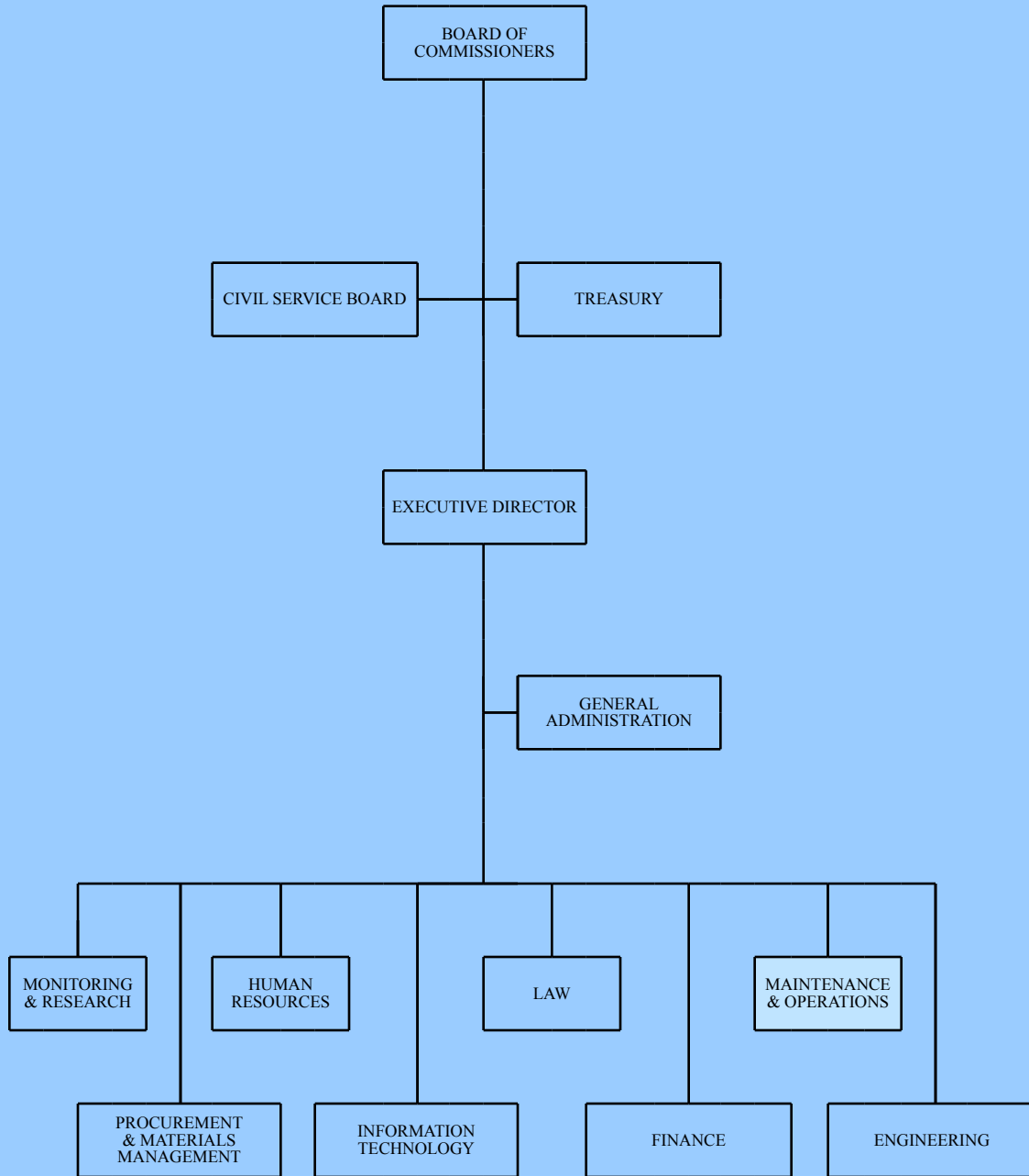
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



Fund: Corporate Dept: Finance		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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	1	1		1	
TOTAL 411	Executive Section	3	3	534,574	3	539,236
<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)	2	2		2	
HP16	Financial Analyst	1	1		1	
HP12	Accounting Associate	1	—		—	
TOTAL 413	Internal Auditing Section	5	4	539,645	4	545,089
TOTAL 410	Executive Division	8	7	1,074,219	7	1,084,326
<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)	1	1		1	
HP16	Financial Analyst	1	1		1	
HP13	Senior Administrative Specialist	1	1		1	
TOTAL 441	Administrative Unit	4	4	519,116	4	529,222
<b>443</b>	<b>Billing Unit</b>					
HP12	Accounting Associate	2	3		3	
TOTAL 443	Billing Unit	2	3	221,880	3	217,866
<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 446	Accounts Payable Unit	3	3	212,839	3	220,868
TOTAL 440	Financial Administration & Disbursements Section	9	10	953,835	10	967,956

Fund: Corporate Dept: Finance		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
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		1	
TOTAL 451	Special Projects Unit	3	3	341,302	3	351,705
<b>452</b>	<b>Payroll Unit</b>					
HP16	Financial Analyst	1	2		2	
HP12	Accounting Associate	1	—		—	
TOTAL 452	Payroll Unit	2	2	230,029	2	246,363
TOTAL 450	Special Projects & Payroll Section	5	5	571,331	5	598,067
<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 463	Accounting Unit	5	5	603,915	5	603,915
TOTAL 460	General Accounting Section	5	5	603,915	5	603,915
TOTAL 420	Accounting Division	19	20	2,129,082	20	2,169,938
TOTAL	Finance	27	27	3,203,301	27	3,254,264

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. Dollar amounts may not add up due to rounding.



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

Subject: 2020 Program for the Maintenance & Operations Department

The Maintenance & Operations Department's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Maintenance & Operations Department budget for 2020.

Respectfully submitted,

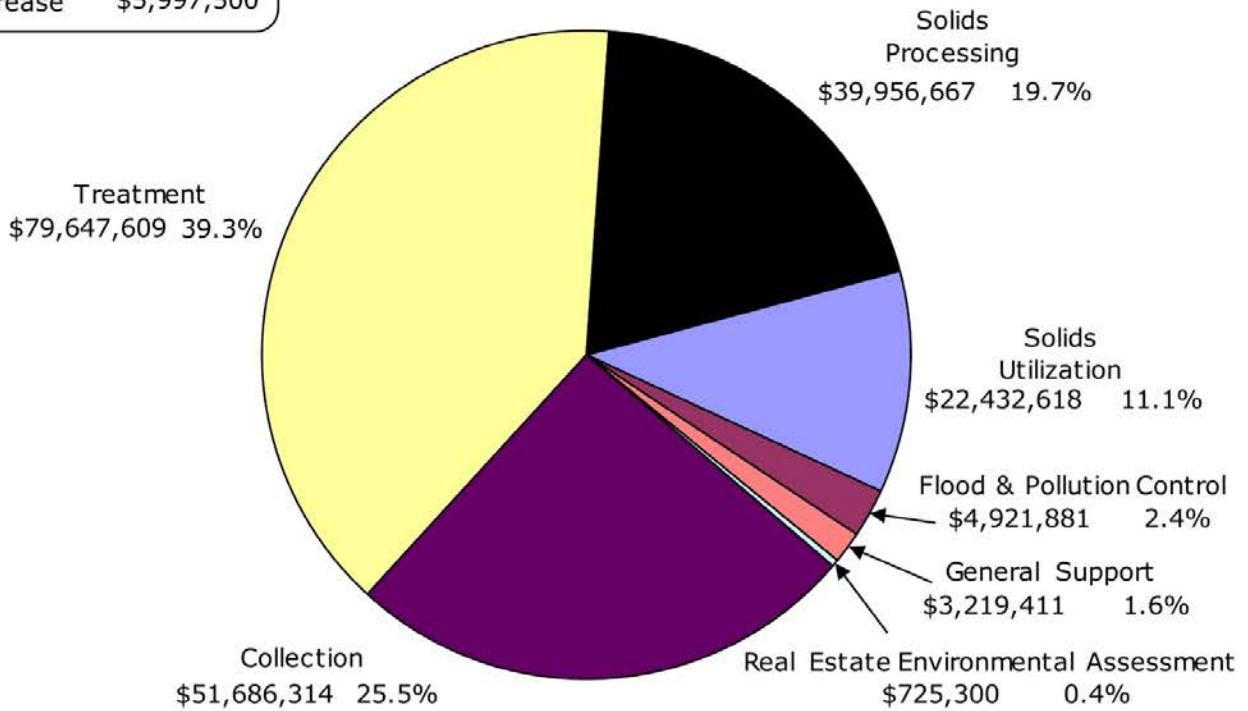


John P. Murray  
Director of Maintenance & Operations

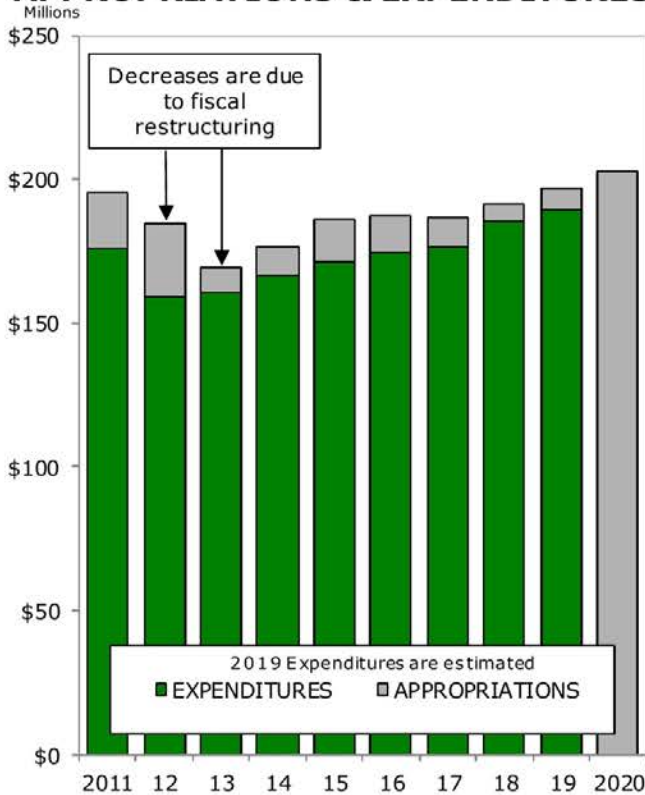
# MAINTENANCE & OPERATIONS – ALL DIVISIONS

2020	\$202,589,800
2019	\$196,592,300
Increase	\$5,997,500

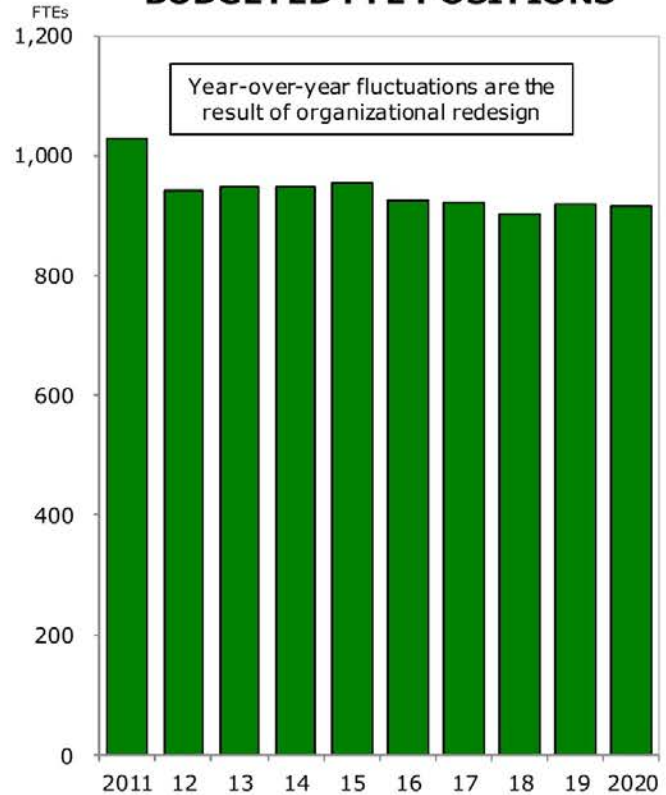
## FUNCTIONS



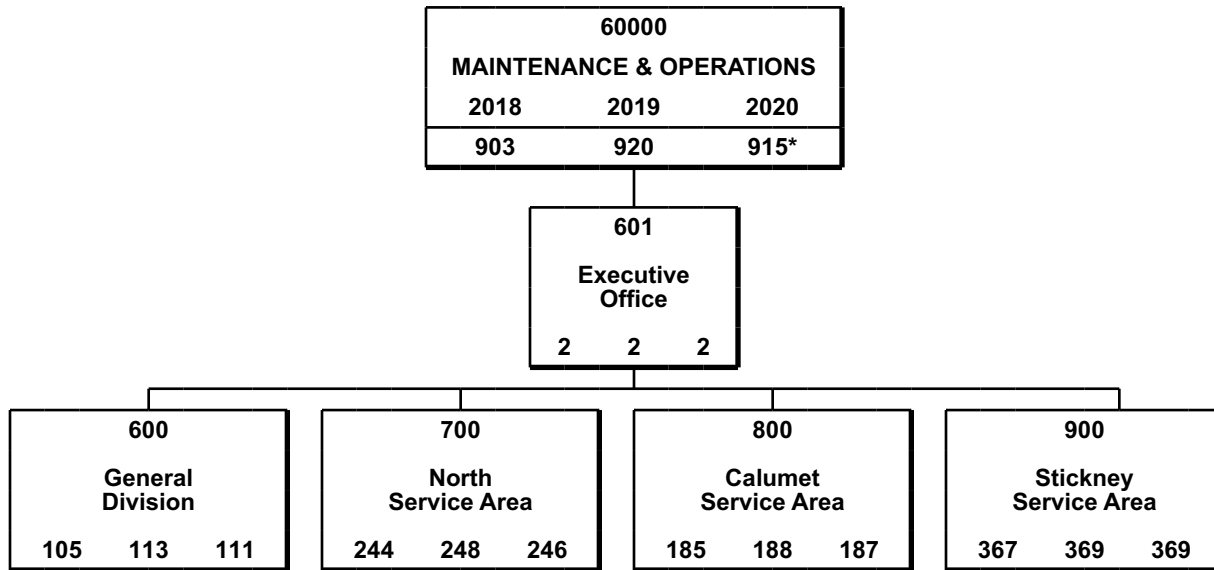
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



## MAINTENANCE & OPERATIONS - ALL DIVISIONS



\* The 2020 position total for the Maintenance & Operations Department is 915. 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, 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, Chicago Area Waterways, collection systems, and nine solids management areas. The department's primary responsibilities include:

- Collecting and treating approximately 496.2 billion gallons of wastewater annually by operating seven water reclamation plants (WRPs), a 560 mile network of intercepting sewers, the Tunnel and Reservoir Plan's 109.4 miles of tunnels, and three reservoirs;
- Improving water quality in area waterways by maintaining and operating five sidestream elevated pool aeration stations and two instream aeration stations;
- Providing flood relief to Cook County by maintaining 532 miles of small streams and rivers and 37 detention reservoirs, of which 34 are dedicated solely to stormwater retention;
- Processing high quality biosolids for beneficial reuse.

### Summary of 2019 Accomplishments

- Established pickup sites at the WRPs for distribution of the District's Class A Exceptional Quality compost to businesses and the public;
- Replaced aging equipment, including one pontoon boat for combined sewage overflow responses and two diesel step van trucks for the Collection System Unit;
- Performed a survey of tide gate locations in the collection systems and added this information to the Geographic Information System in order to digitize the annual Asset Management Plan inspections;
- Utilized 1,700 yards of clean, suitable, structural clay fill from an existing District project site to rebuild the western berm at the Tinley Park Reservoir to its original design elevation;
- Performed an arc flash analysis for the Egan WRP and Lockport Powerhouse as part of a District-wide safety and Occupational Safety and Health Administration compliance program. Because the analyses were conducted in-house by District engineers, cost savings were achieved;
- Implemented an electric vault drain solution for the ultraviolet disinfection building at the O'Brien WRP to prevent water from infiltrating the building basement, and potentially causing severe damage to both the structure and equipment;
- Reduced reliance on electrical energy and natural gas by upgrading to LED lighting at four North Service Area plants and 14 remote sites, installing heating, ventilation, and air conditioning controls at the O'Brien, Kirie, and Egan WRPs, and installing steam blanket insulation at the O'Brien and Egan WRPs;
- Through a collaboration of District trades and Asset Management Section staff, restored three main sewage pumps to an as-new condition at the Calumet WRP's low-level pumping station;
- Completed the installation of two new fine screens and one new grit classifier at the Hanover Park WRP, which will improve efficiency and minimize grit and screenings carryover into the biological process;
- Installed two disc filters at the Hanover Park WRP, increasing tertiary capacity and reducing backwash;
- Replaced seven heating, ventilation, and air conditioning units in the administration building at the O'Brien WRP for increased efficiency and reliability;
- Began installation of shaftless screw conveyors in place of the chain and flight system at the Stickney WRP, which will result in reduced equipment downtime and maintenance costs;
- Achieved full functionality of the ANITA™ Mox system for sidestream deammonification process at the Egan WRP, which treats post-dewatering process centrate, thereby minimizing pumping to the O'Brien WRP for treatment;
- Generated 42,004,233 kilowatt hours of power at the Lockport Powerhouse in 2018, which resulted in revenues of \$1.4 million. The water flowing through the facility is harnessed by two turbines to provide a safe and environmentally hydroelectric energy source that is sold back to Commonwealth Edison. For 2019 and 2020, the projected annual generation is 40,000,000 kilowatt hours of power, with corresponding annual revenues of \$1.2 million.

**Budget Highlights**

The 2020 appropriation for the M&O Corporate Fund is \$202,589,800, an increase of \$5,997,500, or 3.1 percent, from 2019. The Corporate Fund staffing level has decreased from 920 to 915 positions. The decrease is due to the drop of 11 positions, one Administrative Specialist, one Associate Civil Engineer, one Engineering Technician III, one Engineering Technician IV, one Fireman-Oiler, one Maintenance Laborer Class A Shift, two Maintenance Laborer Class B positions, one Master Mechanic I, and two Treatment Plant Operator I positions, offset by the addition of six positions, one Associate Civil Engineer, one Engineer of Treatment Plant Operations I, three Fireman-Oilers, and one Treatment Plant Operator II. Five of the new positions will not be filled until five existing positions, three Fireman-Oilers, one Managing Engineer, and one Treatment Plant Operator II, are vacated. In addition to these changes, four positions were transferred within the department: two Engineering Technician V positions were transferred, one from the Calumet Service Area to the General Division and one from the Stickney Service Area to the Calumet Service Area, one Principal Electrical Engineer was transferred from the Stickney Service Area to the North Service Area, and one Senior Electrical Engineer was transferred from the North Service Area to the Stickney Service Area. An additional 27 positions are funded in the Stormwater Management Fund. The total 2020 position count is 942, compared to the total 2019 position count of 947.

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 2020, M&O will continue to advance the SBP, its six goals, and accompanying strategies.

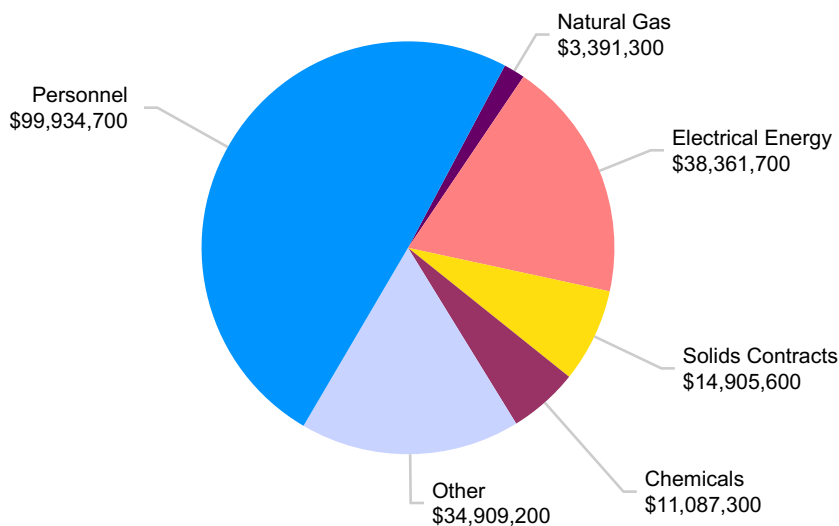
**2020 Programs and Activities in Support of the Strategic Business Plan Include the Following:**

- **Add Value**

The District is committed to making the best use of its resources. In 2020, M&O will use in-house trades and the specialized services of an outside contractor to rehabilitate the dewatering centrifuges at the Stickney WRP. The right balance of resources, in this case a combination of insourcing and outsourcing, improves efficiency and effectiveness.

Leveraging existing resources, like a highly skilled workforce, creates value for the organization. As an example, M&O staff are providing support to the Engineering Department during the construction phase of the project to replace the switchgear and motor control centers at the O’Brien WRP. The new equipment will provide a reliable source of power, which will minimize outages and equipment downtime.

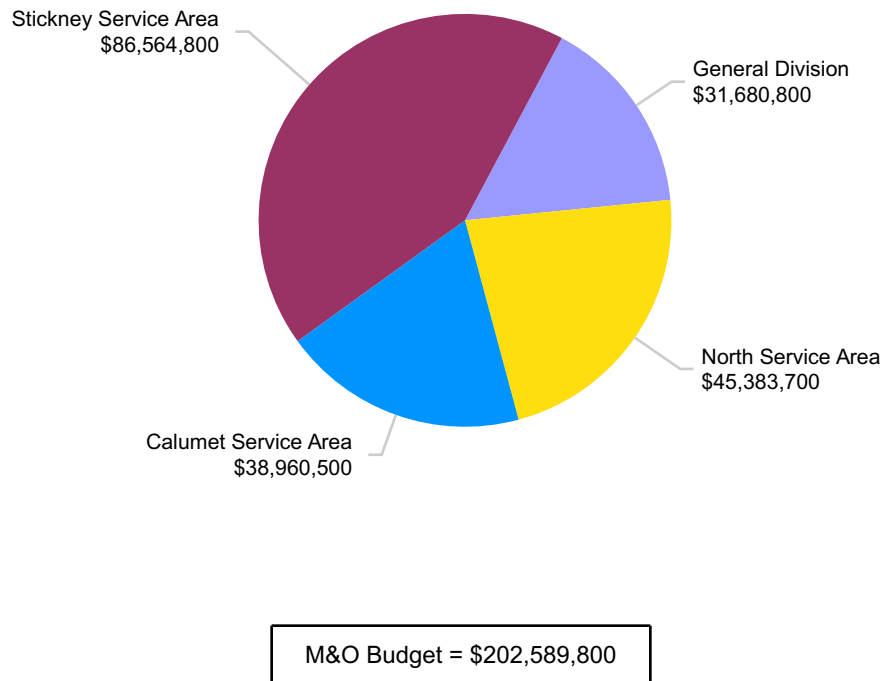
**2020 Appropriations by Major Line Item**



M&O Budget = \$202,589,800



### 2020 Appropriations by Service Area



• **Excellence**

Despite the challenges of operating seven WRPs around the clock, the District is routinely honored for its exceptional performance. In recognition of decades of complete and consistent compliance of National Pollutant Discharge Elimination System permits, the National Association for Clean Water Agencies recently honored the District with Platinum Peak Performance awards at six of its WRPs, a distinction given to WRPs that have achieved 100.00 percent permit compliance for five consecutive years. The following facilities have earned Platinum status: the Calumet WRP for 27 years, the Lemont WRP for 22 years, the Kirie WRP for 14 years, the O’Brien WRP for 13 years, the Hanover Park WRP for 11 years, and the Egan WRP for five years. The Stickney WRP earned a silver award for meeting 99.83 percent permit compliance. For 2018, the District achieved an overall compliance rate of 99.98 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 states that excellence is achieved by maintaining and upgrading critical infrastructure, which is the core of what M&O does. In 2020, the work will be performed with a continued focus on safety. Infrared viewing ports for switchgears will be installed, which will allow the thermal scanning of energized electrical equipment inside the gears to be carried out with no danger to personnel. Thermal scanning enables the early detection of potential problems or failures, which reduces the risk of costly outages. Hazardous gas detection systems will also be replaced department-wide due to the age and unavailability of repair parts for the current systems. The new systems will have the ability to detect respiratory inhibiting gases, such as hydrogen sulfide and carbon monoxide, and explosive gases, such as methane, and oxygen-rich or deficient conditions.

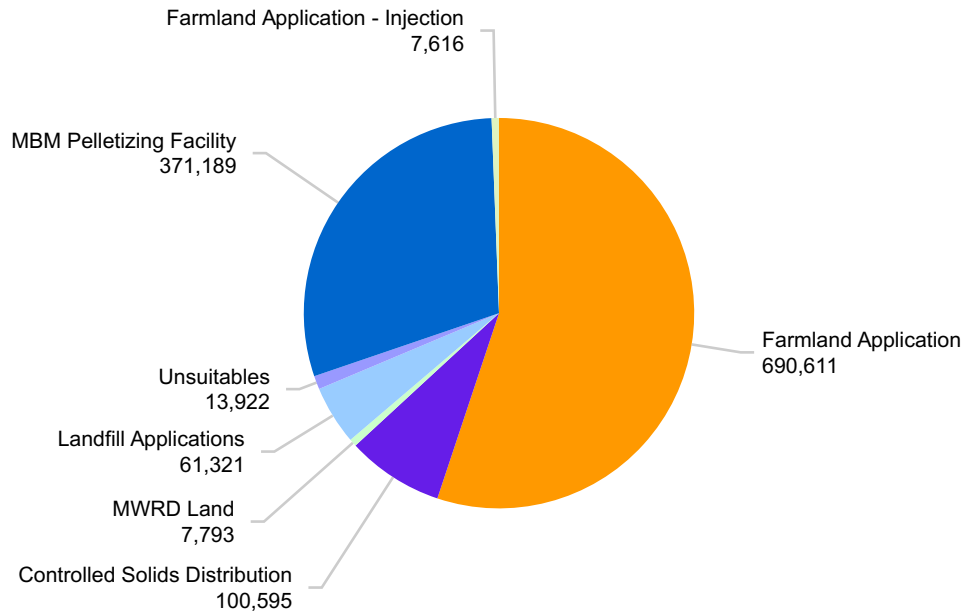
Excellence is achieved through smart workgroup design and effective workgroup collaboration. The Asset Management Section’s Power Group, for example, is responsible for implementing District-wide energy efficiency projects that incorporate best practices for energy usage, supply, and safety. On May 13, 2019, the Stickney WRP experienced a total power outage. During the outage, engineers from the Power Group worked closely with electrical operators, trades staff, and managers to restore power to the plant within two hours of the outage. This outreach and collaboration will continue in 2020 as the Power Group continues to implement a District-wide safety and Occupational Safety and Health Administration compliance program to perform arc flash analysis at all of the WRPs and pumping stations. Other projects planned for 2020 include the replacement of uninterruptable power supply systems, the acquisition of spare circuit breakers to improve power distribution system maintenance and reduce the response time for unplanned power outages, and the installation of protective relays at the Lockport Powerhouse to improve the reliability of the switchgear, and by extension, the valuable electrical energy generating assets located there.

• **Recover Resources**

Three of the major pillars of the Resource Recovery Program are biosolids, phosphorus, and energy. M&O is pursuing programs and activities in all of these areas.

Biosolids are produced to be beneficially reused as a safe and environmentally friendly alternative to commercial fertilizer. The chart below illustrates how biosolids have been beneficially reused over the years.

**Recover Resources: Biosolids Reuse (in Dry Tons)  
2009 - 2018**



**Total: 1,253,047 Dry Tons**

The District has made progress in developing a biosolids market through several initiatives including the distribution of bags of compost at different venues, attendance at trade and landscaping events to showcase the Exceptional Quality 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.

Free bulk distribution is offered to area residents, non-profit organizations, golf courses, and public entities at the District’s seven WRPs. By encouraging bulk compost users to pick up material from the District’s compost generation sites, the cost to transport biosolids are reduced. Also in 2020, a Request for Proposal will be issued for marketing biosolids and developing both short- and long-term outlets for all classes of biosolids produced by the District. All of these programs, actions, and initiatives are designed to cultivate a local customer base, improve product performance, and advance the goal to Recover Resources.

The District is operating in an increasingly strict regulatory environment. For instance, Illinois Environmental Protection Agency regulations limiting phosphorus contained in treated effluent to 1.0 mg/L monthly average will become effective for the three largest plants by 2027, beginning with the Stickney WRP in 2021. In response, a phosphorus management strategy was adopted at the Stickney WRP in 2016, with the launch of an innovative technology developed in partnership with Ostara Nutrient Recovery Inc. (Ostara). The Ostara Pearl® Process addresses both the positive and negative aspects of phosphorus. The biological process recovers the phosphorus in a slow-release fertilizer, thereby reducing the discharge of harmful phosphate-containing materials into the water. The process 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. Currently, 3.5 tons of pellets per day are being produced. As with any process, especially one of this magnitude, the assumptions and estimates are continually evaluated for improved performance.

This nutrient recovery facility, the largest of its kind, is an example of how progressive technology can be implemented to transform a WRP into a resource recovery center, providing significant environmental benefits to the Chicago Area Waterway System. Moreover, it serves as an example of the District's commitment to evaluating projects along multiple dimensions: financial, societal, and environmental.

The SBP's Recover Resources goal emphasizes the importance of reducing operational costs, like electrical energy, to create a strong financial base. M&O is doing that on several fronts. When considering the electrical energy required to run a WRP, 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, which requests participants to reduce electrical energy usage voluntarily when the region's electrical energy grid is on the verge of an outage due to high usage. Since joining the curtailment program in 1997, the District has received approximately \$15.1 million in total revenue for reducing electrical energy usage at designated times.

- **Develop Employees**

A strong training program is 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 2020, 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.

Some of the best training results from on-the-job situations. For instance, a recent coarse screen repair at the Lemont WRP provided an important training opportunity. In order to perform the repair, staff needed to access a confined workspace. Prior to entry, careful preparations were made, which included the installation of two sewer plugs (one to serve as a backup) to isolate the equipment and halt the flow of sewage. After the work was completed, a rupture was found in the first plug which could have led to injuries had the backup plug not been installed. Following the incident, the Master Mechanic at the Calumet WRP organized a two-day training event aimed at preventing future ruptures. The training, which was attended by staff from all divisions of M&O, provided hands-on experience working with the specialized equipment in a realistic working environment with an expert from the manufacturer on-site to answer questions and demonstrate the equipment's proper use. There is no doubt that the training, with its applicability to actual workplace situations, provided valuable employee development.

- **Leading Partnerships**

In 2018, the District resumed its membership in the DuPage River Salt Creek Workgroup (DRSCW), which is a non-profit organization 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 Branches of the DuPage River Watersheds. The District's membership in the DRSCW proved advantageous when the National Pollutant Discharge Elimination System permits for the Hanover Park and Egan WRPs were reviewed for renewal. As a member of the DRSCW, the permit holder is required to work with other watershed members to determine the most cost effective means of removing dissolved oxygen and condition impairments in the DuPage and Salt Creek watersheds. This stipulation provides environmental benefits to the community, since the watershed projects are given priority over other construction projects. It also provides financial benefits to the District, since the phosphorus limit requirements for the Egan and Hanover Park WRPs will not take effect for at least 10 years while the DRSCW projects are being implemented.

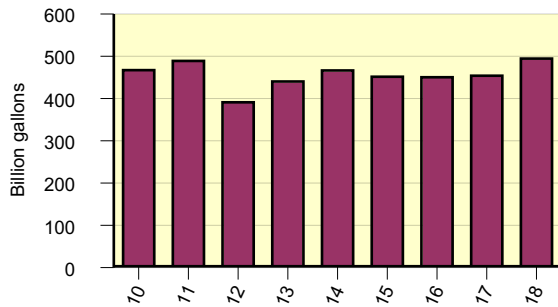
**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

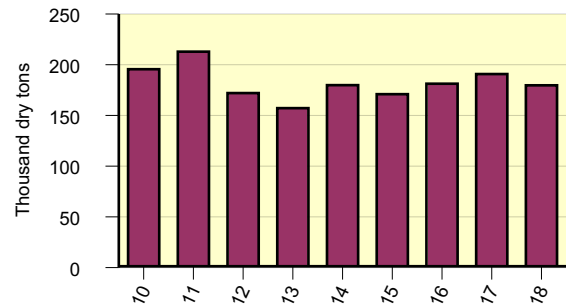
OBJECTIVES BY PRIORITY:

	Cost	Percent
1. <b>COLLECTION &amp; TREATMENT:</b> The M&O Department will collect and treat approximately 496.2 billion gallons of wastewater through its seven treatment facilities and through a contract agreement with the Fox River Water Reclamation District.	\$ 131,333,923	64.8%
2. <b>SOLIDS PROCESSING:</b> The M&O Department will remove and process approximately 188,300 dry tons of concentrated sewage through various systems, including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.	\$ 39,956,667	19.7%
3. <b>SOLIDS UTILIZATION:</b> The M&O Department will utilize approximately 100,000 dry tons of biosolids for application at final utilization sites, such as farm applications and daily and final cover at sanitary landfills.	\$ 22,432,618	11.1%
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.	\$ 4,921,881	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.	\$ 3,219,411	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.	\$ 725,300	0.4%
<b>Totals</b>	<b>\$ 202,589,800</b>	<b>100.0%</b>

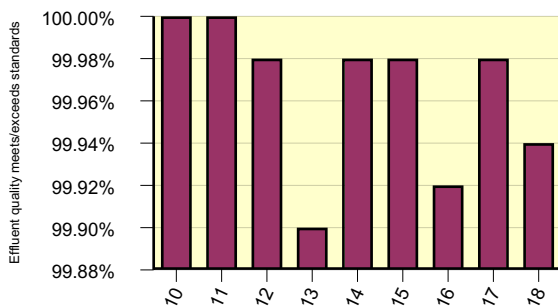
**Collection & Treatment**



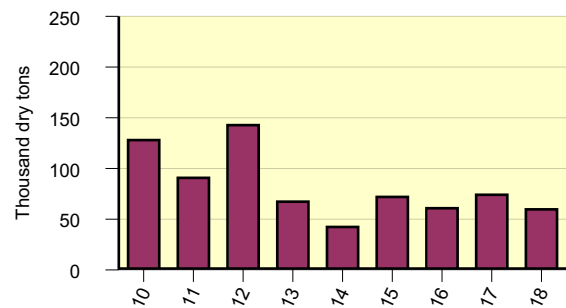
**Solids Processing**



**NPDES Permit Compliance**



**Solids Utilization**



**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$ 49,817,139	2020	247 \$ 51,686,314	\$ (672,961)	(1.3)
			2019	246 \$ 52,359,275		
1100	Surface Interceptor Systems	\$ 4,214,231	2020	27 \$ 3,758,700	\$ (43,400)	(1.1)
			2019	27 \$ 3,802,100		
1200	Tunnel and Reservoir System	\$ 12,142,954	2020	43 \$ 11,754,600	\$ (2,198,700)	(15.8)
			2019	43 \$ 13,953,300		
1300	Pumping Station Facilities	\$ 15,290,248	2020	76 \$ 16,613,200	\$ 1,347,800	8.8
			2019	74 \$ 15,265,400		
1900	Collection - Indirect Costs	\$ 18,169,706	2020	101 \$ 19,559,814	\$ 221,339	1.1
			2019	102 \$ 19,338,475		
2000	Treatment	\$ 69,887,989	2020	382 \$ 78,274,409	\$ 5,937,693	8.2
			2019	384 \$ 72,336,716		
2000	Pre-Treatment	\$ 3,458,974	2020	29 \$ 3,467,400	\$ 13,900	0.4
			2019	29 \$ 3,453,500		
2100	Primary Treatment	\$ 3,318,328	2020	37 \$ 3,564,900	\$ 60,800	1.7
			2019	37 \$ 3,504,100		
2200	Secondary Treatment	\$ 23,682,011	2020	95 \$ 23,842,300	\$ 2,627,700	12.4
			2019	95 \$ 21,214,600		
2300	Tertiary Treatment	\$ 3,319,812	2020	17 \$ 3,787,800	\$ (307,200)	(7.5)
			2019	17 \$ 4,095,000		
2900	Treatment - Indirect Costs	\$ 36,108,864	2020	204 \$ 43,612,009	\$ 3,542,493	8.8
			2019	206 \$ 40,069,516		
3000	Solids Processing	\$ 35,752,746	2020	203 \$ 39,956,667	\$ 309,922	0.8
			2019	204 \$ 39,646,745		
3100	Thickening	\$ 5,853,685	2020	39 \$ 6,855,800	\$ 435,000	6.8
			2019	39 \$ 6,420,800		
3200	Stabilization	\$ 6,215,160	2020	43 \$ 6,459,300	\$ 293,500	4.8
			2019	43 \$ 6,165,800		
3300	Dewatering	\$ 11,239,509	2020	42 \$ 12,655,500	\$ (871,200)	(6.4)
			2019	42 \$ 13,526,700		
3900	Solids Processing - Indirect Costs	\$ 12,444,392	2020	79 \$ 13,986,067	\$ 452,622	3.3
			2019	80 \$ 13,533,445		

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

**60000 M&O - ALL DIVISIONS**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
4000	Flood & Pollution Control	\$ 4,526,491	2020 22	\$ 4,921,881	\$ 85,098	1.8
			2019 23	\$ 4,836,783		
4200	Waterways Control and Stormwater Reservoirs	\$ 2,581,181	2020 18	\$ 2,396,300	\$ 65,800	2.8
			2019 18	\$ 2,330,500		
4210	Maintenance of Waterways	\$ 140,030	2020 —	\$ 228,400	\$ (87,000)	(27.6)
			2019 —	\$ 315,400		
4300	Stormwater Management	\$ 31,851	2020 —	\$ 31,500	\$ (400)	(1.3)
			2019 —	\$ 31,900		
4400	Aeration Facilities	\$ 1,008,540	2020 2	\$ 1,094,500	\$ 42,800	4.1
			2019 2	\$ 1,051,700		
4900	Flood & Pollution Control - Indirect Costs	\$ 764,889	2020 2	\$ 1,171,181	\$ 63,898	5.8
			2019 3	\$ 1,107,283		
5000	Solids Utilization	\$ 20,512,439	2020 39	\$ 22,432,618	\$ 196,301	0.9
			2019 42	\$ 22,236,317		
5100	Solids Drying	\$ 5,754,255	2020 10	\$ 5,853,200	\$ (416,100)	(6.6)
			2019 10	\$ 6,269,300		
5200	Solids Distribution	\$ 10,082,443	2020 7	\$ 11,052,900	\$ 203,500	1.9
			2019 8	\$ 10,849,400		
5900	Solids Utilization - Indirect Costs	\$ 4,675,741	2020 22	\$ 5,526,518	\$ 408,901	8.0
			2019 24	\$ 5,117,617		
7000	General Support (excluding program numbers 7368 & 7604)	\$ 3,015,736	2020 20	\$ 3,219,411	\$ 117,447	3.8
			2019 19	\$ 3,101,964		
7368	Real Estate Environmental Assessment	\$ 607,035	2020 2	\$ 725,300	\$ 15,700	2.2
			2019 2	\$ 709,600		
7604	Social Security and Medicare Contributions	\$ 1,281,564	2020 —	\$ 1,373,200	\$ 8,300	0.6
			2019 —	\$ 1,364,900		
Totals		\$ 185,401,139	2020 915	\$ 202,589,800	\$ 5,997,500	3.1% *
			2019 920	\$ 196,592,300		

\* The 2020 position total for the M&O Department is 942, 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		2018 Actual	2019 Budgeted	2020 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	497,586	492,550	496,150
		Cost	\$ 119,705,128	\$ 124,695,991	\$ 129,960,723
		Cost/Mil. Gallons	\$ 240.57	\$ 253.16	\$ 261.94
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	181,000	182,600	188,300
		Cost	\$ 35,752,746	\$ 39,646,745	\$ 39,956,667
		Cost/Dry Ton	\$ 197.53	\$ 217.12	\$ 212.20
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	\$ 935,194	\$ 894,800	\$ 923,000
	Generate Electrical Energy at Lockport Powerhouse to Obtain Approximately \$1.2 million in Revenue	kWh	42,004,233	40,000,000	40,000,000
		Cost	\$ 509,416	\$ 501,800	\$ 556,200
		Cost/kWh	\$ 0.0121	\$ 0.0125	\$ 0.0139
		* Revenue Generated	\$ 1,386,344	\$ 1,200,000	\$ 1,200,000
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year Diversion	37,443	60,152	60,152
		Cost	\$ 404,854	\$ 408,200	\$ 409,500
		Cost/Mil. Gal./Year	\$ 10.81	\$ 6.79	\$ 6.81
	Operation of Detention Reservoirs	Reservoirs	37	37	37
		Cost	\$ 597,700	\$ 525,700	\$ 507,600
		Cost/Reservoir	\$ 16,154.05	\$ 14,208.11	\$ 13,718.92
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	\$ 274,047	\$ 315,400	\$ 228,400
4300	Stormwater Management	Cost	\$ 31,851	\$ 31,900	\$ 31,500
4400	Aeration Facilities	Cost	\$ 1,008,540	\$ 1,051,700	\$ 1,094,500
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 764,889	\$ 1,107,283	\$ 1,171,181
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	60,997	99,800	100,000
		Cost	\$ 15,995,121	\$ 17,507,417	\$ 17,619,918
		Cost/Dry Ton	\$ 262.23	\$ 175.43	\$ 176.20
5271	Pelletizer Disposal	Dry Tons	39,336	40,000	40,000
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ 4,517,318	\$ 4,728,900	\$ 4,812,700
		Cost/Dry Ton	\$ 114.84	\$ 118.22	\$ 120.32
7000	General Support (excluding program numbers 7368 & 7604)				
	Technical and Administrative Support for Other Departments' Activities Indirectly Related to the Operational Activities of Collection & Treatment, Solids Processing, Flood & Pollution Control, and Solids Utilization	Cost	\$ 3,015,736	\$ 3,101,964	\$ 3,219,411
7368	Real Estate Environmental Assessment	Cost	\$ 607,035	\$ 709,600	\$ 725,300
7604	Social Security and Medicare Contributions	Cost	\$ 1,281,564	\$ 1,364,900	\$ 1,373,200
	Departmental Totals		\$ 185,401,139	\$ 196,592,300	\$ 202,589,800

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

\* Revenue generated not included in total costs.

Account Number	Account Name	LINE ITEM ANALYSIS						
		2018		2019			2020	
		Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions							
601010	Salaries of Regular Employees	\$ 87,034,782	\$ 92,220,500	\$ 91,299,500	\$ 62,736,284	\$ 88,911,000	\$ 92,699,300	\$ —
601060	Compensation Plan Adjustments	4,947,006	4,844,100	5,689,100	4,393,322	4,956,300	5,856,900	—
601070	Social Security and Medicare Contributions	1,281,564	1,364,900	1,364,900	970,330	1,333,600	1,373,200	—
601080	Salaries of Nonbudgeted Employees	—	5,300	81,300	18,840	82,800	5,300	—
601100	Tuition and Training Payments	153,736	201,900	201,900	86,609	182,300	209,800	—
100	TOTAL PERSONAL SERVICES	93,417,088	98,636,700	98,636,700	68,205,384	95,466,000	100,144,500	—
612010	Travel	18,395	29,300	29,300	8,302	19,600	25,900	—
612030	Meals and Lodging	69,350	62,300	62,300	42,126	49,400	67,400	—
612040	Postage, Freight, and Delivery Charges	—	—	—	—	—	200	—
612050	Compensation for Personally-Owned Automobiles	106,926	108,500	108,500	90,417	101,900	116,100	—
612080	Motor Vehicle Operating Services	467	1,700	1,700	350	1,000	1,400	—
612150	Electrical Energy	38,788,739	36,445,200	36,445,200	24,507,043	39,138,100	38,361,700	—
612160	Natural Gas	3,104,468	2,945,300	2,945,300	1,823,195	2,856,800	3,391,300	—
612170	Water and Water Services	2,035,379	2,109,700	2,109,700	1,459,263	1,976,500	2,184,300	—
612210	Communication Services	926,178	—	3,000	2,917	—	3,000	—
612240	Testing and Inspection Services	189,320	166,700	163,700	137,260	119,900	190,500	—
612330	Rental Charges	150,080	161,500	161,500	150,128	145,500	172,000	—
612410	Governmental Service Charges	3,763,003	3,650,100	3,650,100	2,954,081	3,647,200	3,904,200	—
612420	Maintenance of Grounds and Pavements	809,111	1,430,900	630,100	543,675	611,100	1,432,900	—
612430	Payments for Professional Services	492,689	489,500	173,000	172,307	171,900	602,500	—
612490	Contractual Services, N.O.C.	366,552	645,100	579,000	556,212	500,600	573,500	—
612520	Waste Material Disposal Charges	9,664,769	10,823,400	11,454,100	11,433,872	9,831,300	10,745,600	—
612530	Farming Services	20,000	24,000	18,200	18,200	18,200	60,000	—
612590	Sludge Disposal	3,785,843	4,100,000	4,100,000	4,100,000	3,700,000	4,100,000	—
612600	Repairs to Collection Facilities	2,974,998	3,486,100	3,783,900	3,763,343	3,653,700	3,380,500	—
612620	Repairs to Waterway Facilities	39,634	47,900	41,900	41,760	41,800	72,400	—
612650	Repairs to Process Facilities	5,330,334	5,982,800	6,402,800	6,363,984	5,819,300	9,946,100	—
612670	Repairs to Railroads	312,917	266,900	417,600	302,749	216,000	396,700	—
612680	Repairs to Buildings	729,490	1,015,000	1,009,900	1,001,180	855,300	1,291,700	—
612760	Repairs to Material Handling and Farming Equipment	328,799	315,900	315,900	296,422	293,400	310,200	—
612780	Safety Repairs and Services	211,044	334,500	334,500	333,545	276,600	336,600	—
612790	Repairs to Marine Equipment	66,537	65,000	65,000	65,000	62,400	66,500	—



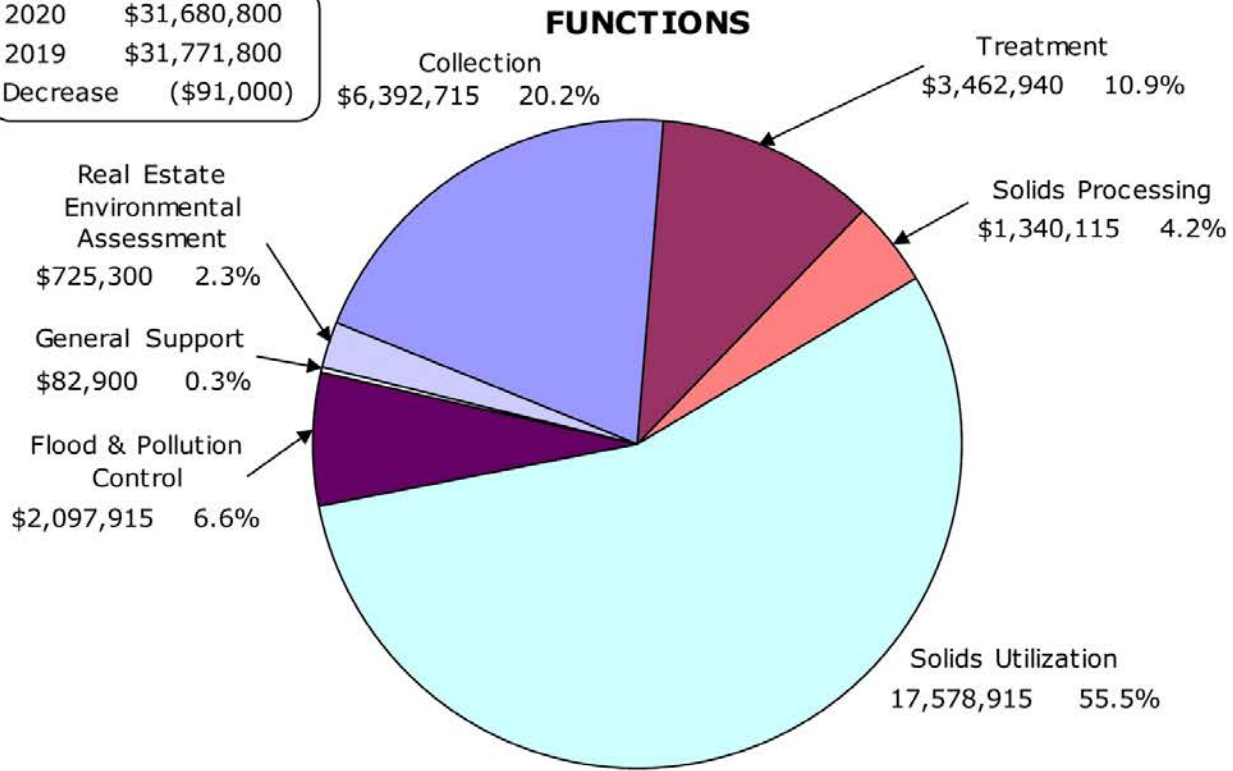
Account Number	Account Name	LINE ITEM ANALYSIS						
		2018		2019			2020	
		Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
101 60000	Fund: Corporate Department: Maintenance & Operations Division: All Divisions							
612820	Computer Software Maintenance	9,177	7,500	8,400	8,396	8,400	9,000	—
612840	Communications Equipment Maintenance (Includes Software)	3,120	—	—	—	—	—	—
612860	Repairs to Vehicle Equipment	153,862	140,600	153,200	153,079	130,300	143,600	—
612990	Repairs, N.O.C.	4,493	28,000	28,000	20,036	23,400	27,500	—
200	TOTAL CONTRACTUAL SERVICES	74,455,674	74,883,400	75,195,800	60,348,841	74,269,600	81,913,300	—
623030	Metals	29,070	30,500	36,500	34,029	30,800	30,500	—
623070	Electrical Parts and Supplies	2,466,886	2,694,700	2,844,700	2,662,269	2,659,700	2,561,000	—
623090	Plumbing Accessories and Supplies	654,608	827,800	796,000	686,370	732,300	769,100	—
623110	Hardware	7,266	8,300	8,300	6,786	7,400	10,900	—
623130	Buildings, Grounds, Paving Materials, and Supplies	112,526	145,900	149,900	136,462	131,100	147,800	—
623170	Fiber, Paper, and Insulation Materials	4,641	11,100	11,100	11,016	9,500	13,500	—
623190	Paints, Solvents, and Related Materials	6,424	13,000	13,000	12,664	6,100	6,400	—
623250	Vehicle Parts and Supplies	153,199	168,000	186,800	185,548	152,600	168,000	—
623270	Mechanical Repair Parts	3,388,322	3,611,600	3,870,400	3,496,975	3,323,100	3,874,500	—
623300	Manhole Materials	6,045	25,000	25,000	23,743	23,000	5,000	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	44,364	38,800	41,900	38,822	36,400	45,300	—
623530	Farming Supplies	3,400	4,000	4,000	2,966	3,500	4,000	—
623560	Processing Chemicals	9,573,111	12,445,500	11,627,100	11,377,817	9,937,700	11,087,300	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	20,370	28,600	28,600	26,114	28,000	30,900	—
623660	Cleaning Supplies	3,184	2,200	2,200	1,782	1,800	2,200	—
623680	Tools and Supplies	219,831	247,600	257,600	246,457	235,400	225,200	—
623700	Wearing Apparel	536	4,100	4,100	245	3,600	4,100	—
623780	Safety and Medical Supplies	55,056	41,700	41,700	32,645	34,800	43,700	—
623800	Computer Software	19,239	39,100	39,100	34,348	33,400	66,000	—
623810	Computer Supplies	34,967	170,000	117,000	110,708	112,800	36,600	—
623820	Fuel	312,534	332,200	332,200	330,973	274,400	327,900	—
623840	Gases	58	600	600	600	500	600	—
623850	Communications Supplies	4,900	15,000	15,000	14,782	14,800	15,000	—
623860	Lubricants	7,322	7,700	9,300	8,208	7,100	8,200	—
623990	Materials and Supplies, N.O.C.	158,815	117,500	113,000	92,488	78,200	91,300	—
300	TOTAL MATERIALS AND SUPPLIES	17,286,672	21,030,500	20,575,100	19,574,818	17,878,000	19,575,000	—

101 Fund: Corporate 60000 Department: Maintenance & Operations Division: All Divisions		LINE ITEM ANALYSIS						
		2018	2019				2020	
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
634600	Equipment for Collection Facilities	44,118	60,000	51,700	50,476	50,500	40,000	—
634650	Equipment for Process Facilities	155,870	176,700	285,400	279,533	168,500	274,000	—
634670	Railroad Equipment	—	—	20,800	20,779	20,800		
634760	Material Handling and Farming Equipment	—	350,000	319,000	292,990	293,000	44,500	—
634790	Marine Equipment	—	80,000	80,000	78,500	78,500	—	—
634810	Computer Equipment	—	140,000	138,100	138,066	138,100	—	—
634860	Vehicle Equipment	—	1,199,000	1,192,000	1,191,759	1,191,300	511,000	—
634970	Testing and Laboratory Equipment	30,493	—	—	—	—	—	—
634990	Machinery and Equipment, N.O.C.	11,225	36,000	44,700	44,219	38,600	87,500	—
400	TOTAL MACHINERY AND EQUIPMENT	241,706	2,041,700	2,131,700	2,096,322	1,979,300	957,000	—
TOTAL MAINTENANCE & OPERATIONS		\$185,401,140	\$ 196,592,300	\$ 196,539,300	\$ 150,225,365	\$189,592,900	\$202,589,800	\$ —

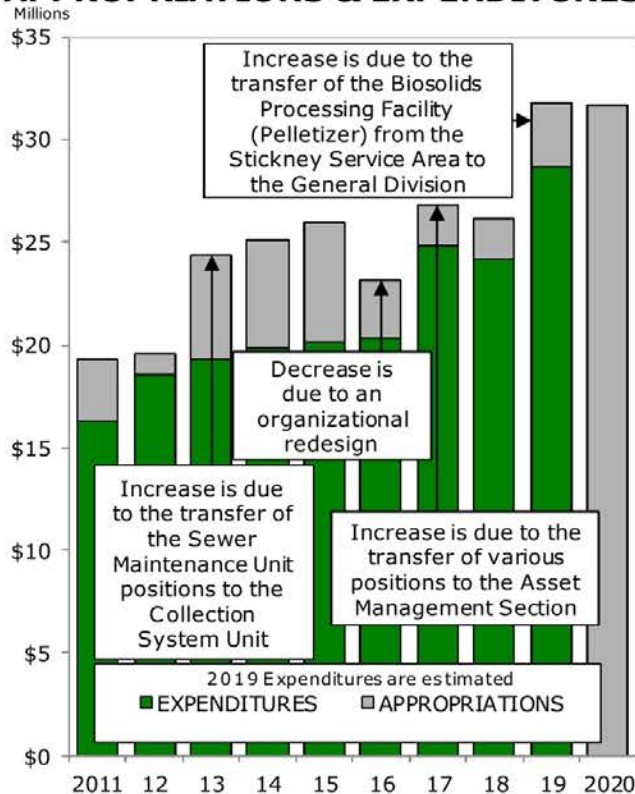
NOTES: 1. Amounts may not add up due to rounding.  
 2. Departmental appropriation totals for salaries in the Line Item Analysis may differ from those contained in the Position Analysis by a factor identified to adjust for vacancies.  
 Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.  
 3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

# MAINTENANCE & OPERATIONS – GENERAL DIVISION

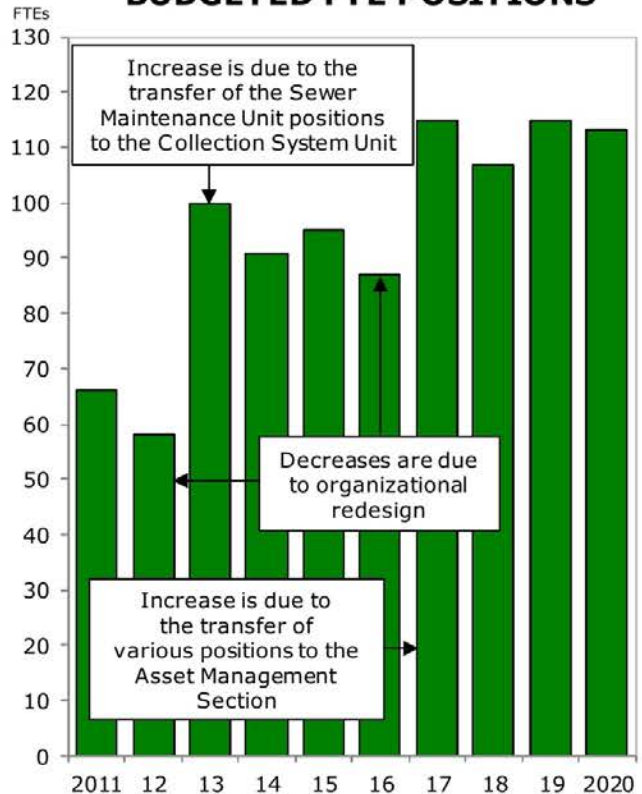
2020	\$31,680,800
2019	\$31,771,800
Decrease	(\$91,000)



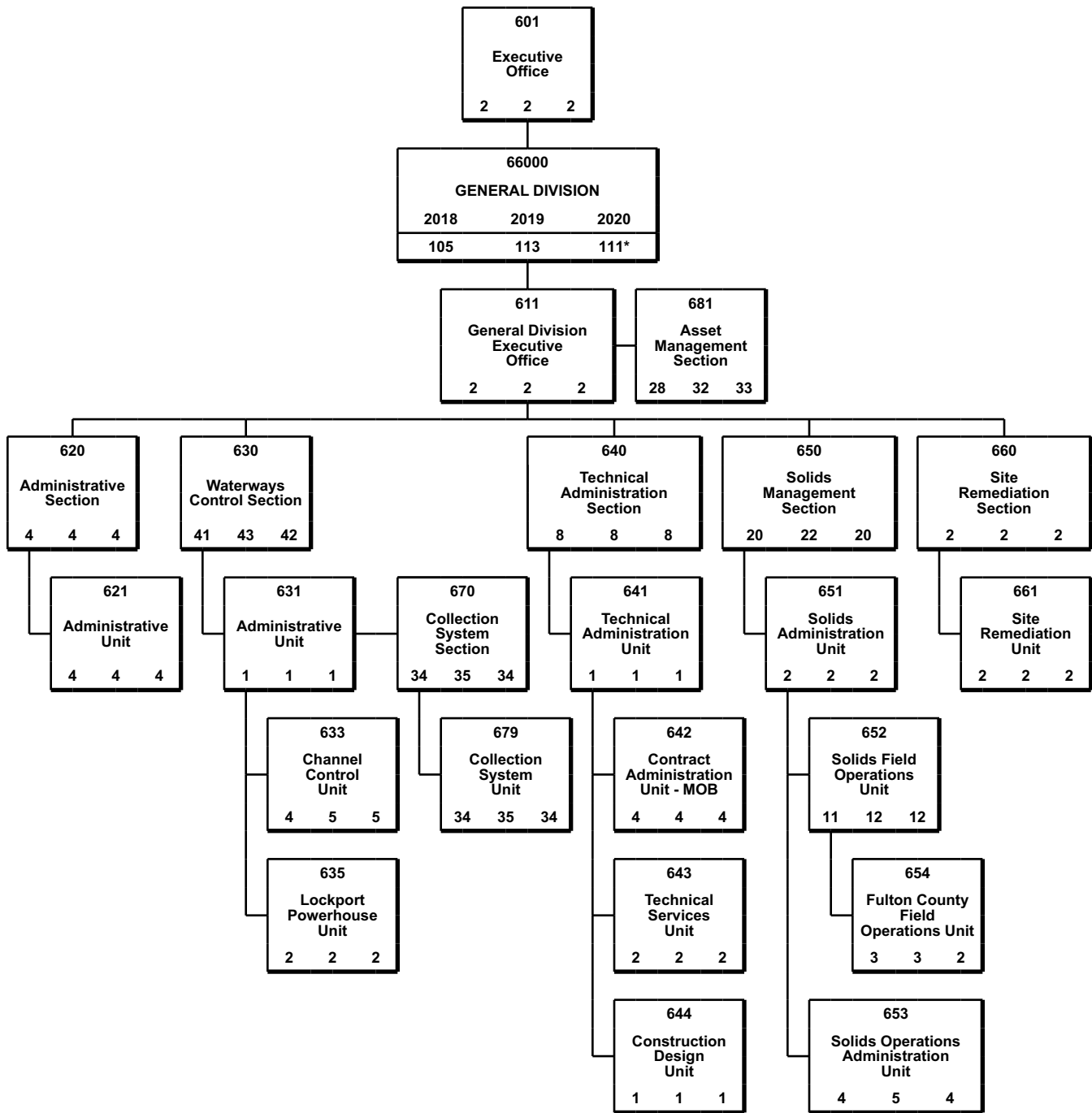
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS - GENERAL DIVISION



\* In 2020, 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.	\$ 9,855,655	31.1%
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.	\$ 1,340,115	4.2%
3. <b>SOLIDS UTILIZATION:</b> The General Division provides management and coordination of biosolids processing and utilization of District-wide activities.	\$ 17,578,915	55.5%
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.	\$ 2,097,915	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.	\$ 82,900	0.3%
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.	\$ 725,300	2.3%
<b>Totals</b>	<b>\$ 31,680,800</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2018 Actual	2019 Estimated	2020 Proposed
1. The operation of the Lockport Powerhouse will generate the equivalent of \$1.2 million worth of electrical energy revenue in 2020.	kWh Generated	42,004,233	40,000,000	40,000,000
	<i>* Revenue Generated</i>	<i>\$ 1,386,344</i>	<i>\$ 1,200,000</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	37,443	60,152	60,152
3. The Solids Management Section will oversee the utilization of 99,000 dry tons of biosolids in 2020. (North Service Area's 1,000 dry tons of solids remain in that division.)	Dry Tons	60,004	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:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$ 5,547,725	2020	44 \$ 6,392,715	\$ (120,720)	(1.9)
			2019	44 \$ 6,513,435		
1100	Surface Interceptor Systems	\$ 2,788,246	2020	20 \$ 2,727,100	\$ (91,900)	(3.3)
			2019	20 \$ 2,819,000		
1200	Tunnel and Reservoir System	\$ 742,119	2020	7 \$ 1,002,400	\$ 11,800	1.2
			2019	7 \$ 990,600		
1300	Pumping Station Facilities	\$ 640,499	2020	6 \$ 704,500	\$ 6,600	0.9
			2019	6 \$ 697,900		
1900	Collection - Indirect Costs	\$ 1,376,861	2020	11 \$ 1,958,715	\$ (47,220)	(2.4)
			2019	11 \$ 2,005,935		
2000	Treatment	\$ 2,586,738	2020	23 \$ 3,272,040	\$ 61,280	1.9
			2019	23 \$ 3,210,760		
2000	Pre-Treatment	\$ 108,825	2020	1 \$ 117,700	\$ (20,500)	(14.8)
			2019	1 \$ 138,200		
2100	Primary Treatment	\$ 135,478	2020	2 \$ 165,800	\$ (4,800)	(2.8)
			2019	2 \$ 170,600		
2200	Secondary Treatment	\$ 327,026	2020	3 \$ 390,400	\$ (19,000)	(4.6)
			2019	3 \$ 409,400		
2300	Tertiary Treatment	\$ 64,848	2020	1 \$ 63,900	\$ 1,700	2.7
			2019	1 \$ 62,200		
2900	Treatment - Indirect Costs	\$ 1,950,561	2020	16 \$ 2,534,240	\$ 103,880	4.3
			2019	16 \$ 2,430,360		
3000	Solids Processing	\$ 1,137,541	2020	9 \$ 1,340,115	\$ 89,480	7.2
			2019	9 \$ 1,250,635		
3100	Thickening	\$ 238,999	2020	2 \$ 255,100	\$ (4,700)	(1.8)
			2019	2 \$ 259,800		
3200	Stabilization	\$ 67,964	2020	1 \$ 119,200	\$ 400	0.3
			2019	1 \$ 118,800		
3300	Dewatering	\$ 96,476	2020	1 \$ 93,800	\$ 22,400	31.4
			2019	1 \$ 71,400		
3900	Solids Processing - Indirect Costs	\$ 734,102	2020	5 \$ 872,015	\$ 71,380	8.9
			2019	5 \$ 800,635		

a) Increase is due to the increased demand for struvite control descaler (\$25,000).

**66000 M&O - GENERAL DIVISION**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
4000	Flood & Pollution Control	\$ 1,916,134	2020	12 \$ 2,097,915	\$ 20,880	1.0	
			2019	12 \$ 2,077,035			
4200	Waterways Control and Stormwater Reservoirs	\$ 1,443,373	2020	10 \$ 1,488,000	\$ 85,200	6.1	
			2019	10 \$ 1,402,800			
4210	Maintenance of Waterways	\$ 140,030	2020	— \$ 117,900	\$ (86,000)	(42.2)	b)
			2019	— \$ 203,900			
4300	Stormwater Management	\$ 31,851	2020	— \$ 31,500	\$ (400)	(1.3)	
			2019	— \$ 31,900			
4400	Aeration Facilities	\$ 88,929	2020	1 \$ 143,000	\$ (100)	(0.1)	
			2019	1 \$ 143,100			
4900	Flood & Pollution Control - Indirect Costs	\$ 211,951	2020	1 \$ 317,515	\$ 22,180	7.5	
			2019	1 \$ 295,335			
5000	Solids Utilization	\$11,985,298	2020	22 \$ 17,578,915	\$ (129,020)	(0.7)	
			2019	24 \$ 17,707,935			
5100	Solids Drying	\$ 5,128,905	2020	5 \$ 5,321,800	\$ (413,500)	(7.2)	c)
			2019	5 \$ 5,735,300			
5200	Solids Distribution	\$ 5,284,795	2020	6 \$ 9,974,400	\$ 22,400	0.2	
			2019	7 \$ 9,952,000			
5900	Solids Utilization - Indirect Costs	\$ 1,571,598	2020	11 \$ 2,282,715	\$ 262,080	13.0	d)
			2019	12 \$ 2,020,635			
7000	General Support (excludes program numbers 7368 and 7604)	\$ 195,080	2020	1 \$ 82,900	\$ (30,800)	(27.1)	e)
			2019	1 \$ 113,700			
7368	Real Estate Environmental Assessment	\$ 607,035	2020	2 \$ 725,300	\$ 15,700	2.2	
			2019	2 \$ 709,600			
7604	Social Security and Medicare Contributions	\$ 167,601	2020	— \$ 190,900	\$ 2,200	1.2	
			2019	— \$ 188,700			
Totals		\$24,143,152	2020	113 \$ 31,680,800	\$ (91,000)	(0.3)%	*
			2019	115 \$ 31,771,800			

b) Decrease is due to the replacement in 2019 of an aging pontoon boat (\$80,000).

c) Decrease is due to the reduced demand for biosolids truck hauling services (\$293,000) and heavy equipment maintenance (\$103,900).

d) Increase is due to the addition of a biosolids marketing service (\$100,000), pavement resurfacing (\$83,600), the increased estimate for paid overtime (\$23,700), and the increased demand for biosolids truck scale maintenance (\$20,100).

e) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$21,200) and the reduced demand for compost probes (\$9,900).

\* The 2020 position total for the General Division is 113, with 18 positions budgeted in the Stormwater Management Fund.

**66000 M&O - GENERAL DIVISION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
1000-2900	Collection & Treatment					
	Technical and Administrative Support for Collection and Treatment Activities	Cost	\$ 8,134,463	\$ 9,724,195	\$ 9,664,755	
3000	Solids Processing					
	Technical and Administrative Support for Solids Removal and Processing	Cost	\$ 1,137,541	\$ 1,250,635	\$ 1,340,115	
4000	Flood & Pollution Control					
4200	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution	Cost	\$ 935,194	\$ 894,800	\$ 923,000	
	Generate Electrical Energy at Lockport Powerhouse to Obtain Approximately \$1.2 million in Revenue	kWh	42,004,233	40,000,000	40,000,000	
		Cost	\$ 165,624	\$ 166,900	\$ 217,000	a)
		Cost/kWh	\$ 0.0039	\$ 0.0042	\$ 0.0054	
		<i>* Revenue Generated</i>	\$ 1,386,344	\$ 1,200,000	\$ 1,200,000	
	Minimize Diversion of Lake Michigan Water in Accordance with the U.S. Supreme Court Decree	Mil. Gal./Year	37,443	60,152	60,152	
		Cost	\$ 342,555	\$ 341,100	\$ 348,000	
		Cost/Mil. Gal./Year	\$ 9.15	\$ 5.67	\$ 5.79	
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	\$ 140,030	\$ 203,900	\$ 117,900	b)
4300	Stormwater Management	Cost	\$ 31,851	\$ 31,900	\$ 31,500	
4400	Aeration Facilities	Cost	\$ 88,929	\$ 143,100	\$ 143,000	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 211,951	\$ 295,335	\$ 317,515	
5000	Solids Drying/Utilization					
	Management and Coordination of the Solids Utilization Program	Dry Tons	60,004	99,000	99,000	
		Cost	\$ 11,985,298	\$ 13,607,935	\$ 13,478,915	
		Cost/Dry Ton	\$ 199.74	\$ 137.45	\$ 136.15	
5271	Pelletizer Disposal	Dry Tons	—	40,000	40,000	
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ —	\$ 4,100,000	\$ 4,100,000	
		Cost/Dry Ton	\$ —	\$ 102.50	\$ 102.50	
<p>a) Increase is due to the increased demand for Emerson distributed control system technical support at the Waterways Control Room and Lockport Powerhouse (\$24,500) and plumbing supplies for the Waterways and the Collection System Unit (\$22,500).</p> <p>b) Decrease is due to the replacement in 2019 of an aging pontoon boat (\$80,000).</p>						



**66000 M&O - GENERAL DIVISION**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	\$ 195,080	\$ 113,700	\$ 82,900	c)
7368	Real Estate Environmental Assessment	Cost	\$ 607,035	\$ 709,600	\$ 725,300	
7604	Social Security and Medicare Contributions	Cost	\$ 167,601	\$ 188,700	\$ 190,900	
Division Totals			\$ 24,143,152	\$ 31,771,800	\$ 31,680,800	
<p>c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$21,200) and the reduced demand for compost probes (\$9,900).</p> <p>* Revenue generated not included in total costs.</p>						

Account Number	Account Name	LINE ITEM ANALYSIS						
		2018	2019				2020	
		Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
101 66000	Fund: Corporate Department: Maintenance & Operations Division: General							
601010	Salaries of Regular Employees	\$ 11,680,158	\$ 12,802,200	\$ 12,686,200	\$ 8,646,902	\$ 12,245,300	\$ 12,750,300	\$ —
601060	Compensation Plan Adjustments	364,535	679,300	729,300	562,118	693,200	876,700	—
601070	Social Security and Medicare Contributions	167,601	188,700	188,700	132,821	182,300	190,900	—
601080	Salaries of Nonbudgeted Employees	—	3,800	41,200	—	65,800	3,800	—
601100	Tuition and Training Payments	12,738	43,000	43,000	23,153	36,600	35,300	—
100	TOTAL PERSONAL SERVICES	12,225,032	13,717,000	13,688,400	9,364,994	13,223,200	13,857,000	—
612010	Travel	2,003	2,900	2,900	2,542	2,500	4,600	—
612030	Meals and Lodging	7,728	7,500	7,500	5,250	6,900	13,500	—
612040	Postage, Freight, and Delivery Charges	—	—	—	—	—	200	—
612050	Compensation for Personally-Owned Automobiles	6,094	9,500	9,500	7,805	8,900	9,100	—
612080	Motor Vehicle Operating Services	170	300	300	33	200	300	—
612150	Electrical Energy	86,133	71,400	71,400	49,461	64,300	83,000	—
612160	Natural Gas	8,164	8,000	8,000	5,489	7,500	9,300	—
612170	Water and Water Services	40,610	206,100	206,100	46,023	181,400	174,800	—
612210	Communication Services	198,024	—	—	—	—	—	—
612240	Testing and Inspection Services	13,590	6,100	6,100	5,738	5,300	9,100	—
612330	Rental Charges	8,019	8,600	8,700	8,610	7,900	8,600	—
612410	Governmental Service Charges	16,887	18,400	18,400	14,600	18,400	17,700	—
612420	Maintenance of Grounds and Pavements	659,547	668,300	299,700	299,365	289,500	622,300	—
612430	Payments for Professional Services	474,149	470,500	154,000	153,767	153,300	583,500	—
612490	Contractual Services, N.O.C.	170,554	227,500	178,700	178,539	171,800	189,100	—
612520	Waste Material Disposal Charges	8,269,528	9,310,000	9,945,700	9,933,572	8,420,300	9,182,200	—
612590	Sludge Disposal	—	4,100,000	4,100,000	4,100,000	3,700,000	4,100,000	—
612600	Repairs to Collection Facilities	813,566	1,187,200	928,200	928,125	928,200	1,156,700	—
612620	Repairs to Waterway Facilities	39,634	47,900	41,900	41,760	41,800	72,400	—
612650	Repairs to Process Facilities	11,175	14,800	14,800	14,800	13,400	34,000	—
612680	Repairs to Buildings	16,064	23,000	17,600	17,500	17,600	18,000	—
612760	Repairs to Material Handling and Farming Equipment	224,697	239,500	239,500	230,275	227,500	230,500	—
612780	Safety Repairs and Services	5,605	14,400	14,400	14,383	13,400	16,500	—
612790	Repairs to Marine Equipment	66,537	65,000	65,000	65,000	62,400	66,500	—
612820	Computer Software Maintenance	9,177	7,500	8,400	8,396	8,400	9,000	—
612860	Repairs to Vehicle Equipment	57,431	54,500	53,100	53,100	48,000	49,500	—

Account Number	Account Name	LINE ITEM ANALYSIS						
		2018	2019			2020		
101	Fund: Corporate							
66000	Department: Maintenance & Operations							
	Division: General							
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
612990	Repairs, N.O.C.	1,150	3,500	3,500	2,836	3,100	3,000	—
200	TOTAL CONTRACTUAL SERVICES	11,206,238	16,772,400	16,403,400	16,186,968	14,402,000	16,663,400	—
623070	Electrical Parts and Supplies	7,039	17,000	12,000	9,370	12,000	17,000	—
623090	Plumbing Accessories and Supplies	8,475	15,000	17,000	16,515	15,800	30,500	—
623110	Hardware	1,485	2,000	2,000	700	1,800	2,000	—
623130	Buildings, Grounds, Paving Materials, and Supplies	30,570	34,000	24,500	21,373	23,400	33,500	—
623250	Vehicle Parts and Supplies	60,623	82,000	98,800	98,098	70,800	82,000	—
623270	Mechanical Repair Parts	69,824	157,800	142,800	102,641	135,200	144,300	—
623300	Manhole Materials	6,045	25,000	25,000	23,743	23,000	5,000	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	6,157	4,000	5,600	5,275	3,500	10,000	—
623530	Farming Supplies	3,400	4,000	4,000	2,966	3,500	4,000	—
623560	Processing Chemicals	182,001	247,000	267,000	253,697	214,500	232,000	—
623660	Cleaning Supplies	500	500	500	500	500	500	—
623680	Tools and Supplies	15,322	18,300	18,300	16,382	17,500	18,300	—
623700	Wearing Apparel	536	3,500	3,500	—	3,000	3,500	—
623780	Safety and Medical Supplies	8,598	8,000	8,000	5,258	6,400	8,000	—
623810	Computer Supplies	48	1,400	1,400	941	1,300	13,400	—
623820	Fuel	191,706	179,100	179,100	178,596	132,600	174,500	—
623860	Lubricants	1,900	1,500	1,700	1,615	1,700	2,000	—
623990	Materials and Supplies, N.O.C.	95,066	32,300	32,300	26,307	28,800	22,400	—
300	TOTAL MATERIALS AND SUPPLIES	689,293	832,400	843,500	763,976	695,300	802,900	—
634760	Material Handling and Farming Equipment	—	50,000	26,000	—	—	6,500	—
634790	Marine Equipment	—	80,000	80,000	78,500	78,500	—	—
634810	Computer Equipment	—	—	—	—	—	—	—
634860	Vehicle Equipment	—	320,000	319,200	319,168	319,200	351,000	—
634970	Testing and Laboratory Equipment	22,589	—	—	—	—	—	—
634990	Machinery & Eqpt NOC	—	—	6,200	6,150	6,200	—	—
400	TOTAL MACHINERY AND EQUIPMENT	22,589	450,000	431,400	403,818	403,900	357,500	—
<b>TOTAL GENERAL DIVISION</b>		<b>\$ 24,143,152</b>	<b>\$ 31,771,800</b>	<b>\$ 31,366,700</b>	<b>\$ 26,719,756</b>	<b>\$ 28,724,400</b>	<b>\$ 31,680,800</b>	<b>\$ —</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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.  
 3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 601	Executive Office	2	2	376,864	2	376,865
<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 611	General Division Executive Office	2	2	242,050	2	294,022
<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 621	Administrative Unit	4	4	479,163	4	484,121
TOTAL 620	Administrative Section	4	4	479,163	4	484,121
<b>630</b>	<b>Waterways Control Section</b>					
<b>631</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
TOTAL 631	Administrative Unit	1	1	200,508	1	166,379
<b>633</b>	<b>Channel Control Unit</b>					
NR6271	Systems Dispatcher	4	5		5	
TOTAL 633	Channel Control Unit	4	5	597,688	5	611,104
<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)		(*1)	
HP17	Senior Civil Engineer	—	—		—	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
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 634	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 635	Lockport Powerhouse Unit	2	2	247,728	2	253,302
<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)	— (*2)		— (*2)	
HP14	Engineering Technician V #4	— (*1)	—		—	
HP12	Engineering Technician IV	— (*1)	— (*2)		— (*2)	
HP12	Engineering Technician IV #4	— (*1)	—		—	
NR8650	Maintenance Laborer Class A Shift	— (*2)	— (*2)		— (*2)	
TOTAL 636	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 639	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				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 Engineer	1	1		1	
HP15	Associate Civil Engineer	1	—		—	
HP15	Associate Civil Engineer #1	—	1		—	
HP14	Engineering Technician V	5	6		6	
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 679	Collection System Unit	34	35	3,140,078	34	3,078,002
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL 670	Collection System Section	34	35	3,140,078	34	3,078,002
TOTAL	Stormwater Management Fund Positions	(*6)	(*6)		(*6)	
TOTAL 630	Waterways Control Section	41	43	4,186,003	42	4,108,787
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 Engineer	1	1		1	
TOTAL 641	Technical Administration Unit	1	1	200,508	1	166,379
<b>642</b>	<b>Contract Administration Unit - MOB</b>					
HP18	Principal Engineer	1	1		1	
HP17	Senior Mechanical Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL 642	Contract Administration Unit - MOB	4	4	498,301	4	498,301

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>643</b>	<b>Technical Services Unit</b>					
HP17	Senior Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
TOTAL 643	Technical Services Unit	2	2	242,717	2	248,479
<b>644</b>	<b>Construction Design Unit</b>					
HP18	Principal Engineer	1	1		1	
TOTAL 644	Construction Design Unit	1	1	159,047	1	159,047
TOTAL 640	Technical Administration Section	8	8	1,100,573	8	1,072,206
<b>650</b>	<b>Solids Management Section</b>					
<b>651</b>	<b>Solids Administration Unit</b>					
HP20	Managing Engineer	1	1		1	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL 651	Solids Administration Unit	2	2	270,789	2	279,322
<b>652</b>	<b>Solids Field Operations Unit</b>					
HP18	Principal Engineer	1	1		1	
HP17	Senior Engineer	1	1		1	
HP15	Associate Civil Engineer	—	1		1	
HP14	Engineering Technician V	3	3		4	
HP14	Engineering Technician V #4	2	2		1	
HP12	Engineering Technician IV	3	3		3	
HP11	Engineering Technician III	1	1		1	
TOTAL 652	Solids Field Operations Unit	11	12	1,246,412	12	1,233,419
<b>653</b>	<b>Solids Operations Administration Unit</b>					
HP17	Senior Engineer	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP12	Engineering Technician IV #4	1	1		1	
NR8651	Maintenance Laborer Class A	—	1		1	
NR8652	Maintenance Laborer Class B	1	—		—	

Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
NR8652	Maintenance Laborer Class B #1	—	1		—	
TOTAL 653	Solids Operations Administration Unit	4	5	493,447	4	439,242
<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		—	
TOTAL 654	Fulton County Field Operations Unit	3	3	215,342	2	156,208
TOTAL 650	Solids Management Section	20	22	2,225,990	20	2,108,191
<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 661	Site Remediation Unit	2	2	330,295	2	338,827
TOTAL 660	Site Remediation Section	2	2	330,295	2	338,827
<b>681</b>	<b>Asset Management Section</b>					
HP20	Managing Engineer	1	1		1	
HP18	Principal Electrical Engineer	1	1		1	
HP18	Principal Engineer	1	1		1	
HP18	Principal Mechanical Engineer	3	3		3	
HP17	Senior Electrical Engineer	4	5		5	
HP17	Senior Engineer	—	1		1	
HP17	Senior Mechanical Engineer	4	4		4	
HP15	Associate Electrical Engineer	6	7		7	
HP15	Associate Mechanical Engineer	4	5		5	
HP14	Assistant Mechanical Engineer	2	2		3	
HP14	Assistant Mechanical Engineer #2 (Engineering Technician IV) (New Grade HP12)	1	1		—	

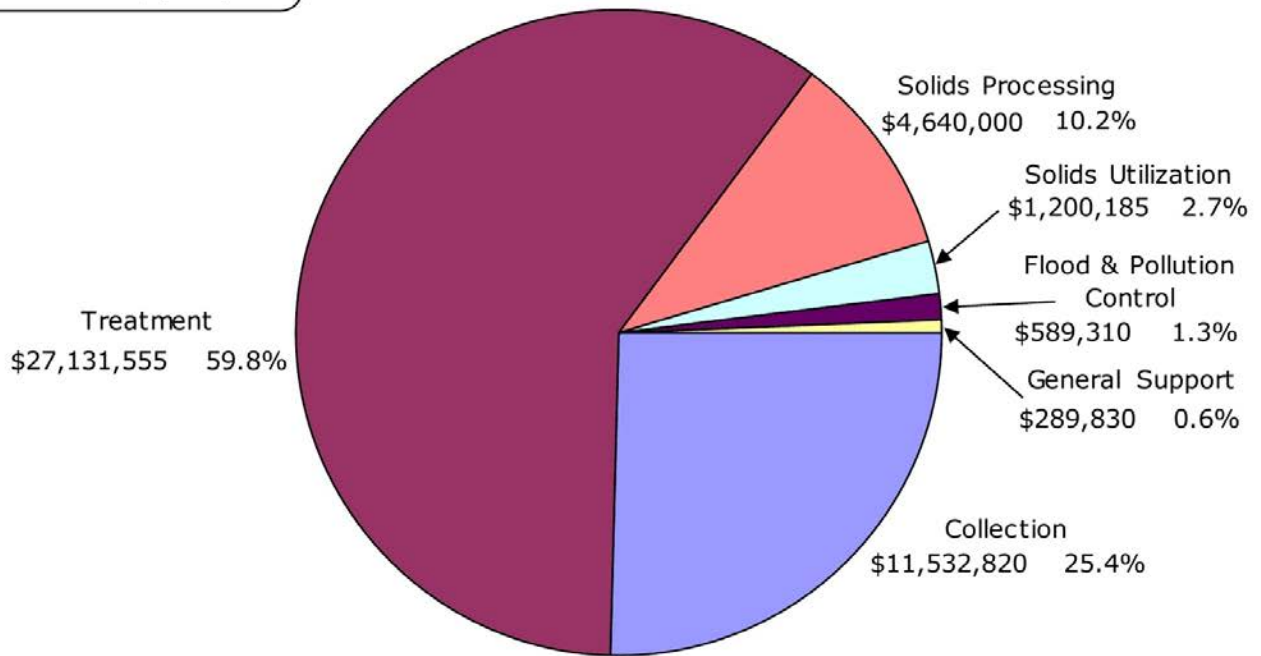


Fund: Corporate Dept: Maintenance & Operations Division: General		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
HP14	Engineering Technician V	1	1		2	
TOTAL 681	Asset Management Section	28	32	4,092,628	33	4,096,778
TOTAL	Maintenance & Operations General Division	107	115	13,033,567	113	12,879,796
TOTAL	Stormwater Management Fund Positions	(*18)	(*18)		(*18)	
Note: Eighteen positions budgeted in Sections 634, 636, 639, and 679 are funded by the Stormwater Management Fund while the operations remain in the Maintenance & Operations Department.						
NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix. Dollar amounts may not add up due to rounding.						

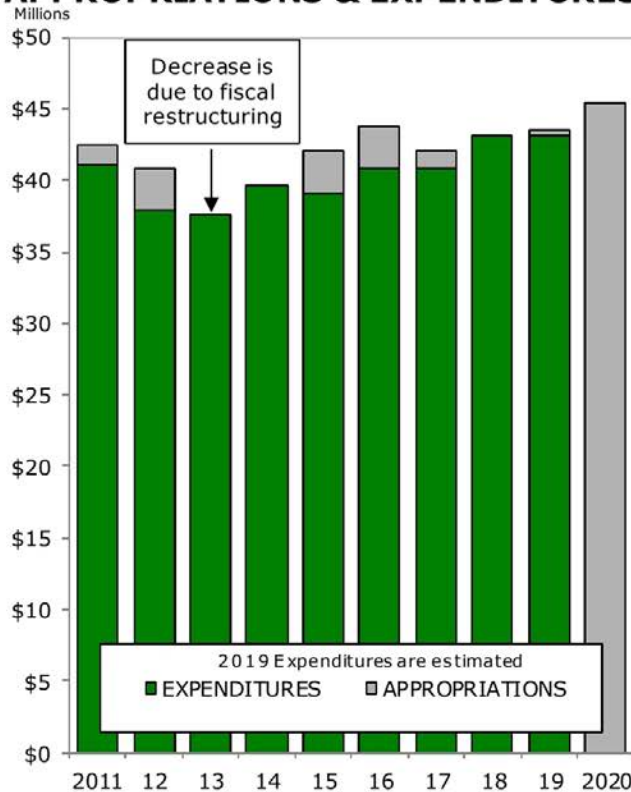
# MAINTENANCE & OPERATIONS – NORTH SERVICE AREA

2020	\$45,383,700
2019	\$43,582,000
Increase	\$1,801,700

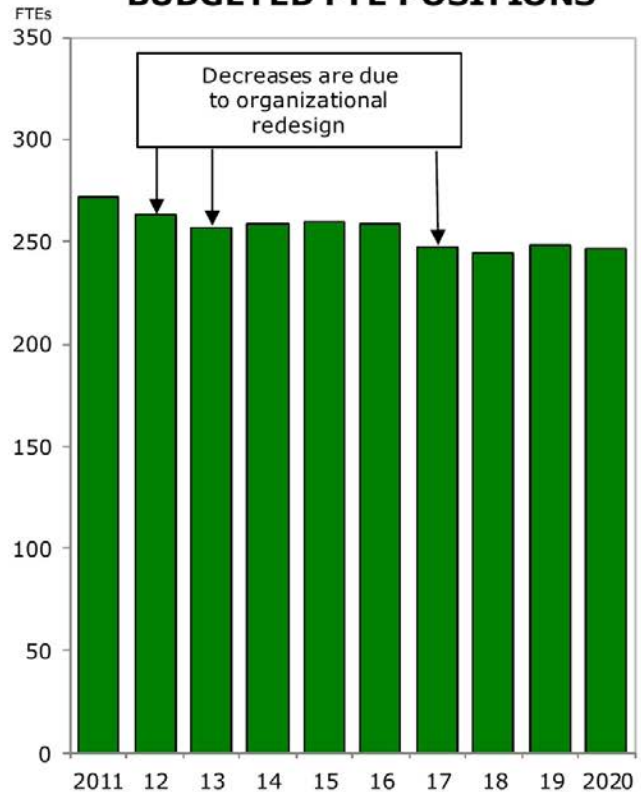
## FUNCTIONS



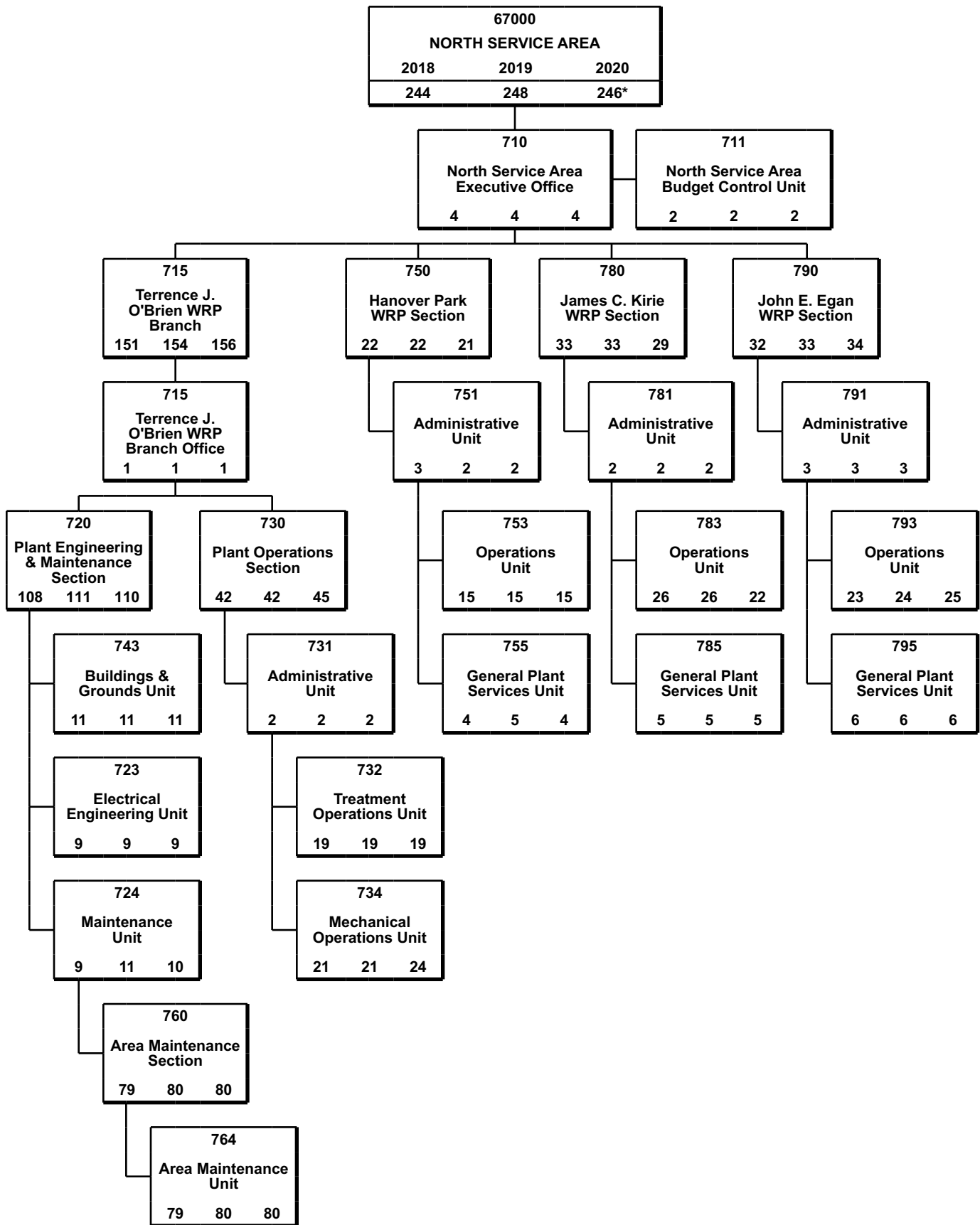
## APPROPRIATIONS & EXPENDITURES



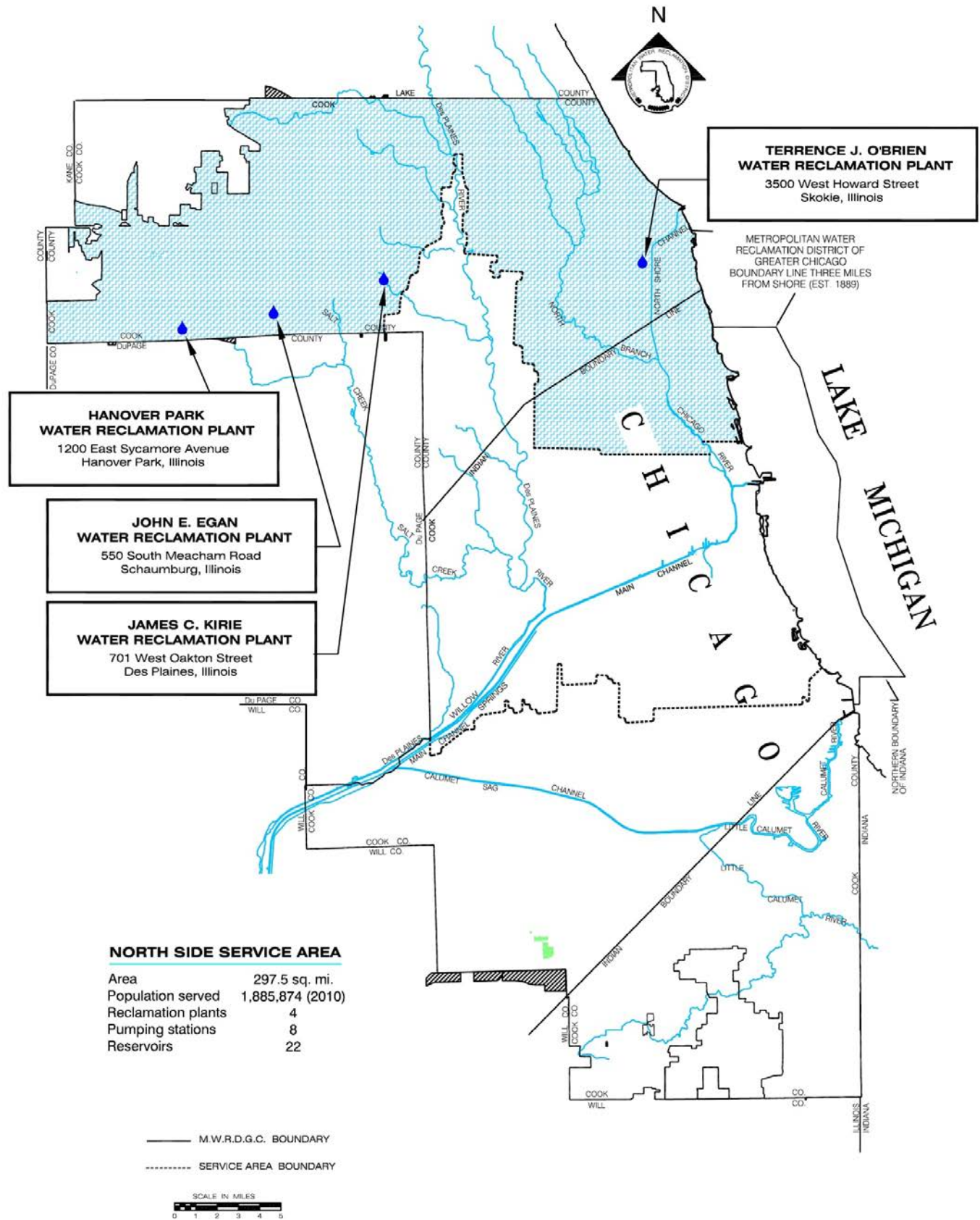
## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS - NORTH SERVICE AREA



\* In 2020, 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 115.2 billion gallons of wastewater through its treatment facilities and a contract agreement with the Fox River Water Reclamation District.	\$38,664,375	85.2%
	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 59,800 dry tons and process 13,800 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and centrifuge cake in lagoons at CALSMA** and LASMA**.	\$ 4,640,000	10.2%
3.	SOLIDS UTILIZATION: The North Service Area will provide support to utilize 1,000 dry tons of biosolids for the Fischer Farm in Hanover Park and other agricultural applications.	\$ 1,200,185	2.7%
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.	\$ 589,310	1.3%
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.	\$ 289,830	0.6%
		<b>Totals</b>	<b>\$45,383,700    100.0%</b>
**CALSMA - Calumet Solids Management Area and LASMA - Lawndale Avenue Solids Management Area			

MEASURABLE GOALS:		2018	2019	2020	
		Actual	Estimated	Proposed	
1.	The North Service Area will collect and treat approximately 115.2 billion gallons of wastewater in 2020.	Billion Gallons	122.4	115.2	115.2
2.	The North Service Area will remove 59,800 dry tons and process 13,800 dry tons of concentrated sewage.	Dry Tons Process Solids	13,598	13,811	13,800
3.	The North Service Area will obtain 100 percent permit compliance in 2020 for National Pollutant Discharge Elimination System effluent limits.	Percent	100.00%	100.00%	100.00%
4.	The North Service Area will provide support to utilize 1,000 dry tons of biosolids in 2020.	Dry Tons	993	1,000	1,000

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$11,552,228	2020	68 \$ 11,532,820	\$ 429,275	3.9	
			2019	67 \$ 11,103,545			
1100	Surface Interceptor Systems	\$ 363,734	2020	3 \$ 327,200	\$ 3,800	1.2	
			2019	3 \$ 323,400			
1200	Tunnel and Reservoir System	\$ 2,160,637	2020	13 \$ 1,471,300	\$ (43,500)	(2.9)	
			2019	14 \$ 1,514,800			
1300	Pumping Station Facilities	\$ 4,600,418	2020	27 \$ 5,049,800	\$ 326,700	6.9	a)
			2019	25 \$ 4,723,100			
1900	Collection - Indirect Costs	\$ 4,427,439	2020	25 \$ 4,684,520	\$ 142,275	3.1	
			2019	25 \$ 4,542,245			
2000	Treatment	\$24,681,582	2020	151 \$ 26,769,755	\$ 1,564,525	6.2	
			2019	153 \$ 25,205,230			
2000	Pre-Treatment	\$ 983,158	2020	7 \$ 836,600	\$ 18,600	2.3	
			2019	7 \$ 818,000			
2100	Primary Treatment	\$ 576,700	2020	6 \$ 618,100	\$ 12,800	2.1	
			2019	6 \$ 605,300			
2200	Secondary Treatment	\$ 8,361,098	2020	44 \$ 8,938,300	\$ 856,200	10.6	b)
			2019	44 \$ 8,082,100			
2300	Tertiary Treatment	\$ 1,470,393	2020	11 \$ 1,665,600	\$ (239,400)	(12.6)	c)
			2019	11 \$ 1,905,000			
2900	Treatment - Indirect Costs	\$13,290,233	2020	83 \$ 14,711,155	\$ 916,325	6.6	d)
			2019	85 \$ 13,794,830			

a) Increase is due to the increased demand for electrical energy at the pumping stations to accommodate the increase of wet weather events (\$325,000).

b) Increase is due to the increased demand for electrical energy (\$663,800) and final tank painting (\$200,000).

c) Decrease is due to an extended life expectancy of the ultraviolet lamps for the O'Brien WRP's disinfection facility (\$222,200).

d) Increase is due to the replacement of a dump truck (\$160,000), the increased demand for natural gas (\$127,800), the replacement and upgrade of gas monitoring equipment (\$125,000), the boiler service and parts contract (\$110,500), an increase to the manhours contract (\$100,100), the increased demand for electrical energy (\$90,100), pavement repair (\$89,700), and the purchase of heating, ventilation, and air conditioning coils (\$83,000).

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
3000	Solids Processing	\$ 4,460,879	2020 23	\$ 4,640,000	\$ (333,500)	(6.7)	
			2019 24	\$ 4,973,500			
3100	Thickening	\$ 775,729	2020 5	\$ 719,700	\$ (86,900)	(10.8)	
			2019 5	\$ 806,600			
3200	Stabilization	\$ 765,386	2020 6	\$ 793,400	\$ 48,100	6.5	
			2019 6	\$ 745,300			
3300	Dewatering	\$ 1,240,971	2020 6	\$ 1,269,500	\$ (286,500)	(18.4)	e)
			2019 6	\$ 1,556,000			
3900	Solids Processing - Indirect Costs	\$ 1,678,793	2020 6	\$ 1,857,400	\$ (8,200)	(0.4)	
			2019 7	\$ 1,865,600			
4000	Flood & Pollution Control	\$ 615,610	2020 2	\$ 589,310	\$ (8,475)	(1.4)	
			2019 2	\$ 597,785			
4200	Waterways Control and Stormwater Reservoirs	\$ 336,024	2020 2	\$ 276,500	\$ (16,300)	(5.6)	
			2019 2	\$ 292,800			
4400	Aeration Facilities	\$ 170,656	2020 —	\$ 185,200	\$ 12,300	7.1	
			2019 —	\$ 172,900			
4900	Flood & Pollution Control - Indirect Costs	\$ 108,930	2020 —	\$ 127,610	\$ (4,475)	(3.4)	
			2019 —	\$ 132,085			
5000	Solids Utilization	\$ 1,231,804	2020 1	\$ 1,200,185	\$ 137,525	12.9	
			2019 1	\$ 1,062,660			
5200	Solids Distribution	\$ 172,462	2020 —	\$ 254,300	\$ 75,700	42.4	f)
			2019 —	\$ 178,600			
5900	Solids Utilization - Indirect Costs	\$ 1,059,342	2020 1	\$ 945,885	\$ 61,825	7.0	
			2019 1	\$ 884,060			
7000	General Support (excluding program number 7604)	\$ 251,816	2020 1	\$ 289,830	\$ 10,550	3.8	
			2019 1	\$ 279,280			
7604	Social Security and Medicare Contributions	\$ 342,766	2020 —	\$ 361,800	\$ 1,800	0.5	
			2019 —	\$ 360,000			
Totals		\$43,136,685	2020 246	\$ 45,383,700	\$ 1,801,700	4.1%	*
			2019 248	\$ 43,582,000			

e) Decrease is due to the cancellation of the contract for sodium carbonate, as this chemical is no longer required in the ANITA Mox process (\$182,000).

f) Increase is due to additional acreage at the Fischer Farm in Hanover Park coming online and requiring increased biosolids injection (\$40,000) and farming services (\$36,000).

\* The 2020 position total for the North Service Area is 246, with no positions budgeted in the Stormwater Management Fund.

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

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	90,131	85,000	85,000	
		Cost	\$ 20,046,647	\$ 20,300,806	\$ 21,725,373	a)
		Cost/Mil. Gallons	\$ 222.42	\$ 238.83	\$ 255.59	
	John E. Egan Water Reclamation Plant	Mil. Gallons	9,012	10,200	9,050	
		Cost	\$ 5,560,637	\$ 5,558,737	\$ 5,861,852	b)
		Cost/Mil. Gallons	\$ 617.03	\$ 544.97	\$ 647.72	b)
	Hanover Park Water Reclamation Plant	Mil. Gallons	3,963	3,700	3,950	
		Cost	\$ 2,679,946	\$ 2,658,740	\$ 2,711,710	
		Cost/Mil. Gallons	\$ 676.24	\$ 718.58	\$ 686.51	
	James C. Kirie Water Reclamation Plant	Mil. Gallons	17,126	14,500	15,000	
		Cost	\$ 6,393,134	\$ 6,199,492	\$ 6,285,240	
		Cost/Mil. Gallons	\$ 373.30	\$ 427.55	\$ 419.02	
	Fox River Water Reclamation District	Mil. Gallons	2,156	2,150	2,150	
		Cost	\$ 1,553,446	\$ 1,591,000	\$ 1,718,400	
		Cost/Mil. Gallons	\$ 720.52	\$ 740.00	\$ 799.26	
3000	Solids Processing					
	Remove 59,800 Dry Tons of Solids, Transfer 45,000 Dry Tons to the Stickney WRP and Process 13,800 Dry Tons from Concentrated Sewage Through Various Systems	Dry Tons	13,598	15,600	13,800	
		Cost	\$ 4,460,879	\$ 4,973,500	\$ 4,640,000	c)
		Cost/Dry Ton	\$ 328.05	\$ 318.81	\$ 336.23	
	a) Increase is due to the increased demand for electrical energy (\$729,200), final tank painting (\$200,000), gas monitoring equipment replacement and upgrade (\$125,000), the boiler service and parts contract (\$110,500), pavement repair (\$89,700), and the purchase of heating, ventilation, and air conditioning coils (\$83,000).					
	b) Increase is due to the increased demand for electrical energy (\$117,100) and natural gas (\$60,000), and the addition of a project to perform repairs to the structure of the Egan WRP's dewatering building (\$37,100).					
	c) Decrease is due to the cancellation of the contract for sodium carbonate, as this chemical is no longer required in the ANITA Mox process (\$182,000) and the reduced demand for polymer (\$95,300).					



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

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	\$ 336,024	\$ 292,800	\$ 276,500	
		Cost/Reservoir	\$ 15,273.82	\$ 13,309.09	\$ 12,568.18	
4400	Aeration Facilities	Cost	\$ 170,656	\$ 172,900	\$ 185,200	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 108,930	\$ 132,085	\$ 127,610	
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	993	800	1,000	d)
		Cost	\$ 1,231,804	\$ 1,062,660	\$ 1,200,185	
		Cost/Dry Ton	\$ 1,240.49	\$ 1,328.33	\$ 1,200.19	
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	\$ 251,816	\$ 279,280	\$ 289,830	
7604	Social Security and Medicare Contributions	Cost	\$ 342,766	\$ 360,000	\$ 361,800	
		Division Totals	\$ 43,136,685	\$ 43,582,000	\$ 45,383,700	

d) Increase is due to additional acreage at the Fischer Farm in Hanover Park coming online and requiring increased biosolids injection (\$40,000) and farming services (\$36,000).

Account Number	Account Name	LINE ITEM ANALYSIS						
		2018		2019			2020	
		Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area							
601010	Salaries of Regular Employees	\$ 23,437,602	\$ 24,470,800	\$ 24,470,800	\$ 16,554,856	\$ 23,540,900	\$ 24,327,500	\$ —
601060	Compensation Plan Adjustments	1,308,925	1,361,200	1,361,200	1,159,884	1,361,200	1,349,900	—
601070	Social Security and Medicare Contributions	342,766	360,000	360,000	254,970	352,900	361,800	—
601100	Tuition and Training Payments	42,425	42,900	42,900	23,617	42,900	52,400	—
100	TOTAL PERSONAL SERVICES	25,131,718	26,234,900	26,234,900	17,993,327	25,297,900	26,091,600	—
612010	Travel	9,548	14,000	14,000	5,188	9,400	10,900	—
612030	Meals and Lodging	28,106	23,200	23,200	15,294	13,200	17,400	—
612050	Compensation for Personally-Owned Automobiles	21,915	19,000	19,000	12,628	15,400	22,000	—
612080	Motor Vehicle Operating Services	96	1,000	900	120	400	500	—
612150	Electrical Energy	8,253,330	7,088,800	7,088,800	5,214,503	7,588,800	8,260,700	—
612160	Natural Gas	669,175	475,500	505,500	454,543	484,100	678,100	—
612170	Water and Water Services	71,549	75,800	75,800	49,281	67,000	75,800	—
612210	Communication Services	210,401	—	—	—	—	—	—
612240	Testing and Inspection Services	26,526	42,200	42,200	40,806	29,600	43,700	—
612330	Rental Charges	2,231	3,000	3,000	2,000	2,600	2,400	—
612410	Governmental Service Charges	3,558,121	3,438,500	3,438,500	2,752,110	3,438,500	3,693,300	—
612420	Maintenance of Grounds and Pavements	13,511	112,600	49,700	45,373	37,600	115,100	—
612490	Contractual Services, N.O.C.	3,446	3,400	3,400	1,672	500	1,500	—
612520	Waste Material Disposal Charges	509,450	514,800	509,800	509,278	509,800	569,600	—
612530	Farming Services	20,000	24,000	18,200	18,200	18,200	60,000	—
612600	Repairs to Collection Facilities	20,460	74,100	386,300	372,650	360,000	90,300	—
612650	Repairs to Process Facilities	1,146,372	1,138,700	1,263,900	1,263,822	1,178,700	1,663,200	—
612680	Repairs to Buildings	160,839	208,700	294,300	281,566	210,000	320,900	—
612760	Repairs to Material Handling and Farming Equipment	14,787	24,400	24,400	20,277	20,000	27,700	—
612780	Safety Repairs and Services	72,108	85,000	85,000	85,000	75,000	85,000	—
612860	Repairs to Vehicle Equipment	27,050	8,000	27,800	27,799	13,800	16,000	—
200	TOTAL CONTRACTUAL SERVICES	14,839,020	13,374,700	13,873,700	11,172,107	14,072,600	15,754,100	—
623030	Metals	11,412	10,000	9,000	8,717	9,000	10,000	—
623070	Electrical Parts and Supplies	1,005,448	1,211,200	1,181,200	1,153,659	1,181,200	1,048,500	—
623090	Plumbing Accessories and Supplies	132,608	155,400	225,400	199,209	155,400	173,900	—
623130	Buildings, Grounds, Paving Materials, and Supplies	17,160	20,100	28,100	24,319	24,100	21,600	—
623190	Paints, Solvents, and Related Materials	441	1,400	1,400	1,064	1,400	2,300	—

101 67000	Fund: Corporate Department: Maintenance & Operations Division: North Service Area	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623250	Vehicle Parts and Supplies	16,492	12,000	14,000	13,791	14,000	12,000	—
623270	Mechanical Repair Parts	613,233	681,400	816,500	765,920	600,000	745,000	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	16,362	13,800	12,000	11,562	12,000	14,300	—
623560	Processing Chemicals	1,069,398	1,315,700	1,227,900	1,186,239	1,227,900	998,900	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	18,699	25,600	24,000	22,724	23,700	27,100	—
623680	Tools and Supplies	80,797	66,900	76,900	75,174	76,900	59,500	—
623780	Safety and Medical Supplies	12,415	12,000	12,000	9,738	12,000	14,000	—
623800	Computer Software	—	21,000	21,000	18,806	17,900	4,500	—
623810	Computer Supplies	8,662	25,000	29,500	28,189	25,500	13,200	—
623820	Fuel	15,942	13,700	13,700	13,109	13,700	16,000	—
623850	Communications Supplies	—	15,000	15,000	14,782	14,800	15,000	—
623860	Lubricants	3,763	3,000	3,700	3,240	2,000	3,000	—
623990	Materials and Supplies, N.O.C.	6,092	6,500	6,500	6,284	6,500	6,200	—
300	TOTAL MATERIALS AND SUPPLIES	3,028,924	3,609,700	3,717,800	3,556,528	3,418,000	3,185,000	—
634600	Equipment for Collection Facilities	44,118	60,000	51,700	50,476	50,500	40,000	—
634650	Equipment for Process Facilities	92,905	97,700	152,900	149,505	106,500	115,000	—
634760	Material Handling and Farming Equipment	—	—	—	—	—	38,000	—
634810	Computer Equipment	—	140,000	138,100	138,066	138,100	—	—
634860	Vehicle Equipment	—	65,000	65,600	65,571	65,000	160,000	—
400	TOTAL MACHINERY AND EQUIPMENT	137,023	362,700	408,300	403,618	360,100	353,000	—
TOTAL NORTH SERVICE AREA		\$ 43,136,685	\$ 43,582,000	\$ 44,234,700	\$ 33,125,580	\$ 43,148,600	\$ 45,383,700	\$ —

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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.  
 3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 710	North Service Area Executive Office	4	4	641,326	4	641,326
<b>711</b>	<b>North Service Area Budget Control Unit</b>					
HP16	Senior Budget & Management Analyst	1	1		1	
HP14	Budget & Management Analyst	1	1		1	
TOTAL 711	North Service Area Budget Control Unit	2	2	205,946	2	211,390
<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 715	Terrence J. O'Brien Water Reclamation Plant Branch Office	1	1	217,579	1	217,579
<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 743	Buildings & Grounds Unit	11	11	756,986	11	773,327
<b>723</b>	<b>Electrical Engineering Unit</b>					
HP15	Associate Process Control Engineer	1	1		1	
NR6251	Chief Electrical Operator	1	1		1	
NR6233	Electrical Operator II	5	5		5	
NR6232	Electrical Operator I	2	2		2	
TOTAL 723	Electrical Engineering Unit	9	9	914,822	9	933,397

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>724</b>	<b>Maintenance Unit</b>					
HP19	Master Mechanic II	1	—		—	
HP19	Master Mechanic	—	1		1	
HP18	Principal Electrical Engineer	—	—		1	
HP17	Assistant Master Mechanic	4	4		4	
HP17	Senior Electrical Engineer	2	2		1	
HP15	Associate Process Control Engineer	—	1		1	
HP14	Assistant Electrical Engineer	1	1		1	
HP12	Engineering Technician IV	—	1		—	
HP11	Administrative Specialist	1	1		1	
TOTAL 724	Maintenance Unit	9	11	1,347,462	10	1,273,147
<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	14		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				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 764	Area Maintenance Unit	79	80	8,117,658	80	8,279,461
TOTAL 760	Area Maintenance Section	79	80	8,117,658	80	8,279,461
TOTAL 720	Plant Engineering & Maintenance Section	108	111	11,136,929	110	11,259,331
<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		—	
HP18	Principal Engineer	—	—		1	
HP14	Assistant Civil Engineer	—	—		—	
HP12	Engineering Technician IV	1	1		1	
TOTAL 731	Administrative Unit	2	2	260,957	2	223,981
<b>732</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	8	8		8	
HP12	Treatment Plant Operator I	4	4		4	
NR8650	Maintenance Laborer Class A Shift	4	4		4	
NR8651	Maintenance Laborer Class A	2	2		2	
TOTAL 732	Treatment Operations Unit	19	19	1,706,588	19	1,726,506
<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	
NR6810	Fireman-Oiler #1	—	—		3	

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
NR6832	Operating Engineer II	8	8		8	
NR6831	Operating Engineer I	5	5		5	
TOTAL 734	Mechanical Operations Unit	21	21	2,164,208	24	2,477,581
TOTAL 730	Plant Operations Section	42	42	4,131,753	45	4,428,068
TOTAL 715	Terrence J. O'Brien Water Reclamation Plant Branch	151	154	15,486,261	156	15,904,978
<b>750</b>	<b>Hanover Park Water Reclamation Plant Section</b>					
<b>751</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP19	Assistant Engineer of Treatment Plant Operations II #2 (Principal Engineer) (New Grade HP18)	1	—		—	
HP11	Administrative Specialist	1	1		1	
TOTAL 751	Administrative Unit	3	2	273,386	2	273,386
<b>753</b>	<b>Operations Unit</b>					
HP17	Senior Engineer	1	—		1	
HP17	Senior Mechanical Engineer	—	1		—	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	6	6		7	
HP14	Treatment Plant Operator II #4	1	1		—	
HP12	Treatment Plant Operator I	5	5		5	
NR6810	Fireman-Oiler	1	1		1	
TOTAL 753	Operations Unit	15	15	1,433,815	15	1,431,006
<b>755</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	1	1		1	
NR8651	Maintenance Laborer Class A	1	2		2	
NR8652	Maintenance Laborer Class B	2	1		1	
NR8652	Maintenance Laborer Class B #1	—	1		—	
TOTAL 755	General Plant Services Unit	4	5	379,467	4	323,382
TOTAL 750	Hanover Park Water Reclamation Plant Section	22	22	2,086,668	21	2,027,774

Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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 781	Administrative Unit	2	2	242,577	2	254,545
<b>783</b>	<b>Operations Unit</b>					
HP17	Senior Engineer	1	1		1	
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	6	6		7	
HP14	Treatment Plant Operator II #4	1	1		—	
HP12	Treatment Plant Operator I	4	4		2	
NR6810	Fireman-Oiler	2	2		1	
NR8650	Maintenance Laborer Class A Shift	4	3		3	
NR8650	Maintenance Laborer Class A Shift #1	—	1		—	
NR6831	Operating Engineer I	6	6		6	
TOTAL 783	Operations Unit	26	26	2,536,325	22	2,228,886
<b>785</b>	<b>General Plant Services Unit</b>					
HP14	Engineering Technician V	1	1		1	
NR8651	Maintenance Laborer Class A	3	3		3	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL 785	General Plant Services Unit	5	5	398,823	5	405,521
TOTAL 780	James C. Kirie Water Reclamation Plant Section	33	33	3,177,725	29	2,888,952
<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	1	1		1	

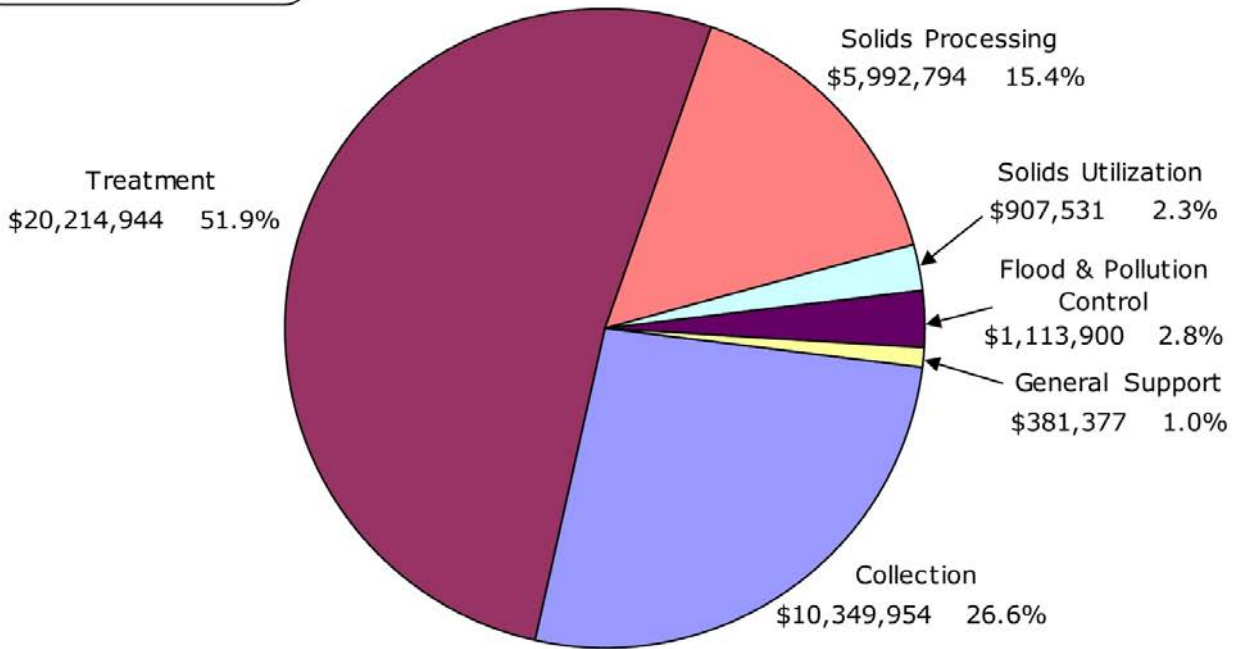


Fund: Corporate Dept: Maintenance & Operations Division: North Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP11	Administrative Specialist	1	1		1	
TOTAL 791	Administrative Unit	3	3	422,866	3	432,433
<b>793</b>	<b>Operations Unit</b>					
HP16	Assistant Chief Operating Engineer	1	1		1	
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	7	7		7	
HP14	Treatment Plant Operator II #1	—	—		1	
HP12	Treatment Plant Operator I	4	4		4	
NR6810	Fireman-Oiler	2	2		2	
NR8650	Maintenance Laborer Class A Shift	—	1		1	
NR8651	Maintenance Laborer Class A	1	1		1	
NR6832	Operating Engineer II	1	1		1	
NR6831	Operating Engineer I	6	6		6	
TOTAL 793	Operations Unit	23	24	2,245,646	25	2,346,719
<b>795</b>	<b>General Plant Services Unit</b>					
NR8331	Laborer Foreman	1	1		1	
NR8651	Maintenance Laborer Class A	4	4		4	
NR8652	Maintenance Laborer Class B	1	1		1	
TOTAL 795	General Plant Services Unit	6	6	467,293	6	477,818
TOTAL 790	John E. Egan Water Reclamation Plant Section	32	33	3,135,805	34	3,256,970
TOTAL	Maintenance & Operations North Service Area	244	248	24,733,730	246	24,931,390
Note: There are no positions budgeted for the Stormwater Management Fund for 2020.						
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. Dollar amounts may not add up due to rounding.						

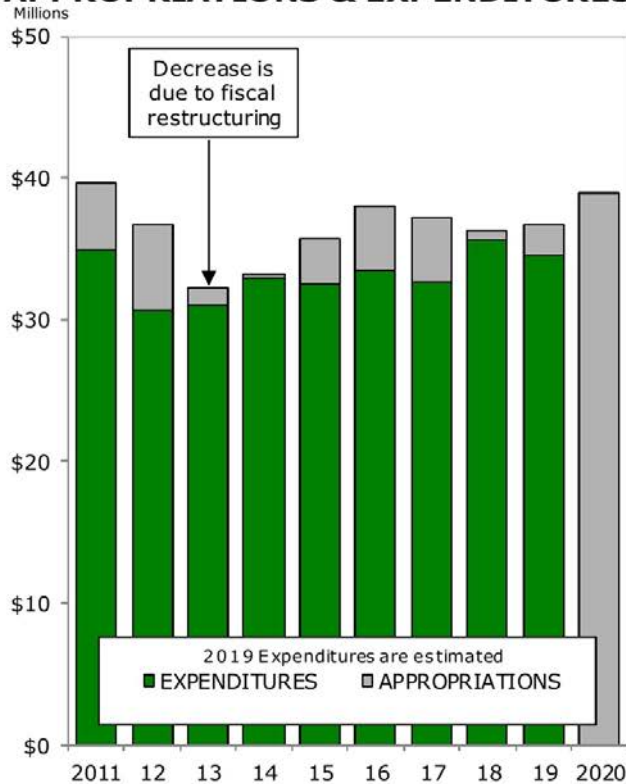
# MAINTENANCE & OPERATIONS – CALUMET SERVICE AREA

2020	\$38,960,500
2019	\$36,727,200
Increase	\$2,233,300

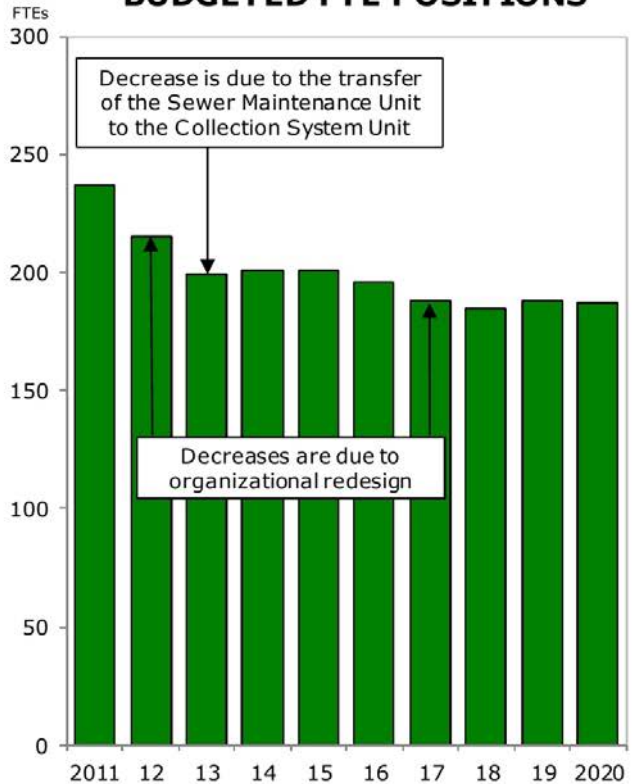
## FUNCTIONS



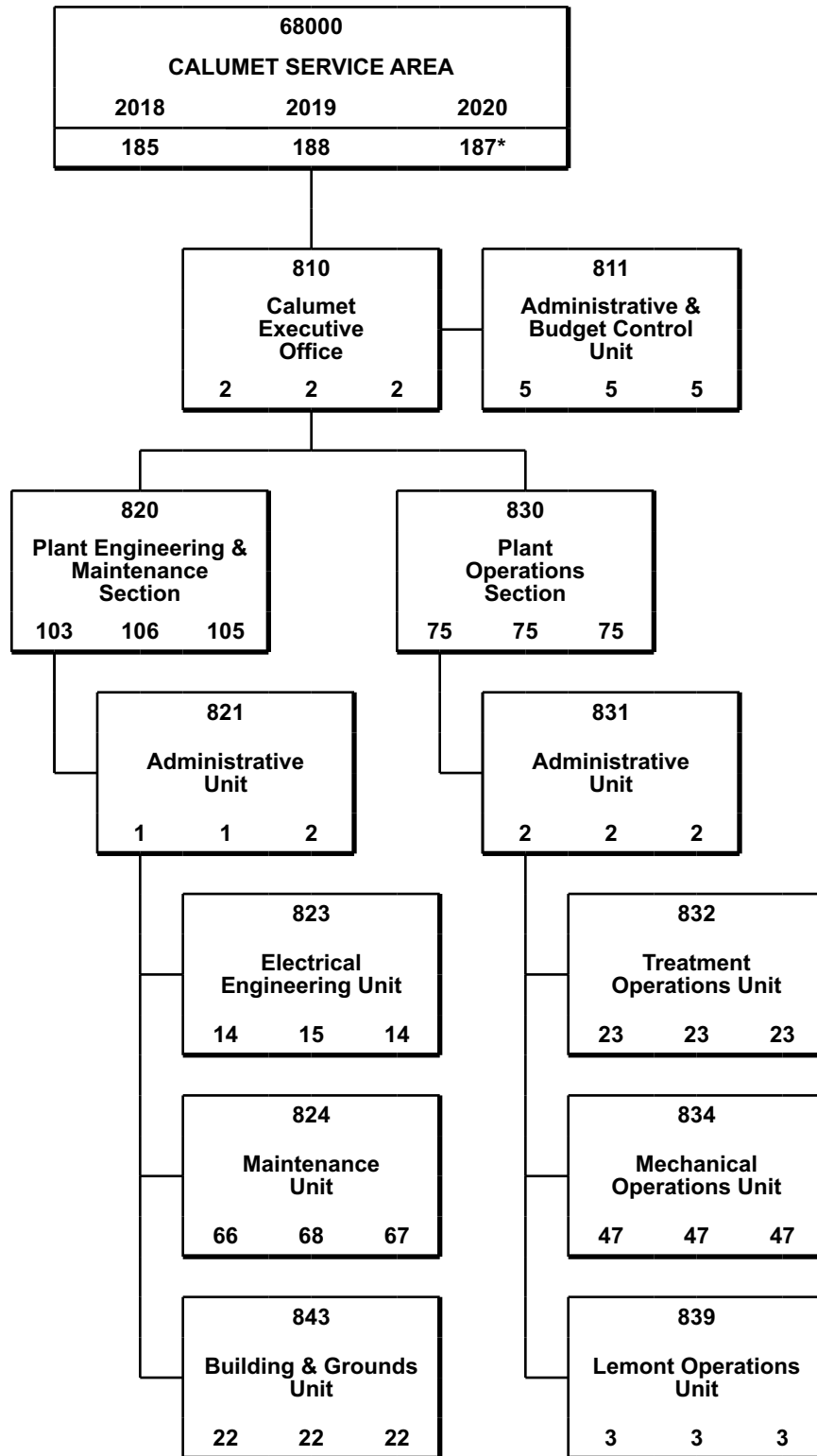
## APPROPRIATIONS & EXPENDITURES



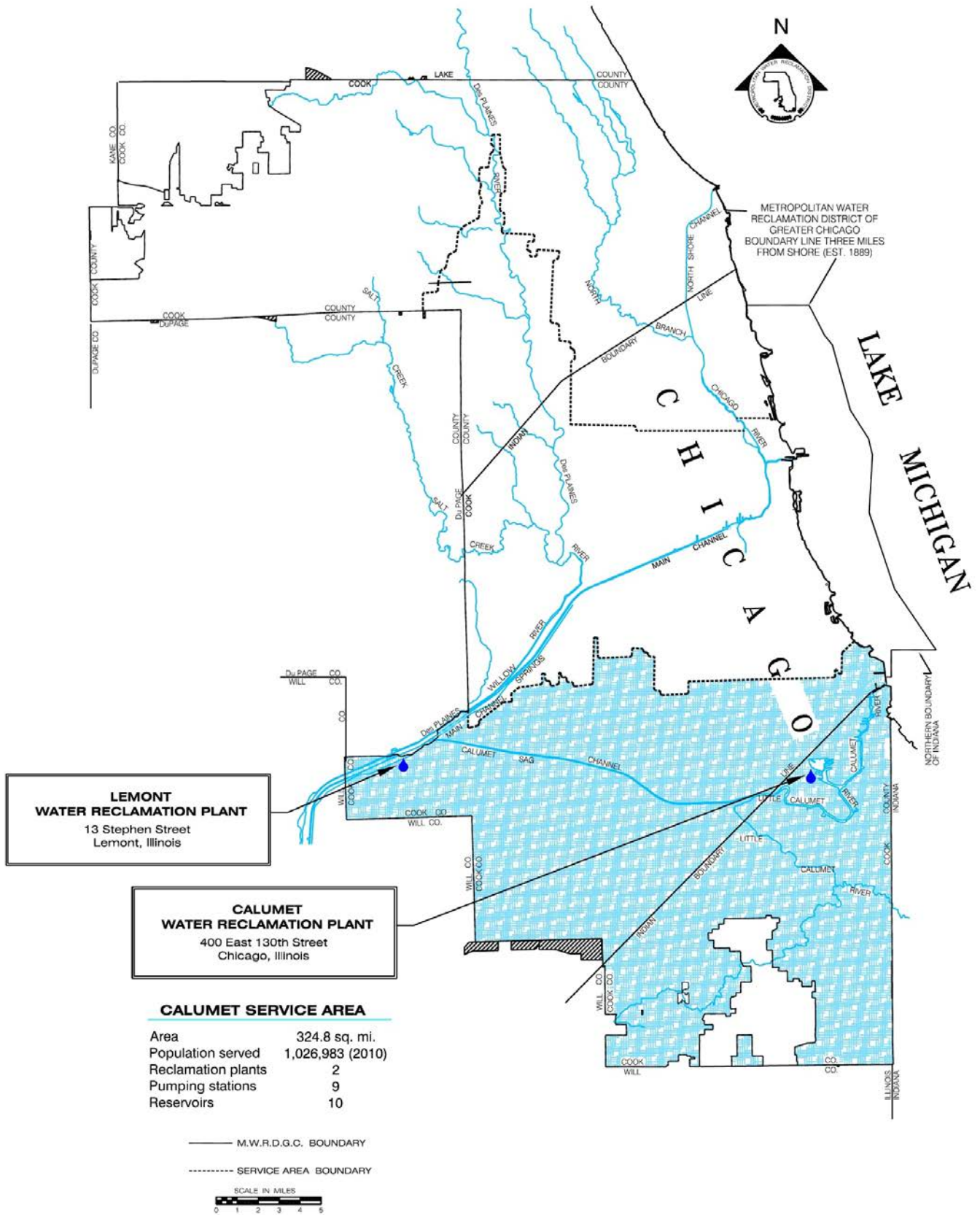
## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS - CALUMET SERVICE AREA



\* In 2020, 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  
 SCALE IN MILES  
 0 1 2 3 4 5

**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 96.0 billion gallons of wastewater through its Calumet and Lemont treatment facilities.		\$30,564,898	78.5%
	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 35,000 dry tons of concentrated sewage through various systems including heated digestion, centrifuging, concentration, and aging low solids sludge and centrifuge cake in lagoons.		\$ 5,992,794	15.4%
3. SOLIDS UTILIZATION: The Calumet Service Area will provide support to the Solids Management Section to utilize approximately 23,000 dry tons of biosolids for application at final utilization sites such as daily and final cover in sanitary landfills.		\$ 907,531	2.3%
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.		\$ 1,113,900	2.8%
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.		\$ 381,377	1.0%
<b>Totals</b>		<b>\$38,960,500</b>	<b>100.0%</b>

MEASURABLE GOALS:		2018	2019	2020
	Unit of Measure	Actual	Estimated	Proposed
1. The Calumet Service Area will collect and treat approximately 96 billion gallons of wastewater in 2020.	Billion Gallons	91	96	96
2. The Calumet Service Area will remove and process solids from 35,000 dry tons of concentrated sewage.	Dry Tons Process Solids	31,387	35,000	35,000
3. The Calumet Service Area will obtain 100 percent permit compliance in 2020 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 23,000 dry tons of biosolids in 2020.	Dry Tons	11,762	23,000	23,000

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$11,089,080	2020	56 \$ 10,349,954	\$ 387,560	3.9	
			2019	56 \$ 9,962,394			
1100	Surface Interceptor Systems	\$ 834,182	2020	4 \$ 479,600	\$ 13,800	3.0	
			2019	4 \$ 465,800			
1200	Tunnel and Reservoir System	\$ 3,593,089	2020	10 \$ 3,289,800	\$ 361,400	12.3	a)
			2019	10 \$ 2,928,400			
1300	Pumping Station Facilities	\$ 2,741,141	2020	15 \$ 2,769,300	\$ 159,600	6.1	b)
			2019	15 \$ 2,609,700			
1900	Collection - Indirect Costs	\$ 3,920,668	2020	27 \$ 3,811,254	\$ (147,240)	(3.7)	
			2019	27 \$ 3,958,494			
2000	Treatment	\$16,255,646	2020	83 \$ 19,941,144	\$ 2,120,119	11.9	
			2019	83 \$ 17,821,025			
2000	Pre-Treatment	\$ 437,192	2020	4 \$ 504,200	\$ 9,400	1.9	
			2019	4 \$ 494,800			
2100	Primary Treatment	\$ 1,068,499	2020	11 \$ 1,082,400	\$ 12,000	1.1	
			2019	11 \$ 1,070,400			
2200	Secondary Treatment	\$ 5,700,833	2020	22 \$ 6,151,800	\$ 661,200	12.0	c)
			2019	22 \$ 5,490,600			
2300	Tertiary Treatment	\$ 1,768,594	2020	5 \$ 2,043,100	\$ (69,700)	(3.3)	
			2019	5 \$ 2,112,800			
2900	Treatment - Indirect Costs	\$ 7,280,528	2020	41 \$ 10,159,644	\$ 1,507,219	17.4	d)
			2019	41 \$ 8,652,425			

a) Increase is due to the increased demand for electrical energy at the Tunnel and Reservoir Plan Pumping Station (\$336,000) and the addition of repair services for sluice gate valve actuators (\$25,000).

b) Increase is due to the increased demand for electrical energy for dry weather pumps (\$128,000).

c) Increase is due to the increased demand for electrical energy for blowers and air mains (\$473,900), the addition of services to paint final tanks (\$160,000), and the addition of services to recondition process blower motors (\$65,000), offset by a reduced demand for Walker drive replacement parts (\$50,000).

d) Increase is due to the planned hardware and software upgrade for the Foxboro Distributed Control System (\$1,092,900), the increased demand for repairs and alterations to plant facilities (\$200,000), services to furnish, deliver, and install gas monitoring equipment (\$150,000), services to perform power distribution equipment cleaning, calibration, and testing (\$100,000), services to perform boiler tuning and maintenance (\$90,500), the increased demand for natural gas usage at the Calumet WRP (\$82,100), the purchase of a hydraulic pump (\$80,000), the reallocation of salaries to more accurately reflect current activities (\$54,000), and the increased demand for electrical energy for buildings at the Calumet WRP (\$52,500), offset by the one-time purchase in 2019 of one dump truck, two stake body trucks, one end loader, and one articulating boom (\$342,400), the replacement in 2019 of heating, ventilation, and air conditioning coils (\$67,500), the completion in 2019 of a one-time upgrade to Foxboro input/output equipment (\$54,000), and the reduced demand for Hitachi pump parts (\$41,000).

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
3000	Solids Processing	\$ 5,822,776	2020 39	\$ 5,992,794	\$ (299,552)	(4.8)
			2019 39	\$ 6,292,346		
3100	Thickening	\$ 785,253	2020 7	\$ 664,400	\$ (260,400)	(28.2)
			2019 7	\$ 924,800		
3200	Stabilization	\$ 1,685,299	2020 9	\$ 1,717,800	\$ 103,900	6.4
			2019 9	\$ 1,613,900		
3300	Dewatering	\$ 265,716	2020 3	\$ 264,300	\$ 5,000	1.9
			2019 3	\$ 259,300		
3900	Solids Processing - Indirect Costs	\$ 3,086,508	2020 20	\$ 3,346,294	\$ (148,052)	(4.2)
			2019 20	\$ 3,494,346		
4000	Flood & Pollution Control	\$ 1,081,794	2020 2	\$ 1,113,900	\$ 417	—
			2019 2	\$ 1,113,483		
4200	Waterways Control and Stormwater Reservoirs	\$ 196,161	2020 1	\$ 199,100	\$ (7,900)	(3.8)
			2019 1	\$ 207,000		
4400	Aeration Facilities	\$ 748,955	2020 1	\$ 766,300	\$ 30,600	4.2
			2019 1	\$ 735,700		
4900	Flood & Pollution Control - Indirect Costs	\$ 136,678	2020 —	\$ 148,500	\$ (22,283)	(13.0)
			2019 —	\$ 170,783		
5000	Solids Utilization	\$ 863,165	2020 4	\$ 907,531	\$ (27,671)	(3.0)
			2019 6	\$ 935,202		
5100	Solids Drying	\$ 63,364	2020 —	\$ 52,600	\$ (300)	(0.6)
			2019 —	\$ 52,900		
5200	Solids Distribution	\$ 63,364	2020 —	\$ 52,600	\$ (300)	(0.6)
			2019 1	\$ 52,900		
5900	Solids Utilization - Indirect Costs	\$ 736,437	2020 4	\$ 802,331	\$ (27,071)	(3.3)
			2019 5	\$ 829,402		
7000	General Support (excluding program number 7604)	\$ 270,319	2020 3	\$ 381,377	\$ 51,427	15.6
			2019 2	\$ 329,950		
7604	Social Security and Medicare Contributions	\$ 258,525	2020 —	\$ 273,800	\$ 1,000	0.4
			2019 —	\$ 272,800		
Totals		\$35,641,305	2020 187	\$ 38,960,500	\$ 2,233,300	6.1%*
			2019 188	\$ 36,727,200		

e) Decrease is due to the suspension of polymer use at the Calumet WRP (\$271,300).

f) Increase is due to the transfer in of one FTE position from the Stickney Service Area of the Maintenance & Operations Department (\$25,200) and the increased demand for electrical energy for the Monitoring & Research Department's building at the Calumet WRP (\$17,200).

\* The 2020 position total for the Calumet Service Area is 187, with no positions budgeted in the Stormwater Management Fund.

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

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Calumet and Lemont Water Reclamation Plants					
	Calumet Water Reclamation Plant	Mil. Gallons	90,081	100,000	95,000	
		Cost	\$ 26,904,887	\$ 27,344,144	\$ 29,849,128	a)
		Cost/Mil. Gallons	\$ 298.67	\$ 273.44	\$ 314.20	
	Lemont Water Reclamation Plant	Mil. Gallons	909	1,000	1,000	
		Cost	\$ 439,839	\$ 439,275	\$ 441,970	
		Cost/Mil. Gallons	\$ 483.87	\$ 439.28	\$ 441.97	
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	31,387	30,000	35,000	b)
		Cost	\$ 5,822,776	\$ 6,292,346	\$ 5,992,794	b)
		Cost/Dry Ton	\$ 185.52	\$ 209.74	\$ 171.22	b)
4000	Flood & Pollution Control					
	Operation and Maintenance of the Waterways to Minimize Area Flooding and Pollution					
4200	Minimize Area Flooding and Pollution of Lake Michigan Through the Continuous Control of Water Levels in Major Rivers and Canals and the Operation of Detention Reservoirs	Reservoirs	10	10	10	
		Cost	\$ 196,161	\$ 207,000	\$ 199,100	
		Cost/Reservoir	\$ 19,616.10	\$ 20,700.00	\$ 19,910.00	
4400	Aeration Facilities	Cost	\$ 748,955	\$ 735,700	\$ 766,300	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 136,678	\$ 170,783	\$ 148,500	
5000	Solids Utilization					
	Utilize Biosolids for Application at Final Utilization Sites, such as for Daily and Final Cover in Sanitary Landfills	Dry Tons	11,762	29,000	23,000	
		Cost	\$ 863,165	\$ 935,202	\$ 907,531	
		Cost/Dry Ton	\$ 73.39	\$ 32.25	\$ 39.46	
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	\$ 270,319	\$ 329,950	\$ 381,377	c)
7604	Social Security and Medicare Contributions	Cost	\$ 258,525	\$ 272,800	\$ 273,800	
	Division Totals		\$ 35,641,305	\$ 36,727,200	\$ 38,960,500	

- a) Increase is due to the planned hardware and software upgrade for the Foxboro Distributed Control System (\$1,092,900), the increased demand for electrical energy for blowers and air mains (\$473,900), the increased demand for electrical energy at the Tunnel and Reservoir Plan Pumping Station (\$336,000), the increased demand for repairs and alterations to plant facilities (\$200,000), the reallocation of salaries to more accurately reflect current activities (\$190,100), the addition of services to paint final tanks (\$160,000), services to furnish, deliver, and install gas monitoring equipment (\$150,000), the increased demand for electrical energy for dry weather pumps (\$128,000), services to perform power distribution equipment cleaning, calibration, and testing (\$100,000), services to perform boiler tuning and maintenance (\$90,500), the purchase of a hydraulic pump (\$80,000), and the addition of services to recondition process blower motors (\$65,000), offset by the one-time purchase in 2019 of one dump truck, two stake body trucks, one end loader, and one articulating boom (\$509,400), the reduced demand for sodium bisulfite usage in the disinfection process (\$85,100), and the completion in 2019 of a one-time upgrade to Foxboro input/output equipment (\$54,000).
- b) Decrease is due to the suspension of polymer use at the Calumet WRP (\$271,300).
- c) Increase is due to the transfer in of one FTE position from the Stickney Service Area of the Maintenance & Operations Department (\$25,200) and the increased demand for electrical energy for the Monitoring & Research Department's building at the Calumet WRP (\$17,200).



Account Number	Account Name	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area							
601010	Salaries of Regular Employees	\$ 17,243,041	\$ 18,245,700	\$ 18,040,700	\$ 12,490,914	\$ 17,576,100	\$ 18,497,300	\$ —
601060	Compensation Plan Adjustments	1,182,297	795,800	990,800	749,775	795,800	1,087,800	—
601070	Social Security and Medicare Contributions	258,525	272,800	272,800	191,617	261,800	273,800	—
601080	Salaries of Nonbudgeted Employees	—	—	38,600	18,840	17,000	—	—
601100	Tuition and Training Payments	23,524	24,500	24,500	7,785	22,800	30,600	—
100	TOTAL PERSONAL SERVICES	18,707,387	19,338,800	19,367,400	13,458,930	18,673,500	19,889,500	—
612010	Travel	743	5,000	5,000	—	2,700	5,000	—
612030	Meals and Lodging	9,701	10,000	10,000	4,744	8,300	10,000	—
612050	Compensation for Personally-Owned Automobiles	36,779	40,000	40,000	36,500	39,600	40,000	—
612080	Motor Vehicle Operating Services	135	100	200	168	200	300	—
612150	Electrical Energy	9,781,031	8,558,300	8,558,300	6,006,758	8,558,300	9,791,400	—
612160	Natural Gas	694,439	565,200	565,200	454,378	565,200	681,300	—
612170	Water and Water Services	385,127	390,200	390,200	247,069	390,200	390,500	—
612210	Communication Services	336,301	—	3,000	2,917	—	3,000	—
612240	Testing and Inspection Services	42,681	66,900	57,700	40,835	33,800	73,300	—
612330	Rental Charges	9,200	10,000	10,000	300	2,000	15,000	—
612410	Governmental Service Charges	98,116	103,000	103,000	97,491	100,100	103,000	—
612420	Maintenance of Grounds and Pavements	—	145,000	137,000	59,328	80,500	145,000	—
612490	Contractual Services, N.O.C.	3,634	10,500	10,500	4,465	4,000	10,500	—
612520	Waste Material Disposal Charges	343,777	392,100	392,100	384,521	362,200	410,800	—
612600	Repairs to Collection Facilities	41,313	153,300	149,100	142,350	104,500	101,500	—
612650	Repairs to Process Facilities	1,643,373	1,748,600	1,694,900	1,667,489	1,465,200	3,550,400	—
612680	Repairs to Buildings	315,526	494,300	429,700	437,667	374,700	481,300	—
612760	Repairs to Material Handling and Farming Equipment	89,314	52,000	52,000	45,870	45,900	52,000	—
612780	Safety Repairs and Services	13,994	20,000	20,000	20,000	18,000	20,000	—
612860	Repairs to Vehicle Equipment	52,928	53,500	53,500	53,450	52,500	53,500	—
612990	Repairs, N.O.C.	2,141	8,000	8,000	1,000	4,400	8,000	—
200	TOTAL CONTRACTUAL SERVICES	13,900,254	12,826,000	12,689,400	9,707,299	12,212,300	15,945,800	—
623030	Metals	7,708	10,100	14,700	12,512	11,500	10,100	—
623070	Electrical Parts and Supplies	520,088	424,800	544,800	459,354	424,800	387,300	—
623090	Plumbing Accessories and Supplies	281,878	204,600	204,600	147,613	174,100	226,100	—
623110	Hardware	2,383	2,800	2,800	2,800	2,500	2,800	—

101 68000	Fund: Corporate Department: Maintenance & Operations Division: Calumet Service Area	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623130	Buildings, Grounds, Paving Materials, and Supplies	31,957	51,600	46,600	40,193	36,100	52,500	—
623190	Paints, Solvents, and Related Materials	2,595	2,800	2,800	2,800	2,400	2,800	—
623250	Vehicle Parts and Supplies	33,668	36,000	36,000	36,000	31,400	36,000	—
623270	Mechanical Repair Parts	678,203	844,600	811,100	673,738	660,100	527,100	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	11,210	10,000	9,300	7,727	9,300	10,000	—
623560	Processing Chemicals	1,297,294	1,916,800	1,747,400	1,724,809	1,239,300	1,555,900	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	1,307	3,000	3,000	2,110	2,900	3,000	—
623660	Cleaning Supplies	2,219	1,000	700	500	700	1,000	—
623680	Tools and Supplies	26,572	38,300	38,300	37,449	36,000	48,300	—
623780	Safety and Medical Supplies	13,268	20,300	20,300	17,504	16,100	20,300	—
623810	Computer Supplies	—	300	6,300	6,088	200	—	—
623820	Fuel	40,980	47,400	47,400	47,359	44,200	50,000	—
623860	Lubricants	—	2,000	1,000	500	500	2,000	—
623990	Materials and Supplies, N.O.C.	19,372	32,000	32,000	25,049	23,000	31,000	—
300	TOTAL MATERIALS AND SUPPLIES	2,970,700	3,648,400	3,569,100	3,244,105	2,715,100	2,966,200	—
634650	Equipment for Process Facilities	62,964	79,000	62,500	61,128	62,000	159,000	—
634760	Material Handling and Farming Equipment	—	300,000	293,000	292,990	293,000	—	—
634860	Vehicle Equipment	—	535,000	524,300	524,297	524,300	—	—
634990	Machinery and Equipment, N.O.C.	—	—	6,100	5,761	—	—	—
400	TOTAL MACHINERY AND EQUIPMENT	62,964	914,000	885,900	884,176	879,300	159,000	—
TOTAL CALUMET SERVICE AREA		\$ 35,641,306	\$ 36,727,200	\$ 36,511,800	\$ 27,294,509	\$ 34,480,200	\$ 38,960,500	\$ —

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

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

Additionally, Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.

3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
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 810	Calumet Executive Office	2	2	314,037	2	304,330
<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 811	Administrative & Budget Control Unit	5	5	411,531	5	419,039
<b>820</b>	<b>Plant Engineering &amp; Maintenance Section</b>					
<b>821</b>	<b>Administrative Unit</b>					
HP20	Managing Engineer	1	1		1	
HP14	Engineering Technician V	—	—		1	
TOTAL 821	Administrative Unit	1	1	200,508	2	293,796
<b>823</b>	<b>Electrical Engineering Unit</b>					
HP15	Associate Process Control Engineer	1	2		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 823	Electrical Engineering Unit	14	15	1,521,636	14	1,462,870
<b>824</b>	<b>Maintenance Unit</b>					
HP19	Master Mechanic	—	1		1	
HP18	Master Mechanic I	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	

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2018	2019		2020	
					Proposed by the Executive Director	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
PR5153	Carpenter	2	2		2	
PR7425	Electrical Instrument & Testing Mechanic Foreman	1	1		1	
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	10		10	
PR6453	Hoisting Engineer	3	3		3	
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 824	Maintenance Unit	66	68	7,076,768	67	7,062,176
<b>843</b>	<b>Buildings &amp; Grounds Unit</b>					
HP14	Engineering Technician V	—	1		1	
HP12	Engineering Technician IV	2	1		1	
NR8331	Laborer Foreman	2	2		2	
NR8651	Maintenance Laborer Class A	8	8		8	
NR8652	Maintenance Laborer Class B	10	10		10	
TOTAL 843	Buildings & Grounds Unit	22	22	1,552,037	22	1,593,152
TOTAL 820	Plant Engineering & Maintenance Section	103	106	10,350,949	105	10,411,994
<b>830</b>	<b>Plant Operations Section</b>					
<b>831</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations 1 #2 (Managing Engineer) (New Grade HP20)	1	1		1	

Fund: Corporate Dept: Maintenance & Operations Division: Calumet Service Area		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
HP18	Principal Engineer	1	1		1	
TOTAL 831	Administrative Unit	2	2	376,626	2	376,626
<b>832</b>	<b>Treatment Operations Unit</b>					
HP16	Treatment Plant Operator III	1	1		1	
HP14	Treatment Plant Operator II	7	7		7	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	5	5		5	
NR8650	Maintenance Laborer Class A Shift	8	8		8	
NR8651	Maintenance Laborer Class A	1	1		1	
TOTAL 832	Treatment Operations Unit	23	23	2,059,247	23	2,083,527
<b>834</b>	<b>Mechanical Operations Unit</b>					
HP17	Chief Operating Engineer I	1	1		1	
HP16	Assistant Chief Operating Engineer	2	2		2	
NR6810	Fireman-Oiler	5	5		5	
NR8650	Maintenance Laborer Class A Shift	7	7		7	
NR6832	Operating Engineer II	12	12		12	
NR6831	Operating Engineer I	18	18		18	
PR6473	Truck Driver	2	2		2	
TOTAL 834	Mechanical Operations Unit	47	47	4,704,766	47	4,809,986
<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 839	Lemont Operations Unit	3	3	278,394	3	278,394
TOTAL 830	Plant Operations Section	75	75	7,419,034	75	7,548,533
TOTAL	Maintenance & Operations Calumet Service Area	185	188	18,495,550	187	18,683,895

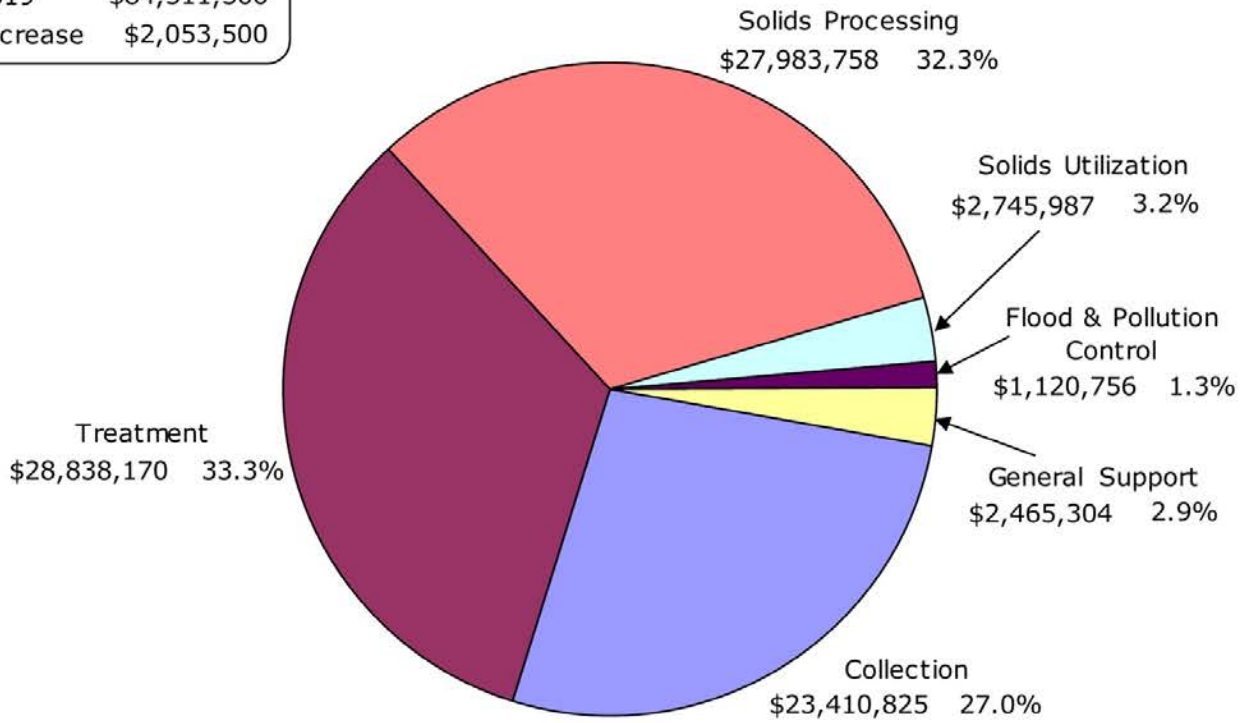
Note: There are no positions budgeted for the Stormwater Management Fund for 2020.

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. Dollar amounts may not add up due to rounding.

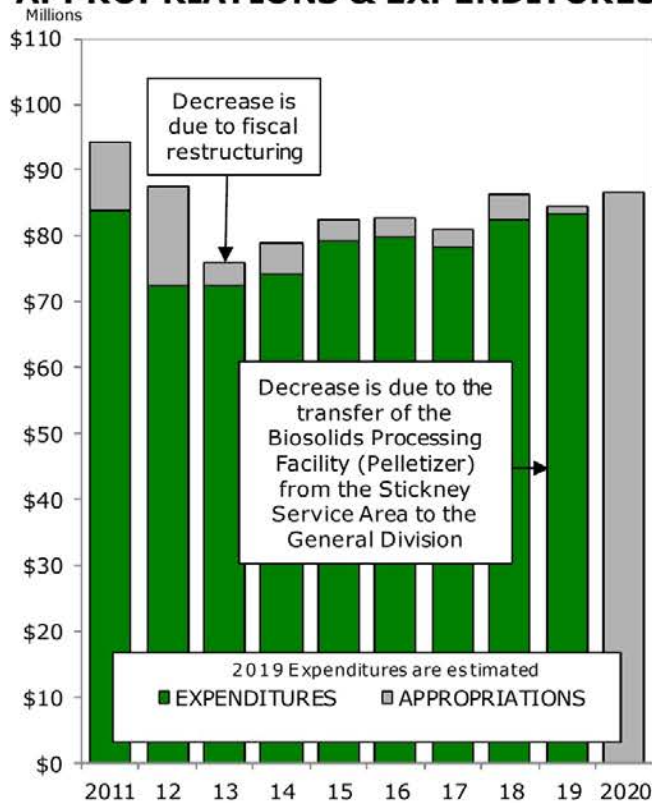
# MAINTENANCE & OPERATIONS – STICKNEY SERVICE AREA

2020	\$86,564,800
2019	\$84,511,300
Increase	\$2,053,500

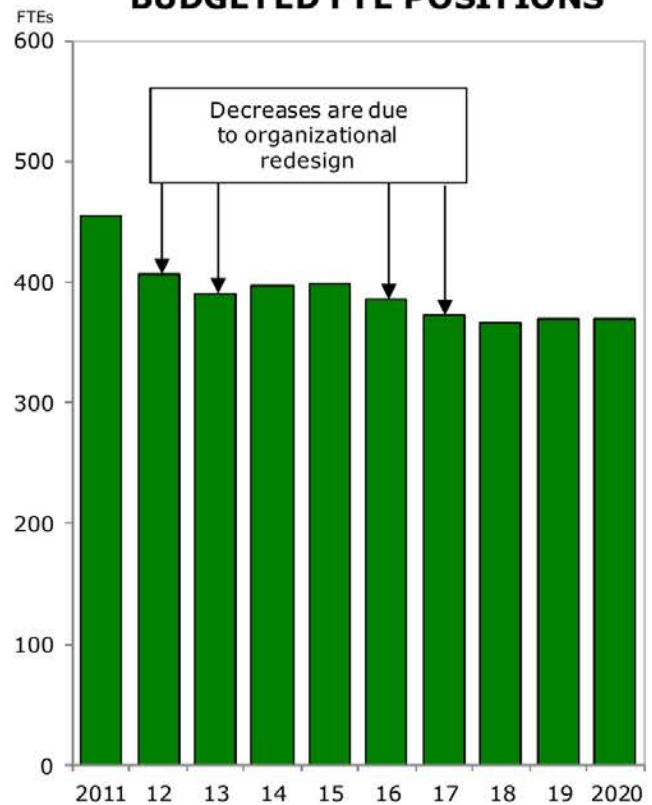
## FUNCTIONS



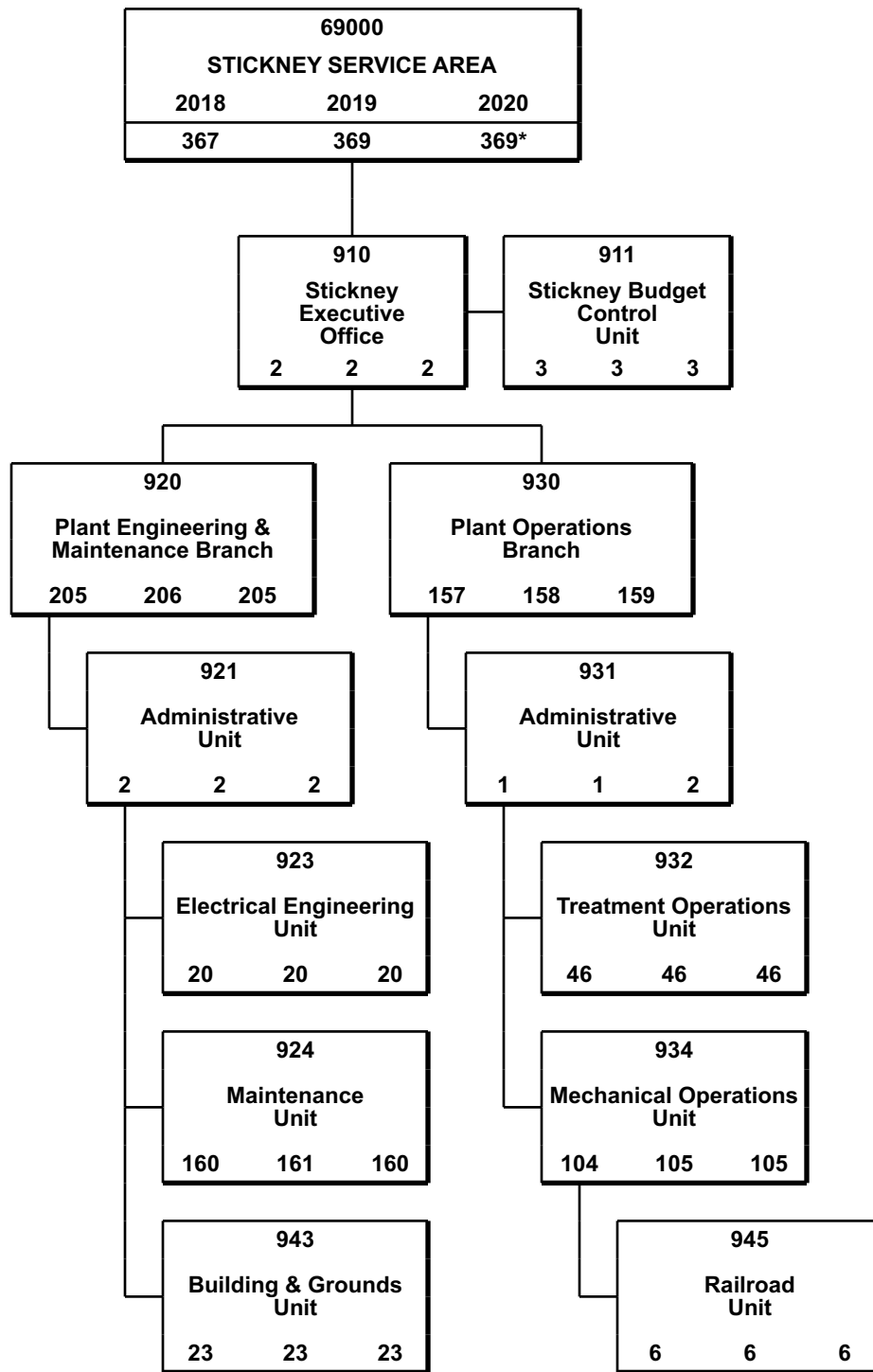
## APPROPRIATIONS & EXPENDITURES



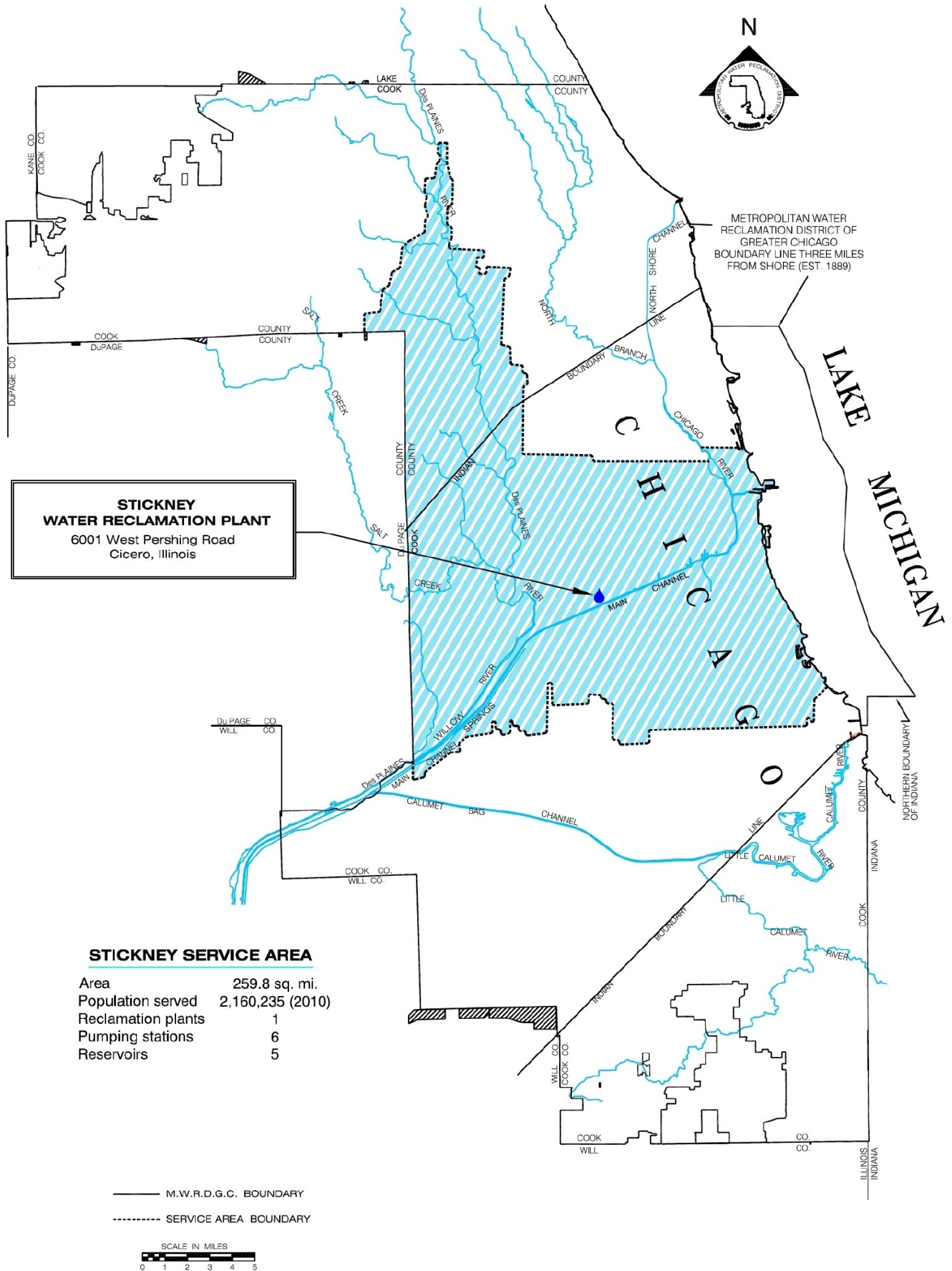
## BUDGETED FTE POSITIONS



# MAINTENANCE & OPERATIONS - STICKNEY SERVICE AREA



\* In 2020, 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 285 billion gallons of wastewater through its treatment facilities.	\$52,248,995	60.3%
	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 94,500 dry tons and process solids from 139,500 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.	\$27,983,758	32.3%
3.	SOLIDS UTILIZATION: The Stickney Service Area will provide support to the Solids Management Section to utilize 76,000 dry tons of biosolids for application at final utilization sites, such as farm application, and as daily and final cover in sanitary landfills.	\$ 2,745,987	3.2%
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.	\$ 1,120,756	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.	\$2,465,304	2.9%
Totals		<u>\$86,564,800</u>	<u>100.0%</u>

MEASURABLE GOALS:		2018	2019	2020
		Actual	Estimated	Proposed
1.	The Stickney Service Area will collect and treat approximately 285 billion gallons of wastewater in 2020.	Billion Gallons	284	285
2.	The Stickney Service Area will remove and process solids from 139,500 dry tons of concentrated sewage, including 45,000 dry tons transferred from the North Service Area.	Dry Tons Process Solids	136,015	139,500
3.	The Stickney Service Area will obtain 100 percent permit compliance in 2020 for National Pollutant Discharge Elimination System effluent limits.	Percent	99.83%	98.26%
4.	The Stickney Service Area will provide support to utilize 76,000 dry tons of biosolids in 2020 (does not include Pelletizer Facility Operations).	Dry Tons	48,242	76,000

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
1000	Collection	\$21,628,106	2020	79 \$23,410,825	\$ (1,369,076)	(5.5)	
			2019	79 \$24,779,901			
1100	Surface Interceptor Systems	\$ 228,069	2020	— \$ 224,800	\$ 30,900	15.9	a)
			2019	— \$ 193,900			
1200	Tunnel and Reservoir System	\$ 5,647,109	2020	13 \$ 5,991,100	\$ (2,528,400)	(29.7)	b)
			2019	12 \$ 8,519,500			
1300	Pumping Station Facilities	\$ 7,308,190	2020	28 \$ 8,089,600	\$ 854,900	11.8	c)
			2019	28 \$ 7,234,700			
1900	Collection - Indirect Costs	\$ 8,444,738	2020	38 \$ 9,105,325	\$ 273,524	3.1	d)
			2019	39 \$ 8,831,801			
2000	Treatment	\$26,364,023	2020	125 \$28,291,470	\$ 2,191,769	8.4	
			2019	125 \$26,099,701			
2000	Pre-Treatment	\$ 1,929,799	2020	17 \$ 2,008,900	\$ 6,400	0.3	
			2019	17 \$ 2,002,500			
2100	Primary Treatment	\$ 1,537,651	2020	18 \$ 1,698,600	\$ 40,800	2.5	
			2019	18 \$ 1,657,800			
2200	Secondary Treatment	\$ 9,293,054	2020	26 \$ 8,361,800	\$ 1,129,300	15.6	e)
			2019	26 \$ 7,232,500			
2300	Tertiary Treatment	\$ 15,977	2020	— \$ 15,200	\$ 200	1.3	
			2019	— \$ 15,000			
2900	Treatment - Indirect Costs	\$13,587,542	2020	64 \$16,206,970	\$ 1,015,069	6.7	f)
			2019	64 \$15,191,901			

a) Increase is due to the increased demand for electrical energy for pumping stations and control gates at the Stickney WRP (\$23,900) and Tunnel and Reservoir Plan radio maintenance (\$7,000).

b) Decrease is due to the reduced demand for electrical energy for the Mainstream Pumping Station and Tunnel and Reservoir Plan facilities (\$2,588,300), offset by the increased demand for actuator parts and services (\$25,000), the reallocation of salaries to more accurately reflect current activities (\$21,000), and Janus radio parts and services (\$13,000).

c) Increase is due to the increased demand for electrical energy for pumping stations and control gates at the Stickney WRP (\$814,300) and the reallocation of salaries to more accurately reflect current activities (\$45,900).

d) Increase is due to the increased demand for power distribution equipment cleaning (\$175,000), thickening and dewatering centrifuge parts (\$96,400), services to repair Alimak manlifts at the Mainstream Pumping Station (\$57,200), overhead door maintenance (\$52,000), electrical energy at the Stickney WRP (\$43,800), and elevator maintenance at the Stickney WRP (\$30,000), offset by the reduced demand for repairs and alterations to plant facilities (\$109,000) and water services at the Mainstream Pumping Station (\$108,200).

e) Increase is due to the increased demand for electrical energy for aeration blowers (\$612,100), final tank painting (\$360,000), the reconditioning of process blower motors (\$65,000), the reallocation of salaries to more accurately reflect current activities (\$47,200), and sodium hypochlorite (\$37,000).

f) Increase is due to the increased demand for pavement resurfacing (\$226,700), water services for the Stickney WRP and Racine Avenue Pumping Station (\$213,800), the acquisition and installation of gas monitoring equipment (\$175,000), natural gas services for process and building heat for the Stickney WRP (\$130,700), boiler tuning and maintenance (\$110,500), station batteries (\$100,000), services to maintain the distributed control system (\$95,300), thickening and dewatering centrifuges parts (\$92,300), heating, ventilation, and air conditioning coils (\$83,000), various replacement shop equipment (\$63,500), services to maintain the heating, ventilation, and air conditioning system (\$60,100), and building repairs (\$50,000), offset by the purchase in 2019 of personnel vehicles (\$204,000) and the reduced demand for District-wide grounds and pavement repair (\$100,000) and landscaping services (\$94,300).

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

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
3000	Solids Processing	\$24,331,550	2020	132 \$ 27,983,758	\$ 853,494	3.1	
			2019	132 \$ 27,130,264			
3100	Thickening	\$ 4,053,704	2020	25 \$ 5,216,600	\$ 787,000	17.8	g)
			2019	25 \$ 4,429,600			
3200	Stabilization	\$ 3,696,511	2020	27 \$ 3,828,900	\$ 141,100	3.8	
			2019	27 \$ 3,687,800			
3300	Dewatering	\$ 9,636,346	2020	32 \$ 11,027,900	\$ (612,100)	(5.3)	h)
			2019	32 \$ 11,640,000			
3900	Solids Processing - Indirect Costs	\$ 6,944,989	2020	48 \$ 7,910,358	\$ 537,494	7.3	i)
			2019	48 \$ 7,372,864			
4000	Flood & Pollution Control	\$ 912,953	2020	6 \$ 1,120,756	\$ 72,276	6.9	
			2019	7 \$ 1,048,480			
4200	Waterways Control and Stormwater Reservoirs	\$ 605,623	2020	5 \$ 543,200	\$ 3,800	0.7	
			2019	5 \$ 539,400			
4900	Flood & Pollution Control - Indirect Costs	\$ 307,330	2020	1 \$ 577,556	\$ 68,476	13.5	
			2019	2 \$ 509,080			
5000	Solids Utilization	\$ 6,432,172	2020	12 \$ 2,745,987	\$ 215,467	8.5	
			2019	11 \$ 2,530,520			
5100	Solids Drying	\$ 561,986	2020	5 \$ 478,800	\$ (2,300)	(0.5)	
			2019	5 \$ 481,100			
5200	Solids Distribution	\$ 4,561,822	2020	1 \$ 771,600	\$ 105,700	15.9	j)
			2019	— \$ 665,900			
5900	Solids Utilization - Indirect Costs	\$ 1,308,364	2020	6 \$ 1,495,587	\$ 112,067	8.1	
			2019	6 \$ 1,383,520			
7000	General Support (excluding program number 7604)	\$ 2,298,521	2020	15 \$ 2,465,304	\$ 86,270	3.6	
			2019	15 \$ 2,379,034			
7604	Social Security and Medicare Contributions	\$ 512,672	2020	— \$ 546,700	\$ 3,300	0.6	
			2019	— \$ 543,400			
Totals		\$82,479,997	2020	369 \$ 86,564,800	\$ 2,053,500	2.4%	*
			2019	369 \$ 84,511,300			

g) Increase is due to the increased demand for rehabilitation services for dewatering centrifuges (\$625,000), electrical energy for pre-digestion centrifuges (\$104,200), and polymer (\$28,000).

h) Decrease is due to the reduced demand for sodium hydroxide (\$910,000), magnesium chloride (\$520,000), sulfuric acid (\$205,500), liquid carbon dioxide (\$125,000), and sludge feed pump isolation valves (\$25,000), offset by the increased demand for polymer (\$1,074,000), electrical energy for post-digestion centrifuges (\$62,900), and repairs to the Rockwell system (\$40,000).

i) Increase is due to the increased demand for thickening and dewatering centrifuges parts (\$136,500), railroad car maintenance (\$124,300), electrical energy for general service and the Ostara process at the Stickney WRP (\$119,200), the increased estimate for paid overtime (\$97,700), and spare electrical and mechanical parts (\$47,300).

j) Increase is due to the increased demand for electrical energy for the Pelletizing Facility (\$83,600).

\* The 2020 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		2018 Actual	2019 Budgeted	2020 Estimated	
1000-2900	Collection & Treatment					
	Collect and Treat Wastewater at the Stickney Water Reclamation Plant	Mil. Gallons	284,208	276,000	285,000	
		Cost	\$ 47,992,129	\$ 50,879,602	\$ 51,702,295	a)
		Cost/Mil. Gallons	\$ 168.86	\$ 184.35	\$ 181.41	
3000	Solids Processing					
	Remove 94,500 Dry Tons of Solids and Process 139,500 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	136,015	137,000	139,500	
		Cost	\$ 24,331,550	\$ 27,130,264	\$ 27,983,758	b)
		Cost/Dry Ton	\$ 178.89	\$ 198.03	\$ 200.60	
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	5	5	5	
		Cost	\$ 605,623	\$ 539,400	\$ 543,200	
		Cost/Reservoir	\$ 121,124.60	\$ 107,880.00	\$ 108,640.00	
4900	Flood & Pollution Control - Indirect Costs	Cost	\$ 307,330	\$ 509,080	\$ 577,556	
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	48,242	70,000	76,000	
		Cost	\$ 1,914,854	\$ 1,901,620	\$ 2,033,287	
		Cost/Dry Ton	\$ 39.69	\$ 27.17	\$ 26.75	
5271	Pelletizer Disposal	Dry Tons	39,336	—	—	
	Control Management and Disposal of Solids by Private Contracts	Cost	\$ 4,517,318	\$ 628,900	\$ 712,700	
		Cost/Dry Ton	\$ 114.84	\$ —	\$ —	
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	\$ 2,298,521	\$ 2,379,034	\$ 2,465,304	
7604	Social Security and Medicare Contributions	Cost	\$ 512,672	\$ 543,400	\$ 546,700	
	Division Totals		\$ 82,479,997	\$ 84,511,300	\$ 86,564,800	

a) Increase is due to the increased demand for final tank painting (\$360,000), pavement resurfacing (\$226,700), thickening and dewatering centrifuge parts (\$188,700), power distribution equipment cleaning (\$175,000), the acquisition and installation of gas monitoring equipment (\$175,000), natural gas services for process and building heat (\$130,700), boiler tuning and maintenance (\$110,500), water services (\$105,600), station batteries (\$100,000), services to maintain the distributed control system (\$95,300), heating, ventilation, and air conditioning coils (\$83,000), various replacement shop equipment (\$63,500), and building repairs (\$50,000), offset by the reduced demand for electrical energy (\$1,037,300).

b) Increase is due to the increased demand for polymer (\$1,074,000), rehabilitation services for dewatering centrifuges (\$625,000), electrical energy (\$390,500), and reallocation of salaries to more accurately reflect current activities (\$138,500), offset by the reduced demand for sodium hydroxide (\$910,000) and magnesium chloride (\$520,000).

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 34,673,981	\$ 36,701,800	\$ 36,101,800	\$ 25,043,611	\$ 35,548,700	\$ 37,124,200	\$ —
601060	Compensation Plan Adjustments	2,091,249	2,007,800	2,607,800	1,921,546	2,106,100	2,542,500	—
601070	Social Security and Medicare Contributions	512,672	543,400	543,400	390,922	536,600	546,700	—
601080	Salaries of Nonbudgeted Employees	—	1,500	1,500	—	—	1,500	—
601100	Tuition and Training Payments	75,049	91,500	91,500	32,054	80,000	91,500	—
100	TOTAL PERSONAL SERVICES	37,352,951	39,346,000	39,346,000	27,388,133	38,271,400	40,306,400	—
612010	Travel	6,101	7,400	7,400	573	5,000	5,400	—
612030	Meals and Lodging	23,815	21,600	21,600	16,839	21,000	26,500	—
612050	Compensation for Personally-Owned Automobiles	42,138	40,000	40,000	33,484	38,000	45,000	—
612080	Motor Vehicle Operating Services	66	300	300	29	200	300	—
612150	Electrical Energy	20,668,245	20,726,700	20,726,700	13,236,322	22,926,700	20,226,600	—
612160	Natural Gas	1,732,690	1,896,600	1,866,600	908,785	1,800,000	2,022,600	—
612170	Water and Water Services	1,538,092	1,437,600	1,437,600	1,116,891	1,337,900	1,543,200	—
612210	Communication Services	181,452	—	—	—	—	—	—
612240	Testing and Inspection Services	106,524	51,500	57,700	49,881	51,200	64,400	—
612330	Rental Charges	130,631	139,900	139,800	139,218	133,000	146,000	—
612410	Governmental Service Charges	89,880	90,200	90,200	89,880	90,200	90,200	—
612420	Maintenance of Grounds and Pavements	136,054	505,000	143,700	139,610	203,500	550,500	—
612430	Payments for Professional Services	18,540	19,000	19,000	18,540	18,600	19,000	—
612490	Contractual Services, N.O.C.	188,918	403,700	386,400	371,537	324,300	372,400	—
612520	Waste Material Disposal Charges	542,014	606,500	606,500	606,500	539,000	583,000	—
612590	Sludge Disposal	3,785,843	—	—	—	—	—	—
612600	Repairs to Collection Facilities	2,099,659	2,071,500	2,320,300	2,320,218	2,261,000	2,032,000	—
612650	Repairs to Process Facilities	2,529,413	3,080,700	3,429,200	3,417,874	3,162,000	4,698,500	—
612670	Repairs to Railroads	312,917	266,900	417,600	302,749	216,000	396,700	—
612680	Repairs to Buildings	237,061	289,000	268,300	264,447	253,000	471,500	—
612780	Safety Repairs and Services	119,336	215,100	215,100	214,162	170,200	215,100	—
612840	Communications Equipment Maintenance (Includes Software)	3,120	—	—	—	—	—	—
612860	Repairs to Vehicle Equipment	16,453	24,600	18,800	18,730	16,000	24,600	—
612990	Repairs, N.O.C.	1,202	16,500	16,500	16,200	15,900	16,500	—
200	TOTAL CONTRACTUAL SERVICES	34,510,162	31,910,300	32,229,300	23,282,467	33,582,700	33,550,000	—
623030	Metals	9,949	10,400	12,800	12,800	10,300	10,400	—
623070	Electrical Parts and Supplies	934,311	1,041,700	1,106,700	1,039,885	1,041,700	1,108,200	—
623090	Plumbing Accessories and Supplies	231,648	452,800	349,000	323,033	387,000	338,600	—

101 69000	Fund: Corporate Department: Maintenance & Operations Division: Stickney Service Area	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623110	Hardware	3,398	3,500	3,500	3,286	3,100	6,100	—
623130	Buildings, Grounds, Paving Materials, and Supplies	32,840	40,200	50,700	50,578	47,500	40,200	—
623170	Fiber, Paper, and Insulation Materials	4,641	11,100	11,100	11,016	9,500	13,500	—
623190	Paints, Solvents, and Related Materials	3,388	8,800	8,800	8,800	2,300	1,300	—
623250	Vehicle Parts and Supplies	42,416	38,000	38,000	37,658	36,400	38,000	—
623270	Mechanical Repair Parts	2,027,063	1,927,800	2,100,000	1,954,676	1,927,800	2,458,100	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	10,635	11,000	15,000	14,258	11,600	11,000	—
623560	Processing Chemicals	7,024,418	8,966,000	8,384,800	8,213,073	7,256,000	8,300,500	—
623570	Laboratory Testing Supplies, Small Equipment, and Chemicals	364	—	1,600	1,280	1,400	800	—
623660	Cleaning Supplies	465	700	1,000	782	600	700	—
623680	Tools and Supplies	97,140	124,100	124,100	117,451	105,000	99,100	—
623700	Wearing Apparel	—	600	600	245	600	600	—
623780	Safety and Medical Supplies	20,775	1,400	1,400	145	300	1,400	—
623800	Computer Software	19,239	18,100	18,100	15,542	15,500	61,500	—
623810	Computer Supplies	26,257	143,300	79,800	75,489	85,800	10,000	—
623820	Fuel	63,906	92,000	92,000	91,910	83,900	87,400	—
623840	Gases	58	600	600	600	500	600	—
623850	Communications Supplies	4,900	—	—	—	—	—	—
623860	Lubricants	1,659	1,200	2,900	2,854	2,900	1,200	—
623990	Materials and Supplies, N.O.C.	38,285	46,700	42,200	34,848	19,900	31,700	—
300	TOTAL MATERIALS AND SUPPLIES	10,597,755	12,940,000	12,444,700	12,010,210	11,049,600	12,620,900	—
634650	Eqpt for Proc Facil	—	—	70,000	68,900	—	—	—
634670	Railroad Equipment	—	—	20,800	20,779	20,800	—	—
634860	Vehicle Equipment	—	279,000	282,900	282,723	282,800	—	—
634970	Testing and Laboratory Equipment	7,904	—	—	—	—	—	—
634990	Machinery and Equipment, N.O.C.	11,225	36,000	32,400	32,308	32,400	87,500	—
400	TOTAL MACHINERY AND EQUIPMENT	19,129	315,000	406,100	404,711	336,000	87,500	—
<b>TOTAL STICKNEY SERVICE AREA</b>		<b>\$ 82,479,997</b>	<b>\$ 84,511,300</b>	<b>\$ 84,426,100</b>	<b>\$ 63,085,520</b>	<b>\$ 83,239,700</b>	<b>\$ 86,564,800</b>	<b>\$ —</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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.  
 3. For the M&O Department, Expenditure (Committed Budget plus Disbursement) may exceed Adjusted Appropriation for a specific division as funding is controlled at the M&O Overall department-level.

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
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	—	—		1	
HP23	Deputy Director of Maintenance & Operations #2 (Assistant Director of Maintenance & Operations) (New Grade HP22)	1	1		—	
HP12	Secretary #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
TOTAL 910	Stickney Executive Office	2	2	350,262	2	350,262
<b>911</b>	<b>Stickney Budget Control Unit</b>					
HP14	Budget & Management Analyst	2	2		2	
HP11	Administrative Specialist	1	1		1	
TOTAL 911	Stickney Budget Control Unit	3	3	279,955	3	279,955
<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		—	
HP20	Engineer of Treatment Plant Operations I	—	—		1	
HP11	Administrative Specialist	1	1		1	
TOTAL 921	Administrative Unit	2	2	290,457	2	290,457
<b>923</b>	<b>Electrical Engineering Unit</b>					
HP18	Principal Electrical Engineer	1	1		—	
HP17	Senior Electrical Engineer	—	—		1	
HP15	Associate Process Control Engineer	1	1		1	
HP14	Engineering Technician V	1	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 923	Electrical Engineering Unit	20	20	2,162,274	20	2,151,098
<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	—		—	
HP19	Master Mechanic	—	1		1	
HP17	Assistant Master Mechanic	5	5		5	
HP14	Engineering Technician V	2	2		1	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP11	Administrative Specialist	1	1		1	
PR5935	Architectural Ironworker Leadman	1	1		1	
PR5933	Architectural Ironworker	3	3		3	
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	26		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	23		23	
		(*1)	(*1)		(*1)	
PR5759	Plumber Foreman	1	1		1	
PR5753	Plumber	4	4		4	
PR5955	Sheet Metal Worker Leadman	1	1		1	
PR5953	Sheet Metal Worker	6	6		6	
PR6479	Truck Driver Foreman	1	1		1	



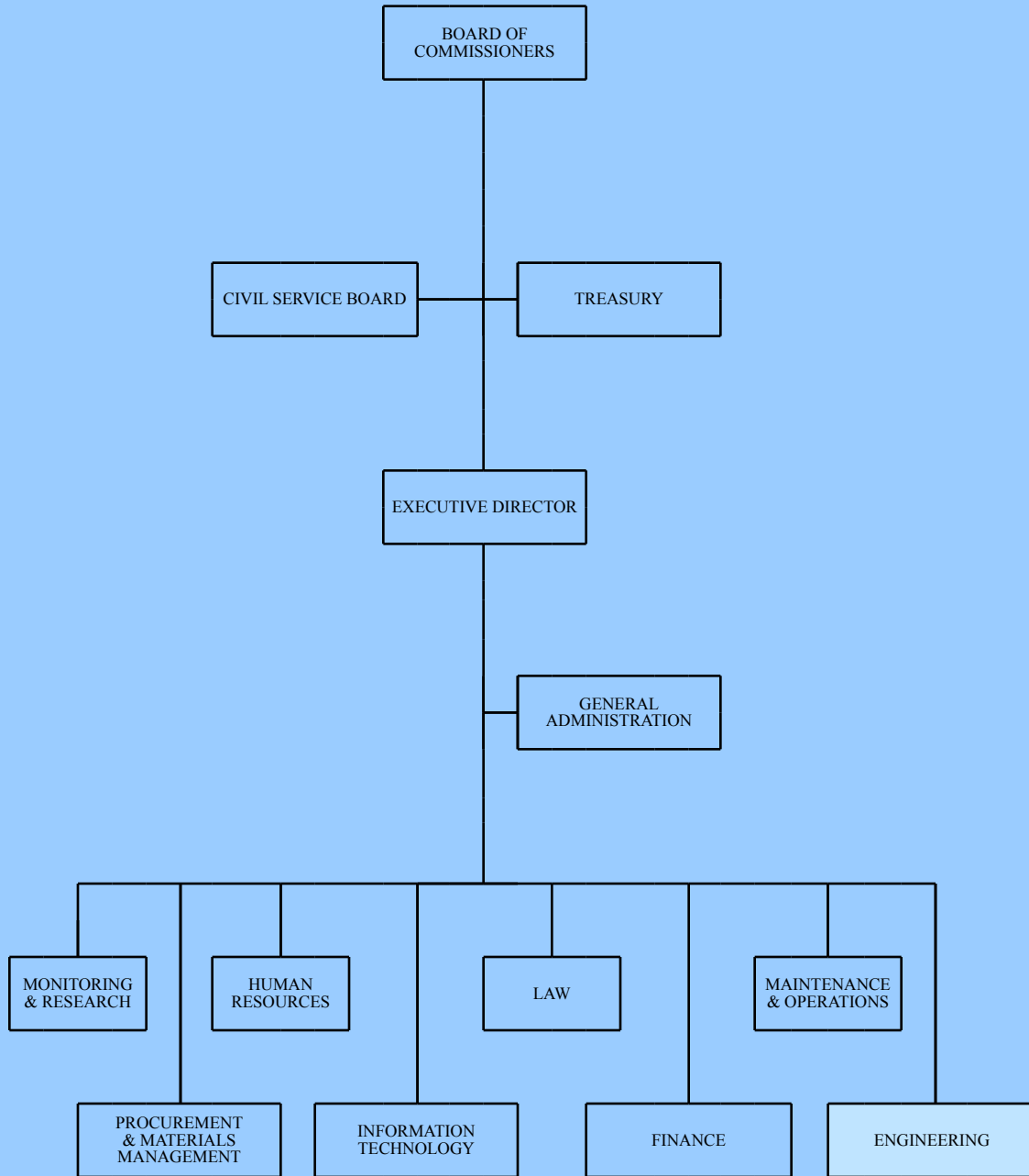
Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2018	2019		2020	
					Proposed by the Executive Director	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
PR6473	Truck Driver	8	8		8	
TOTAL 924	Maintenance Unit	160	161	16,487,769	160	16,695,491
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 943	Buildings & Grounds Unit	23	23	1,783,824	23	1,816,903
TOTAL 920	Plant Engineering & Maintenance Branch	205	206	20,724,323	205	20,953,948
TOTAL	Stormwater Management Fund Positions	(*1)	(*1)		(*1)	
<b>930</b>	<b>Plant Operations Branch</b>					
<b>931</b>	<b>Administrative Unit</b>					
HP21	Engineer of Treatment Plant Operations I	—	—		1	
HP20	Managing Engineer	1	1		—	
HP20	Managing Engineer #1	—	—		1	
TOTAL 931	Administrative Unit	1	1	191,975	2	363,659
<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 Engineer	1	1		1	
HP16	Treatment Plant Operator III	6	6		6	
HP15	Associate Civil Engineer	—	—		1	
HP14	Treatment Plant Operator II	8	8		8	
HP14	Treatment Plant Operator II #4	1	1		1	
HP12	Treatment Plant Operator I	6	6		6	
HP11	Administrative Specialist	1	1		1	
HP11	Engineering Technician III	1	1		—	
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	15	15		15	

Fund: Corporate Dept: Maintenance & Operations Division: Stickney Service Area		POSITION ANALYSIS				
		2018	2019		2020	
				Proposed by the Executive Director		
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Budgeted FTEs	Appropriation in Dollars
NR8651	Maintenance Laborer Class A	5	5		5	
TOTAL 932	Treatment Operations Unit	46	46	4,305,900	46	4,415,936
<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	11	11		11	
NR8650	Maintenance Laborer Class A Shift	20	20		20	
		(*4)	(*4)		(*4)	
NR8651	Maintenance Laborer Class A	4	4		4	
NR6832	Operating Engineer II	34	35		35	
NR6831	Operating Engineer I	26	26		26	
		(*4)	(*4)		(*4)	
TOTAL 934	Mechanical Operations Unit	104	105	10,522,370	105	10,757,313
TOTAL	Stormwater Management Fund Positions	(*8)	(*8)		(*8)	
<b>945</b>	<b>Railroad Unit</b>					
NR8331	Laborer Foreman	1	1		1	
NR8650	Maintenance Laborer Class A Shift	5	5		5	
TOTAL 945	Railroad Unit	6	6	511,888	6	523,370
TOTAL 930	Plant Operations Branch	157	158	15,532,133	159	16,060,278
TOTAL	Stormwater Management Fund Positions	(*8)	(*8)		(*8)	
TOTAL	Maintenance & Operations Stickney Service Area	367	369	36,886,673	369	37,644,443
TOTAL	Stormwater Management Fund Positions	(*9)	(*9)		(*9)	

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

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix. Dollar amounts may not add up due to rounding.

**NOTE PAGE**



**Metropolitan Water Reclamation District of Greater Chicago**

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

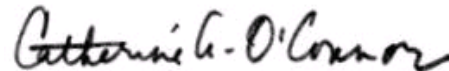
Subject: 2020 Program for the Engineering Department - Corporate Fund

The Engineering Department - Corporate Fund's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the department's 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the department, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Engineering Department - Corporate Fund budget for 2020.

Respectfully submitted,

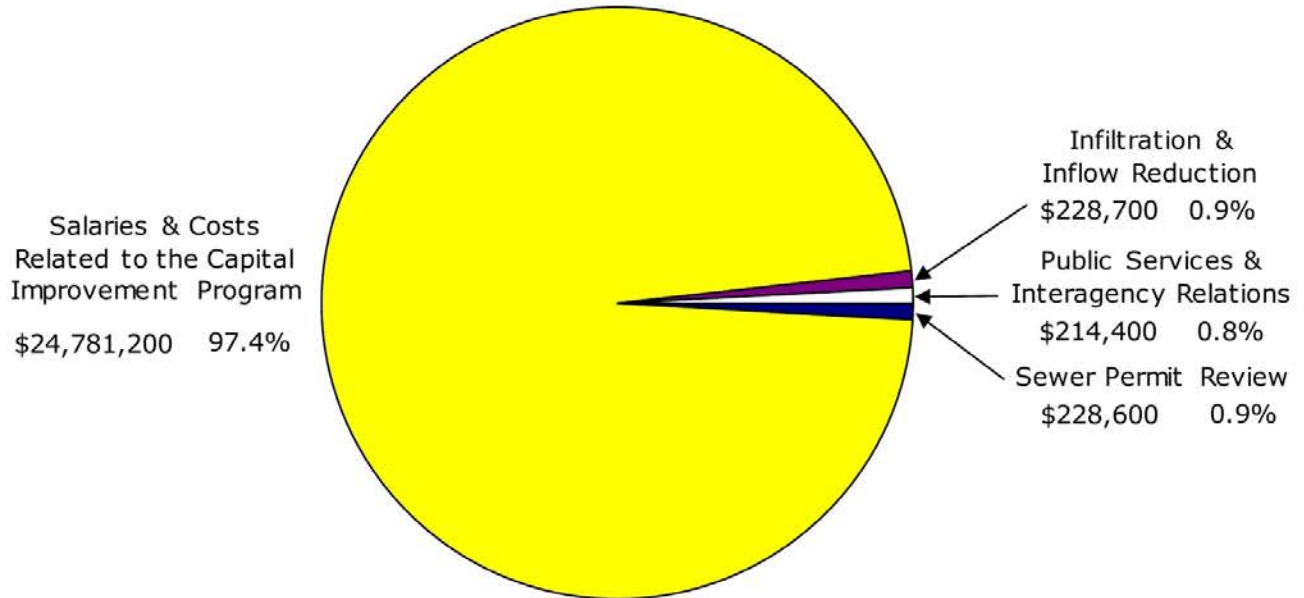


Catherine A. O'Connor  
Director of Engineering

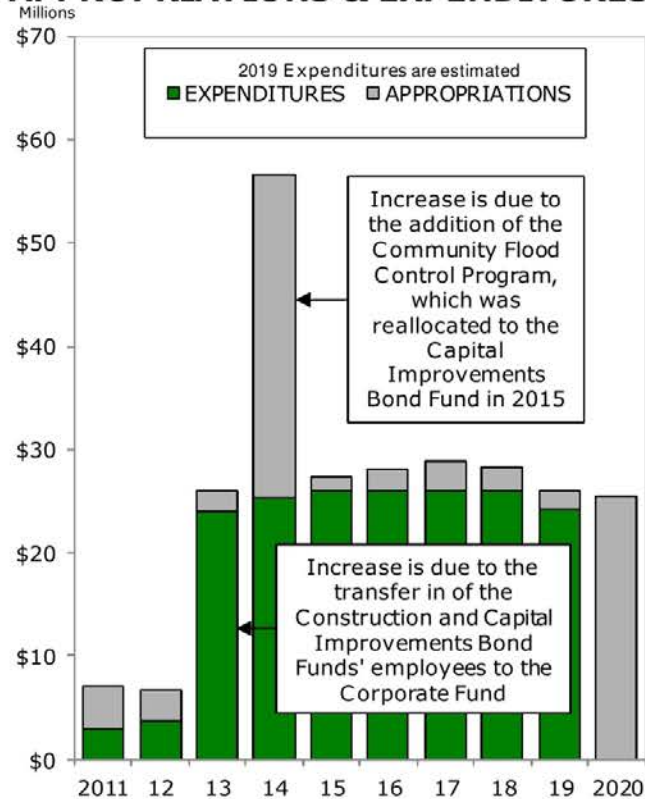
## ENGINEERING – CORPORATE FUND

2020	\$25,452,900
2019	\$25,941,200
Decrease	(\$488,300)

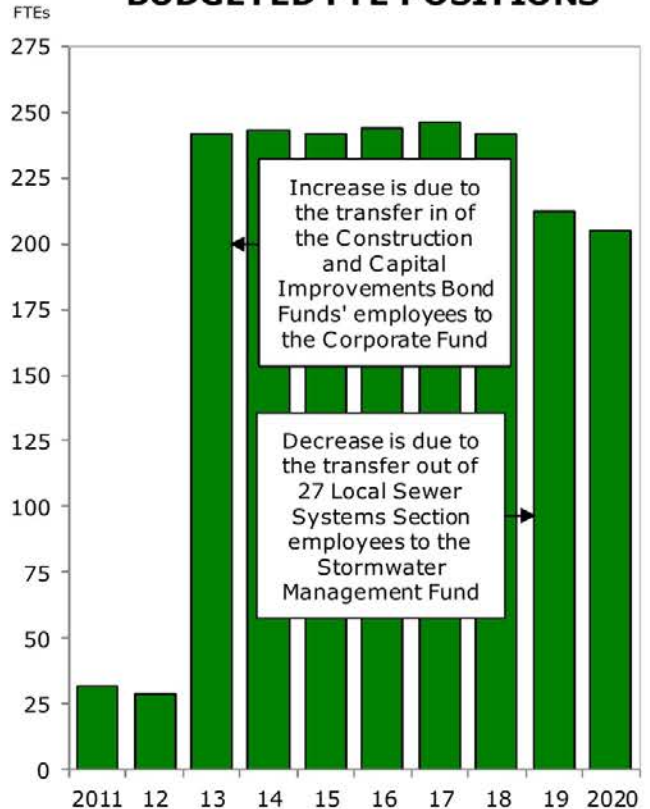
### FUNCTIONS



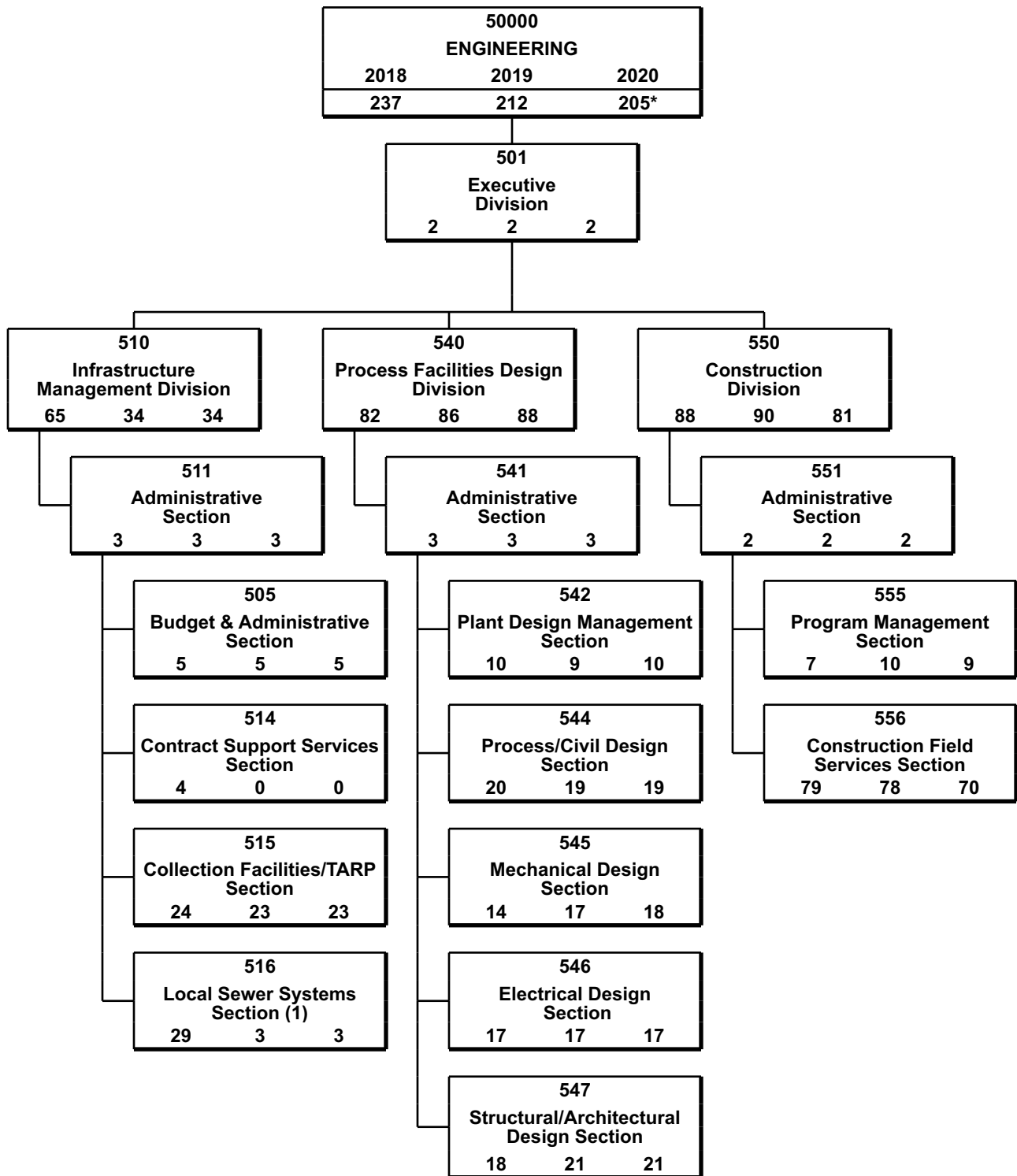
### APPROPRIATIONS & EXPENDITURES



### BUDGETED FTE POSITIONS



# ENGINEERING



\* The 2020 position total for the Engineering Department - Corporate Fund is 205. There are an additional 64 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 balance 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 capital 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 most 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;
- Regulate impacts of development in suburban Cook County on stormwater runoff, wetlands, and floodplains, in accordance with the Watershed Management Ordinance (WMO). This is accomplished by reviewing and issuing WMO permits for development and inspecting work performed under WMO permits.

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

### Summary of 2019 Accomplishments

- As indicated above, the Corporate Fund finances most of the Engineering Department positions. In 2019, 27 Local Sewer Systems Section positions were transferred from the Corporate Fund to the Stormwater Management Fund. Staff in these positions implement and enforce the WMO, which was adopted under the District's Stormwater Management authority. Since their work is directly related to stormwater management, these positions are now financed by the Stormwater Management Fund;
- An electronic project management system, e-Builder, was implemented in 2018 and continues to be improved 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, including: tracking project design and construction schedules, forecasting award dates, cash flow projections for budgeting, and all construction contractor submittals and documentation. In 2019, the Maintenance & Operations (M&O) Department began tracking projects in e-Builder. Additionally, 2019 was the first year in which e-Builder was used exclusively to generate the five-year forecast. Use of this system improves work flow and efficiency and allows for more accurate predictions of our project expenditures.

### Budget Highlights

The 2020 appropriation for the Engineering Department - Corporate Fund is \$25,452,900, a decrease of \$488,300, or 1.9 percent, from 2019. The Engineering Department's 2020 Budget provides direct support to the Capital Improvement Program.

The staffing level has decreased from 212 to 205 positions, which includes the drop of one Engineering Technician IV and two Engineering Technician III positions. Additionally, four positions were transferred from the Corporate Fund to the Stormwater Management Fund to assist with administration of the WMO, including one Assistant Civil Engineer, one Associate Civil Engineer, and two Engineering Technician IV positions.



**2020 Initiatives in Support of the Strategic Business Plan Include the Following:****• Add Value**

The Engineering Department adds value by ensuring efficient use of funds in the implementation of appropriate capital improvements. In addition to designing capital projects and overseeing construction work in accordance with contract documents, Engineering Department staff apply for project funding through the State Revolving Fund Loan Program. State Revolving Fund loans offset the need for funding through the sale of bonds, ultimately saving the District money.

**• 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. The Engineering Department's capital projects have consistently averaged at or below the best-in-class cost goal 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 exceed the industry standard of 120 percent of the originally scheduled contract time and has made consistent improvements in this area. Data shows that recent close outs of projects substantially complete in 2009 averaged over 200 percent of the original contract time, whereas those projects substantially complete in 2018 averaged closer to 150 percent of the original contract time.

In conjunction with the M&O Department, the Engineering Department protects the District's surface and subsurface infrastructure from damage due to planned and programmed construction, installation, and maintenance projects by transportation agencies, utility work, and private and public development. As a member of the State of Illinois' Joint Utility Location Information for Excavators, Inc. (JULIE) and 811 Chicago one-call system, the District constantly monitors submitted excavation tickets and positively responds to excavators or the city. M&O Department staff mark District facilities at the site as needed.

The District is also a member of the City of Chicago's Office of Underground Coordination (OUC) system. In the project planning phase, the District responds to OUC Information Retrieval requests by providing as-built plans of District facilities in the project area. In the OUC Existing Facility Protection phase, the District responds to requests for review of completed plans of projects and concurs or objects to the project based on impact to District facilities. The JULIE, 811 Chicago, OUC Information Retrieval, and OUC Existing Facility Protection requests processed by the Engineering Department on an annual basis are summarized in the Measurable Goals exhibit.

The District also reviews project plans for the Illinois Department of Transportation, Illinois State Toll Highway Authority, Cook County Department of Transportation and Highways, municipalities, and private developments to ensure District facilities are protected. Conflicts are resolved when possible through collaborative efforts, though relocation of District facilities is necessary for certain projects.

**• 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 2020 to expand this program to more staff members.

**• Leading Partnerships**

Efforts are under way 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.

The District is authorized to provide wastewater treatment service for areas located outside of the corporate limits. This service is provided through service agreements, which Engineering Department staff negotiate and administer. Areas outside of the District may seek wastewater collection and treatment service from the District if doing so is more cost effective than building infrastructure required to convey their wastewater to their local wastewater treatment plant. Areas within Cook County may enter into service agreements with the District, while petitioning the State Legislature for annexation into the District, at which point, the service agreement ends. Areas outside of Cook County but immediately adjacent to the District's boundary may enter into long-term extraterritorial service agreements. Under current State regulations, such areas cannot be annexed to the District. Revenue collected by the District under service agreements includes impact fees and service fees. Service fees are based upon the ad valorem tax rate levied by the District applied to the equalized assessed value of parcels in the service area, multiplied by 140 percent.

- **Information Technology**

During the construction of Stage 1 of the McCook Reservoir, it was necessary to monitor components of the reservoir's highwall to ensure that unexpected rock movements that could potentially impact the reservoir's surroundings did not occur. This instrumentation includes inclinometers, extensometers, and piezometers, among other things, and monitors the conditions of the highwall. Manual data collection from this instrumentation is complex and could pose safety issues for accessing the reservoir highwall. As a result, the Army Corps of Engineers installed a data collection system that is managed and monitored through an instrumentation website that provides a clean graphical interface and has the ability to send email and text message alerts when possible issues arise. Now that the District is responsible for the operation of Stage 1, maintenance of the website is being transferred from the Army Corps of Engineers to the District. The District will continue to monitor Stage 1 features to observe if normal reservoir operations will impact the highwall and will also incorporate new instrumentation slated to be installed in Stage 2 into this interface.

**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.	\$ 228,600	0.9%
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.	\$ 214,400	0.8%
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.	\$ 24,781,200	97.4%
<b>Totals</b>	<b>\$ 25,452,900</b>	<b>100.0%</b>

MEASURABLE GOALS:	2018 Actual	2019 Estimated	2020 Proposed
Process all requests for District facility information and review project plans prepared by other agencies for potential conflict with District facilities.			
Regular JULIE Requests	31,725	33,311	34,976
Emergency JULIE Requests	3,500	3,675	3,858
811 Chicago Requests	5,558	6,114	6,725
OUC Information Retrieval Requests	2,295	2,524	2,778
OUC Existing Facility Protection Requests	4,053	4,458	4,904
IDOT Requests	23	35	40
Compliance status of the 115 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>	—	—	68
Percentage Complete	0%	0%	59%
Annual Summary Reports Received	98	115	115
Annual Summary Reports in Compliance <sup>2</sup>	54	60	68
<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 was July 10, 2019. In light of the magnitude of work and time required to adopt regulations to implement Private Sector Programs, many satellite entities have requested additional time to complete their Short Term Requirements. The District will work with satellite entities that have not completed the Short Term Requirements 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:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1000	Collection	\$ 6,769,505	2020 36	\$ 4,663,800	\$ (232,700)	(4.8)
			2019 38	\$ 4,896,500		
1530	Local Sewer Permit Activity	\$ 2,068,841	2020 2	\$ 228,600	\$ (32,300)	(12.4)
			2019 2	\$ 260,900		
1560	Local Sewer Public Service Coordination	\$ 688,929	2020 2	\$ 214,400	\$ (16,000)	(6.9)
			2019 1	\$ 230,400		
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	\$ 322,927	2020 1	\$ 228,700	\$ —	—
			2019 1	\$ 228,700		
1700	Collection System Design	\$ 1,088,625	2020 8	\$ 1,144,300	\$ (91,900)	(7.4)
			2019 9	\$ 1,236,200		
1800	Collection Construction	\$ 2,600,183	2020 23	\$ 2,847,800	\$ (92,500)	(3.1)
			2019 25	\$ 2,940,300		
2000	Treatment	\$ 8,107,449	2020 73	\$ 8,749,400	\$ (55,300)	(0.6)
			2019 75	\$ 8,804,700		
2700	Treatment Design	\$ 2,974,312	2020 27	\$ 3,404,800	\$ 131,700	4.0
			2019 26	\$ 3,273,100		
2800	Treatment Construction	\$ 5,133,137	2020 46	\$ 5,344,600	\$ (187,000)	(3.4)
			2019 49	\$ 5,531,600		
3000	Solids Processing	\$ 5,664,668	2020 51	\$ 6,356,900	\$ (42,500)	(0.7)
			2019 51	\$ 6,399,400		
3700	Solids Processing Design	\$ 2,711,467	2020 25	\$ 3,226,700	\$ 101,600	3.3
			2019 24	\$ 3,125,100		
3800	Solids Processing Construction	\$ 2,953,201	2020 26	\$ 3,130,200	\$ (144,100)	(4.4)
			2019 27	\$ 3,274,300		

a) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$77,700), the drop of one FTE position (\$59,900), and the transfer of one FTE position to the Stormwater Management Fund (\$46,900).

**50000 ENGINEERING**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actual	FTEs	Dollars	Dollars	Percent	
4000	Flood and Pollution Control	\$ 3,006,944	2020 25	\$ 3,082,100	\$ (132,200)	(4.1)	
			2019 28	\$ 3,214,300			
4216	Bridge and Road Maintenance	\$ 55,325	2020 —	\$ 113,100	\$ 63,200	126.7	b)
			2019 —	\$ 49,900			
4322	Storm and Flood Ordinance Development	\$ 17,314	2020 —	\$ 18,200	\$ —	—	
			2019 —	\$ 18,200			
4341	Planning/Design	\$ 64,943	2020 —	\$ 65,500	\$ —	—	
			2019 —	\$ 65,500			
4342	Contract Administration	\$ 89,745	2020 1	\$ 100,800	\$ 13,600	15.6	c)
			2019 1	\$ 87,200			
4343	Construction	\$ 102,617	2020 1	\$ 102,900	\$ —	—	
			2019 1	\$ 102,900			
4700	Flood and Pollution Control Design	\$ 658,139	2020 5	\$ 626,900	\$ (52,100)	(7.7)	
			2019 6	\$ 679,000			
4800	Flood and Pollution Control Construction	\$ 2,018,861	2020 18	\$ 2,054,700	\$ (156,900)	(7.1)	d)
			2019 20	\$ 2,211,600			
5000	Solids Disposal	\$ 333,974	2020 3	\$ 339,400	\$ (21,000)	(5.8)	
			2019 3	\$ 360,400			
5700	Solids Disposal Design	\$ 10,464	2020 —	\$ 10,400	\$ —	—	
			2019 —	\$ 10,400			
5800	Solids Disposal Construction	\$ 323,510	2020 3	\$ 329,000	\$ (21,000)	(6.0)	
			2019 3	\$ 350,000			
7000	General Support (excluding program number 7604)	\$ 1,791,969	2020 17	\$ 1,895,100	\$ (15,100)	(0.8)	
			2019 17	\$ 1,910,200			
7604	Social Security and Medicare Contributions	\$ 349,299	2020 —	\$ 366,200	\$ 10,500	3.0	
			2019 —	\$ 355,700			
Totals		\$26,023,808	2020 205	\$ 25,452,900	\$ (488,300)	(1.9)%	
			2019 212	\$ 25,941,200			

b) Increase is due to the planned extension of the current biennial bridge inspection contract and the anticipated award of a new contract (\$63,200).

c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$13,600).

d) Decrease is due to the transfer of one FTE position to the Stormwater Management Fund (\$95,000), the drop of one FTE position (\$38,200), and the reallocation of salaries to more accurately reflect current activities (\$15,500).

**50000 ENGINEERING**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 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	501	624	—	a)
		Cost	\$ 1,037,632	\$ 77,500	\$ 77,500	
		Cost/Permit	\$ 2,071.12	\$ 124.20	\$ —	a)
1533	Review of Other Permits	Cost	\$ 150,924	\$ 128,700	\$ 121,900	
1535	Local Sewer Construction Surveillance/Enforcement	Inspections	5,038	556	—	a)
		Cost	\$ 793,920	\$ 25,500	\$ —	b)
		Cost/Inspection	\$ 157.59	\$ 45.86	\$ —	a)
1537	Permit Revision	Revisions	51	79	—	a)
		Cost	\$ 86,365	\$ 29,200	\$ 29,200	
		Cost/Revision	\$ 1,693.43	\$ 369.62	\$ —	a)
1560	Local Sewer - Public Service Coordination					
1561	Public Service	Requests	1,000	615	—	a)
		Cost	\$ 445,124	\$ 55,600	\$ 51,000	
		Cost/Request	\$ 445.12	\$ 90.41	\$ —	a)
1563	Interagency Coordination	Cost	\$ 243,805	\$ 174,800	\$ 163,400	
1571	Local Sewer Rehabilitation Ordinance Enforcement Activity	Systems	250	114	115	
		Cost	\$ 322,927	\$ 228,700	\$ 228,700	
		Cost/System	\$ 1,291.71	\$ 2,006.14	\$ 1,988.70	
1700	Collection System Design	Cost	\$ 1,088,625	\$ 1,236,200	\$ 1,144,300	
1800	Collection Construction	Cost	\$ 2,600,183	\$ 2,940,300	\$ 2,847,800	
2700	Treatment Design	Cost	\$ 2,974,312	\$ 3,273,100	\$ 3,404,800	
2800	Treatment Construction	Cost	\$ 5,133,137	\$ 5,531,600	\$ 5,344,600	c)
3700	Solids Processing Design	Cost	\$ 2,711,467	\$ 3,125,100	\$ 3,226,700	
3800	Solids Processing Construction	Cost	\$ 2,953,201	\$ 3,274,300	\$ 3,130,200	
4200	Waterways Control and Stormwater Detention Reservoirs	Cost	\$ 55,325	\$ 49,900	\$ 113,100	d)
4300	Stormwater Management	Cost	\$ 274,619	\$ 273,800	\$ 287,400	
4700	Flood and Pollution Control Design	Cost	\$ 658,139	\$ 679,000	\$ 626,900	
4800	Flood and Pollution Control Construction	Cost	\$ 2,018,861	\$ 2,211,600	\$ 2,054,700	e)
<p>a) Starting with Budget Year 2020, tracking of measurable activity was discontinued in the Corporate Fund, due to the transfer of 27 Local Sewer Systems Section positions to the Stormwater Management Fund in 2019.</p> <p>b) Decrease is due to the reallocation of funding for in-house training to Program Number 2700 to more accurately reflect current activities (\$25,000).</p> <p>c) Decrease is due to the reallocation of salaries to more accurately reflect current activities (\$77,700), the drop of one FTE position (\$59,900), and the transfer of one FTE position to the Stormwater Management Fund (\$46,900).</p> <p>d) Increase is due to the planned extension of the current biennial bridge inspection contract and the anticipated award of a new contract (\$63,200).</p> <p>e) Decrease is due to the transfer of one FTE position to the Stormwater Management Fund (\$95,000), the drop of one FTE position (\$38,200), and the reallocation of salaries to more accurately reflect current activities (\$15,500).</p>						

**50000 ENGINEERING**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated
5700	Solids Disposal Design	Cost	\$ 10,464	\$ 10,400	\$ 10,400
5800	Solids Disposal Construction	Cost	\$ 323,510	\$ 350,000	\$ 329,000
7000	General Support (excluding program number 7604)	Cost	\$ 1,791,969	\$ 1,910,200	\$ 1,895,100
7604	Social Security and Medicare Contributions	Cost	\$ 349,299	\$ 355,700	\$ 366,200
		Totals	\$ 26,023,808	\$ 25,941,200	\$ 25,452,900

101 50000	Fund: Corporate Department: Engineering	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 24,781,944	\$ 24,611,100	\$ 24,236,100	\$ 15,886,477	\$ 22,687,900	\$ 23,829,000	\$ —
601060	Compensation Plan Adjustments	454,091	459,100	759,100	509,479	600,500	503,600	—
601070	Social Security and Medicare Contributions	349,299	355,700	355,700	234,517	320,900	366,200	—
601100	Tuition and Training Payments	55,584	118,300	118,300	73,515	75,600	98,000	—
100	TOTAL PERSONAL SERVICES	25,640,918	25,544,200	25,469,200	16,703,988	23,684,900	24,796,800	—
612010	Travel	10,585	10,000	10,000	4,777	7,000	12,800	—
612030	Meals and Lodging	27,336	17,600	17,600	13,462	17,000	34,700	—
612040	Postage, Freight, and Delivery Charges	1,460	1,500	1,500	1,500	1,300	1,500	—
612050	Compensation for Personally-Owned Automobiles	7,898	10,000	9,800	4,451	7,000	8,000	—
612080	Motor Vehicle Operating Services	29	200	400	214	400	500	—
612090	Reprographic Services	3,500	3,500	3,500	3,500	3,500	3,500	—
612170	Water and Water Services	3,799	4,000	4,000	4,000	4,000	4,500	—
612240	Testing and Inspection Services	—	—	—	—	—	50,000	—
612430	Payments for Professional Services	126,995	126,900	201,900	190,721	133,900	318,600	—
612490	Contractual Services, N.O.C.	82,059	83,100	83,100	82,059	82,100	83,100	—
612620	Repairs to Waterway Facilities	43,044	71,100	71,100	70,955	71,000	47,900	—
612970	Repairs to Testing and Laboratory Equipment	2,592	5,000	5,000	3,436	5,000	5,500	—
612990	Repairs, N.O.C.	8,088	10,000	10,000	8,312	8,300	8,800	—
200	TOTAL CONTRACTUAL SERVICES	317,386	342,900	417,900	387,387	340,500	579,400	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	54,319	42,600	42,600	41,441	37,000	42,300	—
623680	Tools and Supplies	2,476	8,000	6,700	5,624	6,700	8,200	—
623700	Wearing Apparel	6,033	—	—	—	—	—	—
623720	Books, Maps, and Charts	2,676	3,500	4,800	3,858	4,800	5,000	—
623800	Computer Software	—	—	—	—	—	21,000	—
623990	Materials and Supplies, N.O.C.	—	—	—	—	—	200	—
300	TOTAL MATERIALS AND SUPPLIES	65,504	54,100	54,100	50,923	48,500	76,700	—
<b>TOTAL ENGINEERING</b>		<b>\$ 26,023,808</b>	<b>\$ 25,941,200</b>	<b>\$ 25,941,200</b>	<b>\$ 17,142,298</b>	<b>\$ 24,073,900</b>	<b>\$ 25,452,900</b>	<b>\$ —</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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>501</b>	<b>Executive Division</b>					
EX15	Director of Engineering	1	1		1	
EX06	Secretary to Officer	1	1		1	
TOTAL 501	Executive Division	2	2	376,864	2	376,865
<b>510</b>	<b>Infrastructure Management Division</b>					
<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 505	Budget & Administrative Section	5	5	629,794	5	629,794
<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 511	Administrative Section	3	3	511,108	3	511,108
<b>514</b>	<b>Contract Support Services Section</b>					
HP14	Engineering Technician V #4	1	—		—	
HP12	Engineering Technician IV	1	—		—	
HP11	Administrative Specialist	1	—		—	
HP09	Administrative Clerk	1	—		—	
TOTAL 514	Contract Support Services Section	4	—	—	—	—
<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	
HP14	Assistant Civil Engineer	3	3		3	
HP14	Engineering Technician V	1	1		2	
HP14	Engineering Technician V #4	1	1		—	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Technician IV	3	3		3	
HP11	Engineering Technician III	2	1		1	
TOTAL 515	Collection Facilities / TARP Section	24	23	2,652,974	23	2,664,877
<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)	1 (*2)		1 (*2)	
HP17	Senior Civil Engineer	7 (*2)	1 (*8)		1 (*9)	
HP15	Associate Civil Engineer	6 (*3)	1 (*8)		1 (*10)	
HP14	Assistant Civil Engineer	3 (*2)	— (*6)		— (*7)	
HP14	Assistant Mechanical Engineer #2 (Assistant Civil Engineer)	1	—		—	
HP14	Engineering Technician V	3	— (*3)		— (*3)	
HP12	Engineering Technician IV	2 (*1)	— (*4)		— (*6)	
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 516	Local Sewer Systems Section	29	3	399,850	3	376,808
TOTAL	Stormwater Management Fund Positions	(*9)	(*36)		(*42)	
TOTAL 510	Infrastructure Management Division	65	34	4,193,727	34	4,182,588
TOTAL	Stormwater Management Fund Positions	(*9)	(*36)		(*42)	
<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)	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP18	Principal Civil Engineer	—	—		—	
		(*3)	(*3)		(*3)	
HP17	Senior Civil Engineer	—	—		—	
		(*7)	(*7)		(*7)	
HP15	Associate Civil Engineer	—	—		—	
		(*6)	(*6)		(*6)	
HP14	Assistant Civil Engineer	—	—		—	
		(*3)	(*3)		(*3)	
HP14	Public Affairs Specialist	—	—		—	
			(*1)		(*1)	
HP11	Administrative Specialist	—	—		—	
		(*1)	(*1)		(*1)	
TOTAL	Stormwater Management Section	—	—	—	—	—
TOTAL 522	Stormwater Management Fund Positions	(*21)	(*22)		(*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 541	Administrative Section	3	3	376,607	3	380,044
<b>542</b>	<b>Plant Design Management Section</b>					
HP20	Managing Civil Engineer	1	—		—	
HP18	Principal Civil Engineer	2	2		3	
HP17	Senior Civil Engineer	4	4		4	
HP16	Computer Aided Drafting and Design Administrator	1	1		1	
HP15	Associate Civil Engineer	1	1		1	
HP12	Engineering Technician IV	1	1		—	
HP11	Engineering Technician III	—	—		1	
TOTAL 542	Plant Design Management Section	10	9	1,150,971	10	1,246,715
<b>544</b>	<b>Process / Civil Design Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	3	3		3	
HP17	Senior Civil Engineer	6	5		5	
HP17	Senior Process Control Engineer	1	1		1	
HP15	Associate Civil Engineer	3	3		3	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP15	Associate Process Control Engineer	1	1		1	
HP14	Assistant Civil Engineer	2	2		2	
HP13	Engineering Draftsman III	—	1		1	
HP13	Engineering Draftsman III #4	1	—		—	
HP12	Engineering Draftsman II	2	2		2	
TOTAL 544	Process / Civil Design Section	20	19	2,303,693	19	2,319,814
<b>545</b>	<b>Mechanical Design Section</b>					
HP20	Managing Mechanical Engineer	—	1		1	
HP18	Principal Mechanical Engineer	2	2		2	
HP17	Senior Mechanical Engineer	4	5		5	
HP15	Associate Mechanical Engineer	4	4		5	
HP14	Assistant Mechanical Engineer	1	2		2	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	1	2		2	
HP12	Engineering Draftsman II #4	1	—		—	
TOTAL 545	Mechanical Design Section	14	17	2,010,532	18	2,146,681
<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 546	Electrical Design Section	17	17	2,094,476	17	1,970,040
<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	4		4	
HP15	Associate Architect	3	3		3	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP15	Associate Structural Engineer	2	3		3	
HP14	Assistant Structural Engineer	3	3		3	
HP13	Engineering Draftsman III	1	1		1	
HP12	Engineering Draftsman II	—	1		1	
TOTAL 547	Structural / Architectural Design Section	18	21	2,417,114	21	2,389,168
TOTAL 540	Process Facilities Design Division	82	86	10,353,391	88	10,452,461
<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 551	Administrative Section	2	2	307,165	2	231,744
<b>555</b>	<b>Program Management Section</b>					
HP20	Managing Civil Engineer	1	1		1	
HP18	Principal Civil Engineer	—	1		1	
HP17	Senior Civil Engineer	—	1		1	
HP17	Senior Electrical Engineer	1	—		—	
HP15	Associate Civil Engineer	2	2		1	
HP14	Assistant Civil Engineer	1	1		1	
HP14	Assistant Electrical Engineer	—	1		1	
HP14	Assistant Mechanical Engineer	1	—		—	
HP14	Engineering Technician V	—	1		1	
HP13	Senior Administrative Specialist	1	1		1	
HP11	Administrative Specialist	—	1		1	
TOTAL 555	Program Management Section	7	10	1,170,587	9	1,064,231
<b>556</b>	<b>Construction Field Services Section</b>					
HP20	Managing Civil Engineer	1	2		2	
HP20	Managing Mechanical Engineer	1	—		—	
HP18	Principal Civil Engineer	4	3		2	
HP18	Principal Electrical Engineer	2	2		2	
HP17	Senior Civil Engineer	10	10		10	
HP17	Senior Electrical Engineer	3	4		4	
HP17	Senior Mechanical Engineer	2	1		1	

Fund: Corporate Dept: Engineering		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
HP15	Associate Civil Engineer	11	10		10	
HP15	Associate Electrical Engineer	3	3		3	
HP15	Associate Mechanical Engineer	4	4		3	
HP15	Associate Structural Engineer	1	—		—	
HP14	Assistant Civil Engineer	4	4		3	
HP14	Assistant Electrical Engineer	2	1		1	
HP14	Assistant Mechanical Engineer	1	1		1	
HP14	Engineering Technician V	11	11		11	
HP14	Engineering Technician V #4	2	2		2	
HP12	Administrative Assistant #2 (Administrative Specialist) (New Grade HP11)	1	1		1	
HP12	Engineering Technician IV	8	10		8	
HP12	Engineering Technician IV #4	1	—		—	
HP11	Engineering Technician III	7	9		6	
TOTAL 556	Construction Field Services Section	79	78	8,330,287	70	7,641,069
TOTAL 550	Construction Division	88	90	9,808,039	81	8,937,044
TOTAL	Engineering	237	212	24,732,021	205	23,948,958
TOTAL	Stormwater Management Fund Positions	(*30)	(*58)		(*64)	

Note: Sixty-four 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. Dollar amounts may not add up due to rounding.

# 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 2020 Capital Improvement Program places the 2020 program within the context of our long-range plan. Information is provided on the levels of funding in 2020 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 2020 is presented in the Capital Improvement Program narrative.

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Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

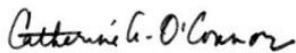
Subject: 2020 Program for the Capital Funds

The Capital Funds' program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the District's 2020 Capital Plan initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative by fund provides a summary of the 2020 major initiatives and challenges and 2019 accomplishments. Supporting schedules of objectives and performance present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Capital Funds budget for 2020.

Respectfully submitted,



Catherine A. O'Connor  
Director of Engineering



John P. Murray  
Director of Maintenance & Operations



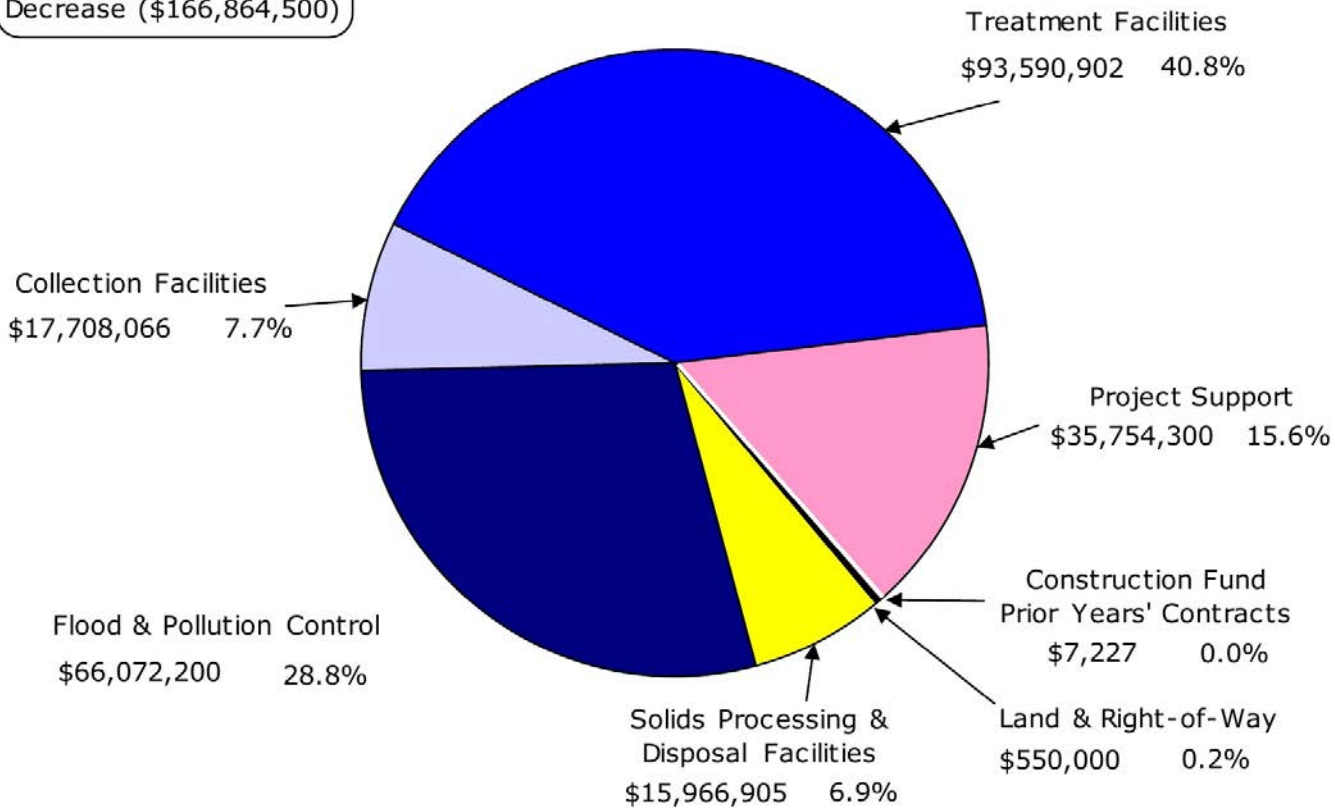
Edward W. Podczewinski  
Director of Monitoring & Research



# CAPITAL IMPROVEMENT PROGRAM CONSTRUCTION AND CAPITAL IMPROVEMENTS BOND FUNDS

2020	\$229,649,600
2019	\$396,514,100
Decrease	(\$166,864,500)

## FUNCTIONS



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 2020 appropriation for the Capital Improvement Program (Construction and Capital Improvements Bond Funds) is \$229,649,600, a decrease of \$166,864,500, or 42.1 percent, from 2019. The decrease is to meet budget constraints in 2020. A total of 111 projects funded by the Construction or Capital Improvements Bond Funds will be under planning, design, or construction in 2020. There is one streambank stabilization project, one channel improvement project, and one levee construction project that are planned for award in 2020 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 that values preservation of infrastructure, improvements to environmental quality, and commitment to community. Projects are added to the Capital Improvement Program and scheduled for award according to priority and resource availability after they have been through the review panel.

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, rehabilitation, and replacement of equipment and facilities, the District ensures continuous 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**

The Construction Fund is a property tax supported fund authorized by State Statute. 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 2020, the Construction Fund has seven projects scheduled for award and 13 projects under construction.

### **Capital Improvements Bond Fund**

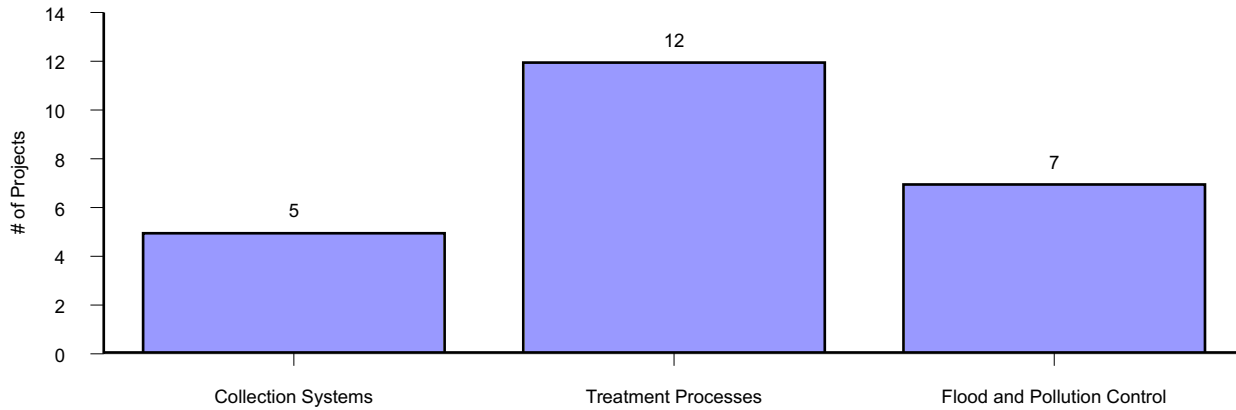
Section 9.6(a) of "An act to create sanitary districts and to remove obstructions in the Des Plaines and Illinois Rivers," approved May 29, 1889, as amended, provides that the Board of Commissioners of the District is authorized to issue bonds for District purposes. The District issues bonds to provide 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 2020, there are 24 projects scheduled for award in the Capital Improvements Bond Fund. In the exhibit below, the breakdown by program is displayed.

**Capital Improvements Bond Fund Projects Scheduled for 2020 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 approximately \$100 million annually in SRF loans for the next several years.

**Operating Cost Impacts of Capital Improvement Projects**

The annual maintenance and/or operating costs associated with new capital projects provide an important part of the decision-making process for the selection of capital projects. 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.

An example of increased energy efficiency is Mainstream TARP Pump Rehabilitation, Stickney WRP (Project 18-144-3M). This project includes the rehabilitation of Mainstream TARP Pumps 1, 3 and 5, initially placed into service in 1985, and rehabilitation of motors and the discharge valve/actuator. This contract follows the work, completed in 2018 to rehabilitate TARP Pump 8 which became 25 percent more efficient, resulting in lower energy costs.

Operating impacts for each project are further discussed on the project fact sheets.

### Overall Capital Improvement Program Costs

The District's 2020 Capital Improvement Program includes 2020 project awards, program support, and projects under construction at award value with total estimated cost of approximately \$839.7 million. A breakdown of these projects (in millions of dollars) is as follows:

2020 project awards	\$ 186.9
2020 program support (project support and land)	36.3
Projects currently under construction (award value)	<u>616.5</u>
Total	\$ 839.7

- ◆ A breakdown of projects scheduled for 2020 award by fund is as follows:

Construction Fund projects	\$ 5.6
Capital Improvements Bond Fund projects	<u>181.3</u>
Total	\$ 186.9

- ◆ A breakdown of projects under construction (award value) by fund is as follows:

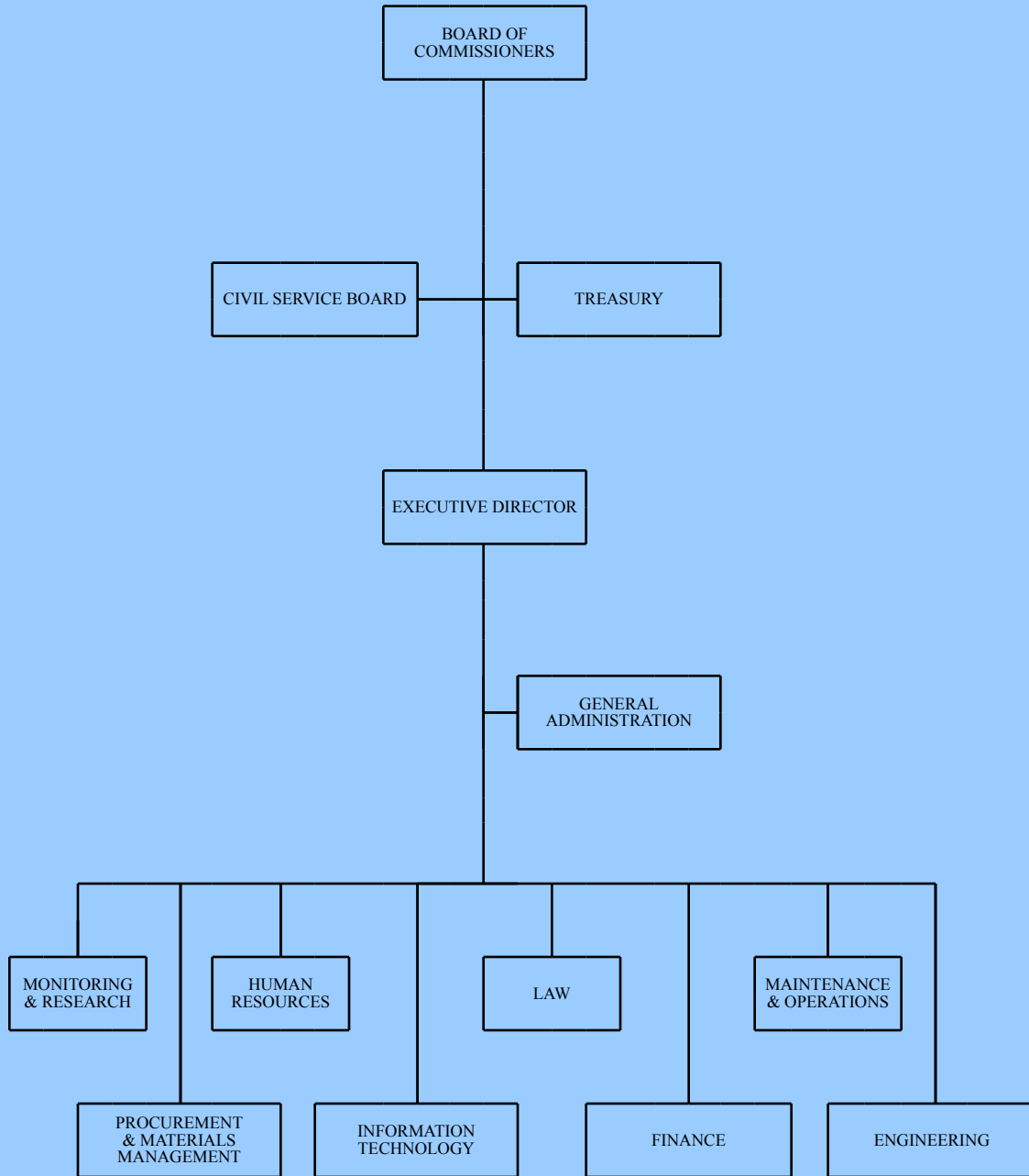
Construction Fund projects	\$ 12.9
Capital Improvements Bond Fund projects	<u>603.6</u>
Total	\$ 616.5

**10-YEAR CAPITAL IMPROVEMENT PROGRAM SUMMARY  
2015 - 2024 CAPITAL PROJECT CONSTRUCTION COST**

	ACTUAL CASH DISBURSEMENTS					ESTIMATED CASH DISBURSEMENTS					TOTAL
	2015	2016	2017	2018	2019*	2020	2021	2022	2023	2024	2015-2024
<u>BY CATEGORY</u>											
Water Reclamation Plants and Solids Management	\$144.40	\$107.01	\$104.26	\$34.17	\$19.19	\$43.84	\$53.75	\$17.86	\$17.31	\$22.05	\$563.84
Replacement of Facilities	26.65	36.98	43.22	14.48	17.32	47.94	46.72	66.33	42.70	21.48	\$363.82
Collection Facilities	14.94	25.51	10.52	16.58	14.26	15.83	18.61	19.53	50.18	14.28	\$200.24
Stormwater Management	5.85	7.49	5.69	26.23	51.51	66.04	104.49	73.99	23.52	37.60	\$402.42
Tunnel and Reservoir Plan	75.18	47.68	55.79	45.84	9.17	19.82	18.47	12.82	20.66	6.28	\$311.72
<b>TOTAL</b>	<b>\$267.02</b>	<b>\$224.67</b>	<b>\$219.48</b>	<b>\$137.30</b>	<b>\$111.45</b>	<b>\$193.47</b>	<b>\$242.04</b>	<b>\$190.53</b>	<b>\$154.37</b>	<b>\$101.69</b>	<b>\$1,842.03</b>
<u>BY FUND</u>											
Stormwater Management Fund	\$5.00	\$6.34	\$0.96	\$6.59	\$22.36	\$36.73	\$69.09	\$59.26	\$22.61	\$36.92	\$265.86
Construction Fund	13.34	13.47	8.83	6.82	8.91	8.08	8.06	7.97	8.04	8.04	\$91.55
Capital Improvements Bond Fund	248.68	204.86	209.69	123.89	80.18	148.66	164.89	123.31	123.73	56.73	\$1,484.62
<b>TOTAL</b>	<b>\$267.02</b>	<b>\$224.67</b>	<b>\$219.48</b>	<b>\$137.30</b>	<b>\$111.45</b>	<b>\$193.47</b>	<b>\$242.04</b>	<b>\$190.53</b>	<b>\$154.37</b>	<b>\$101.69</b>	<b>\$1,842.03</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



## 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 improvement is at least 15 years and the values are generally less than \$2 million. The Construction Fund is a pay-as-you-go capital fund and is funded primarily by property taxes.

### Summary of 2019 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:

- Completed pilot tests of mainstream shortcut biological nitrogen removal, coupled with biological phosphorus removal, at the O'Brien Water Reclamation Plant (WRP) to see if low-energy nitrogen removal is technically feasible;
- Completed the phosphorus removal feasibility studies at the Stickney, O'Brien, and Calumet WRPs;
- Finalized the seven-year collaborative research project with Argonne National Laboratory to use microbial source tracking tools, methodologies, and assessments for the reaches of the Chicago Area Waterway System that have been designated for primary contact recreation use by the Illinois Pollution Control Board;
- Began a project, the scope of which includes odor dispersion modeling and preliminary design of odor control facilities 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:

- Implemented 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;
- Replaced obsolete life-safety equipment with new programmable fire alarm panels and network components at the Calumet WRP. This project is consistent with the SBP, which underscores the need to integrate safety in all operations;
- Completed several capital improvement projects at the Main Office Building Complex, including: roof life extension, elevator modernization, air handling unit installation, and replacement of chillers. These projects were designed with the purpose of providing valuable equipment redundancies, preventing system failures, improving operating reliability, and increasing energy efficiencies;
- Updated aging infrastructure throughout the District, including the roof at the Lockport Powerhouse. The powerhouse's clay tile roof was approximately 110 years old and in need of restoration. Preserving the building is essential as it houses critical components used to control the water level of the Sanitary and Ship Canal and generate hydroelectricity;
- Began a large-scale project to improve the railroad assets at the Stickney WRP. The railroad is used to convey biosolids material to solids management areas. The biosolids program is a cornerstone of the SBP's recover resources plan;
- Began work on the installation of a shaftless screw conveyor in an aerated grit tank at the Calumet WRP, which will improve system reliability, reduce odors, and generate annual maintenance savings of approximately \$3,000 for parts and labor and 184 hours of in-house trades labor;
- Began work on the installation of a scum screw conveyor at the Stickney WRP, which will result in annual maintenance savings of approximately \$18,000 for parts and labor and 350 hours of in-house trades labor;
- Pursued energy efficiency projects, including the installation of LED fixtures in the storeroom at the Egan WRP. The project was approved based on the anticipated reduction in energy consumption based on the high-efficiency value of the new lamps;
- Acquired capital equipment for the biosolids beneficial reuse operation, which supports the SBP strategy of establishing a sustainable commercial biosolids market within the District's service area;
- Installed new actuators on the seven ultraviolet channel inlet gates at the O'Brien WRP. Ultraviolet technology, introduced at the WRP in 2016, is used as the final step in the treatment process to reduce pathogenic bacteria in the water being released from the plant into the North Shore Channel;
- Began the first phase of an extensive District-wide heating, ventilation, and air conditioning improvement project. The improvements are expected to improve indoor air quality and protect and preserve valuable assets, such as those contained in laboratories and data centers. The equipment specified for this project was chosen based on its performance properties. For instance, the new coils are expected to last three to five times longer than the existing coils, extending the useful life from four years to as much as twenty years.

### Budget Highlights

The 2020 appropriation for the Construction Fund is \$15,343,400, a decrease of \$2,996,900, or 16.3 percent, from 2019. There are no staff positions budgeted in the Construction Fund. The 2020 value of the Construction Fund Program includes \$7,227,000 for projects under construction and \$4,136,000 for projects scheduled for award in 2020. An additional \$3,980,400 is appropriated for purposes not specifically associated with listed project costs, including \$2,980,400 for professional engineering services in connection with initiatives sponsored by the Engineering and Monitoring & Research Departments and \$1,000,000 for capital project assessments for the DuPage River Salt Creek Workgroup.

## 2020 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;
- Continue the preliminary design work for odor control facilities at the Stickney WRP's southwest preliminary tank and aerated grit facilities.

### • Excellence

- Adhere to an asset maintenance schedule with the goal of reducing emergency work;
- Continue to prioritize projects to ensure the best use of available resources. In 2020, seven 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 will be overseeing five new and 13 existing Construction Fund projects in 2020 related to collection, treatment, flood and pollution control, and solids processing, 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.

### • Recover Resources

The Capital Improvement Program is essential to achieving the goals of the SBP. This is especially true for the Recover Resources goal with its broad vision and reliance, in many cases, on new processes and equipment. In 2020, a variety of projects to recover resources - 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;
- Evaluate advanced combined phosphorus and nitrogen recovery at the Stickney WRP. Present phosphorus recovery technologies mainly involve phosphorus recovery from centrate, sludge liquor, or sludge. These types of technologies are suitable for WRPs with enhanced biological phosphorus removal, digestion, and stripping. Recovery of phosphorus from these streams will help meet future stringent National Pollutant Discharge Elimination System limits. However, few phosphorus recovery technologies also focus on ammonium recovery. For instance, traditional struvite (a phosphate mineral) phosphorus recovery technologies only recover 10 to 20 percent of the ammonium from the treated stream. Increasing ammonium recovery can reduce the recycle loading to a WRP, thereby reducing plant energy and aeration demands. An advanced technology to maximize phosphorus and ammonium recovery will be tested.

### • 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;
- Act as 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 allows the District's Egan and Hanover Park WRPs an extended period, 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 did not participate in the DRSCW, those WRPs would be required to meet the same total phosphorus limit in 36 to 54 months from the date of permit issuance, at a significant cost and with little or no benefit to aquatic life. As a member, the District provides 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. The capital project contributions for the five-year period beginning in 2020 and ending in 2024 are \$1,000,000 for years one through three, \$485,000 for year four, and \$480,071 for year five.



## Construction Fund Program

<b>Projects Under Construction</b>						
Project Name	Project Number	Est. Construction Cost	2020 Appropriation	Duration (days)	Est. Award Date	
HVAC Improvements, Various Locations	18-611-23	\$ 1,851	\$ 270	540	Oct 2018	
Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	18-610-21	867	24	731	Nov 2018	
Furnish, Deliver, and Install Four Sacrificial Deep Anode Ground Beds for the Cathodic Protection System, CSA	19-804-21	705	510	395	Aug 2019	
Furnish, Deliver, and Install a Shaftless Screw Conveyor in an Aerated Grit Tank, CWRP	18-802-22	415	374	300	Sep 2019	
Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP	19-905-21	1,088	500	806	Oct 2019	
Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	16-708-21	1,200	1,100	420	Nov 2019	
Railroad Track Improvements, SSA	18-913-21	1,615	1,295	420	Nov 2019	
Furnish and Deliver Excitation Control Equipment, NBPS and RAPS	19-603-21	680	650	406	Nov 2019	
Replace HVAC Coils, Various Locations	19-608-21	78	50	180	Nov 2019	
HVAC System Replacements, Various Locations	19-613-21	2,900	1,100	1,136	Nov 2019	
Rehabilitate Main Sewage Pump No. 2 Motor, SWRP	19-925-21	450	400	420	Nov 2019	
Rebuild Gate Houses and Sludge Concentration Building, OWRP	19-707-21	155	104	305	Dec 2019	
Furnish, Deliver, and Install an Upgraded Operator for TARP Gate I, OWRP	19-717-22	850	850	378	Dec 2019	
Total Projects Under Construction		\$ 12,854	\$ 7,227			

<b>Awards in 2020</b>						
Project Name	Project Number	Est. Construction Cost	2020 Appropriation	Duration (days)	Est. Award Date	
Furnish, Deliver, and Install Effluent Pipe Liner, HPWRP	20-701-21	\$ 300	\$ 300	287	Mar 2020	
Furnish, Deliver, and Install Dewatering Screw Conveyor, EWRP	20-702-21	500	250	652	Mar 2020	
Advanced Combined Phosphorus and Nitrogen Recovery Pilot, SWRP	20-1XX-21	100	100	213	Jun 2020	
Furnish, Deliver, and Install Shaftless Screw Conveyor Systems at the Aerated Grit Facility, CWRP	20-802-21	3,000	1,786	578	Jun 2020	
Remove and Replace Two Boilers, MOB	J15090-076	1,200	1,200	122	Jun 2020	
Furnish, Deliver, and Install 480V Power Feeds to Aeration Batteries A, B, and C, CWRP	J68823-001.A	250	250	213	Jun 2020	
Furnish, Deliver, and Install Automatic Transfer Switches, LWRP	J68823-002.A	250	250	213	Jun 2020	
Total 2020 Awards		<u>\$ 5,600</u>	<u>\$ 4,136</u>			
Cumulative Projects Under Construction and 2020 Awards		<u>\$ 18,454</u>	<u>\$ 11,363</u>			

**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 2020 award.

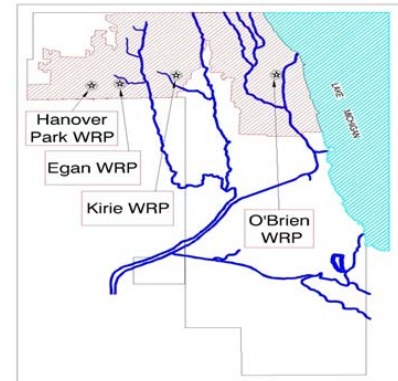
**STICKNEY  
SERVICE  
AREA (SSA)**



**Stickney Water Reclamation Plant (SWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Projects Under Construction</b>			
18-610-21	Rehabilitate Raw Sewage Pump Rotating Assemblies, Various Locations	11/20	\$ 867,000
18-913-21	Railroad Track Improvements, SSA	12/20	1,615,000
19-608-21	Replace HVAC Coils, Various Locations	5/20	78,000
19-613-21	HVAC System Replacements, Various Locations	12/22	2,900,000
19-905-21	Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP	12/21	1,088,000
19-925-21	Rehabilitate Main Sewage Pump No. 2 Motor, SWRP	12/20	450,000
		<b>Total</b>	<b>\$ 6,998,000</b>
<b>Projects for 2020 Award</b>			
20-1XX-21	Advanced Combined Phosphorus and Nitrogen Recovery Pilot, SWRP		\$ 100,000
J15090-076	Remove and Replace Two Boilers, MOB		1,200,000
		<b>Total</b>	<b>\$ 1,300,000</b>
		<b>Stickney Service Area Grand Total</b>	<b>\$ 8,298,000</b>

**NORTH  
SERVICE  
AREA (NSA)**



**Terrence J. O'Brien Water Reclamation Plant (OWRP)**

<b>Projects Under Construction</b>		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
19-603-21	Furnish and Deliver Excitation Control Equipment, NBPS and RAPS	12/20	\$ 680,000
19-707-21	Rebuild Gate Houses and Sludge Concentration Building, OWRP	10/20	155,000
19-717-22	Furnish, Deliver, and Install an Upgraded Operator for TARP Gate I, OWRP	12/20	850,000
		<b>Total</b>	<b>\$ 1,685,000</b>

**John E. Egan Water Reclamation Plant (EWRP)**

**Project for 2020 Award**

20-702-21	Furnish, Deliver, and Install Dewatering Screw Conveyor, EWRP		\$ 500,000
		<b>Total</b>	<b>\$ 500,000</b>

**James C. Kirie Water Reclamation Plant (KWRP)**

**Project Under Construction**

16-708-21	Rehabilitate Gloria Alitto Majewski Reservoir, KWRP	12/20	\$ 1,200,000
		<b>Total</b>	<b>\$ 1,200,000</b>

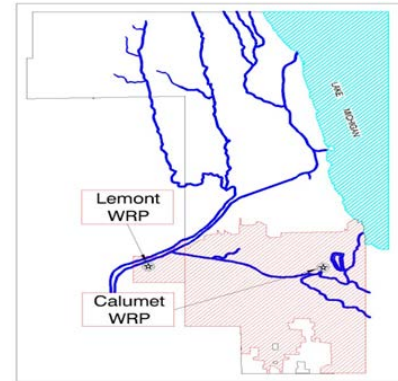
**Hanover Park Water Reclamation Plant (HPWRP)**

**Project for 2020 Award**

20-701-21	Furnish, Deliver, and Install Effluent Pipe Liner, HPWRP		\$ 300,000
		<b>Total</b>	<b>\$ 300,000</b>

North Service Area Grand Total **\$ 3,685,000**

**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>			
18-611-23	HVAC Improvements, Various Locations	4/20	\$ 1,851,000
18-802-22	Furnish, Deliver, and Install a Shaftless Screw Conveyor in an Aerated Grit Tank, CWRP	7/20	415,000
19-804-21	Furnish, Deliver, and Install Four Sacrificial Deep Anode Ground Beds for the Cathodic Protection System, CSA	9/20	705,000
		Total	<b>\$ 2,971,000</b>
<b>Projects for 2020 Award</b>			
20-802-21	Furnish, Deliver, and Install Shaftless Screw Conveyor Systems at the Aerated Grit Facility, CWRP		\$ 3,000,000
J68823-001.A	Furnish, Deliver, and Install 480V Power Feeds to Aeration Batteries A, B, and C, CWRP		250,000
		Total	<b>\$ 3,250,000</b>
<b>Lemont Water Reclamation Plant (LWRP)</b>			
<b>Project for 2020 Award</b>			
J68823-002.A	Furnish, Deliver, and Install Automatic Transfer Switches, LWRP		\$ 250,000
			<b>\$ 250,000</b>
Calumet Service Area Grand Total			<b>\$ 6,471,000</b>
Capital Projects Grand Total - All Service Areas			<b>\$ 18,454,000</b>

### 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** \$1,200,000

**Contract Award Date** November 2019

**Substantial Completion Date** December 2020



**Project Description** Rehabilitation of the Gloria Alitto Majewski Reservoir, which includes the installation of a process water cleaning system.

**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 underdrain system. The Engineering Department's Contract 06-363-3D implemented improvements based on the 2011 inspection, and the improvements were completed in 2013. In 2015, a follow-up inspection by the District's Engineering Department determined that the drainage underliner south of the intake structure, the liner connection, concrete toe block, and roller compacted concrete are all in need of rehabilitation.

**Project Status** Design

## 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 2018
<b>Substantial Completion Date</b>	November 2020



**Project Description** This project will include a complete rebuild of one main raw sewage pump rotating assembly for the O'Brien WRP and four main raw sewage pump rotating assemblies for the Stickney WRP. Rehabilitation work includes sandblasting, inspecting, machining, and welding rehabilitation 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 raw sewage pumps with various flow capabilities. During a rain event, five main raw sewage pumps are required to be in service to reach the maximum plant flow. The Stickney WRP has 13 main raw sewage pumps with various flow capabilities, seven at the West Side Pumping Station and six at the Southwest Pump and Blower House. During a rain event, various combinations of the main raw sewage pumps are utilized to reach the maximum plant flow. In some instances, 10 of the 13 main raw sewage pumps are required. Centrifugal pumps, like those in service, are designed to allow for sacrificial wear rings to thin over time and protect the costly impellers from damage. As the rings wear, the gap between the wear rings and the casing rings increases, allowing additional recirculation within the pump casing. As a result, the flow generated by the pump and the overall efficiency of the pump are decreased. This contract will rebuild one worn rotating assembly at the O'Brien WRP and four worn rotating assemblies at the Stickney WRP, one at the West Side Pumping Station and three at the Southwest Pump and Blower House. Having spare rotating assemblies on hand significantly reduces the downtime required to replace a main raw sewage pump rotating assembly in case of failure.

**Project Status** Construction

### HVAC Improvements, Various Locations

**Project Number** 18-611-23

**Service Area** Calumet and North

**Location** Calumet, Egan, and O'Brien WRPs

**Engineering Consultant** In-house design

**Engineering Contractor** Autumn Construction Services, Inc.

**Estimated Construction Cost** \$1,851,000

**Contract Award Date** October 2018

**Substantial Completion Date** April 2020



**Project Description** At the Calumet WRP, the heating, ventilation, and air conditioning systems will be replaced in the computer and control rooms in the Administration Building, the digester control room, the Tunnel and Reservoir Plan control room, and the high-level pumping station. Additional replacements include the air handling units in the concentration facility, penthouse air handling and condensing units in the Administration Building, and reciprocating chillers in the Process Control Building. At the O'Brien WRP, the rooftop units for the Administration Building will be replaced, and at the Egan WRP, the condensation control for the condenser water in the pump room will be replaced.

**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



**Furnish, Deliver, and Install a Shaftless Screw Conveyor in an Aerated Grit Tank, CWRP**

<b>Project Number</b>	18-802-22
<b>Service Area</b>	Calumet
<b>Location</b>	Calumet WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	IHC Construction Companies, Inc.
<b>Estimated Construction Cost</b>	\$415,000
<b>Contract Award Date</b>	September 2019
<b>Substantial Completion Date</b>	July 2020



**Project Description** Furnish, deliver, and install one shaftless screw conveyor in an aerated grit tank in the Calumet WRP's grit facility.

**Project Justification** The grit facility has eight traveling bridge grit tanks that were installed more than six 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 the parts alone was approximately \$180,000. 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. Unlike the traveling bridges, the new conveyors will be controlled via distributed control systems that will limit electrical component exposure to hydrogen sulfide.

**Project Status** Construction

### 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** \$1,615,000

**Contract Award Date** November 2019

**Substantial Completion Date** December 2020



**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 locomotive terminal, 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 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>	\$680,000
<b>Contract Award Date</b>	November 2019
<b>Substantial Completion Date</b>	December 2020



**Project Description** Furnish and deliver replacement excitation control equipment for the North Branch Pumping Station (NBPS) and 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 or 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 or supported, rehabilitation work take longer and are costlier due to the specialized use of parts and labor.

**Project Status** Design

### 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** \$78,000

**Contract Award Date** November 2019

**Substantial Completion Date** May 2020

**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** Design



### 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 WRP 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>	\$2,900,000
<b>Contract Award Date</b>	November 2019
<b>Substantial Completion Date</b>	December 2022



**Project Description** This project includes the replacement and improvement of heating, ventilation, and air conditioning systems at various locations. At the Stickney WRP, the air handling units in the Monitoring and Research Building and the air conditioning unit and condenser in the Information Technology Department's data room 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** Design

## 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** December 2019

**Substantial Completion Date** October 2020



**Project Description** At gate houses No. 1 and 2, perform tuckpointing, restore the glass block and parapet, and remove and replace the roof. Similar restoration work must also be performed 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 have this work done in order to preserve its useful life.

**Project Status** Planning

## Furnish, Deliver, and Install an Upgraded Operator for TARP Gate I, OWRP

<b>Project Number</b>	19-717-22
<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>	\$850,000
<b>Contract Award Date</b>	December 2019
<b>Substantial Completion Date</b>	December 2020



**Project Description** This project entails removing the existing hydraulic operator and accumulator assembly for Tunnel and Reservoir Plan Gate I at the O'Brien WRP and installing an electric actuator in its place. Five redundant hydraulic sluice gates will also be blocked open and decommissioned.

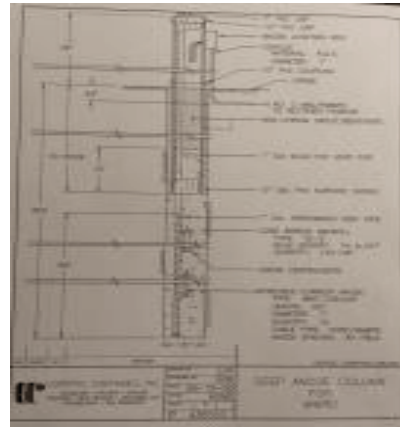
**Project Justification** The existing gate operator is beyond its useful life. It requires frequent rehabilitation work and the proprietary parts for which are becoming increasingly scarce as they are no longer being supplied by the original equipment manufacturer. The replacement actuator will result in improved reliability and reduced equipment maintenance and downtime.

**Project Status** Design



## Furnish, Deliver, and Install Four Sacrificial Deep Anode Ground Beds for the Cathodic Protection System, CSA

<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>	Industria, Inc.
<b>Estimated Construction Cost</b>	\$705,000
<b>Contract Award Date</b>	August 2019
<b>Substantial Completion Date</b>	September 2020



**Project Description** 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.

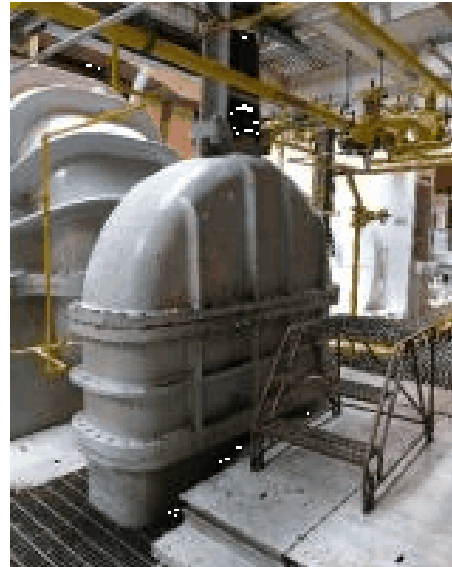
**Project Justification** The purpose of the contract is to replace four deep anode ground beds (DAGBs) which are no longer functional and do not protect underground equipment. The DAGBs are a part of the cathodic protection system responsible for protection of the underground piping infrastructure, 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.

**Project Status** Construction



## Discharge Valve Rehabilitation, Main Sewage Pump No. 5, SWRP

<b>Project Number</b>	19-905-21
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	Pumping Solutions, Inc. D/B/A Proflow Pumping Solutions
<b>Estimated Construction Cost</b>	\$1,088,000
<b>Contract Award Date</b>	October 2019
<b>Substantial Completion Date</b>	December 2021



**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 welding rehabilitation 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 the 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 pumps No. 1 through 4 were originally installed in 1938 and rehabilitated in 2008 through 2010. The discharge valves on raw sewage pumps No. 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 flow back into the wet well, necessitating the need to operate more pumps and increase electrical energy consumption.

**Project Status** Construction

## Rehabilitate Main Sewage Pump No. 2 Motor, SWRP

**Project Number** 19-925-21

**Service Area** Stickney

**Location** Stickney WRP

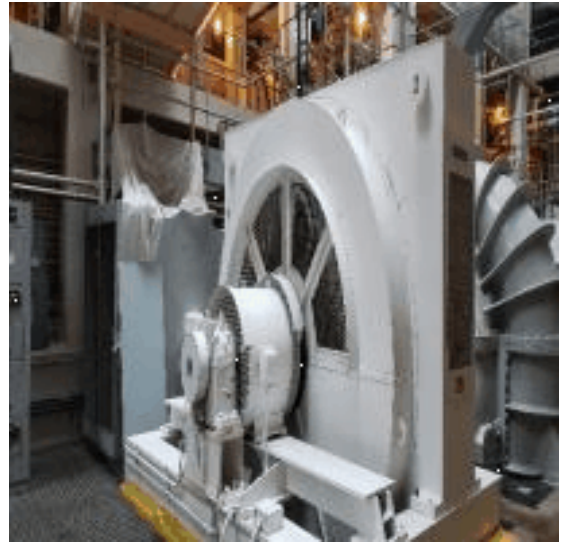
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$450,000

**Contract Award Date** November 2019

**Substantial Completion Date** December 2020



**Project Description** This project will rewind the motor stator and refurbish the rotor and exciter windings on main sewage pump motor No. 2 at the Stickney WRP.

**Project Justification** On May 13, 2019 main sewage pump motor No. 2 tripped while in service. District staff tested the motor and found the stator winding had shorted to ground. To restore the pump to operation, the motor stator must be rewound and new temperature monitoring devices must be installed. The rotor will be tested and refurbished.

**Project Status** Design

## Advanced Combined Phosphorus and Nitrogen Recovery Pilot, SWRP

**Project Number** 20-1XX-21

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$100,000

**Contract Award Date** June 2020

**Substantial Completion Date** December 2020



**Project Description** Present phosphorus recovery technologies mainly involve phosphorus recovery from centrate, sludge liquor, or sludge. These types of technologies are suitable for water reclamation plants (WRP) with enhanced biological phosphorus removal, digestion, and stripping. Recovery of phosphorus from these streams will help meet future stringent National Pollutant Discharge Elimination System limits. However, few phosphorus recovery technologies also focus on ammonium recovery, e.g. traditional struvite phosphorus recovery technologies only recover 10-20 percent of the ammonium from the treated stream. Increasing ammonium recovery can reduce the recycle loading to a WRP and thus plant energy and aeration demands. An advanced technology to maximize phosphorus and ammonium recovery will be tested.

**Project Justification** The Stickney WRP employs an enhanced biological phosphorus removal process and has both sludge and sludge liquor streams for phosphorus and ammonium recovery pilot testing that may help the plant in the future (and other District plants) meet both phosphorus and ammonia-nitrogen National Pollutant Discharge Elimination System permit limits, as well as reduce aeration demand.

**Project Status** Planning

### Furnish, Deliver, and Install Effluent Pipe Liner, HPWRP

<b>Project Number</b>	20-701-21
<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>	\$300,000
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	December 2020



**Project Description** This project entails the cured-in-place lining of the tertiary building effluent piping, including effluent channel access hatches for filter beds and discharge lines.

**Project Justification** The Hanover Park WRP has three effluent conduits for the tertiary building (filter beds 3/4, 5/6, and 7/8). The conduits are cast iron with couplings which have begun to leak. The conduits are partially buried in concrete and cannot be easily rehabilitated or replaced. This contract will install cured-in-place pipe liners in each conduit to seal the leaks.

**Project Status** Planning

### Furnish, Deliver, and Install Dewatering Screw Conveyor, EWRP

<b>Project Number</b>	20-702-21
<b>Service Area</b>	North
<b>Location</b>	Egan WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$500,000
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	December 2021



<b>Project Description</b>	This project will replace the existing post-digestion centrifuge and sludge dewatering shafted screw conveyor with a longer shaft-less conveyor, relocate the existing Schwing Bio-Set piston pump, and install two on-hand centrifuge slide gates as well as an incline screw conveyor and hopper for the piston pump.
<b>Project Justification</b>	Retrofitting a different type of screw for the existing conveyor and reconfiguring the pump location will increase the reliability of this process-critical solids handling system.
<b>Project Status</b>	Planning

## Furnish, Deliver, and Install Shaftless Screw Conveyor Systems at the Aerated Grit Facility, CWRP

<b>Project Number</b>	20-802-21
<b>Service Area</b>	Calumet
<b>Location</b>	Calumet WRP
<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>	June 2020
<b>Substantial Completion Date</b>	December 2021



**Project Description** The scope of work includes the installation of seven aerated grit tank screw conveyor systems, the replacement of eight tank covers, and the demolition of eight bridge assemblies in the grit facility at the Calumet WRP.

**Project Justification** The grit facility has eight traveling bridge grit tanks that were installed more than six 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 the parts alone was approximately \$180,000 per tank. 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. Unlike the traveling bridges, the new conveyors will be controlled via distributed control systems that will limit electrical component exposure to hydrogen sulfide.

**Project Status** Planning

## Remove and Replace Two Boilers, MOB

**Project Number** J15090-076

**Service Area** Stickney

**Location** Main Office Building

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$1,200,000

**Contract Award Date** June 2020

**Substantial Completion Date** October 2020



**Project Description** This project will remove and replace two boiler units at the Main Office Building. The new units must be energy efficient.

**Project Justification** There have been several projects to re-tube the boilers, which have resulted in significant maintenance costs. The boilers are original to the building, which was constructed in 1955. According to the standards of the American Society of Heating, Refrigerating, and Air Conditioning Engineers, the useful life of cast iron boilers is 35 years. These have now been operational for 64 years. Failure of either of the existing boilers could have adverse effects on the working conditions of all employees in the Main Office Building due to the inability to regulate temperature during the cooler months.

**Project Status** Planning

**Furnish, Deliver, and Install 480V Power Feeds to Aeration Batteries A, B, and C, CWRP**

**Project Number** J68823-001.A

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$250,000

**Contract Award Date** June 2020

**Substantial Completion Date** December 2020

**Project Description** Furnish, deliver, and install two 480V power feeds to aeration batteries A, B, and C at the Calumet WRP.

**Project Justification** By design, the power feeds to aeration batteries A, B, and C share the same raceway or cable trough. The trough is integral to an adjacent tank that leaks, submerging the cables and splices, and creating a potential ground fault condition. This project will remedy that hazard.

**Project Status** Planning





**Furnish, Deliver, and Install Automatic Transfer Switches, LWRP**

**Project Number** J68823-002.A

**Service Area** Calumet

**Location** Lemont WRP

**Engineering Consultant** In-house design

**Engineering Contractor** McDonagh Demolition, Inc.

**Estimated Construction Cost** \$250,000

**Contract Award Date** June 2020

**Substantial Completion Date** December 2020



**Project Description** Furnish, deliver, and install automatic transfer switches at the Lemont WRP.

**Project Justification** The Lemont WRP's power is sourced by two Commonwealth Edison feeds. As this plant is unmanned after hours, maintaining power to the plant is process critical. In the event power is lost to one feed, the automatic transfer switch will sense the loss and transfer to the available source. Recently, the existing automatic transfer switch failed, resulting in loss of sewage conveyance. This project will replace and upgrade the automatic transfer switch.

**Project Status** Planning

**50000 CONSTRUCTION FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

OBJECTIVES BY PRIORITY:	Cost	Percent
1. COLLECTION FACILITIES: Award projects, such as the rehabilitation of a main sewage pump motor at the Stickney WRP, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 3,363,066	21.9%
2. TREATMENT FACILITIES: Award projects, such as the replacement of heating, ventilation, and air conditioning systems, District-wide and the installation of new conveyor systems at the Calumet and Egan WRPs, which will reduce operation and maintenance costs and/or provide facility improvements.	\$ 4,929,202	32.1%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award projects, such as railroad track improvements in the Stickney Service Area used to transport biosolids to the solids management areas, which will reduce costs and/or provide facility improvements.	\$ 1,640,005	10.7%
4. FLOOD AND POLLUTION CONTROL: Provide funding for construction projects addressing flood control.	\$ 2,098,900	13.7%
5. CONSTRUCTION FUND PROJECT COST: Provide funding for contracts awarded prior to 2020.	\$ 7,227	0.1%
6. PROJECT SUPPORT: Development, design, and administration of current and future contracts, funding support, construction materials, and utility support services.	\$ 3,305,000	21.5%
<b>Totals</b>	<b>\$ 15,343,400</b>	<b>100.0%</b>

MEASURABLE GOAL:	2018	2019	2020
	Actual	Estimated	Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	51	29	7
Number of contracts awarded	51	29	7
Number of plans available for award	51	29	7
<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, project schedules, Intergovernmental Agreements lead times, and unforeseen obstacles. The numbers are provided only as a general indicator of performance.</p>			

**50000 CONSTRUCTION FUND**

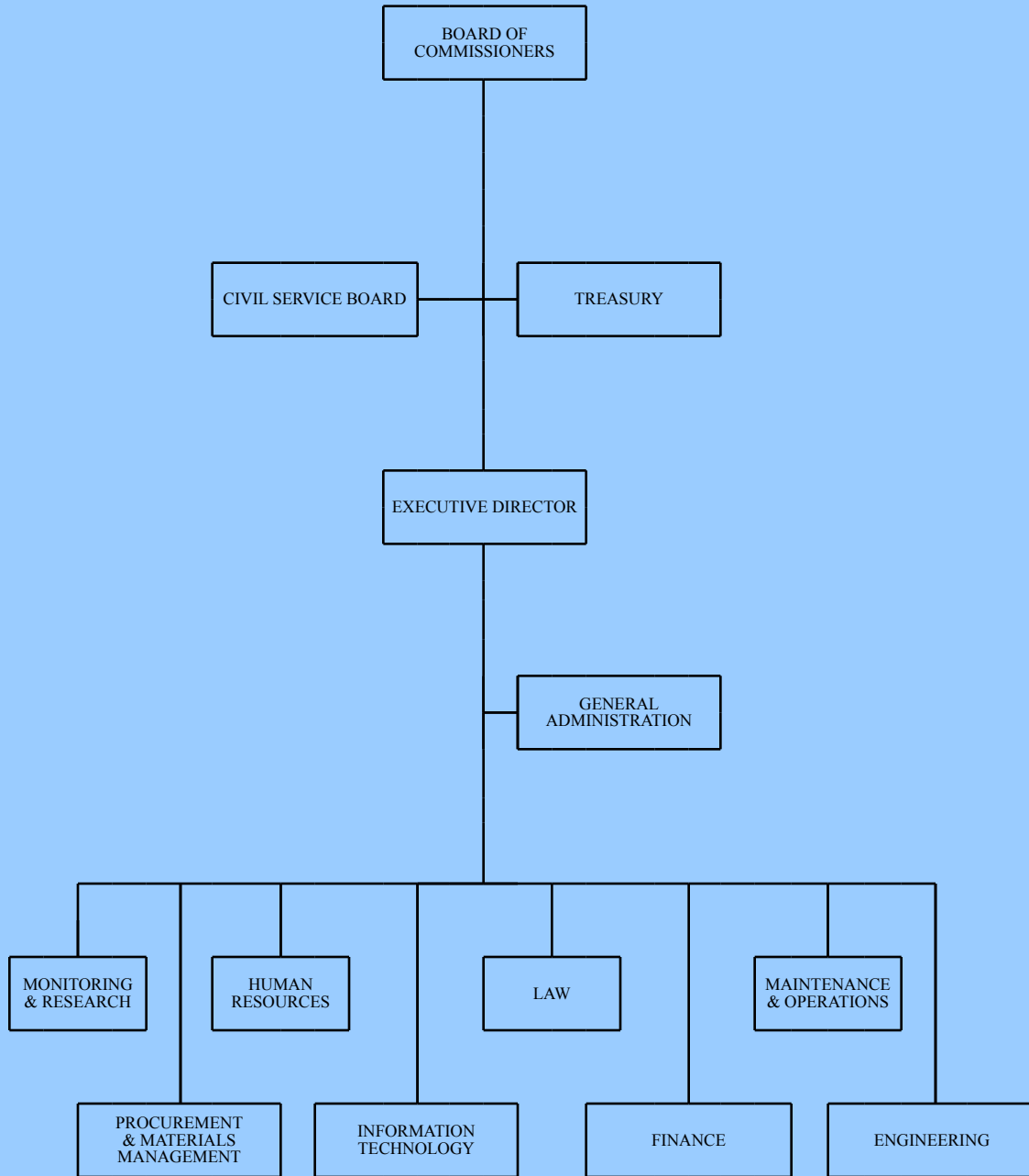
**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change		
Number	Name	Actuals	Positions	Dollars	Dollars	Percent	
1110	Interceptor Systems	\$ 619,381	2020	— \$	432,000	\$ (489,000)	(53.1)
			2019	— \$	921,000		
1800	Collection Construction	\$ 2,086,480	2020	— \$	2,934,000	\$ (502,000)	(14.6)
			2019	— \$	3,436,000		
2800	Treatment Construction	\$ 6,248,147	2020	— \$	4,848,100	\$ (607,200)	(11.1)
			2019	— \$	5,455,300		
2900	Treatment Processes	\$ —	2020	— \$	83,000	\$ (80,000)	(49.1)
			2019	— \$	163,000		
3700	Solids Processing Design	\$ 258,323	2020	— \$	—	\$ —	—
			2019	— \$	—		
3800	Solids Processing Construction	\$ 247,273	2020	— \$	346,500	\$ (215,800)	(38.4)
			2019	— \$	562,300		
4600	Monitoring	\$ 2,300,477	2020	— \$	2,105,000	\$ 155,300	8.0
			2019	— \$	1,949,700		
4800	Flood and Pollution Control Construction	\$ 40,000	2020	— \$	2,100,000	\$ 50,000	2.4
			2019	— \$	2,050,000		
5800	Solids Disposal Construction	\$ 1,274,509	2020	— \$	1,294,800	\$ (270,200)	(17.3)
			2019	— \$	1,565,000		
7284	Store Operations and Issue	\$ 80,961	2020	— \$	—	\$ (50,000)	(100.0)
			2019	— \$	50,000		
7290	Examinations and Employment Activities	\$ 142,637	2020	— \$	—	\$ (45,000)	(100.0)
			2019	— \$	45,000		
7367	Real Estate Asset Management	\$ 76,051	2020	— \$	—	\$ —	—
			2019	— \$	—		
7380	Information Technology and Telecommunications	\$ 536,577	2020	— \$	—	\$ (150,000)	(100.0)
			2019	— \$	150,000		
7390	Accounting and Auditing	\$ 27,409	2020	— \$	—	\$ —	—
			2019	— \$	—		
7460	Main Office Complex Building Services	\$ 466,311	2020	— \$	1,200,000	\$ (613,000)	(33.8)
			2019	— \$	1,813,000		
7491	Automotive Fleet Procurement	\$ 605,204	2020	— \$	—	\$ (180,000)	(100.0)
			2019	— \$	180,000		
7801	Information Technology Services - General Administration	\$ 17,667	2020	— \$	—	\$ —	—
			2019	— \$	—		
Totals		\$15,027,407	2020	— \$	15,343,400	\$ (2,996,900)	(16.3)%
			2019	— \$	18,340,300		

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						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
612240	Testing and Inspection Services	\$ 661,739	\$ 1,303,000	\$ 1,321,500	\$ 1,321,345	\$ 1,125,000	\$ 892,700	\$ —
612400	Intergovernmental Agreements	64,280	1,068,500	1,068,500	1,068,500	1,068,400	1,065,000	—
612430	Payments for Professional Services	2,394,499	1,131,200	1,112,700	845,185	794,900	1,900,000	—
612440	Preliminary Engineering Reports and Studies	25,810	213,000	213,000	204,089	204,200	123,000	—
612450	Professional Engineering Services for Construction Projects	11,875	—	—	—	—	—	—
612490	Contractual Services, N.O.C.	—	50,000	50,000	—	—	—	—
200	TOTAL CONTRACTUAL SERVICES	3,158,203	3,765,700	3,765,700	3,439,119	3,192,500	3,980,700	—
634600	Equipment for Collection Facilities	292,783	641,000	641,000	209,717	209,800	—	—
634620	Equipment for Waterway Facilities	55,882	17,000	104,000	100,837	100,900	—	—
634650	Equipment for Process Facilities	1,278,950	1,297,000	1,187,000	953,759	1,032,500	50,000	—
634760	Material Handling and Farming Equipment	2,083,630	740,000	653,000	646,651	646,700	—	—
634810	Computer Equipment	403,906	—	—	—	—	—	—
634820	Computer Software	44,140	45,000	45,000	—	—	—	—
634840	Communications Equipment (Includes Software)	40,888	150,000	150,000	—	—	—	—
634860	Vehicle Equipment	845,413	180,000	290,000	286,195	286,200	—	—
400	TOTAL MACHINERY AND EQUIPMENT	5,045,591	3,070,000	3,070,000	2,197,159	2,276,100	50,000	—
645600	Collection Facilities Structures	851,884	300,000	300,000	208,828	213,900	—	—
645650	Process Facilities Structures	1,017,290	1,209,000	959,600	764,150	607,700	473,500	—
645680	Buildings	1,956,127	3,061,000	3,948,500	2,552,272	3,290,300	1,470,000	—
645690	Capital Projects, N.O.C.	138,500	1,388,000	563,000	562,450	562,500	—	—
645700	Preservation of Collection Facility Structures	—	2,540,000	2,892,400	2,052,051	1,506,800	4,034,000	—
645720	Preservation of Waterway Facility Structures	446,215	300,000	300,000	75,000	75,000	—	—
645750	Preservation of Process Facility Structures	293,966	1,414,800	564,800	329,478	457,000	2,836,400	—
645780	Preservation of Buildings	2,089,656	1,238,200	1,293,200	1,059,432	1,095,800	1,204,000	—
645790	Preservation of Capital Projects, N.O.C.	29,976	53,600	683,100	384,576	170,000	1,294,800	—
500	TOTAL CAPITAL PROJECTS	6,823,613	11,504,600	11,504,600	7,988,237	7,979,000	11,312,700	—
<b>TOTAL CONSTRUCTION FUND</b>		<b>\$ 15,027,407</b>	<b>\$ 18,340,300</b>	<b>\$ 18,340,300</b>	<b>\$ 13,624,515</b>	<b>\$ 13,447,600</b>	<b>\$ 15,343,400</b>	<b>\$ —</b>

NOTES: 1. Amounts may not add up due to rounding.  
 2. Estimated Expenditure may either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



## 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 generally, the useful life will be at least 20 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 2019 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 replacement of electrical infrastructure at the Stickney Water Reclamation Plant (WRP), Devon Aeration Station, and the Wilmette Pumping Station. These projects replaced outdated equipment and enhanced reliability of these facilities;
- Awarded construction contracts to rehabilitate Drop Shaft 5 and made several improvements to the collection system, rehabilitated the North Branch Pumping Station, replaced the roof at the 95th Street Pumping Station, and replaced switchgear and the Motor Control Center at the O'Brien WRP.

#### Improvement of Environmental Quality

- Initiated design work for installation of mechanical mixers at the Stickney WRP to improve the effectiveness of the biological phosphorus removal process, which will facilitate compliance with the phosphorus limits contained in the operating permit for the Stickney WRP. By removing phosphorus from effluent, the District reduces phosphorus discharged to the receiving stream and mitigates conditions that have created a dead zone in the Gulf of Mexico;
- Completed construction of baffle plates to facilitate settling of solids in the final settling tanks. This will improve effluent quality at the O'Brien WRP.

#### Commitment to Community

- Awarded a contract to install odor control systems at the Thornton Reservoir Construction and Gate Shafts;
- Awarded contracts to install odor control systems at the Calumet, Stickney, Kirie, and Hanover WRPs;
- Completed the conversion of the two gravity concentration tanks to primary sludge fermenters at the Stickney WRP, which will improve the effectiveness of the biological phosphorus removal process.

### Budget Highlights

The 2020 appropriation for the Capital Improvements Bond Fund is \$214,306,200, a decrease of \$163,867,600, or 43.3 percent, from 2019. 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 2020 in the amount of \$181,306,900 including funding for stormwater management capital projects. The remaining \$32,999,300 includes funding for acquisition of easements, bond issuance costs, allowances for contract change orders, and legal and other support services relating to capital projects.

Significant features of the 2020 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 Tunnel and Reservoir Plan pumps at the Mainstream Pumping Station, rehabilitate the pump and blower house at the O'Brien WRP, rehabilitate central boiler facility and perform electrical upgrades at the Hanover Park 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, 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, which is required to provide adequate conveyance of flow from the Des Plaines tunnel to the reservoir;
- Award a contract to stabilize rock walls and install instrumentation for Stage 2 of the McCook Reservoir;
- Begin construction of a Sidestream Enhanced Biological Phosphorus Removal pilot study at the Calumet WRP. This will allow the District to evaluate a method for removing phosphorus from wastewater, that avoids the need for importing chemicals or undertaking major infrastructure modifications.

## Commitment to Community

- Continue construction of odor control systems at the Thornton Reservoir Gate and Construction Shafts;
- Three projects were awarded and began construction in 2019 to accomplish the goal of 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 bio-trickling filter and carbon polisher unit will be constructed to effectively treat the odor emissions.

## 2020 Initiatives in Support of the Strategic Business Plan Include the Following:

### • Add Value

The recent completion of the Thornton Composite Reservoir and Stage 1 of the McCook Reservoir, Tunnel and Reservoir Plan has been effective in reducing pollution and flooding throughout the District's combined sewer service area. In fact, Stage 1 of the McCook Reservoir, which was completed in late 2018, provides 3.5 billion gallons of storage capacity, and has already prevented more than 40 billion gallons of combined sewage pollution from entering waterways and basements. Stage 2 of the McCook Reservoir is currently being excavated and, when completed, will add 6.5 billion gallons of storage to capture additional combined sewer overflow from 37 communities in Cook County.

In 2019, the Army Corps of Engineers and the District completed a Project Partnership Agreement to implement a pilot program to fund the completion of Stage 2 of the reservoir. The pilot program grants the District \$33.8 million to complete the Stage 2 design and construction work. This lump sum payment to the District came as a result of the Water Resources Development Act of 2014, which evaluates cost-effectiveness and project delivery efficiency of allowing non-federal interests to carry out construction of projects for flood risk management.

### • Excellence

Given the critical nature of services provided by the District and its recognition of the age of infrastructure needed to provide these services, the Engineering Department excels at developing projects to rehabilitate facilities and provide new infrastructure. Approximately 70 percent of the dollar value of Capital Improvements Bond Fund contracts awarded in 2019 were related to the preservation of infrastructure. Out of all the projects to be awarded in 2020, approximately 70 percent are focused on preservation of infrastructure.

### • Recover Resources

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. An 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 and 2019, 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 rehabilitation 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 2020</b>					
Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date	
Odor Control Systems at Two TARP Shafts and Decommissioning the Thornton Transitional Reservoir, CSA	15-266-4H	\$ 15,366	502	Jan 2020	
Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP	18-248-3P	1,400	252	Jan 2020	
Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP	15-069-3D	10,000	903	Feb 2020	
Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA	06-360-3S	7,000	313	Mar 2020	
Furnish, Deliver, and Install Disc Filters, EWRP	18-702-31	4,000	730	Mar 2020	
Furnish, Deliver, and Install Three Bar Screens, KWRP	18-703-31	1,800	720	Mar 2020	
Central Boiler Facility and Electrical Updates, HPWRP	19-542-3M	14,000	712	Mar 2020	
Furnish, Deliver, and Install Replacement Gearboxes for SEPA(s) 2 & 5, CWRP	20-801-31	1,200	666	Mar 2020	
Furnish, Deliver, and Install Coarse Screens, SWRP	20-903-31	6,000	1,622	Mar 2020	
Roof Replacement of the Lue-Hing M&R Complex, SWRP	17-135-3V	6,500	553	Apr 2020	
Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	17-606-31	545	335	Apr 2020	
Rehabilitation of Elevator Shafts, MSPS	18-142-3H	1,500	382	Apr 2020	
Phosphorus Removal Liquid Facilities at the Fox River Water Reclamation District	18-IGA-36	9,762	706	Apr 2020	
Installation of Mechanical Mixers, SWRP	19-157-3P	11,500	300	Apr 2020	
North Side Sludge Pipeline Replacement - Section 1, NSA	07-027-3S	14,327	922	May 2020	
A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	16-127-3D	17,000	1,047	May 2020	
Battery A Final Settling Tanks, Rehabilitation of Concrete, SWRP	08-174-3D	7,700	322	Jun 2020	
Stickney Effluent Reuse Line, SSA	14-107-3S	800	193	Jun 2020	
Utility Tunnel Cracks and Expansion Joints Rehabilitation, OWRP, KWRP, EWRP, HPWRP	17-843-3D	3,000	682	Jul 2020	
McCook Reservoir Stage 2 Rock Wall Stabilization and Instrumentation, SWRP	17-131-4F	17,268	1,230	Aug 2020	
6th Street Construction and Utility Tunnel Rehabilitation, CWRP	19-257-3D	2,000	322	Dec 2020	
Total 2020 Awards		\$ 152,668			



**Projects Under Development**

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
North Shore 1 Rehabilitation, NSA	10-047-3S	\$ 22,750	1,000	Jan 2021
Waste Activated and Primary Sludge Pump Upgrades, SWRP	20-901-31	1,100	720	Jan 2021
Rehabilitation of Locomotive Terminal Building, SWRP	18-143-3D	2,750	592	Feb 2021
Digester Rehabilitation and Gas Piping Replacement Phase II, SWRP	18-148-3P	11,500	742	Mar 2021
Chemical Phosphorus Removal Facility, CWRP	18-254-3P	14,000	312	Mar 2021
Furnish, Deliver, and Install Elevator Upgrades, NSA	21-701-31	900	660	Mar 2021
Rehabilitation of the Overhead Bridge Crane in the Discharge Valve Chamber, MSPS	21-901-31	1,100	300	May 2021
Roof Replacement & Restoration at Various Locations, SWRP	21-602-31	12,500	1,645	Jun 2021
Lockport Turbine Generator Rehabilitation, SSA	21-601-31	1,100	300	Jul 2021
Final Settling Tank Effluent Conduit Rehabilitation and Ultraviolet Facility Upgrades, OWRP	19-084-3P	2,000	512	Aug 2021
39th Street Conduit Rehabilitation - Phase II, SSA	01-103-AS	24,700	749	Jan 2022
Gate Control Equipment Upgrade at TARP Control Structures, NSA	06-358-3M	2,200	552	Jan 2022
Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA	11-404-3S	5,500	462	Jan 2022
Boilers 3-5 and Motor Control Center Replacement, SWRP	19-155-3M	13,000	732	Jan 2022
Digester Rehabilitation, HPWRP	19-541-3P	6,000	572	Jan 2022
TARP Control System Replacement, SSA, CSA, NSA	19-856-3E	25,000	412	Feb 2022
Switchgear and Motor Control Center Replacement, CWRP	19-258-3E	23,000	512	Apr 2022
Photovoltaic Solar Plant, CWRP	19-259-3H	5,000	700	Jul 2022
Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA	12-369-3S	5,500	462	Nov 2022
Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-130-3D	3,000	512	Jan 2023
Low Voltage Switchgear Replacement, MSPS	19-154-3E	9,000	512	Jan 2023
Low Voltage Pump and Blower Switchgear and Aerated Grit Motor Control Center Replacement, SWRP	19-156-3E	6,750	552	Jan 2023
Rehabilitation of Pump and Blower House, CWRP	19-255-3D	4,000	562	Jan 2023
Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-129-3D	3,000	512	Feb 2023
Post-Digestion Dewatering System, CWRP	17-275-3P	15,000	552	Feb 2023
Digester Rehabilitation and Gas Piping Replacement, CWRP	18-253-3P	15,000	842	Feb 2023
Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	16-128-3D	5,000	512	Mar 2023
Upgrade Wilmette Lift Station, NSA	19-083-3P	1,500	382	Jun 2023
Southwest Coarse Screen Replacement, SWRP	19-153-3P	15,000	712	Jun 2023
Phosphorus Removal, KWRP	19-375-3P	6,500	512	Jun 2023
Lockport Powerhouse and Waterways Control System Replacement, SSA	19-855-3E	3,000	452	Sep 2023
Decommissioning of Battery B & C Imhoff Tanks and Skimming Tanks 9-16, SWRP	19-152-3P	10,000	572	Jun 2024
Digester Gas Utilization Facilities, SWRP	11-189-3P	60,000	743	Jan 2025
Phosphorus Recovery System, CWRP	12-245-3P	31,000	912	Jan 2025
Phosphorus Removal, EWRP	19-415-3P	30,000	512	Jan 2025
Palos Hills Pumping Station Force Main, CSA	11-242-3S	6,700	632	Mar 2025
Digester Rehabilitation and Gas Piping Replacement Phase II, CWRP	19-256-3P	10,000	732	Apr 2025
Deammonification System, SWRP	13-101-3P	30,000	563	May 2025

**Projects Under Development (continued)**

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Additional Grit Removal Tank, Chemical Phosphorus Removal Facility, and Construction of New Plant Entrance, LWRP	19-717-3P	6,000	612	May 2025
Plant Improvements, HPWRP	18-540-3P	20,000	742	Nov 2025
McCook Reservoir Stage 2 Final Reservoir Prep, SSA	17-132-4F	24,796	542	Jul 2028
Total Future Awards		\$ 494,846		
Cumulative 2020 and Future Awards		\$ 647,514		

Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.

**Bold type indicates projects to be financed by "Unlimited Tax Bonds."**

	Method of Financing			
	State Revolving Fund Loans	General Obligation Bonds	Army Corps of Engineers	Total
Tunnel and Reservoir Plan		\$ 17,566	\$ 42,064	\$ 59,630
Water Reclamation Plant	197,992	161,747	—	359,739
Expansion and Improvements	—	—	—	—
Solids Management	62,500	39,100	—	101,600
Collection Facilities	66,657	57,138	—	123,795
Replacement of Facilities	—	2,750	—	2,750
Other	—	—	—	—
	\$ 327,149	\$ 278,301	\$ 42,064	\$ 647,514

**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	Dec 2020
<b>McCook Reservoir Stages 1 &amp; 2, SSA</b>	73-161-2H	137,500	May 1999	Dec 2029
150 DT/Day Biosolids Processing Facility, SWRP	01-101-1M	83,123	Jun 2010	Nov 2029
McCook Reservoir Des Plaines Inflow Tunnel, SSA	13-106-4F	107,831	Jun 2016	Feb 2021
Furnish, Deliver, and Install Boiler Controls, SWRP	16-901-31	1,327	Sep 2017	Dec 2021
Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP	17-902-31	2,595	Dec 2017	Jan 2021
North Branch Dam Removal and River Riparian Connectivity, NSA	16-IGA-22	2,500	Sep 2017	Aug 2022
Switchgear & Motor Control Center Replacement, OWRP	17-080-3E	3,577	Sep 2018	Jul 2020
Structural Rehabilitation and Roofing Replacement at 95th Street Pumping Station, CSA	17-276-3D	4,559	Nov 2018	Nov 2020
Furnish and Install Odor Control System, CWRP, HPWRP, and KWRP	17-844-3P	4,099	Feb 2019	Jun 2020
Energy Efficiency Improvements, SWRP	19-901-31	5,413	Apr 2019	Dec 2020
Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA	15-830-3D	12,075	Jun 2019	Oct 2021
Installation and Removal of Cofferdam at Sluice Gate No. 2, Lockport Powerhouse Controlling Works, SSA	18-607-31	335	Jun 2019	Jun 2020
Phosphorus Removal Struvite Facilities at the Fox River Water Reclamation District	18-IGA-35	2,639	Aug 2019	Dec 2020
Odor Control Facilities at Sludge Concentration, Southwest Coarse Screen, Overhead Weir, and Post-Centrifuge Building, SWRP	17-134-3MR	17,250	Sep 2019	Apr 2021
Modifications to TARP Control Structures & Drop Shafts, CSA and SSA	17-842-3H	2,100	Sep 2019	Oct 2020
Drop Shaft 5 Inspection and Miscellaneous Collection System Work, NSA	14-372-3SR	4,000	Sep 2019	Sep 2020
Digester Rehabilitation and Gas Piping Replacement, SWRP	17-140-3P	15,000	Oct 2019	Oct 2021
Digester Sludge Heating System Upgrades and Boiler Removal, CWRP	18-277-3M	28,500	Nov 2019	Sep 2022
Pump Rehabilitation and Diverter Gate Installation, EWRP	16-412-3M	550	Nov 2019	Dec 2020
Rehabilitation of TARP Pumps, MSPS	18-144-3M	20,509	Dec 2019	Mar 2024
Rehabilitation of Gravity Concentration Tank, CWRP	18-803-32	2,295	Mar 2020	Dec 2021
Furnish, Deliver, and Install Disc Filters for Filters 3 and 4, HPWRP	19-701-31	1,700	Mar 2020	Jun 2021
Total Projects Under Construction		\$ 512,283		

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."**

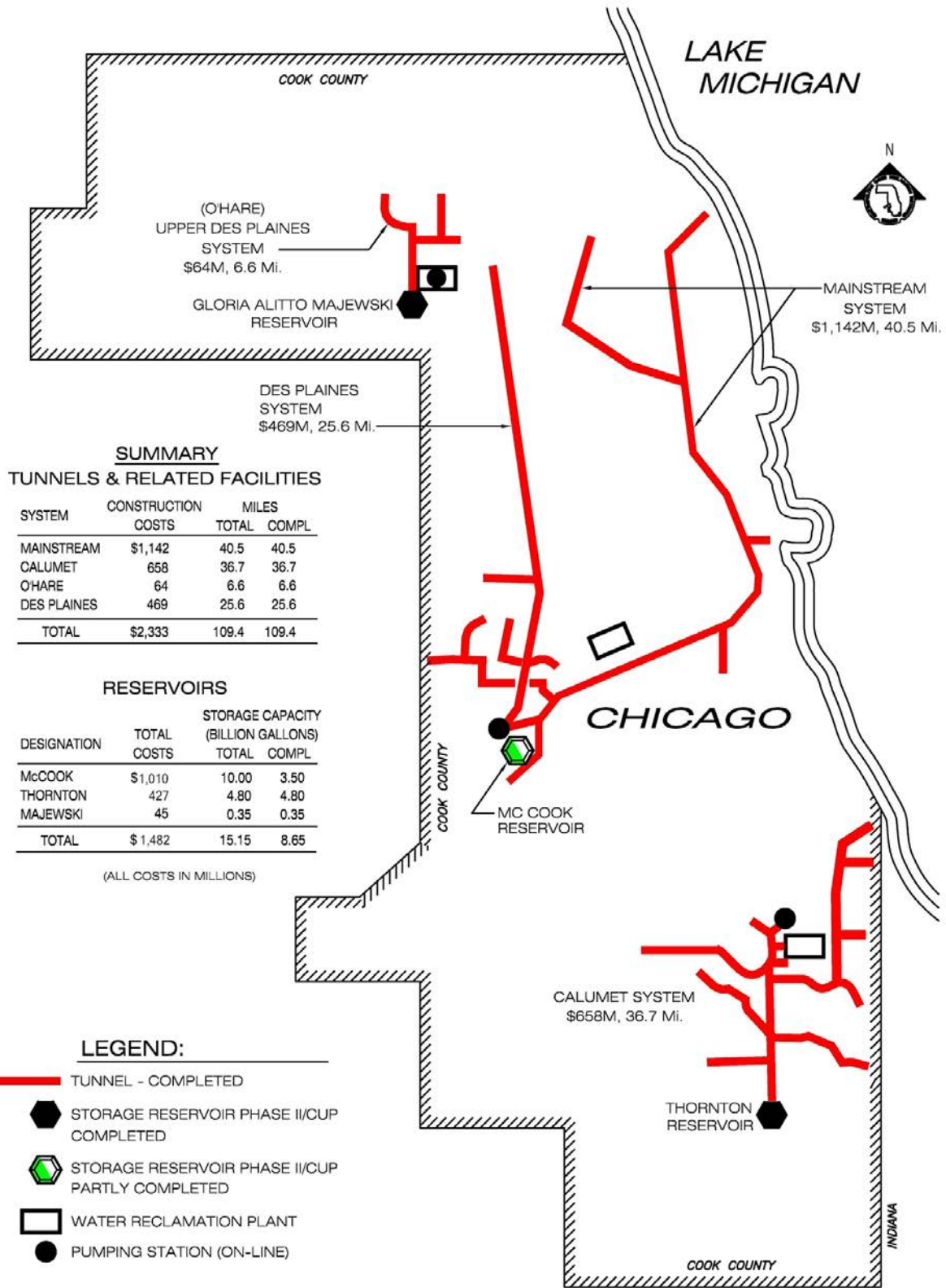
## TARP PHASE II PROJECT COSTS

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	
IX - Odor Control Systems and Decommissioning TTR	15-266-44R	Construction to be completed in 2021	\$9,069,000	
<b>McCook Reservoir</b>				
I - Stages 1 and 2 - Army Corps of Engineers Contracts	73-161-2H	Reservoir constructed under several contracts	\$618,391,000	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	Completed	\$8,765,000	No
XVI - McCook Reservoir Stage 2 Rock Wall Stabilization and Instrumentation	17-131-4F	Under construction	\$17,300,000	53%
XVII - McCook Reservoir Stage 2 Final Reservoir Prep	17-132-4F	Future	\$24,800,000	69%
Total Project Cost			\$1,481,773,552	

## 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 2020 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>Thornton Composite Reservoir Mining, Land and Corp Costs, SSA</b>	12/29	\$ 137,500,000
11-186-3F	^ Addison Creek Reservoir, SSA	02/22	63,280,000
<b>13-106-4F</b>	<b>McCook Reservoir Des Plaines Inflow Tunnel, SSA</b>	02/21	107,830,897
14-263-3F	^ Melvina Ditch Reservoir Improvements, SSA	09/20	14,717,000
15-830-3D	Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA	10/21	12,075,000
16-901-31	Furnish, Deliver, and Install Boiler Controls, SWRP	12/21	1,327,290
16-IGA-13	^ Acquisition of Flood Prone Properties Franklin Park (32 homes)	08/20	4,681,000
17-134-3MR	Odor Control Facilities at Sludge Concentration, Southwest Coarse Screen, Overhead Weir, and Post-Centrifuge Building, SWRP	04/21	17,250,000
17-140-3P	Digester Rehabilitation and Gas Piping Replacement, SWRP	10/21	15,000,000
17-842-3H	Modifications to TARP Control Structures & Drop Shafts, CSA and SSA	10/20	2,100,000
17-902-31	Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP	01/21	2,595,000
18-144-3M	Rehabilitation of TARP Pumps, MSPS	03/24	20,509,000
18-607-31	Installation and Removal of Cofferdam at Sluice Gate No. 2, Lockport Powerhouse Controlling Works, SSA	06/20	334,500
19-901-31	Energy Efficiency Improvements, SWRP	12/20	5,412,680
		<b>Total</b>	<b>\$ 404,612,367</b>

**Stickney Water Reclamation Plant (SWRP)**

		<b>Estimated Construction Cost</b>
<b>Projects for 2020 Award</b>		
08-174-3D	Battery A Final Settling Tanks, Rehabilitation of Concrete, SWRP	\$ 7,700,000
11-187-3F	* Addison Creek Channel Improvements, SWRP	21,350,000
14-107-3S	Stickney Effluent Reuse Line, SSA	800,000
16-127-3D	A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP	17,000,000
17-131-4F	McCook Reservoir Stage 2 Rock Wall Stabilization and Instrumentation, SWRP	17,268,000
17-135-3V	Roof Replacement of the Lue-Hing M&R Complex, SWRP	6,500,000
17-606-31	Furnish, Deliver, and Install Telemetry Replacement for SCADA Control, Various Locations	545,000
18-142-3H	Rehabilitation of Elevator Shafts, MSPS	1,500,000
19-157-3P	Installation of Mechanical Mixers, SWRP	11,500,000
20-903-31	Furnish, Deliver, and Install Coarse Screens, SWRP	6,000,000
	Total	<b>\$ 90,163,000</b>

**Projects Under Development**

01-103-AS	39th Street Conduit Rehabilitation - Phase II, SSA	\$ 24,700,000
11-189-3P	Digester Gas Utilization Facilities, SWRP	60,000,000
13-101-3P	Deammonification System, SWRP	30,000,000
16-128-3D	Battery B Final Settling Tanks, Rehabilitation of Concrete, SWRP	5,000,000
16-129-3D	Battery C Final Settling Tanks, Rehabilitation of Concrete, SWRP	3,000,000
16-130-3D	Battery D Final Settling Tanks, Rehabilitation of Concrete, SWRP	3,000,000
17-132-4F	McCook Reservoir Stage 2 Final Reservoir Prep, SSA	24,796,200
18-143-3D	Rehabilitation of Locomotive Terminal Building, SWRP	2,750,000
18-148-3P	Digester Rehabilitation and Gas Piping Replacement Phase II, SWRP	11,500,000
19-152-3P	Decommissioning of Battery B & C Imhoff Tanks and Skimming Tanks 9-16, SWRP	10,000,000
19-153-3P	Southwest Coarse Screen Replacement, SWRP	15,000,000
19-154-3E	Low Voltage Switchgear Replacement, MSPS	9,000,000
19-155-3M	Boilers 3-5 and Motor Control Center Replacement, SWRP	13,000,000
19-156-3E	Low Voltage Pump and Blower Switchgear and Aerated Grit Motor Control Center Replacement, SWRP	6,750,000
19-855-3E	Lockport Powerhouse and Waterways Control System Replacement, SSA	3,000,000
19-856-3E	TARP Control System Replacement, SSA, CSA, NSA	25,000,000
20-901-31	Waste Activated and Primary Sludge Pump Upgrades, SWRP	1,100,000
21-601-31	Lockport Turbine Generator Rehabilitation, SSA	1,100,000
21-901-31	Rehabilitation of the Overhead Bridge Crane in the Discharge Valve Chamber, MSPS	1,100,000
	Total	<b>\$ 249,796,200</b>
	Stickney Service Area Grand Total	<b>\$ 744,571,567</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>			
16-IGA-22	North Branch Dam Removal and River Riparian Connectivity, NSA	08/22	\$ 2,500,000
17-080-3E	Switchgear & Motor Control Center Replacement, OWRP	07/20	3,577,000
18-IGA-35	Phosphorus Removal Struvite Facilities at the Fox River Water Reclamation District	12/20	2,639,337
	<b>Total</b>		<b>\$ 8,716,337</b>
<b>Projects for 2020 Award</b>			
07-027-3S	North Side Sludge Pipeline Replacement - Section 1, NSA		\$ 14,326,850
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-36	Phosphorus Removal Liquid Facilities at the Fox River Water Reclamation District		9,761,692
	<b>Total</b>		<b>\$ 37,088,542</b>
<b>Projects Under Development</b>			
10-047-3S	North Shore 1 Rehabilitation, NSA		\$ 22,750,000
19-083-3P	Upgrade Wilmette Lift Station, NSA		1,500,000
19-084-3P	Final Settling Tank Effluent Conduit Rehab and Ultraviolet Facility Upgrades, OWRP		2,000,000
21-701-31	Furnish, Deliver, and Install Elevator Upgrades, NSA		900,000
	<b>Total</b>		<b>\$ 27,150,000</b>



**John E. Egan Water Reclamation Plant (EWRP)**

		<b>Estimated Substantial Completion Date</b>	<b>Estimated Construction Cost</b>
<b>Project Under Construction</b>			
16-412-3M	Pump Rehabilitation and Diverter Gate Installation, EWRP	12/20	\$ 550,000
		Total	<b>\$ 550,000</b>
<b>Project for 2020 Award</b>			
18-702-31	Furnish, Deliver, and Install Disc Filters, EWRP		\$ 4,000,000
		Total	<b>\$ 4,000,000</b>
<b>Projects Under Development</b>			
11-404-3S	Upper Des Plaines Intercepting Sewer 11D, Ext. C Rehabilitation, NSA		\$ 5,500,000
19-415-3P	Phosphorus Removal, EWRP		30,000,000
		Total	<b>\$ 35,500,000</b>

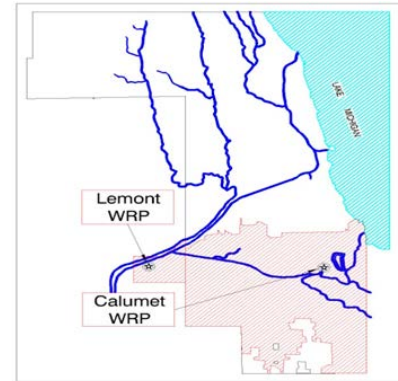
**James C. Kirie Water Reclamation Plant (KWRP)**

<b>Projects Under Construction</b>			
13-370-3F	^* Buffalo Creek Reservoir Expansion, NSA	03/20	\$ 8,840,707
14-372-3SR	Drop Shaft 5 Inspection and Miscellaneous Collection System Work, NSA	09/20	4,000,000
		Total	<b>\$ 12,840,707</b>
<b>Projects for 2020 Award</b>			
06-360-3S	Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA		\$ 7,000,000
18-703-31	Furnish, Deliver, and Install Three Bar Screens, KWRP		1,800,000
		Total	<b>\$ 8,800,000</b>
<b>Projects Under Development</b>			
06-358-3M	Gate Control Equipment Upgrade at TARP Control Structures, KWRP, NSA		\$ 2,200,000
12-369-3S	Upper Des Plaines Intercepting Sewer 11D Rehabilitation, NSA		5,500,000
19-375-3P	Phosphorus Removal, KWRP		6,500,000
		Total	<b>\$ 14,200,000</b>

**Hanover Park Water Reclamation Plant (HPWRP)**

<b>Project Under Construction (with estimated completion dates)</b>			
19-701-31	Furnish, Deliver, and Install Disc Filters for Filters 3 and 4, HPWRP	6/21	\$ 1,700,000
		Total	<b>\$ 1,700,000</b>
<b>Project for 2020 Award</b>			
19-542-3M	Central Boiler Facility and Electrical Updates, HPWRP		\$ 14,000,000
		Total	<b>\$ 14,000,000</b>
<b>Projects Under Development</b>			
18-540-3P	Plant Improvements, HPWRP		\$ 20,000,000
19-541-3P	Digester Rehabilitation, HPWRP		6,000,000
		Total	<b>\$ 26,000,000</b>
			<b>North Service Area Grand Total</b>
			<b>\$ 190,545,586</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>			
77-235-2F	<b>Thornton Composite Reservoir Mining, Land, and Corp Costs, CSA</b>	12/21	\$ 52,805,539
17-276-3D	Structural Rehabilitation and Roofing Replacement at 95th Street Pumping Station, CSA	11/20	4,559,000
17-844-3P	Furnish and Install Odor Control System, CWRP, HPWRP, and KWRP	06/20	4,099,896
18-277-3M	Digester Sludge Heating System Upgrades and Boiler Removal, CWRP	09/22	28,500,000
18-803-32	Rehabilitation of Gravity Concentration Tank, CWRP	12/21	2,295,000
		<b>Total</b>	<b>\$ 92,259,435</b>
<b>Projects for 2020 Award</b>			
10-882-AF	^ Streambank Stabilization Project on Tinley Creek, CSA		\$ 3,806,000
15-266-4H	Odor Control Systems at Two TARP Shafts and Decommissioning the Thornton Transitional Reservoir, CSA		15,366,250
15-IGA-14	^* Construction of a Levee along Thorn Creek at Arquilla Park, in Glenwood, CSA		3,483,000
18-248-3P	Sidestream Enhanced Biological Phosphorus Removal Pilot Study, CWRP		1,400,000
19-257-3D	6th Street Construction and Utility Tunnel Rehabilitation, CWRP		2,000,000
20-801-31	Furnish, Deliver, and Install Replacement Gearboxes for SEPA(s) 2 & 5, CWRP		1,200,000
		<b>Total</b>	<b>\$ 27,255,250</b>

<b>Projects Under Development</b>		<b>Estimated Construction Cost</b>
11-242-3S	Palos Hills Pumping Station Force Main, CSA	\$ 6,700,000
12-245-3P	Phosphorus Recovery System, CWRP	31,000,000
17-275-3P	Post-Digestion Dewatering System, CWRP	15,000,000
18-253-3P	Digester Rehabilitation and Gas Piping Replacement, CWRP	15,000,000
18-254-3P	Chemical Phosphorus Removal Facility, Calumet WRP	14,000,000
19-255-3D	Rehabilitation of Pump and Blower House at Calumet WRP	4,000,000
19-256-3P	Digester Rehabilitation and Gas Piping Replacement Phase II, CWRP	10,000,000
19-258-3E	Switchgear and MCC Replacement, CWRP	23,000,000
19-259-3H	Photovoltaic Solar Plant, CWRP	5,000,000
19-717-3P	Additional Grit Removal Tank, Chemical Phosphorus Removal Facility, and Construction of New Plant Entrance, LWRP	6,000,000
	Total	<u><u>\$ 129,700,000</u></u>
	Calumet Service Area Grand Total	<u><u>\$ 249,214,685</u></u>
	Capital Projects Grand Total - All Service Areas	<u><u>\$ 1,184,331,838</u></u>

^ 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

<b>Project Number</b>	73-161-2H
<b>Service Area</b>	Stickney
<b>Location</b>	Lawndale Avenue Solids Management Area
<b>Engineering Consultant</b>	Army Corps of Engineers
<b>Engineering Contractor</b>	Army Corps of Engineers
<b>Estimated Construction Cost</b>	\$137,500,000
<b>Contract Award Date</b>	May 1999
<b>Substantial Completion Date</b>	December 2029



**Project Description** The Army Corps of Engineers is responsible for designing and constructing the reservoir features for 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 1998

**Substantial Completion Date** December 2020



**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

## 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** \$7,000,000

**Contract Award Date** March 2020

**Substantial Completion Date** January 2021



**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 2020

**Substantial Completion Date** November 2022

**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



### Battery A Final Settling Tanks, Rehabilitation of Concrete, SWRP

**Project Number** 08-174-3D

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$7,700,000

**Contract Award Date** June 2020

**Substantial Completion Date** April 2021



**Project Description** This project consists of concrete rehabilitation of Battery A final settling tanks at the Stickney WRP and rehabilitation of deteriorated and leaking roof deck and deteriorated concrete beams in the coarse screen room of the Racine Avenue Pumping Station (RAPS). This project will add steel railing and safety davit sleeves at final settling tanks and a permanent safety barrier along mixed liquor channel.

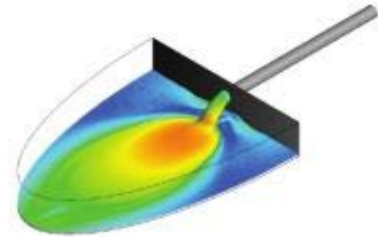
**Project Justification** The 80-year old concrete in Battery A final settling tanks is severely deteriorated in some locations. Concrete spalls and debris are falling into the tanks. Rehabilitation of deteriorated concrete will prolong the useful life of the tanks. The addition of railing around final settling tanks and a permanent safety barrier along mixed liquor channel will safeguard against employees, contractors, and/or visitors falling into the tanks and channels. Addition of safety davit sleeves around final settling tanks will allow for the installation of a portable davit hoist making any necessary emergency retrieval of injured person(s) from tanks safer and quicker. Rehabilitation of deteriorated and leaking roof deck and deteriorated concrete beams at RAPS will restore strength of the beams and deck and prolong the building's useful life.

**Project Status** Planning



## McCook Reservoir Des Plaines Inflow Tunnel, SSA

<b>Project Number</b>	13-106-4F
<b>Service Area</b>	Stickney
<b>Location</b>	Lawndale Avenue Solids Management Area
<b>Engineering Consultant</b>	Black & Veatch Corporation, Inc.
<b>Engineering Contractor</b>	Walsh Construction Company II, LLC
<b>Estimated Construction Cost</b>	\$107,830,897
<b>Contract Award Date</b>	June 2016
<b>Substantial Completion Date</b>	February 2021



**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

<b>Project Number</b>	14-107-3S
<b>Service Area</b>	Stickney
<b>Location</b>	Stickney, IL
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$800,000
<b>Contract Award Date</b>	June 2020
<b>Substantial Completion Date</b>	December 2020



**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** This 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 a increase to the labor operating budget.

**Project Status** Design

## Drop Shaft 5 Inspection and Miscellaneous Collection System Work, NSA

<b>Project Number</b>	14-372-3S
<b>Service Area</b>	North
<b>Location</b>	Des Plaines, IL
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$4,000,000
<b>Contract Award Date</b>	September 2019
<b>Substantial Completion Date</b>	September 2020



**Project Description** The project consists of the following rehabilitation work at Drop Shaft No.5: Rehabilitate drop shaft by means of slip lining, rehabilitate 100 feet of 108-inch pipe by the cured-in-place lining process, rehabilitate 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 Thornton Composite Reservoir and the replacement of gates and stop logs on Drop Shaft DS-PI, which is part of the 39th Street Conduit. In addition, installation of a weir in the Upper Des Plaines Tunnel.

**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.

The installation of a radar level measurement device at the Thornton Composite Reservoir will monitor elevation in the reservoir. The installation of a weir in the Upper Des Plaines Tunnel will restrict the propagation of transient waves throughout this section of the tunnel and reduce the occurrences of geysering.

**Project Status** Construction

## Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP

<b>Project Number</b>	15-069-3D
<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>	\$10,000,000
<b>Contract Award Date</b>	February 2020
<b>Substantial Completion Date</b>	August 2022



**Project Description** This project consists of rehabilitating the pump and blower house building roof and facade components at the O'Brien WRP. Besides protecting, rehabilitating, and structurally strengthening steel frame beams and columns embedded in the masonry wall, the scope of work includes localized roof deck rehabilitation including roof slope remediation, full roofing membrane and insulation replacement, full masonry and flashing rehabilitation at roof parapet walls, localized windows and exterior doors rehabilitation, localized tuckpointing, and other miscellaneous rehabilitation 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 rehabilitation design process, review and approve all submitted rehabilitation documents, administer the contract, and oversee the 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 failing 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

## 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>	\$15,366,250
<b>Contract Award Date</b>	January 2020
<b>Substantial Completion Date</b>	May 2021



**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 reservoir level measurement equipment, decommissioning the Thornton Transitional Reservoir Dewatering Valve Chamber, construction shaft concrete rehabilitation (adjacent to the valve shaft chamber), installation of aggregate pathways at four monitoring wells, rehabilitation of rockfall netting at the Thornton Composite Reservoir north highwall access ramp, installation of carbon filter odor control systems for the construction and gate shafts and any appurtenant work associated with the 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, through 2020. This allows the District to utilize the Thornton Transitional Reservoir for holding overbank floodwaters from Thorn Creek while learning to operate the Thornton Composite Reservoir during its initial years. This project finalizes the connection of the Thorn Creek Overflow Structure to the Thornton Composite Reservoir.

**Project Status** Design

## Replacement of Tailrace Stop Logs, Headrace Gates, and Equipment at Lockport Powerhouse, SSA

<b>Project Number</b>	15-830-3D
<b>Service Area</b>	Stickney
<b>Location</b>	Lockport Powerhouse
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$12,075,000
<b>Contract Award Date</b>	June 2019
<b>Substantial Completion Date</b>	October 2021



**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** Construction

**A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP**

**Project Number** 16-127-3D

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$17,000,000

**Contract Award Date** May 2020

**Substantial Completion Date** March 2023



**Project Description** This project will rehabilitate approximately 1,000 feet of the A/B Service Tunnel north of column line 31 and approximately 1,000 feet of the C/D Service Tunnel north of column line 37. This project continues the scope of work from contracts 04-131-2D and 04-132-3D.

**Project Justification** Significant structural deterioration has occurred since the tunnels were constructed approximately 80 years ago. Rehabilitating the tunnels will restore capacity, extend their service life, and prevent further damage to the utilities inside the tunnels.

**Project Status** Design



## 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** November 2019

**Substantial Completion Date** December 2020



**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** \$1,327,290

**Contract Award Date** September 2017

**Substantial Completion Date** December 2021

**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



## North Branch Dam Removal and River Riparian Connectivity, NSA

<b>Project Number</b>	16-IGA-22
<b>Service Area</b>	North
<b>Location</b>	North Branch Chicago River
<b>Engineering Consultant</b>	Army Corps of Engineers
<b>Engineering Contractor</b>	Industria, Inc.
<b>Estimated Construction Cost</b>	\$2,500,000
<b>Contract Award Date</b>	September 2017
<b>Substantial Completion Date</b>	August 2022



**Project Description** Riparian connectivity for the North Branch Chicago River will be restored by removing the North Branch Dam and providing a riffled stream bed to allow for passage by fishes, mussels, and canoes. The concrete dam and the concrete stream bed to Albany Avenue will be removed, and concrete will be used to fill the scour hole downstream of the dam. The stream bed will be filled in with more natural materials, and riffles and pools will be constructed with boulders. The project also calls for bank stabilization and habitat restoration from Lawrence Avenue to Peterson Avenue. The Army Corps of Engineers (ACE) will design and construct the project with participation from the District and the Chicago Park District. The total project cost is expected to be \$14,539,000.

**Project Justification** Removal of the North Branch Dam will allow for a more natural stream environment and encourage aquatic movement and habitat. Streambank stabilization on District property leased by the Chicago Park District will improve usage opportunities at the parks and promote safety.

**Project Status** Cost Sharing Agreement

## 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 2018

**Substantial Completion Date** July 2020

**Project Description** The purpose of this project is to replace the Process Control Building 480-volt switchgear, Aerated Grit Motor Control Center (MCC), Scum Concentration MCC, Battery D MCC, and Process Control MCC 19A and 19B. Building additions 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



## McCook Reservoir Stage 2 Rock Wall Stabilization and Instrumentation, SWRP

**Project Number** 17-131-4F

**Service Area** Stickney

**Location** McCook Reservoir

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$17,268,000

**Contract Award Date** August 2020

**Substantial Completion Date** January 2024



**Project Description** The scope of work consists of stabilizing the near-vertical excavated walls of the reservoir through the installation of rock bolts, rock dowels, cable bolts, chain link wire mesh, and shotcrete at locations where deemed necessary. Work will also include the installation of instrumentation and monitoring devices and related equipment.

**Project Justification** Preservation and stability of the Stage 2 McCook Reservoir.

**Project Status** Design

## Odor Control Facilities at Sludge Concentration, Southwest Coarse Screen, Overhead Weir, and Post-Centrifuge Building, SWRP

**Project Number** 17-134-3MR

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$17,250,000

**Contract Award Date** September 2019

**Substantial Completion Date** April 2021



**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** Construction

### 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** April 2020

**Substantial Completion Date** August 2021

**Project Description** This project will replace roof areas 1, 2, 3, 5, and 6 of the Monitoring and 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** October 2019

**Substantial Completion Date** October 2021



**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** Construction



## Structural Rehabilitation and Roofing Replacement at 95th Street Pumping Station, CSA

<b>Project Number</b>	17-276-3D
<b>Service Area</b>	Calumet
<b>Location</b>	95th Street Pumping Station
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$4,559,000
<b>Contract Award Date</b>	November 2018
<b>Substantial Completion Date</b>	November 2020



**Project Description** This project will replace water-damaged gypsum roof panels and rehabilitate or reinforce 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. JOC 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



## 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>	April 2020
<b>Substantial Completion Date</b>	December 2020



**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 Control Structures & Drop Shafts, CSA and SSA

**Project Number** 17-842-3H

**Service Area** Calumet and Stickney

**Location** District-wide

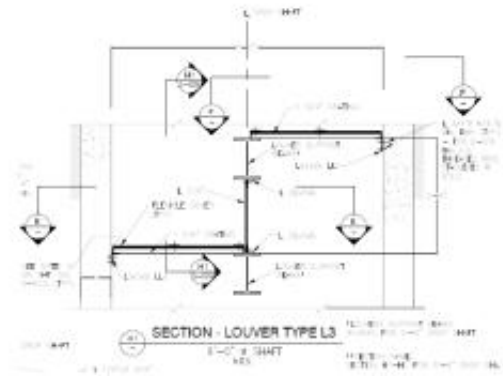
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$2,100,000

**Contract Award Date** September 2019

**Substantial Completion Date** October 2020



**Project Description** Work consists of modifications to TARP control structures and dropshafts. This work includes modifications at control structures CDS-C1 and CDS-45 consisting of new permanent dry weather diversion bypass sewers and minor demolition and concrete work for removal of existing flumes. Work associated with Interceptor Chamber I-6 involves removal of a horizontal bulkhead. Work at drop shafts DS-M27, DS-M28, DS-M29, DS-M30, DS-M32, DS-M41, DS-M45, DS-M48, DS-M60 and CS-4 includes the addition of louvers and grating modifications, and performance of other work as specified in the Contract Documents and as shown on the Plans.

**Project Justification** 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. Work at drop shafts DS-M27, DS-M28, DS-M29, DS-M30, DS-M32, DS-M41, DS-M45, DS-M48, DS-M60, and CS-4 includes the addition of louvers are for the purpose of odor control.

**Project Status** Construction

## 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>	July 2020
<b>Substantial Completion Date</b>	May 2022



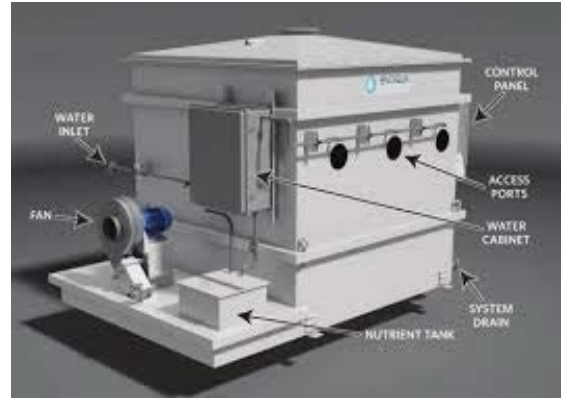
**Project Description** This project consists of rehabilitating leaking cracks and deteriorated expansion joints inside utility and service tunnels at O'Brien, Kirie, Egan, and Hanover Park WRPs.

**Project Justification** The service tunnels and operating galleries at the North Service Area WRPs (O'Brien, Kirie, Egan, and Hanover Park WRPs) 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. Rehabilitating the deteriorated expansion joints and leaking cracks will extend their useful life and prevent further damage to the utilities inside the tunnels.

**Project Status** Design

## Furnish and Install Odor Control System, CWRP, HPWRP, and KWRP

<b>Project Number</b>	17-844-3P
<b>Service Area</b>	Calumet and North
<b>Location</b>	Calumet, Hanover Park, and Kirie WRP's
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$4,099,896
<b>Contract Award Date</b>	February 2019
<b>Substantial Completion Date</b>	June 2020



**Project Description** 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. 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 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.

**Project Justification** The purpose of this project is to install new odor control systems at various existing facilities within the Calumet, Hanover Park, and Kirie 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** Construction

## Installation of Shaftless Screw Conveyors for Aerated Grit Tanks, SWRP

<b>Project Number</b>	17-902-31
<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
<b>Estimated Construction Cost</b>	\$2,595,000
<b>Contract Award Date</b>	December 2017
<b>Substantial Completion Date</b>	January 2021
<b>Project Description</b>	This project is to furnish, deliver, and install grit screw conveyors at the Stickney WRP.
<b>Project Justification</b>	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.
<b>Project Status</b>	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** April 2020

**Substantial Completion Date** March 2021



**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 rehabilitation and service shutdown.

**Project Status** Planning

### 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** \$20,509,000

**Contract Award Date** December 2019

**Substantial Completion Date** March 2024

**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

<b>Project Number</b>	18-248-3P
<b>Service Area</b>	Calumet
<b>Location</b>	Calumet 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>	January 2020
<b>Substantial Completion Date</b>	October 2020



**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 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) test with this S2EBPR pilot. If the pilot 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** \$28,500,000

**Contract Award Date** November 2019

**Substantial Completion Date** September 2022



**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 sludge heat exchangers (total of 12) in Clusters 1, 2 and 3. Re-purposing of old compressor building for electrical equipment. Cleaning of 11 digester tanks (Tank No. 7 does not require cleaning). Replacement of internal digester gas draw-off and gas mixing piping, sandblasting and coating underside of covers in all 12 digester tanks.

**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

<b>Project Number</b>	18-607-31
<b>Service Area</b>	Stickney
<b>Location</b>	Lockport Powerhouse Controlling Works
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$334,500
<b>Contract Award Date</b>	June 2019
<b>Substantial Completion Date</b>	June 2020



**Project Description** This project will install a cofferdam to allow in-house trades to rehabilitate Gate No. 2 at the Lockport Powerhouse Controlling Works.

**Project Justification** The 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** Construction

**Furnish, Deliver, and Install Disc Filters, EWRP**

**Project Number** 18-702-31

**Service Area** North

**Location** Egan WRP

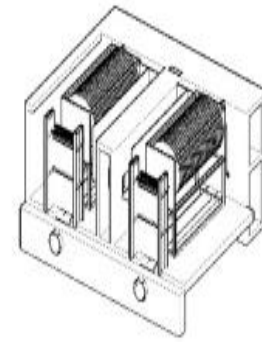
**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$4,000,000

**Contract Award Date** March 2020

**Substantial Completion Date** December 2021



**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** Planning

### 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** \$1,800,000

**Contract Award Date** March 2020

**Substantial Completion Date** December 2021



**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** Design

## Rehabilitation of Gravity Concentration Tank, CWRP

<b>Project Number</b>	18-803-32
<b>Service Area</b>	Calumet
<b>Location</b>	Calumet WRP
<b>Engineering Consultant</b>	In-house design
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$2,295,000
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	December 2021



**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>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$2,639,337
<b>Contract Award Date</b>	August 2019
<b>Substantial Completion Date</b>	December 2020
<b>Project Description</b>	Cost share project with Fox River Water Reclamation District to construct new facilities to remove phosphorus from sidestream solids processes.
<b>Project Justification</b>	Phosphorus removal is required for Fox River Water Reclamation District to meet new permit standards.
<b>Project Status</b>	Construction



## 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>	\$9,761,692
<b>Contract Award Date</b>	April 2020
<b>Substantial Completion Date</b>	January 2022
<b>Project Description</b>	Cost share project with 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



### Installation of Mechanical Mixers, SWRP

**Project Number** 19-157-3P

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$11,500,000

**Contract Award Date** April 2020

**Substantial Completion Date** July 2021



**Project Description** This project consists of furnishing and installing mechanical mixers in the first pass of each aeration tank in Aeration Batteries A, B, C, and D. This includes all electrical equipment and infrastructure upgrades.

**Project Justification** This project is required to properly mix the anaerobic zones in the biological phosphorus removal process.

**Project Status** Planning



### 6th Street Construction and Utility Tunnel Rehabilitation, CWRP

**Project Number** 19-257-3D

**Service Area** Calumet

**Location** Calumet WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$2,000,000

**Contract Award Date** December 2020

**Substantial Completion Date** October 2021



**Project Description** The scope of this project is to rehabilitate the utility tunnel at 6th Street.

**Project Justification** The utility tunnel that serves Gravity Concentration is in poor condition. Spalling concrete, exposed rebar, failed expansion joints, and leaking cracks are noticeable throughout the service tunnel. A number of utilities, including sludge mains, potable and non-potable water mains, distributed control system conduits, and electrical conduits are at risk if the concrete continues to deteriorate. Infiltration from the road above has contributed to the ongoing failure of the tunnel walls and ceiling. The tunnel/gallery and associated utilities are essential to the plant's functionality and need to remain operational indefinitely. This project will extend the useful life of the facility and prevent future damage to the utilities inside the tunnel.

**Project Status** Planning

### Central Boiler Facility and Electrical Updates, HPWRP

<b>Project Number</b>	19-542-3M
<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>	\$14,000,000
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	January 2022



**Project Description** This project will remove two natural gas boilers and provide five new boilers (two natural gas and three digester gas/natural gas) boilers in the Pump and Blower Building. Five digester gas/natural gas boilers will be removed from the Digester Complex. All associated mechanical piping, electrical, control, civil and structural work needed to provide hot water for process and building heating demands will be completed. Replace digester gas piping and remove and replace all electrical equipment, such as motor control center, motors, conduit, gas alarm system, fire alarm system, lighting, etc., with explosion proof equipment in the classified areas to meet National Fire Protection Association (NFPA) 820 requirements.

**Project Justification** The boilers in the Digester Complex are 10 to 20 years old and do not perform properly as the control systems are not reliable (due to hydrogen sulfide gas related corrosion) and need to be removed to comply with NFPA 820 requirements. Centralized boiler operation will maximize the use of available digester gas. Existing electrical equipment in the Digester Complex does not meet the NFPA 820 requirement and needs to be replaced with explosion-proof rated equipment or relocated to unclassified location. The natural gas boilers in the Pump and Blower Building are more than 35 years old, parts are no longer supported by the original equipment manufacturer and procuring the replacement parts has been increasingly difficult and costly. Also, the State of Illinois Boiler Inspector recommended the boilers be operated in low fire only, due to their poor conditions.

**Project Status** 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>	\$1,700,000
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	June 2021



**Project Description** This project is to furnish, deliver, and install disc filters at the Hanover Park WRP.

**Project Justification** 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.

**Project Status** 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** \$5,412,680

**Contract Award Date** April 2019

**Substantial Completion Date** December 2020

**Project Description** This project consists 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 LED 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** Construction



**Furnish, Deliver and Install Replacement Gearboxes for SEPA(s) 2 & 5, CWRP**

**Project Number** 20-801-31

**Service Area** Calumet

**Location** SEPA(s) 2 & 5

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$1,200,000

**Contract Award Date** March 2020

**Substantial Completion Date** December 2021



**Project Description** This project will furnish and deliver a replacement gearbox for SEPA Stations #2 & #5 in the Calumet Service Area.

**Project Justification** Due to changes in the permit that required average dissolved oxygen levels to be increased, the SEPA Stations #2 & #5 screw pumps need to be operated more frequently.

The existing gearboxes at SEPA Stations #2 & #5 have been in service for over 20 years. Two of the four existing gearboxes have failed due to oil seal leaks within the last year.

**Project Status** Planning

## Furnish, Deliver, and Install Coarse Screens, SWRP

**Project Number** 20-903-31

**Service Area** Stickney

**Location** Stickney WRP

**Engineering Consultant** In-house design

**Engineering Contractor** To be determined

**Estimated Construction Cost** 6,000,000

**Contract Award Date** March 2020

**Substantial Completion Date** December 2023



**Project Description** This project will include the removal of the existing climber-style southwest coarse screens at the Stickney WRP and furnishing, delivering, and installing new chain and sprocket-style coarse screens.

**Project Justification** The southwest coarse screens at the Stickney WRP protect the main sewage pumps in the Pump & Blower Building from debris in the influent flow. The current climber-style screens have a number of issues. The hydraulic systems for each coarse screen have caused frequent failures and the annual maintenance costs for the screens are exceedingly high. Also, the coarse screens see heavy debris and the bar screen spacing is too fine for this application. Because of this, the screens are frequently "blinded" due to the extended cycle time required for climber screens. This causes additional maintenance costs as well as issues with the operation of the main sewage pumps downstream of the screens. This project will replace the existing SW coarse screens with more heavy-duty, reliable, chain and sprocket-style screens and significantly reduce maintenance costs and operational issues caused by the current coarse screens.

**Project Status** Planning

### SEWER DESIGN PROJECT MAP 2020



UPPER DES PLAINES  
INTERCEPTING SEWER 11D  
EXT. C REHABILITATION, NSA  
11-404-3S \$5,500,000

UPPER DES PLAINES  
INTERCEPTING SEWER 11D  
REHABILITATION, NSA  
12-389-3S \$5,500,000

UPPER DES PLAINES  
INTERCEPTING SEWER 14B  
REHABILITATION, NSA  
06-360-3S \$7,000,000

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

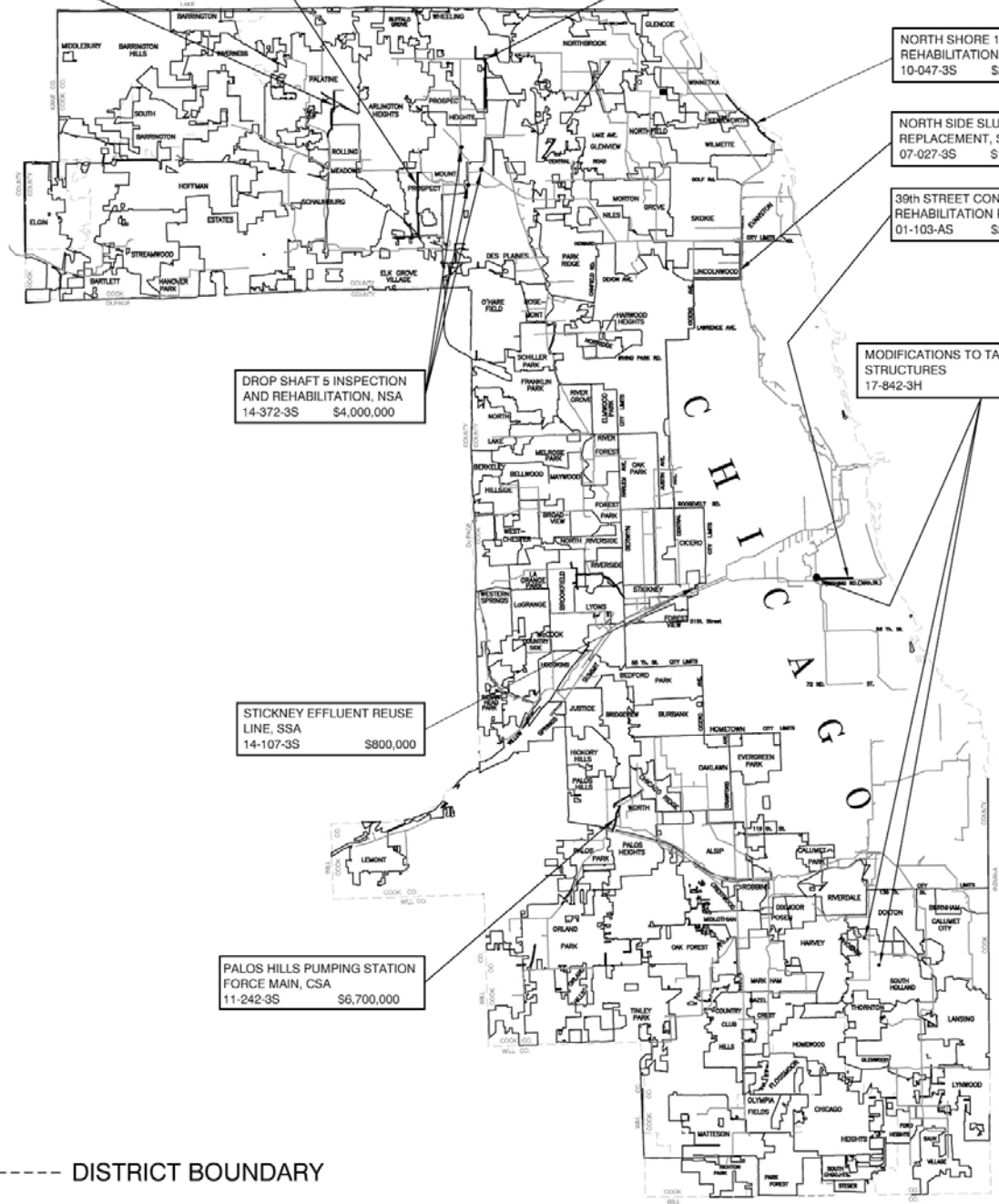
39th STREET CONDUIT  
REHABILITATION PHASE II, SSA  
01-103-AS \$24,700,000

MODIFICATIONS TO TARP CONTROL  
STRUCTURES  
17-842-3H \$2,100,000

DROP SHAFT 5 INSPECTION  
AND REHABILITATION, NSA  
14-372-3S \$4,000,000

STICKNEY EFFLUENT REUSE  
LINE, SSA  
14-107-3S \$800,000

PALOS HILLS PUMPING STATION  
FORCE MAIN, CSA  
11-242-3S \$6,700,000



----- DISTRICT BOUNDARY



LOCATION MAP

39th STREET CONDUIT REHABILITATION -  
 PHASE II, SSA  
 REHABILITATE 20-FOOT DIAMETER  
 CONDUIT FROM LAKE SHORE DRIVE TO  
 THE RACINE AVENUE PUMPING STATION  
 COST: \$24,700,000

**LEGEND:**

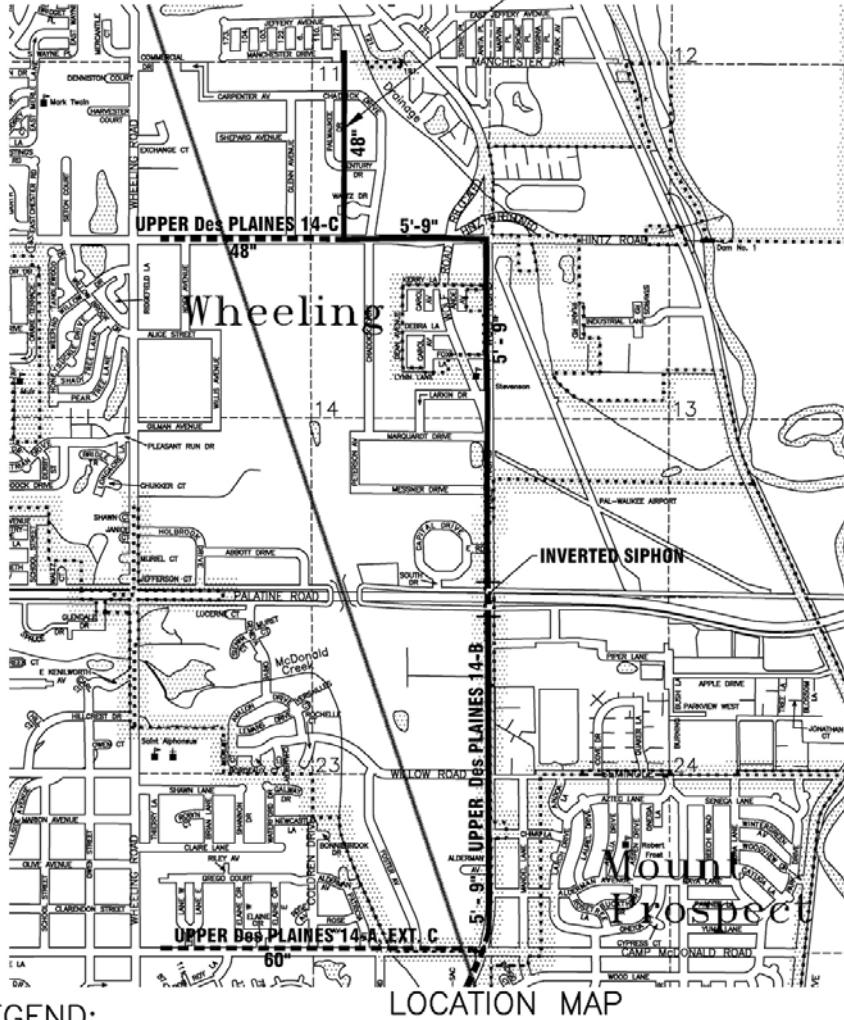
- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**39th STREET CONDUIT REHABILITATION - PHASE II, SSA**  
**CONTRACT 01-103-AS**





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: \$7,000,000



**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

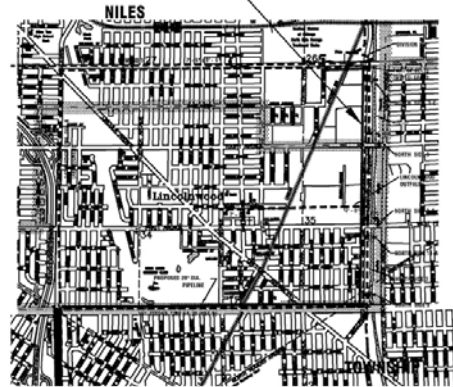
**UPPER DES PLAINES INTERCEPTING SEWER 14B REHABILITATION, NSA  
 CONTRACT 06-360-3S**



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

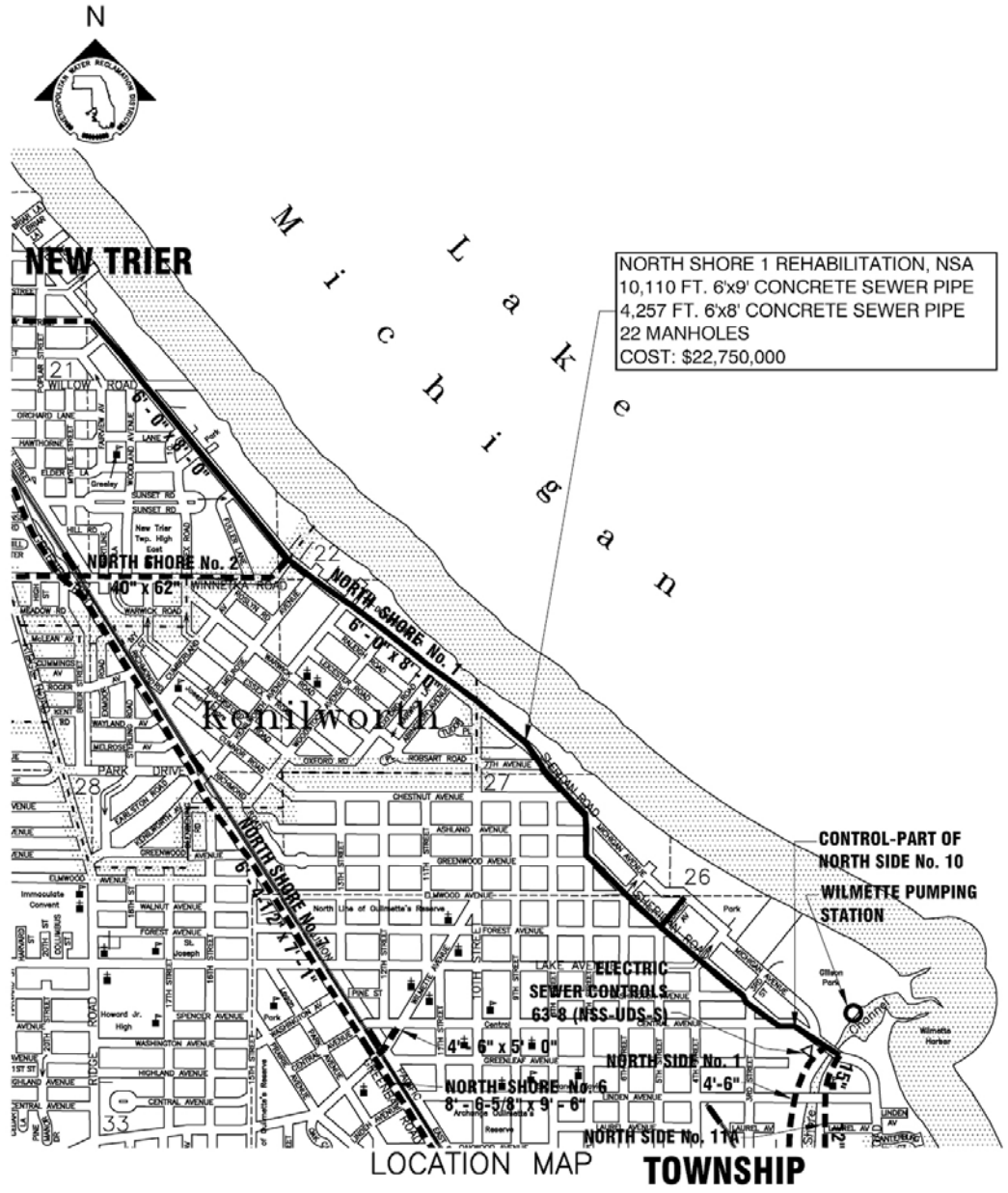


LOCATION MAP

**LEGEND:**

-  = SEWER TO BE REHABILITATED
-  = EXISTING SEWER

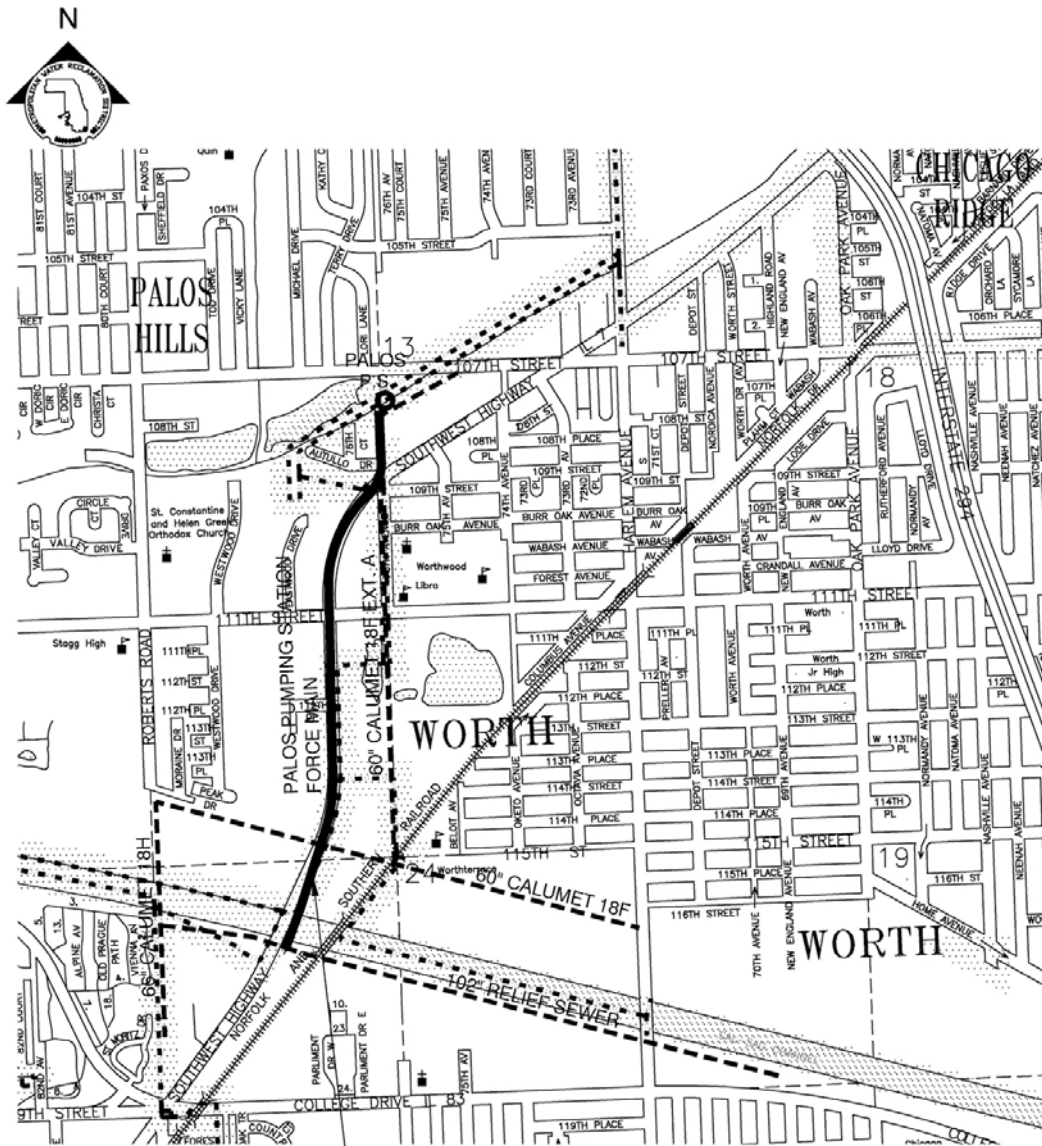
**NORTH SIDE SLUDGE PIPELINE REPLACEMENT, SECTION 1, NSA  
CONTRACT 07-027-3S**



**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**NORTH SHORE 1 REHABILITATION, NSA  
CONTRACT 10-047-3S**



LOCATION MAP

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

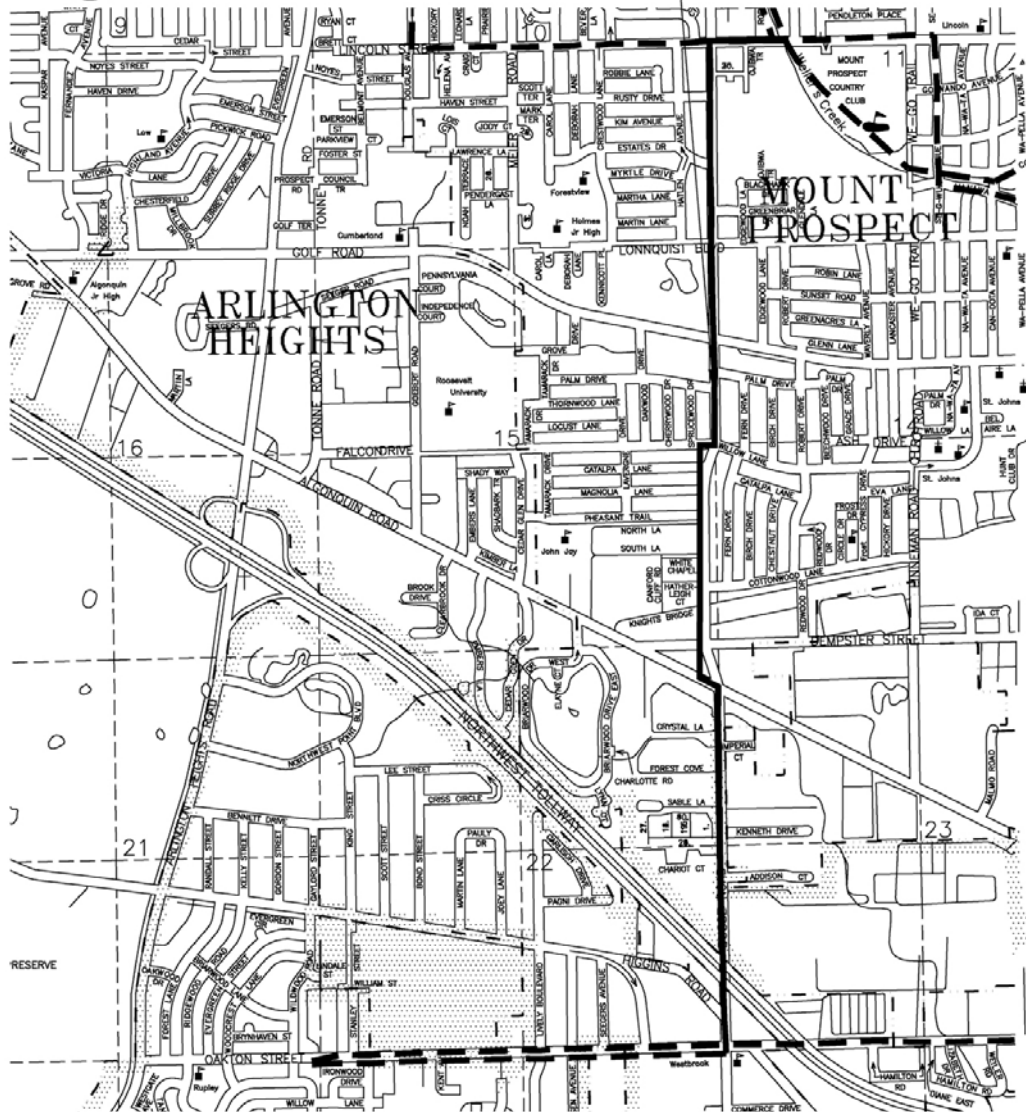
UPPER DES PLAINES INTERCEPTING  
SEWER 11D EXT. C REHABILITATION, NSA  
10,828 FEET OF 36-INCH DIAMETER SEWER  
24 MANHOLES AND ONE CONNECTING  
STRUCTURE  
COST: \$5,500,000

**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**UPPER DES PLAINES INTERCEPTING SEWER 11D EXT. C REHABILITATION, NSA  
CONTRACT 11-404-3S**

UPPER DES PLAINES INTERCEPTING SEWER 11D  
 REHABILITATION, NSA  
 11,317 FEET OF 36-INCH SEWER  
 1,089 FEET OF 54-INCH SEWER  
 36 MANHOLES  
 COST: \$5,500,000

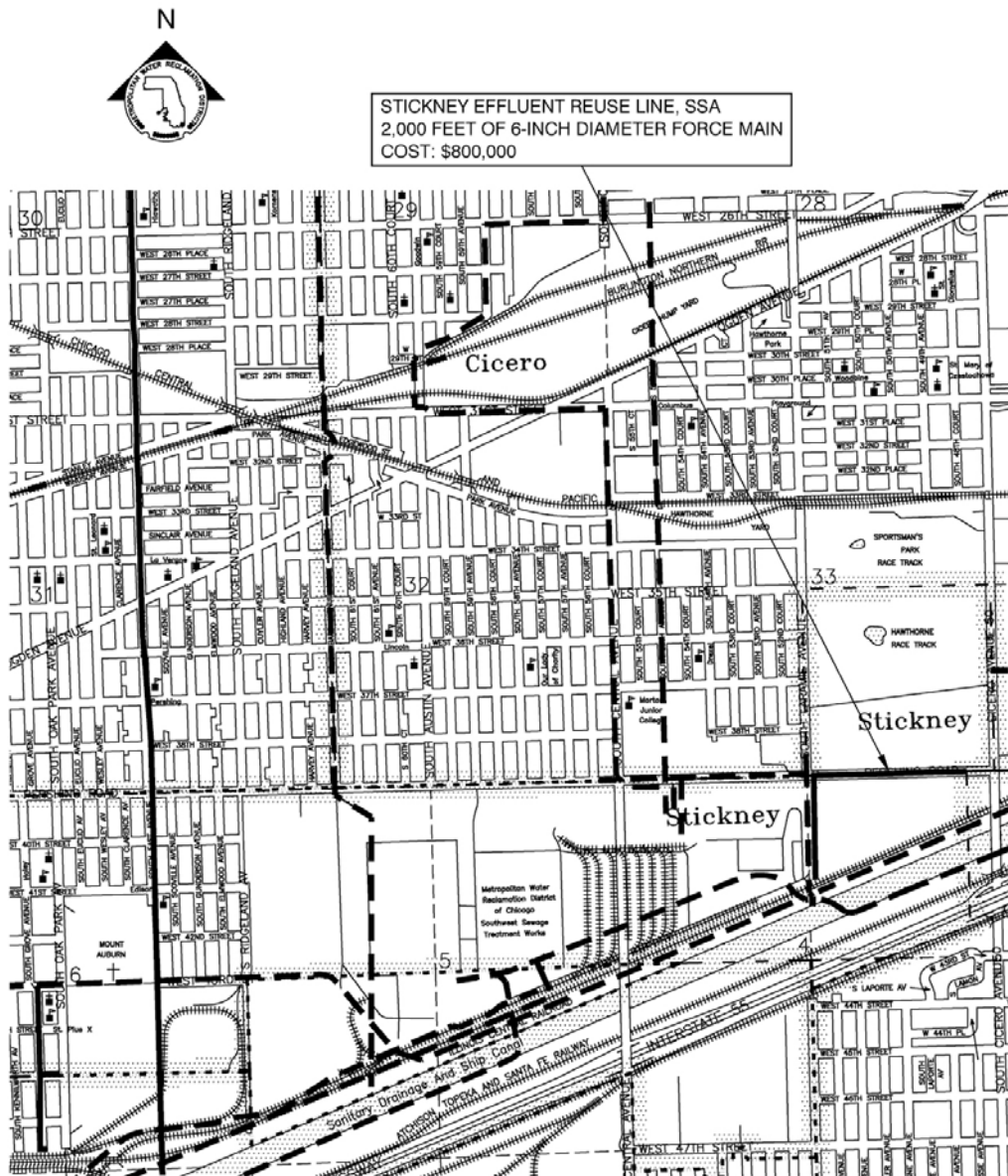


**LEGEND:**

- = SEWER TO BE REHABILITATED
- - - -** = EXISTING SEWER

**LOCATION MAP**

**UPPER DES PLAINES INTERCEPTING SEWER 11D REHABILITATION, NSA  
 CONTRACT 12-369-3S**

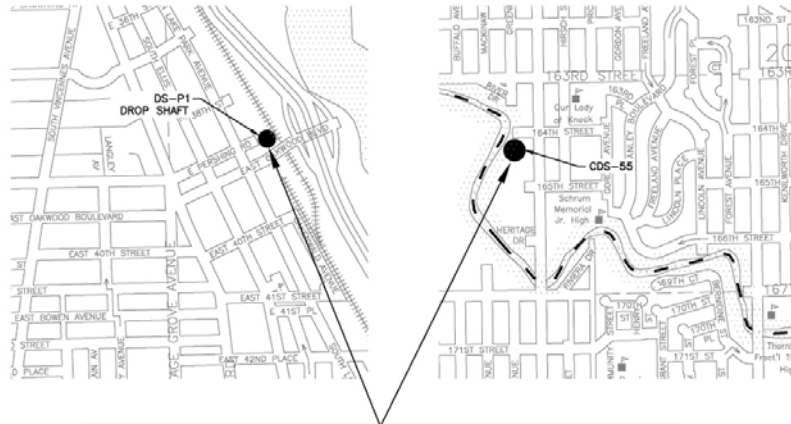


LOCATION MAP

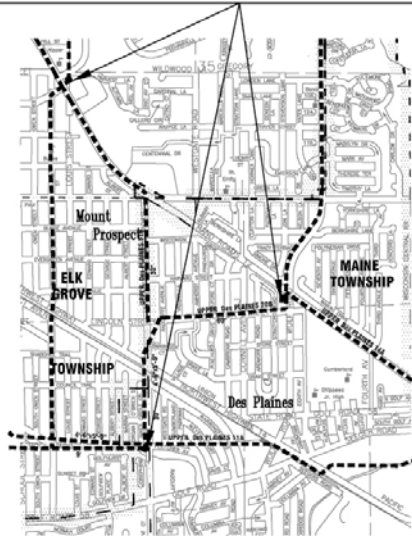
**LEGEND:**

- = 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  
 INSTALLATION OF SUPPRESSION WEIR  
 INSTALLATION OF RADAR LEVEL MEASUREMENT DEVICE  
 REPLACEMENT OF GATE & STOP LOGS AT DS-P1  
 COST: \$4,000,000

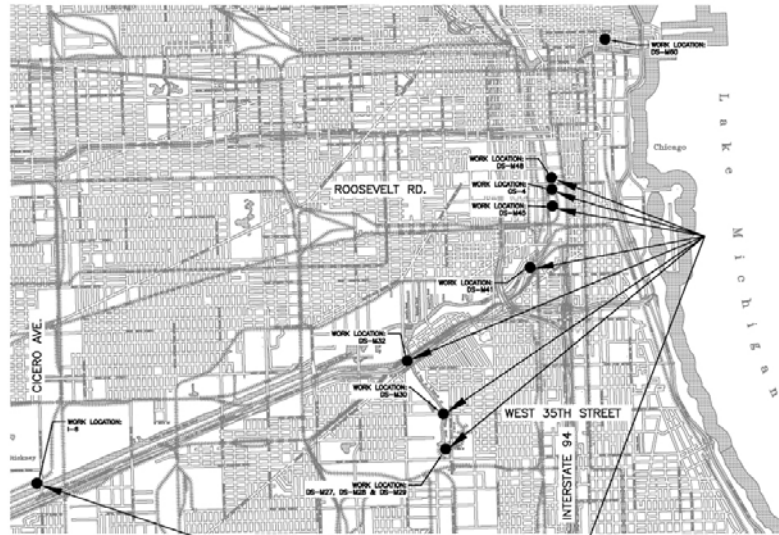


**LEGEND:**

- = MANHOLE TO BE REHABILITATED
- - - = EXISTING SEWER

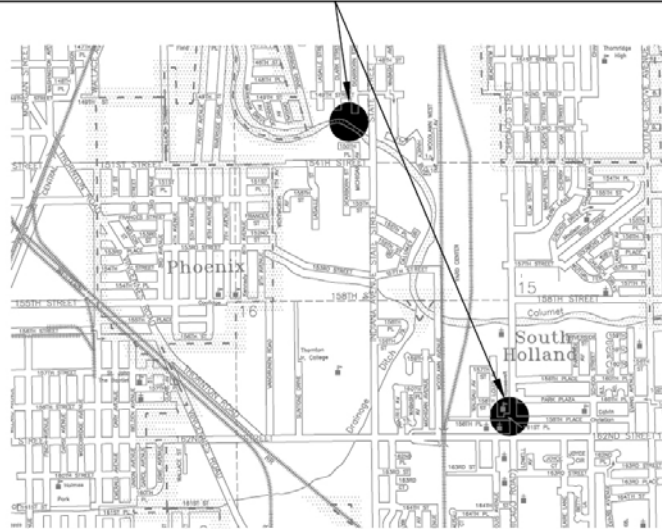
**DROP SHAFT 5 INSPECTION AND REHABILITATION, NSA  
 CONTRACT 14-372-3S**





LOCATION MAP

MODIFICATIONS TO TARP CONTROL STRUCTURES AND DROP SHAFTS  
 INSTALLATION OF DRY WEATHER DIVERSION BYPASS SEWERS AT  
 CDS-C1 AND CDS-4. ADDITION OF LOUVERS AT DS-M27, DS-M28,  
 DS-M29, DS-M30, DS-M32, DS-M41, DS-M45, DS-M48, DS-M60 & CS-4.  
 REMOVAL OF BULKHEAD AT I-6  
 COST: \$2,100,000



LOCATION MAP

**LEGEND:**

- = SEWER TO BE REHABILITATED
- .....** = EXISTING SEWER

**MODIFICATIONS TO TARP CONTROL STRUCTURES AND DROP SHAFTS  
 CONTRACT 17-842-3H**

**Stormwater Management Capital Improvements Bond Fund Program**

<b>Awards in 2020</b>					
Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date	
* Addison Creek Channel Improvements, SWRP	11-187-3F	\$ 21,350	743	Aug 2020	
* Construction of a Levee along Thorn Creek at Arquilla Park, in Glenwood, CSA	15-IGA-14	3,483	365	Sep 2020	
Streambank Stabilization Project on Tinley Creek, CSA	10-882-AF	3,806	1,472	Jul 2020	
<b>Total 2020 Awards</b>		<b>\$ 28,639</b>			

Refer to Section VI Stormwater Management Fund for more information about the Stormwater Management Capital Improvement Program.

**Note: All cost figures are in thousands of dollars; inflation factor is 0 percent.**

Method of Financing			
Alternate Bonds	Grants	Total	
\$ 28,639	\$ —	\$ 28,639	

<b>Projects Under Construction</b>					
Project Name	Project Number	Est. Construction Cost	Award Date	Est. Substantial Completion Date	
Melvina Ditch Reservoir Improvements, SSA	14-263-3F	\$ 14,717	Nov 2017	Sep 2020	
* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	8,650	Feb 2018	Mar 2020	
Acquisition of Flood Prone Properties Franklin Park (32 homes)	16-IGA-13	4,681	Oct 2018	Aug 2020	
Addison Creek Reservoir, SSA	11-186-3F	63,280	Jan 2019	Feb 2022	
<b>Total Projects Under Construction</b>		<b>\$ 91,328</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 four construction projects: Upper Des Plaines Intercepting Sewer 14B Rehabilitation, NSA and three other projects.	\$ 14,345,000	6.7%
2. TREATMENT FACILITIES: Award twelve construction projects: A/B and C/D Service Tunnel Rehabilitation - Phase III, SWRP, 6th Street Construction and Utility Tunnel Rehabilitation; CWRP, Rehabilitation of Steel Spandrel Beams of Pump and Blower House, OWRP, Roof Replacement of the Lue-Hing M&R Complex, SWRP, and eight other projects.	\$ 88,661,700	41.4%
3. SOLIDS PROCESSING AND DISPOSAL FACILITIES: Award one construction project: North Side Sludge Pipeline Replacement - Section 1, NSA.	\$ 14,326,900	6.7%
4. FLOOD AND POLLUTION CONTROL: Award seven construction projects: Addison Creek Channel Improvements, SWRP, McCook Reservoir Stage 2 Rock Wall Stabilization and Instrumentation, SWRP, Streambank Stabilization Project on Tinley Creek, CSA and four other projects.	\$ 63,973,300	29.8%
5. LAND AND RIGHT-OF-WAY ACQUISITION COSTS: Acquisition of land for the expansion of reservoir projects and payments for land easements.	\$ 550,000	0.3%
6. PROJECT SUPPORT: Administration, design, and construction inspection for current and future contracts, funding support, and construction services, such as concrete and soil testing.	\$ 32,449,300	15.1%
<b>Totals</b>	<b>\$ 214,306,200</b>	<b>100.0%</b>

MEASURABLE GOAL:	2018	2019	2020
	Actual	Estimated	Proposed
Award contracts for the continued implementation of the District's Capital Improvement Program.			
Number of projects proposed	16	33	23
Number of contracts awarded	10	16	23
<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 CAPITAL IMPROVEMENTS BOND FUND**

**OBJECTIVES AND PROGRAM SUMMARY**

PROGRAMS BY PRIORITY:		2018	Budgeted		Change	
Number	Name	Actual	FTEs	Dollars	Dollars	Percent
1700	Collection Design	\$ 314,485	2020	— \$ 1,500,000	\$ 1,500,000	100.0
			2019	— \$ —		
1800	Collection Construction	\$ 14,573,624	2020	— \$ 16,335,000	\$ (24,677,500)	(60.2)
			2019	— \$ 41,012,500		
2700	Treatment Design	\$ 861,086	2020	— \$ 3,000,000	\$ —	—
			2019	— \$ 3,000,000		
2800	Treatment Construction	\$ 38,742,172	2020	— \$ 98,216,700	\$ 25,530,600	35.1
			2019	— \$ 72,686,100		
3700	Solids Processing Design	\$ 695,432	2020	— \$ —	\$ —	—
			2019	— \$ —		
3800	Solids Processing Construction	\$ 3,223,872	2020	— \$ 16,026,800	\$ (25,816,500)	(61.7)
			2019	— \$ 41,843,300		
4341	Flood Mitigation Projects Planning and Design	\$ 1,976,765	2020	— \$ 5,306,000	\$ 136,000	2.6
			2019	— \$ 5,170,000		
4343	Flood Mitigation Projects Construction	\$ 16,252,061	2020	— \$ 22,607,800	\$ (137,956,100)	(85.9)
			2019	— \$ 160,563,900		
4344	Flood Mitigation Projects Contracted with Other Governments	\$ 6,608,688	2020	— \$ 3,483,000	\$ (370,000)	(9.6)
			2019	— \$ 3,853,000		
4600	Monitoring	\$ 157,850	2020	— \$ 1,317,400	\$ 1,317,400	100.0
			2019	— \$ —		
4700	Flood and Pollution Control Design	\$ 484,475	2020	— \$ 3,524,400	\$ 1,524,400	76.2
			2019	— \$ 2,000,000		
4800	Flood and Pollution Control Construction	\$ 38,702,795	2020	— \$ 42,239,100	\$ (2,168,400)	(4.9)
			2019	— \$ 44,407,500		
5800	Solids Disposal Construction	\$ 4,389,765	2020	— \$ 500,000	\$ (2,887,500)	(85.2)
			2019	— \$ 3,387,500		
7740	Land and Easements	\$ 435,126	2020	— \$ 250,000	\$ —	—
			2019	— \$ 250,000		
Totals		\$ 127,418,196	2020	— \$ 214,306,200	\$ (163,867,600)	(43.3)%
			2019	— \$ 378,173,800		

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						
		2018	2019				2020	
Account Number	Account Name	Expenditure	Original Appropriation *	Adjusted Appropriation 09/30/19 **	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
401	Fund: Capital Improvements Bond							
50000	Department: Engineering							
612090	Reprographic Services	\$ —	\$ 10,000	\$ 20,000	\$ 10,000	\$ —	\$ 10,000	\$ —
612240	Testing and Inspection Services	81,823	—	2,762	2,762	—	—	—
612250	Court Reporting Services	5,499	25,000	42,001	42,001	7,700	31,000	—
612400	Intergovernmental Agreements	7,460,521	16,354,100	36,652,628	28,785,479	10,591,100	13,344,700	—
612430	Payments for Professional Services	704,874	400,000	1,932,526	1,232,524	180,300	1,402,400	—
612440	Preliminary Engineering Reports and Studies	—	2,820,000	2,820,000	165,000	—	250,000	—
612450	Professional Engineering Services for Construction Projects	3,831,313	7,500,000	9,611,405	3,885,755	2,907,200	9,274,400	—
612470	Personal Services for Post-Award Engineering for Construction Projects	1,096,594	—	6,286,615	6,286,615	813,200	—	—
612490	Contractual Services, N.O.C.	—	—	70,600	70,596	70,600	—	—
612780	Safety Repairs and Services	—	100,000	100,000	—	—	100,000	—
200	TOTAL CONTRACTUAL SERVICES	13,180,625	27,209,100	57,538,536	40,480,731	14,570,100	24,412,500	—
634620	Equipment for Waterway Facilities	8,151	—	—	—	—	1,200,000	—
400	TOTAL MACHINERY AND EQUIPMENT	8,151	—	—	—	—	1,200,000	—
645600	Collection Facilities Structures	3,768,218	5,015,000	12,924,451	11,048,922	1,054,600	1,340,000	—
645620	Waterway Facilities Structures	17,710,683	163,752,700	194,960,473	107,192,550	45,183,600	43,184,500	—
645630	Army Corps of Engineers Services	30,578,978	800,000	29,629,589	28,800,420	1,903,500	18,131,400	—
645650	Process Facilities Structures	24,908,968	32,562,500	54,184,005	48,025,794	6,485,600	33,245,000	—
645680	Buildings	1,795,640	6,320,000	13,508,975	12,604,724	4,008,100	500,000	—
645690	Capital Projects, N.O.C.	922,663	—	1,018,962	922,662	204,600	—	—
645700	Preservation of Collection Facility Structures	10,772,534	58,793,800	50,397,397	37,859,587	2,702,700	16,470,000	—
645720	Preservation of Waterway Facility Structures	4,075,647	13,903,800	15,922,971	15,921,874	1,835,600	4,227,000	—
645750	Preservation of Process Facility Structures	6,814,100	45,895,800	63,088,663	61,485,514	859,700	52,528,300	—
645780	Preservation of Buildings	7,143,916	20,212,500	32,637,627	12,613,728	2,072,400	17,625,000	—
500	TOTAL CAPITAL PROJECTS	108,491,347	347,256,100	468,273,113	336,475,774	66,310,400	187,251,200	—
656010	Land	1,078,309	1,664,700	1,664,700	786,051	626,800	300,000	—
600	TOTAL LAND	1,078,309	1,664,700	1,664,700	786,051	626,800	300,000	—
667340	Payments for Easements	270,000	2,043,900	2,043,900	14,052	14,100	250,000	—
727102	Principal Expense - Capital Lease	2,594,850	—	37,599,608	37,599,608	2,723,100	—	—
727112	Interest Expense - Capital Lease	1,794,914	—	10,594,602	10,594,602	1,667,700	—	—

401 50000	Fund: Capital Improvements Bond Department: Engineering	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation *	Adjusted Appropriation 09/30/19 **	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
767300	Bond Issuance Costs	—	—	—	—	—	892,500	—
700	TOTAL FIXED AND OTHER CHARGES	4,659,765	2,043,900	50,238,109	48,208,261	4,404,900	1,142,500	—
TOTAL CAPITAL IMPROVEMENTS BOND FUND		\$127,418,196	\$ 378,173,800	\$ 577,714,459	\$ 425,950,817	\$ 85,912,200	\$214,306,200	\$ —
<p>* The Capital Improvements Bond Fund is budgeted and accounted for on an obligation basis.</p> <p>** The appropriation in the Capital Improvements Bond Fund is adjusted to carry forward open value of contracts from the prior year.</p> <p>NOTES: 1. Amounts may not add up due to rounding.</p> <p>2. Estimated Expenditure may exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.</p> <p>3. The Capital Improvements Bond Fund appropriation is controlled on the Summary Object level.</p>								

**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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Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

September 10, 2019

Mr. Brian A. Perkovich  
Executive Director  
OFFICE

Dear Sir:

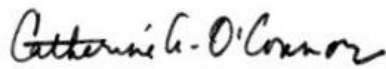
Subject: 2020 Program for the Stormwater Management Fund

The Stormwater Management Fund's program for 2020, as prepared in detail, is transmitted herewith. The budget presentation supports the request for funding of the 2020 initiatives in alignment with and in support of the Strategic Business Plan. The budget requests include all amendments as directed by you during the Executive Director Budget Hearings in August of this year.

The narrative provides a summary of the fund, 2020 major initiatives and challenges, and 2019 accomplishments. Supporting schedules of objectives, performance, and staffing levels present three years of detailed budgetary information.

Thank you for the opportunity to present the proposed Stormwater Management Fund budget for 2020.

Respectfully submitted,



Catherine A. O'Connor  
Director of Engineering

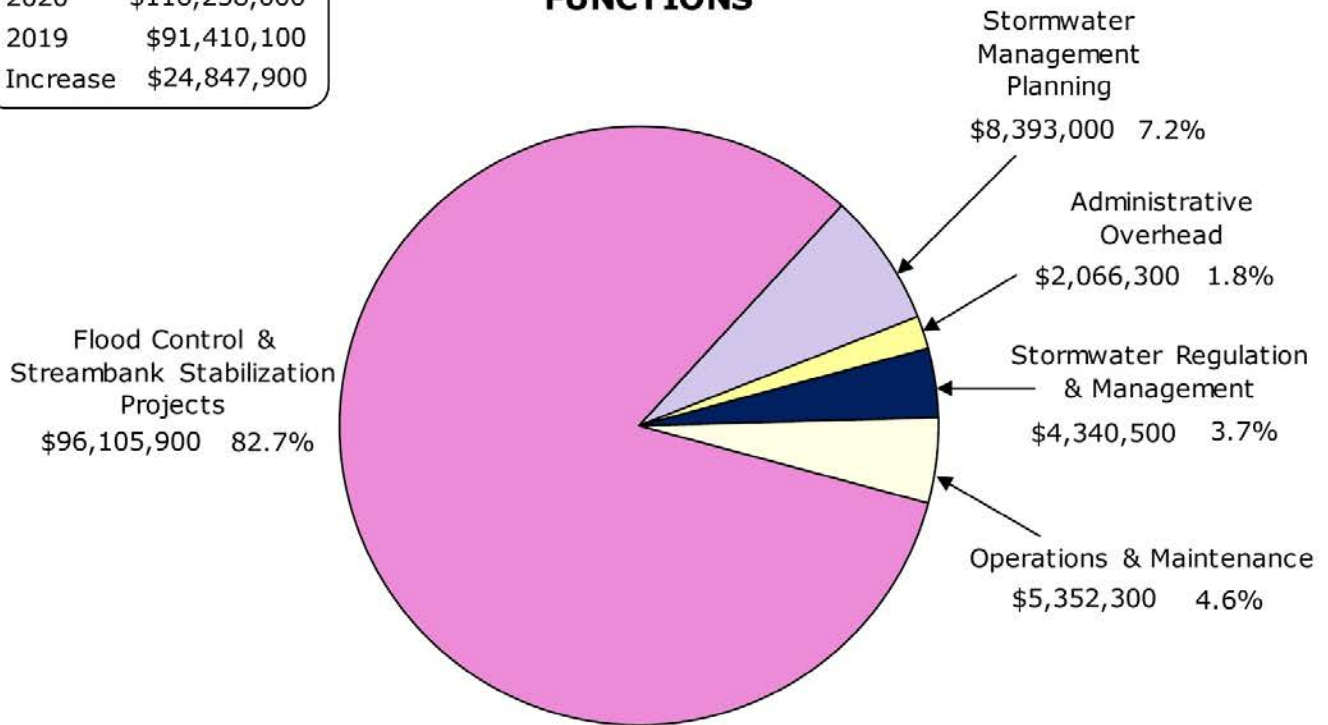


John P. Murray  
Director of Maintenance & Operations

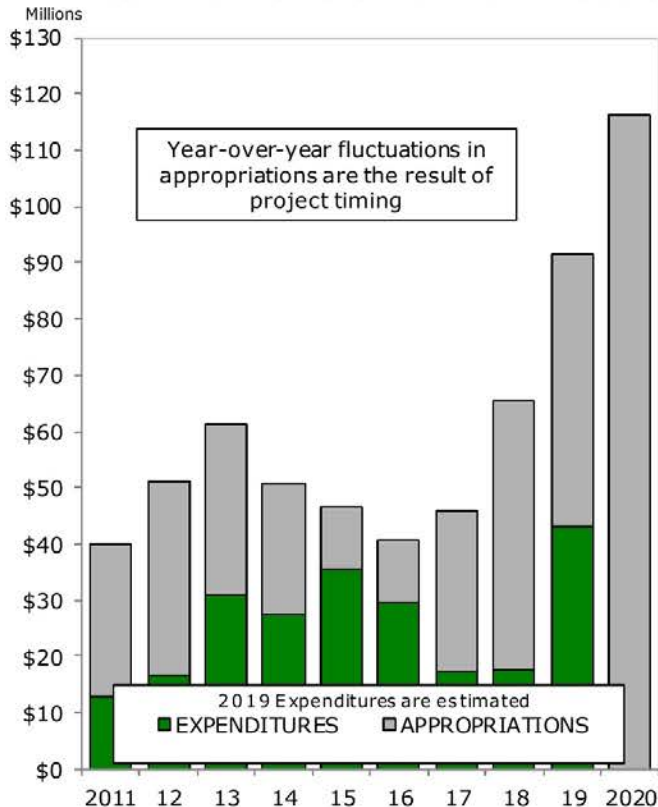
# STORMWATER MANAGEMENT FUND

2020	\$116,258,000
2019	\$91,410,100
Increase	\$24,847,900

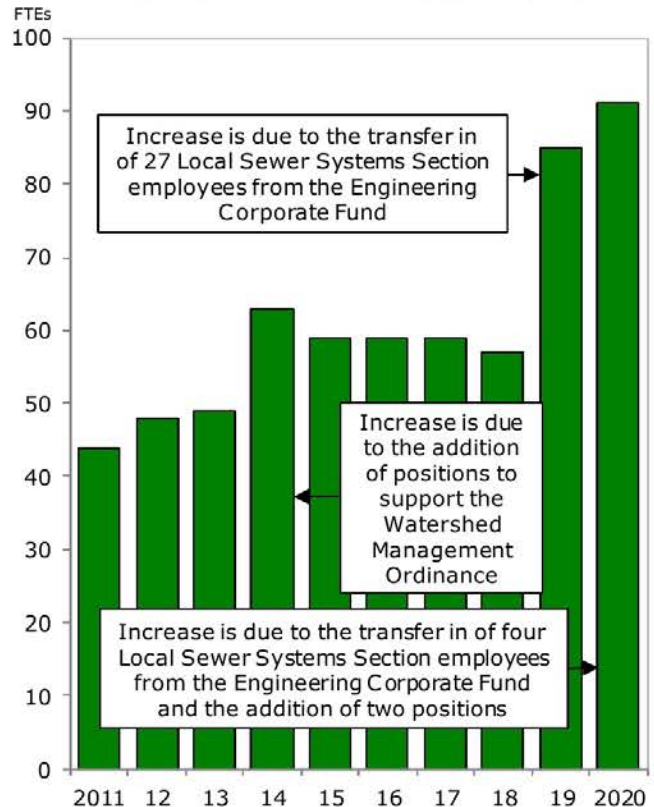
## FUNCTIONS



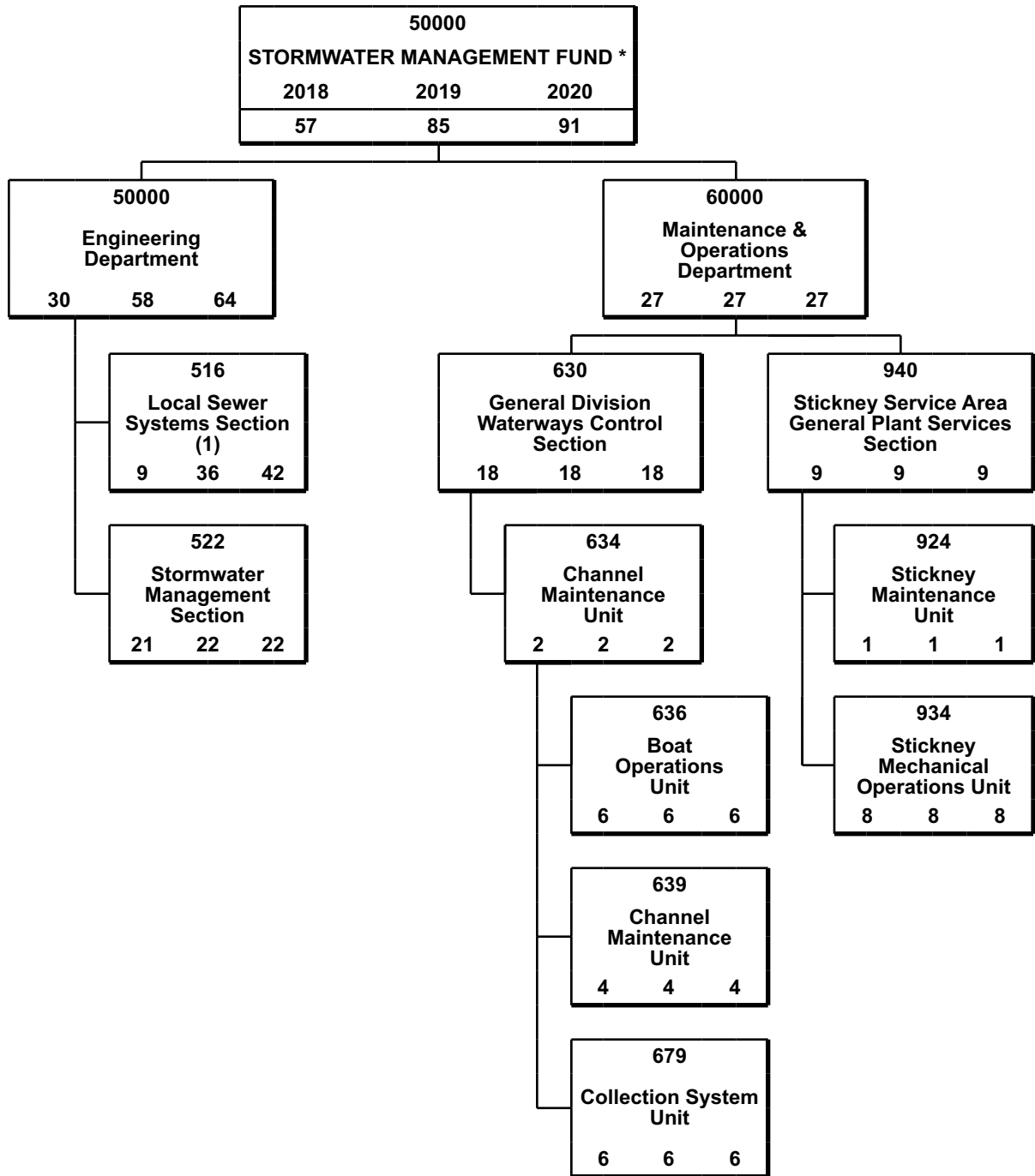
## APPROPRIATIONS & EXPENDITURES



## BUDGETED FTE POSITIONS



# STORMWATER MANAGEMENT FUND



\* 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. 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. Information on the Stormwater Management Program and WMO can be found at [www.mwr.org](http://www.mwr.org).

### Summary of 2019 Accomplishments

- Completed construction of two flood control and one streambank stabilization projects originally identified in the DWPs;
- Awarded two flood control and one streambank stabilization projects;
- 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 an IGA for acquisition of 32 flood-prone properties within the Village of Franklin Park;
- Solicited applications for Green Infrastructure projects from local communities and agencies and continued to identify partnership opportunities to assist in constructing local flood control projects;
- Required construction of 78 million gallons of volume control, detention, and floodplain compensatory storage, in conjunction with development throughout Cook County, as a result of WMO enforcement;
- Amended the WMO on May 16, 2019 to include results of the Watershed Specific Release Rate Study as well as clarifications to better serve the District and its constituents. Watershed Specific Release Rates will require detention facilities to be sized to mitigate the impact of development flood risks for downstream properties;
- Conducted a technical advisory committee meeting every two months to present changes to the WMO and Technical Guidance Manual (TGM);
- Presented WMO updates and status of the I/I Control Program at Watershed Planning Council meetings;
- Updated the TGM based on the WMO Amendment;
- 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 2020 appropriation for the Stormwater Management Fund is \$116,258,000, an increase of \$24,847,900, or 27.2 percent, from 2019. The staffing level has increased from 85 to 91 positions, which includes the transfer of four Corporate Fund LSSS positions responsible for administering the WMO from the Engineering Department and the addition of one Assistant Civil Engineer and one Senior Civil Engineer. The increase in operational costs due to these position changes will be partially offset by revenues generated from WMO permit review fees.

Significant features of the 2020 Budget are:

- Prioritize and implement new Green Infrastructure projects from 2019 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;
- Award the Addison Creek Channel Improvements project in Bellwood, Broadview, Melrose Park, Northlake, Stone Park, and Westchester;
- Continue the SSMP to reduce flooding in urbanized areas;

- Continue to expand the online content related to the Chicago Area Waterway System and the SSMP to provide educational materials, as well as general information regarding the management of the system before, during, and after a storm;
- Amend the WMO and update the TGM to include clarifications to better serve the District and its constituents;
- Continue the implementation of the I/I Control Program to reduce sanitary sewer overflows and basement backups.

**2020 Initiatives in Support of the Strategic Business Plan Include the Following:**

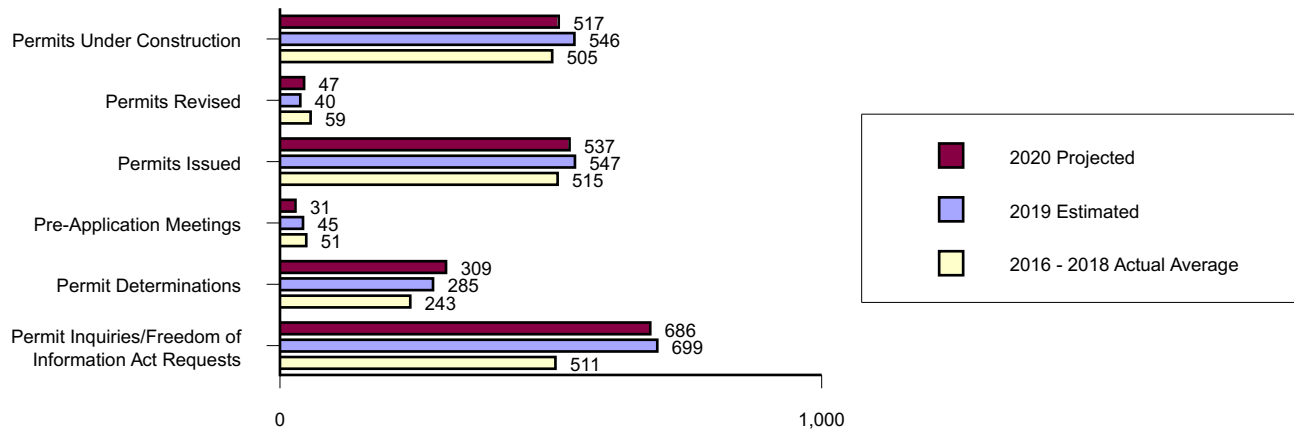
**• Add Value**

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 2019, the average review time for an initial submittal was 11 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 537 total permits in 2020, with an estimated average time from initial submittal to permit issuance of 37 working days. The number of total permits issued averaged 515 annually from 2016-2018.

**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 four 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 hired two engineering consultant firms to provide program management services, one for the combined sewer areas and another for separate sewer areas. They have prepared a framework for the next six Master Plans and are making assessments for future Master Plans to ultimately create a vision to address flooding throughout 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 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 third quarter of 2019, 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 123 regional and local stormwater management projects.

In 2019, projects under construction in partnership with municipalities included Addison Creek Reservoir, Arrowhead Lake Flood Control Project, Addison Creek Streambank Stabilization, Buffalo Creek Reservoir Expansion, Natalie Creek Flood Control Project, Green Alley projects in Harwood Heights, Maywood, and River Forest, new storm sewers in Franklin Park, and Elk Grove Village Culvert Improvements.

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

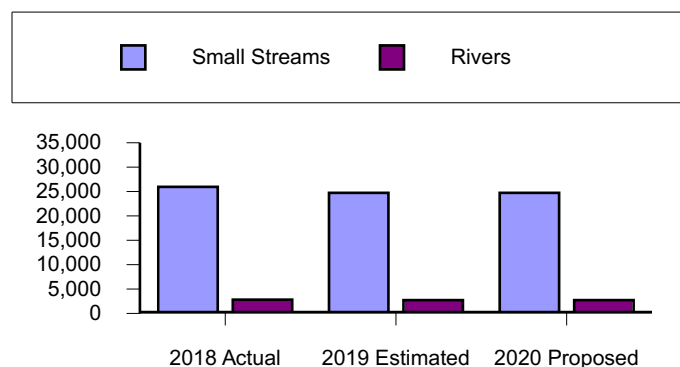
**• Information Technology**

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 July 2019, nine 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 506, 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 507 - 510.

## **FLOOD-PRONE PROPERTY ACQUISITION PROGRAM**

The District's statutory authority for Stormwater Management in Cook County (70 ILCS 2605/7h) was amended in 2014 to allow for the acquisition of flood-prone properties. Subsequent to amending the Cook County Stormwater Management Plan to be consistent with Public Act 98-0652, the District's Board of Commissioners adopted a policy on selection and prioritization of projects for acquiring flood-prone property, which is comprised of three distinct components, as follows:

- Local Sponsorship Assistance Program: The District's top priority will be to facilitate the Illinois Emergency Management Agency's federally funded program by assisting local sponsor communities in providing their share of the cost for property acquisition;
- District Initiated Program: The cost of a property acquisition alternative will be estimated for any approved project and compared to the estimated cost of the structural project determined through a preliminary engineering analysis. Should the cost of the property acquisition alternative be less than the structural project, and the benefits at least equivalent, the acquisition alternative will be pursued in lieu of the structural project;
- Local Government Application Program: The District will consider applications directly from local governments requesting property acquisition of specific flood-prone structures.

The District solicited applications from municipalities and townships for assistance with the acquisition of flood-prone structures located throughout Cook County and entered into an IGA to partner with the Village of Franklin Park to acquire 32 flood-prone residential structures. These acquisitions will be completed in 2021. As a result of the 2019 application process, additional agreements will be negotiated to assist local communities with flood-prone property acquisitions in the future.

## **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	2020 Appropriation	Award Date	Est. Substantial Completion Date
Installation of Green Infrastructure at Chicago Public Schools, Various Locations	15-IGA-20	\$ 16,000	\$ 4,553	Sep 2016	Dec 2022
Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA	17-IGA-02	200	200	Dec 2017	Jan 2020
* Buffalo Creek Reservoir Expansion, NSA	13-370-3F	1,029	126	Feb 2018	Mar 2020
Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	14-252-5F	7,629	6,118	Sep 2018	Dec 2020
Streambank Stabilization Projects for Addison Creek, SSA	14-108-5F	1,546	160	Nov 2018	Apr 2020
Groveland Avenue Levee Improvements in Riverside, SSA	18-IGA-20	2,506	1,767	Dec 2018	Aug 2022
Culvert Improvements in Elk Grove Village, NSA	18-IGA-30	1,250	1,250	Mar 2019	Feb 2020
Pilot Study for Investigating Technology to Address Basement Backups, CSA and SSA	16-IGA-20	400	400	Jun 2019	Dec 2020
New Storm Sewers and New Storm Sewer Outfall along North Shore Avenue in Lincolnwood, NSA	18-IGA-22	1,392	1,392	Jun 2019	Nov 2020
University of Illinois at Chicago Green Infrastructure at the Arthington Mall, SSA	18-IGA-18	242	242	Aug 2019	May 2020
Green Alleys Project in Chicago, CSA	18-IGA-03	197	197	Sep 2019	Jun 2020
Stormwater Storage Areas in Niles, NSA	18-IGA-31	2,000	1,521	Sep 2019	Feb 2021
Green Infrastructure Alley Paving Improvements in Cicero, SSA	19-IGA-02	269	269	Sep 2019	May 2020
Expansion of Existing Detention Basin in Orland Park, CSA	18-IGA-33	558	424	Oct 2019	Aug 2020
Evanston/Skokie School District 65 Green Infrastructure At Orrington Elementary School, NSA	19-IGA-07	12	12	Oct 2019	May 2020
Stormwater Storage in Mount Prospect, NSA	18-IGA-25	1,348	1,348	Nov 2019	Jan 2020
Storm Sewers and Outfall in Forest View, SSA	18-IGA-28	1,000	399	Nov 2019	Jan 2020
Streambank Stabilization Project along Midlothian Creek in Tinley Park, CSA	19-IGA-21	645	645	Nov 2019	Jan 2023
Garfield Park Community Eco Orchard in Chicago, SSA	18-IGA-05	500	500	Dec 2019	Jan 2020
Washington Street Green Infrastructure Parking Lot Improvements in Lansing, CSA	19-IGA-13	250	250	Dec 2019	May 2020
Green Alley Improvements Project in Oak Park, SSA	19-IGA-14	475	475	Dec 2019	May 2020
Green Alley Improvements Project in River Grove, SSA	19-IGA-16	385	385	Dec 2019	May 2020
<b>Total Projects Under Construction</b>		<b>\$ 39,833</b>	<b>\$ 22,633</b>		



<b>Awards in 2020</b>						
Project Name	Project Number	Est. Construction Cost	2020 Appropriation	Duration (days)	Est. Award Date	
Streambank Stabilization Project along Calumet Union Drainage Ditch, CSA	10-882-BF	\$ 1,568	\$ 811	1,307	Jan 2020	
Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA	13-248-5F	11,450	519	621	Jan 2020	
Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA	14-111-5F	5,200	1,120	500	Jan 2020	
Winchester Avenue Green Infrastructure Project in Calumet Park, CSA	18-IGA-02	360	360	120	Jan 2020	
Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA	18-IGA-21	1,106	1,106	330	Jan 2020	
Wetland and Park Storage Projects in Winnetka, NSA	18-IGA-24	500	500	365	Jan 2020	
Cornell Avenue Green Infrastructure Project in Dolton, CSA	19-IGA-01	250	250	90	Jan 2020	
Green Infrastructure in Calumet City, CSA	19-IGA-05	395	395	90	Jan 2020	
Public Library Green Parking Lot in Park Ridge, NSA	19-IGA-17	650	650	270	Jan 2020	
Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA	14-259-5F	134	134	300	Mar 2020	
Lake Catherine Commuter Parking Lot in Palos Heights, CSA	18-IGA-14	184	184	120	Mar 2020	
Storm Sewers and Outfall to Flagg Creek in Western Springs, SSA	18-IGA-32	192	192	240	Mar 2020	
Barbara Vick Outdoor Classrooms in Chicago, CSA	19-IGA-03	100	100	90	Mar 2020	
School District 154 Wolcott School Playground Enhancement in Thornton, CSA	19-IGA-09	144	144	90	Mar 2020	
Addison Green Alley in Chicago, SSA	19-IGA-18	150	150	90	Mar 2020	
South Laflin Green Alley in Chicago, SSA	19-IGA-19	102	102	90	Mar 2020	
South Homan Green Alley in Chicago, SSA	19-IGA-20	155	155	90	Mar 2020	
Permeable Pavement and Rain Gardens in Posen, CSA	18-IGA-15	250	250	90	Apr 2020	
Public Works Facility Demonstration Rain Garden in Oak Park, SSA	19-IGA-11	20	20	90	Apr 2020	
Flood Control Project on Midlothian Creek in Robbins, CSA	14-253-5F	11,000	265	550	May 2020	
Flood Control Project for Deer Creek, CSA	10-884-BF	6,500	2	731	Jun 2020	
Culvert Upsizing and Channel Improvements on Boca Rio Ditch in Oak Forest, CSA	18-IGA-26	519	519	214	Jun 2020	
Green Streets Project in Ford Heights, CSA	19-IGA-12	357	357	90	Jun 2020	
Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, CSA	14-258-5F	9,300	149	365	Jul 2020	
* Addison Creek Channel Improvements, SWRP	11-187-3F	21,350	3,109	731	Aug 2020	
Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA	16-IGA-18	6,600	1,860	509	Aug 2020	
* Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, CSA	15-IGA-14	387	200	366	Sep 2020	
Flood Control Projects on Farmers and Prairie Creeks, NSA	12-056-5F	14,100	1	761	Nov 2020	
Total 2020 Awards		\$ 93,023	\$ 13,604			

**Projects Under Development**

Project Name	Project Number	Est. Construction Cost	Duration (days)	Est. Award Date
Flood Control Project in the Worth Woods Subdivision in Worth, CSA	14-256-5F	\$ 2,500	366	Jan 2021
Flood Control Project for the Washington Street Area in Blue Island, CSA	14-260-5F	5,700	730	Jun 2021
Flood Control Project along Plainfield Road in Countryside, La Grange, McCook, and Lyons Township, SSA	14-112-5F	17,000	730	Jul 2021
Flood Control Project on Willow Road at McDonald Creek Tributary A in Prospect Heights, NSA	14-371-5F	1,800	730	Jul 2021
Flood Control Project on Central Road from Des Plaines River to Greenwood Road, NSA	14-065-5F	12,000	731	Sep 2021
Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, CSA	14-257-5F	3,600	365	Sep 2021
Total Future Awards		\$ 42,600		
Cumulative Projects Under Construction, 2020 Awards, and Future Awards		\$ 175,455		

\* 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.**

The Stormwater Management local cost-sharing programs for Green Infrastructure projects and stormwater projects, along with flood-prone property acquisitions and projects that are in the preliminary stages of design, will continue to be a priority for the District in addressing flooding due to increased intense rain events that overwhelm current infrastructure throughout Cook County. The table below provides planned expenditures for the fiscal years 2021-2024 not included in the detailed list of Projects Under Development presented above.

**2021-2024 Projects Under Development**

Projects	2021	2022	2023	2024	Total 2021-2024
Green Infrastructure Projects Intergovernmental Agreements	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 20,000
Local Stormwater Projects Intergovernmental Agreements	5,000	5,000	5,000	5,000	20,000
Flood-Prone Property Acquisitions	5,000	5,000	5,000	5,000	20,000
Future Stormwater Projects (projects currently under preliminary design)	—	5,000	5,000	20,000	30,000
Anticipated District Stormwater Projects from Master Planning	—	—	5,000	15,000	20,000
Total	\$ 15,000	\$ 20,000	\$ 25,000	\$ 50,000	\$ 110,000

**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 2020 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	4/20	\$ 1,546,000
15-IGA-20	Installation of Green Infrastructure at Chicago Public Schools, Various Locations	12/22	16,000,000
18-IGA-05	Garfield Park Community Eco Orchard in Chicago, SSA	1/20	500,000
18-IGA-18	University of Illinois at Chicago Green Infrastructure at the Arthington Mall, SSA	5/20	242,000
18-IGA-20	Groveland Avenue Levee Improvements in Riverside, SSA	8/22	2,506,028
18-IGA-28	Storm Sewers and Outfall in Forest View, SSA	1/20	1,000,000
19-IGA-02	Green Infrastructure Alley Paving Improvements in Cicero, SSA	5/20	268,900
19-IGA-14	Green Alley Improvements Project in Oak Park, SSA	5/20	475,000
19-IGA-16	Green Alley Improvements Project in River Grove, SSA	5/20	385,000
	<b>Total</b>		<b>\$ 22,922,928</b>
<b>Projects for 2020 Award</b>			
11-187-3F	* Addison Creek Channel Improvements, SWRP		\$ 21,350,000
14-111-5F	Flood Control Project on 1st Avenue from Roosevelt Road to Cermak Road, SSA		5,200,000
18-IGA-21	Storm Sewers Connection to Existing Des Plaines River Outfall in Forest Park, SSA		1,106,300
18-IGA-32	Storm Sewers and Outfall to Flagg Creek in Western Springs, SSA		191,907
19-IGA-11	Public Works Facility Demonstration Rain Garden in Oak Park, SSA		20,000
19-IGA-18	Addison Green Alley in Chicago, SSA		150,000
19-IGA-19	South Laflin Green Alley in Chicago, SSA		101,500
19-IGA-20	South Homan Green Alley in Chicago, SSA		155,000
	<b>Total</b>		<b>\$ 28,274,707</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
	<b>Total</b>		<b>\$ 17,000,000</b>
	<b>Stickney Service Area Grand Total</b>		<b>\$ 68,197,635</b>

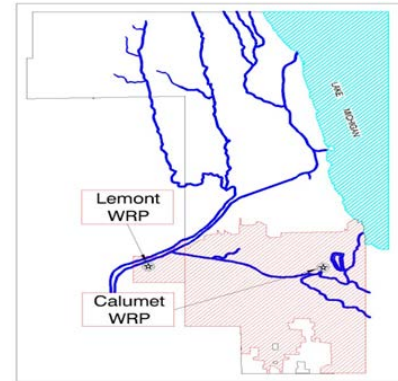
**NORTH  
SERVICE  
AREA (NSA)**



**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	\$ 1,028,867
18-IGA-22	New Storm Sewers and New Sewer Outfall along North Shore Avenue in Lincolnwood, NSA	11/20	1,391,763
18-IGA-25	Stormwater Storage in Mount Prospect, NSA	1/20	1,348,000
18-IGA-30	Culvert Improvements in Elk Grove Village, NSA	2/20	1,250,000
18-IGA-31	Stormwater Storage Areas in Nilus, NSA	2/21	2,000,000
19-IGA-07	Evanston/Skokie School District 65 Green Infrastructure At Orrington Elementary School, NSA	5/20	12,000
Total			<b>\$ 7,030,630</b>
<b>Projects for 2020 Award</b>			
12-056-5F	Flood Control Project on Farmers and Prairie Creeks, NSA		\$ 14,100,000
16-IGA-18	Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA		6,600,000
18-IGA-24	Wetland and Park Storage Projects in Winnetka, NSA		500,000
19-IGA-17	Public Library Green Parking Lot in Park Ridge, NSA		650,000
Total			<b>\$ 21,850,000</b>
<b>Projects Under Development</b>			
14-065-5F	Flood Control Project on Central Road from 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
Total			<b>\$ 13,800,000</b>
North Service Area Grand Total			<b>\$ 42,680,630</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>			
14-252-5F	Flood Control Project on Natalie Creek in Oak Forest and Midlothian, CSA	12/20	\$ 7,629,000
16-IGA-20	Pilot Study for Investigating Technology to Address Basement Backup, CSA and SSA	12/20	400,000
17-IGA-02	Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA	1/20	200,000
18-IGA-03	Green Alleys Project in Chicago, CSA	6/20	197,000
18-IGA-33	Expansion of Existing Detention Basin in Orland Park, CSA	8/20	558,000
19-IGA-13	Washington Street Green Infrastructure Parking Lot Improvements in Lansing, CSA	5/20	250,000
19-IGA-21	Streambank Stabilization Project along Midlothian Creek in Tinley Park, CSA	1/23	645,000
		Total	<b>\$ 9,879,000</b>
<b>Projects for 2020 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
13-248-5F	Streambank Stabilization Project on Melvina Ditch in Oak Lawn and Chicago Ridge, CSA		11,450,200
14-253-5F	Flood Control Project on Midlothian Creek in Robbins, CSA		11,000,000
14-258-5F	Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, CSA		9,300,000
14-259-5F	Flood Control in the vicinity of 131st Street and Cypress Drive in Palos Heights, CSA		134,000
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		360,000
18-IGA-14	Lake Catherine Commuter Parking Lot in Palos Heights, CSA		184,000
18-IGA-15	Permeable Pavement and Rain Gardens in Posen, CSA		250,000
18-IGA-26	Culvert Upsizing and Channel Improvements on Boca Rio Ditch in Oak Forest, CSA		519,300
19-IGA-01	Cornell Avenue Green Infrastructure Project in Dolton, CSA		250,000
19-IGA-03	Barbara Vick Outdoor Classrooms in Chicago, CSA		100,000
19-IGA-05	Green Infrastructure in Calumet City, CSA		395,333
19-IGA-09	School District 154 Wolcott School Playground Enhancement in Thornton, CSA		143,500
19-IGA-12	Green Streets Project in Ford Heights, CSA		356,500
		Total	<b>\$ 42,897,833</b>

**Calumet Water Reclamation Plant (CWRP)**

		<b>Estimated Construction Cost</b>
<b>Projects Under Development</b>		
14-256-5F	Flood Control Project in the Worth Woods Subdivision in Worth, CSA	\$ 2,500,000
14-257-5F	Flood Control Project on Calumet-Sag Tributary C in Bremen Township and Midlothian, CSA	3,600,000
14-260-5F	Flood Control Project for the Washington Street Area in Blue Island, CSA	5,700,000
		<u>Total</u> <b>\$ 11,800,000</b>
		<u>Calumet Service Area Grand Total</u> <b>\$ 64,576,833</b>
		<u>Capital Projects Grand Total - All Service Areas</u> <b>\$ 175,455,098</b>

\* 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 2020

**Substantial Completion Date** June 2024



**Project Description** This project proposes to stabilize banks located along approximately 4,000 linear feet of Tinley Creek in the Village of Orland Park. The work is divided into two locations between 151st Street and Oriole Court and between 86th Avenue and 159th Street. The project will use bioengineering techniques such as geolifts, live stake vegetation, and gentler slopes to stabilize both banks.

**Project Justification** This project will protect structures and infrastructure in imminent danger of failure due to active streambank erosion.

**Project Status** Design

**This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.**

## 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 2020
<b>Substantial Completion Date</b>	June 2023
<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 substantial completion.
<b>Project Justification</b>	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





### 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** June 2020

**Substantial Completion Date** May 2022



**Project Description** This project will reduce 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** 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

<b>Project Number</b>	11-186-3F
<b>Service Area</b>	Stickney
<b>Location</b>	Bellwood, IL
<b>Engineering Consultant</b>	Christopher B. Burke Engineering, Ltd.
<b>Engineering Contractor</b>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$63,280,000
<b>Contract Award Date</b>	January 2019
<b>Substantial Completion Date</b>	February 2022



**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 pump 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** Construction

**This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.**

### 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>	August 2020
<b>Substantial Completion Date</b>	July 2022
<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>	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** November 2020

**Substantial Completion Date** November 2022

**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** 13-248-5F

**Service Area** Calumet

**Location** Oak Lawn and Chicago Ridge, IL

**Engineering Consultant** MWH Americas, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$11,450,195

**Contract Award Date** January 2020

**Substantial Completion Date** September 2021

**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 2018
<b>Substantial Completion Date</b>	March 2020
<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>	Approximately 104 structures will receive flood protection from the expansion.
<b>Project Status</b>	Construction



### Streambank Stabilization Projects for Addison Creek, SSA

<b>Project Number</b>	14-108-5F
<b>Service Area</b>	Stickney
<b>Location</b>	North Riverside and Northlake, IL
<b>Engineering Consultant</b>	Burns & McDonnell Engineering Co., Inc.
<b>Engineering Contractor</b>	Industria, Inc.
<b>Estimated Construction Cost</b>	\$1,546,000
<b>Contract Award Date</b>	November 2018
<b>Substantial Completion Date</b>	April 2020
<b>Project Description</b>	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.
<b>Project Justification</b>	Safety/Regulatory and Flood Control.
<b>Project Status</b>	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** January 2020

**Substantial Completion Date** April 2021

**Project Description** This project will increase the 1st Avenue drainage conveyance capacity by replacing 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 also be installed along 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

<b>Project Number</b>	14-252-5F
<b>Service Area</b>	Calumet
<b>Location</b>	Oak Forest and Midlothian, IL
<b>Engineering Consultant</b>	Burns & McDonnell Engineering Co., Inc.
<b>Engineering Contractor</b>	IHC Construction Companies, LLC
<b>Estimated Construction Cost</b>	\$7,629,000
<b>Contract Award Date</b>	September 2018
<b>Substantial Completion Date</b>	December 2020
<b>Project Description</b>	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.
<b>Project Justification</b>	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.
<b>Project Status</b>	Construction



### 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** May 2020

**Substantial Completion Date** September 2021

**Project Description** This three-phase project on Midlothian Creek in Robbins will include the construction of a diversion channel connecting to the Calumet-Sag Channel, channel improvements on Midlothian Creek, and the construction of a naturalized detention area that resembles a park setting.

**Project Justification** The project will provide flood relief for an estimated 92 structures in Robbins.

**Project Status** Design



## Flood Control Project in the vicinity of 135th Street and Central Avenue in Crestwood, CSA

<b>Project Number</b>	14-258-5F
<b>Service Area</b>	Calumet
<b>Location</b>	Crestwood, IL
<b>Engineering Consultant</b>	HR Green, Inc.
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$9,300,000
<b>Contract Award Date</b>	July 2020
<b>Substantial Completion Date</b>	June 2021
<b>Project Description</b>	The flood control project will involve the installation of a new storm sewer along 135th Street and existing storage and conveyance improvements for a detention basin on the Nathan Hale School property and Crestwood Drainage Ditch. This project is located in the Calumet-Sag Channel Watershed.
<b>Project Justification</b>	The project will provide flood relief for 82 structures with the potential to protect additional structures once local storm sewers are upsized.
<b>Project Status</b>	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** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$134,000

**Contract Award Date** March 2020

**Substantial Completion Date** December 2020



**Project Description** This project will involve the demolition of a property at 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** This flood control project will protect three residential properties at risk from a 100-year storm event.

**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>	\$14,716,780
<b>Contract Award Date</b>	November 2017
<b>Substantial Completion Date</b>	October 2020



<b>Project Description</b>	This project consists of expanding the existing Melvina Ditch Reservoir by 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.
<b>Project Justification</b>	This project will reduce flooding for an estimated 430 structures in the City of Burbank and the Village of Oak Lawn.
<b>Project Status</b>	Construction

**This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.**

### Construction of a Levee along Thorn Creek at Arquilla Park in Glenwood, CSA

<b>Project Number</b>	15-IGA-14
<b>Service Area</b>	Calumet
<b>Location</b>	Glenwood, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$3,870,000
<b>Contract Award Date</b>	September 2020
<b>Substantial Completion Date</b>	July 2021
<b>Project Description</b>	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.
<b>Project Justification</b>	The project will protect approximately 31 residential structures from overbank flooding along Thorn Creek.
<b>Project Status</b>	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** Not Applicable

**Estimated Construction Cost** \$16,000,000

**Contract Award Date** September 2016

**Substantial Completion Date** December 2022



**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.

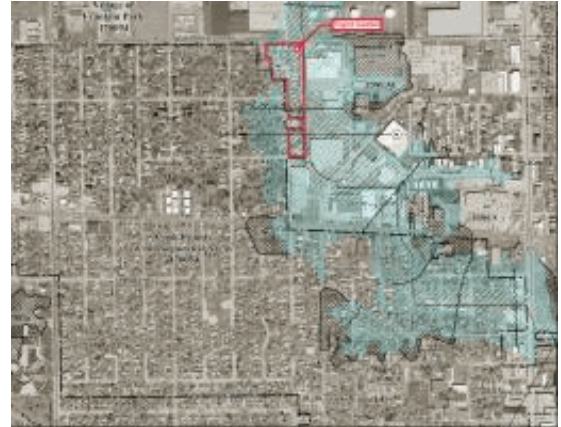
**Project Justification** The Chicago Public Schools Green Infrastructure Project will reduce the current load to the combined sewer systems and alleviate flooding within the project areas.

**Project Status** Cost Sharing Agreement



### Acquisition of 32 Flood-Prone Properties in Franklin Park, SSA

<b>Project Number</b>	16-IGA-13
<b>Service Area</b>	Stickney
<b>Location</b>	Franklin Park, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$4,681,000
<b>Contract Award Date</b>	October 2018
<b>Substantial Completion Date</b>	August 2020
<b>Project Description</b>	Purchase of 32 flood-prone homes along Silver Creek. This is a cost sharing agreement with the Village of Franklin Park.
<b>Project Justification</b>	Flood Control. Purchase of these homes will reduce the flood hazard risk in the Village of Franklin Park.
<b>Project Status</b>	Cost Sharing Agreement



**This project is funded under the Capital Improvements Bond Fund. See Section V Capital Budget for additional information.**



### Flood Control Project on the West Fork of the North Branch of the Chicago River, NSA

<b>Project Number</b>	16-IGA-18
<b>Service Area</b>	North
<b>Location</b>	Glenview, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$6,600,000
<b>Contract Award Date</b>	August 2020
<b>Substantial Completion Date</b>	November 2021
<b>Project Description</b>	The project includes the creation of floodwalls, berms, and additional storage along the West Fork of the North Branch of the Chicago River. This project is located in the North Branch of the Chicago River Watershed.
<b>Project Justification</b>	This project will reduce flooding by preventing the West Fork of the North Branch of the Chicago River from backing up into local sewers and divert storm water to new relief storm sewers.
<b>Project Status</b>	Planning



## 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** June 2019

**Substantial Completion Date** December 2020



**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** Negotiation / Evaluation

### Land Acquisition for the Flood Control Project on Midlothian Creek in Robbins, CSA

**Project Number** 17-IGA-02

**Service Area** Calumet

**Location** Robbins, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$200,000

**Contract Award Date** December 2017

**Substantial Completion Date** January 2020



**Project Description** The Village of Robbins will work with the Cook County Land Bank Authority and the South Suburban Land Bank Development Authority to assemble and acquire parcels that are required for 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.

**Project Justification** Flood Control. The land acquisitions are necessary for a flood control project that will provide flood relief to over 140 acres and 100 homes.

**Project Status** 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** \$360,000

**Contract Award Date** January 2020

**Substantial Completion Date** March 2020



**Project Description** The Village of Calumet Park will be installing a roadside bioswale and permeable pavers in the parking lane of Winchester Avenue for the public benefit of reducing flooding in the general area. 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 \$360,000 of the construction cost through an Intergovernmental Agreement. The Village of Calumet Park will be responsible for operations and maintenance.

**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** Not Applicable

**Estimated Construction Cost** \$197,000

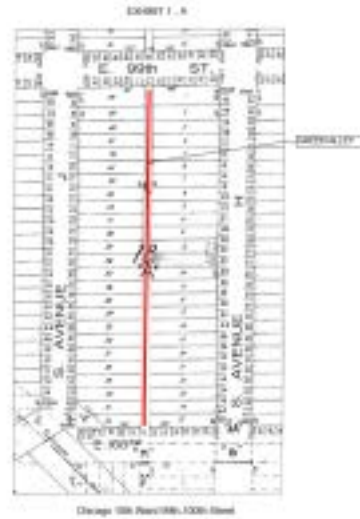
**Contract Award Date** September 2019

**Substantial Completion Date** June 2020

**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 Alley Project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation



### 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** December 2019

**Substantial Completion Date** January 2020

**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** Negotiation / Evaluation



### Lake Catherine Commuter Parking Lot in Palos Heights, CSA

**Project Number** 18-IGA-14

**Service Area** Calumet

**Location** Palos Heights, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$184,000

**Contract Award Date** March 2020

**Substantial Completion Date** May 2020



**Project Description** 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.

**Project Justification** The parking lot and other Green Infrastructure will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Negotiation / Evaluation

### Permeable Pavement and Rain Gardens in Posen, CSA

<b>Project Number</b>	18-IGA-15
<b>Service Area</b>	Calumet
<b>Location</b>	Posen, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$250,000
<b>Contract Award Date</b>	April 2020
<b>Substantial Completion Date</b>	June 2020
<b>Project Description</b>	The District will provide technical and funding assistance for design and construction of a permeable parking lot and rain garden for the Village of Posen at the Veterans of Foreign Wars Hall (2590 Walter Zimmy Drive). The project will be funded through an Intergovernmental Agreement. The Village of Posen will be responsible for operations and maintenance.
<b>Project Justification</b>	This project will reduce the current load to the combined sewer system and alleviate flooding within the project area.
<b>Project Status</b>	Design





## 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** August 2019

**Substantial Completion Date** May 2020



**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** Negotiation / Evaluation

### 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** December 2018

**Substantial Completion Date** August 2022



**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** Design

### 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** January 2020

**Substantial Completion Date** October 2020



**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. The Village of Forest Park will own, maintain, and operate the subject improvements following the completion of this project.

**Project Justification** This project will protect 273 structures from basement and overland flooding.

**Project Status** Design

## New Storm Sewers and New Storm Sewer Outfall along North Shore Avenue 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** \$1,391,763

**Contract Award Date** June 2019

**Substantial Completion Date** November 2020



**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** Construction

### Wetland and Park Storage Projects in Winnetka, NSA

**Project Number** 18-IGA-24

**Service Area** North

**Location** Winnetka, IL

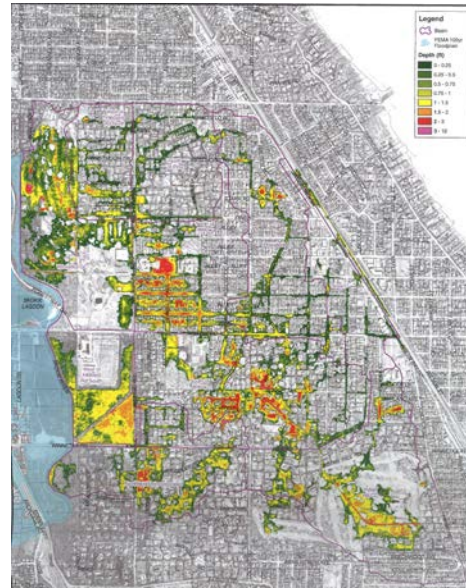
**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$500,000

**Contract Award Date** January 2020

**Substantial Completion Date** November 2020



**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

**Project Number** 18-IGA-25

**Service Area** North

**Location** Mount Prospect, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$1,348,000

**Contract Award Date** November 2019

**Substantial Completion Date** January 2020



**Project Description** 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.

**Project Justification** 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.

**Project Status** Design

### Culvert Upsizing and Channel Improvements on Boca Rio Ditch in Oak Forest, CSA

<b>Project Number</b>	18-IGA-26
<b>Service Area</b>	Calumet
<b>Location</b>	Oak Forest, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$519,300
<b>Contract Award Date</b>	June 2020
<b>Substantial Completion Date</b>	October 2020
<b>Project Description</b>	This project will replace existing deteriorated roadway culverts, upsize and install 8-inches by 4-inches box culvert near 151st Street and Boca Rio Drive, install three sedimentation basins along Boca Rio Ditch south of 151st Street, and install stream bank stabilization improvements along Boca Rio Ditch north of 151st Street in Oak Forest.
<b>Project Justification</b>	This project will reduce the risk of flooding for 28 residential structures and enhance water quality along Boca Rio Ditch.
<b>Project Status</b>	Design



### Storm Sewers and Outfall in Forest View, SSA

**Project Number** 18-IGA-28

**Service Area** Stickney

**Location** Forest View, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$1,000,000

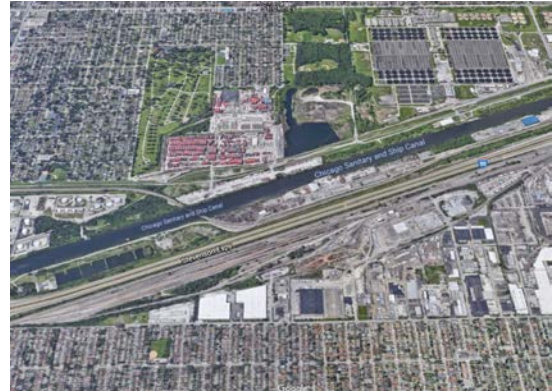
**Contract Award Date** November 2019

**Substantial Completion Date** January 2020

**Project Description** This project will construct storm sewers and outfall for a residential area in Forest View.

**Project Justification** This project will provide flood reduction benefits for an estimated 14 structures for a residential area in Forest View.

**Project Status** 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** Not Applicable

**Estimated Construction Cost** \$1,250,000

**Contract Award Date** March 2019

**Substantial Completion Date** February 2020

**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** Not Applicable

**Estimated Construction Cost** \$2,000,000

**Contract Award Date** September 2019

**Substantial Completion Date** February 2021

**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



### Storm Sewers and Outfall to Flagg Creek in Western Springs, SSA

**Project Number** 18-IGA-32

**Service Area** Stickney

**Location** Western Springs, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$191,907

**Contract Award Date** March 2020

**Substantial Completion Date** November 2020

**Project Description** This project is to construct a new storm sewer outfall to Flagg Creek located in/near Spring Rock Park just north of 47th Street and east of I-294 and was identified in 2012 Sewer Overflow Long-Term Control Plan.

**Project Justification** This project will provide relief to 16 acres and 42 structures.

**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** Not Applicable

**Estimated Construction Cost** \$558,000

**Contract Award Date** October 2019

**Substantial Completion Date** August 2020

**Project Description** This project will expand the Grasslands regional detention basin in Orland Park.

**Project Justification** This project will provide upstream storage and flood protection for the Grasslands Subdivision by reducing flooding for an estimated 30 structures in the Village of Orland Park.

**Project Status** Design



### Cornell Avenue Green Infrastructure Project in Dolton, CSA

<b>Project Number</b>	19-IGA-01
<b>Service Area</b>	Calumet
<b>Location</b>	Dolton, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	To be determined
<b>Estimated Construction Cost</b>	\$250,000
<b>Contract Award Date</b>	January 2020
<b>Substantial Completion Date</b>	April 2020
<b>Project Description</b>	The Village of Dolton will construct infiltration trenches, bioswales, and native plantings located at 156th Street to 158th Street, bounded by Madison and Cornell Avenues in Dolton. The Village will be responsible for operations and maintenance.
<b>Project Justification</b>	The project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.
<b>Project Status</b>	Planning



### Green Infrastructure Alley Paving Improvements in Cicero, SSA

**Project Number** 19-IGA-02

**Service Area** Stickney

**Location** Cicero, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$268,865

**Contract Award Date** September 2019

**Substantial Completion Date** May 2020



**Project Description** This project will be replacing an alley with the permeable pavement in Cicero. The town of Cicero will be responsible for the maintenance.

**Project Justification** The project will reduce the current load to the combined sewer system and alleviate flooding within the project area.

**Project Status** Planning

## Barbara Vick Outdoor Classrooms in Chicago, CSA

**Project Number** 19-IGA-03

**Service Area** Calumet

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$100,000

**Contract Award Date** March 2020

**Substantial Completion Date** April 2020

**Project Description** Chicago Public Schools will construct outdoor classrooms and natural play areas at Barbara Vick Early Childhood and Family Center, including areas for sand, a train, dirt digging, gardening, gathering, messy materials, nature art, natural landscaping, and permeable play surfacing located at 2554 West 113th Street in Chicago. Chicago Public Schools will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### Green Infrastructure in Calumet City, CSA

<b>Project Number</b>	19-IGA-05
<b>Service Area</b>	Calumet
<b>Location</b>	Calumet City, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$395,333
<b>Contract Award Date</b>	January 2020
<b>Substantial Completion Date</b>	March 2020
<b>Project Description</b>	This project will construct bioswales in the street right-of-way at Yates Avenue north of Harbor Avenue and permeable pavers in an alley located behind Harbor Avenue, bounded by Yates Avenue and Paxton Avenue. Calumet City will be responsible for operations and maintenance.
<b>Project Justification</b>	The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.
<b>Project Status</b>	Planning





## Evanston/Skokie School District 65 Green Infrastructure At Orrington Elementary School, NSA

**Project Number** 19-IGA-07

**Service Area** North

**Location** Evanston, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$12,000

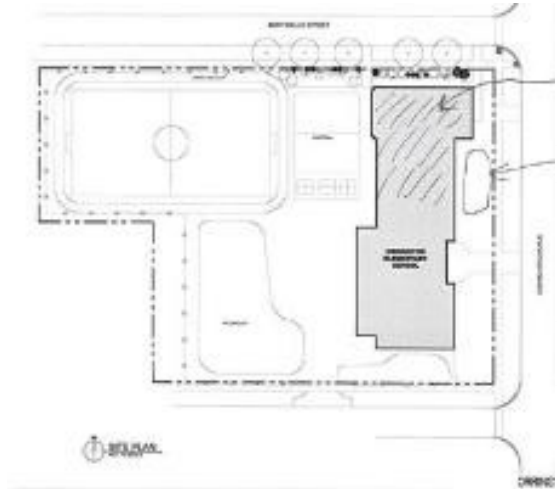
**Contract Award Date** October 2019

**Substantial Completion Date** May 2020

**Project Description** This project will install Green Infrastructure at the Orrington Elementary School. Evanston/Skokie School District 65 will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### School District 154 Wolcott School Playground Enhancement in Thornton, CSA

<b>Project Number</b>	19-IGA-09
<b>Service Area</b>	Calumet
<b>Location</b>	Thornton, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$143,500
<b>Contract Award Date</b>	March 2020
<b>Substantial Completion Date</b>	May 2020
<b>Project Description</b>	Thornton School District 154 will remove asphalt playground surfaces and construct permeable playground surfaces and bioswales located at 200 North Wolcott Street at the intersection of Wolcott and Harrison Streets. Thornton School District 154 will be responsible for operations and maintenance.
<b>Project Justification</b>	The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.
<b>Project Status</b>	Planning



**Public Works Facility Demonstration Rain Garden in Oak Park, SSA**

**Project Number** 19-IGA-11

**Service Area** Stickney

**Location** Oak Park, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$20,000

**Contract Award Date** April 2020

**Substantial Completion Date** June 2020

**Project Description** The District will design a demonstration rain garden for the Public Works Facility in Oak Park. The Village of Oak Park will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### Green Streets Project in Ford Heights, CSA

**Project Number** 19-IGA-12

**Service Area** Calumet

**Location** Ford Heights, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$356,500

**Contract Award Date** June 2020

**Substantial Completion Date** August 2020

**Project Description** The Village of Ford Heights will construct roadside bioswales located in the street right-of-way along Cottage Grove Avenue, Park Avenue, Drexel Avenue, Werline Avenue, Seeley Avenue, bounded by 10th Place and 11th Place, and also south and west of Ellis Avenue and south of 11th Street in Ford Heights. The Village will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.

**Project Status** Planning



## Washington Street Green Infrastructure Parking Lot Improvements in Lansing, CSA

<b>Project Number</b>	19-IGA-13
<b>Service Area</b>	Calumet
<b>Location</b>	Lansing, IL
<b>Engineering Consultant</b>	Not Applicable
<b>Engineering Contractor</b>	Not Applicable
<b>Estimated Construction Cost</b>	\$250,000
<b>Contract Award Date</b>	December 2019
<b>Substantial Completion Date</b>	May 2020
<b>Project Description</b>	The Village of Lansing will construct bioswales within and next to a parking lot located at 3300 Washington Street at the intersection of Roy and Washington Streets. The Village will be responsible for operations and maintenance.
<b>Project Justification</b>	The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.
<b>Project Status</b>	Planning



### Green Alley Improvements Project in Oak Park, SSA

**Project Number** 19-IGA-14

**Service Area** Stickney

**Location** Oak Park, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$475,000

**Contract Award Date** December 2019

**Substantial Completion Date** May 2020

**Project Description** The Village of Oak Park will construct permeable pavers in six alleys in various locations. The Village will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### Green Alley Improvements Project in River Grove, SSA

**Project Number** 19-IGA-16

**Service Area** Stickney

**Location** River Grove, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$385,000

**Contract Award Date** December 2019

**Substantial Completion Date** May 2020

**Project Description** The Village of River Grove will construct three permeable alleys using permeable pavers in various locations. The Village will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the storm sewer system and help alleviate flooding within the project area.

**Project Status** Planning



**Public Library Green Parking Lot in Park Ridge, NSA**

**Project Number** 19-IGA-17

**Service Area** North

**Location** Park Ridge, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$650,000

**Contract Award Date** January 2020

**Substantial Completion Date** August 2020



**Project Description** This project will construct a permeable paver parking lot and rain gardens located at 20 South Prospect Avenue in Park Ridge. Park Ridge will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### Addison Green Alley in Chicago, SSA

**Project Number** 19-IGA-18

**Service Area** Stickney

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$150,000

**Contract Award Date** March 2020

**Substantial Completion Date** May 2020

**Project Description** This project will construct a green alley near 1900 West Eddy in the 47th Ward in the City of Chicago.

**Project Justification** This project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### South Laflin Green Alley in Chicago, SSA

**Project Number** 19-IGA-19

**Service Area** Stickney

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$101,500

**Contract Award Date** March 2020

**Substantial Completion Date** May 2020

**Project Description** This project will be constructing a green alley near 725 South Laflin in the 28th Ward in the City of Chicago.

**Project Justification** This project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### South Homan Green Alley in Chicago, SSA

**Project Number** 19-IGA-20

**Service Area** Stickney

**Location** Chicago, IL

**Engineering Consultant** Not Applicable

**Engineering Contractor** Not Applicable

**Estimated Construction Cost** \$155,000

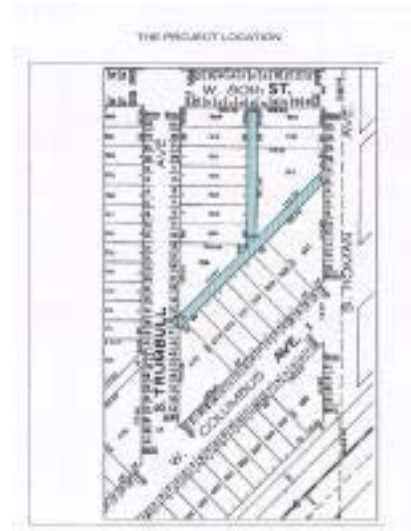
**Contract Award Date** March 2020

**Substantial Completion Date** May 2020

**Project Description** The City of Chicago will be replacing an alley with permeable pavement in the 18th Ward. The alley is bounded by West 80th Street, South Homan Avenue, West Columbus Avenue, and South Trumbull Avenue. The District will be providing reimbursement funding for up to \$155,000 through an Intergovernmental Agreement. The City of Chicago will be responsible for operations and maintenance.

**Project Justification** The project will reduce the current load to the combined sewer system and help alleviate flooding within the project area.

**Project Status** Planning



### Streambank Stabilization Project along Midlothian Creek in Tinley Park, CSA

**Project Number** 19-IGA-21

**Service Area** Calumet

**Location** Tinley Park, IL

**Engineering Consultant** Michael Baker International, Inc.

**Engineering Contractor** To be determined

**Estimated Construction Cost** \$645,000

**Contract Award Date** November 2019

**Substantial Completion Date** January 2023

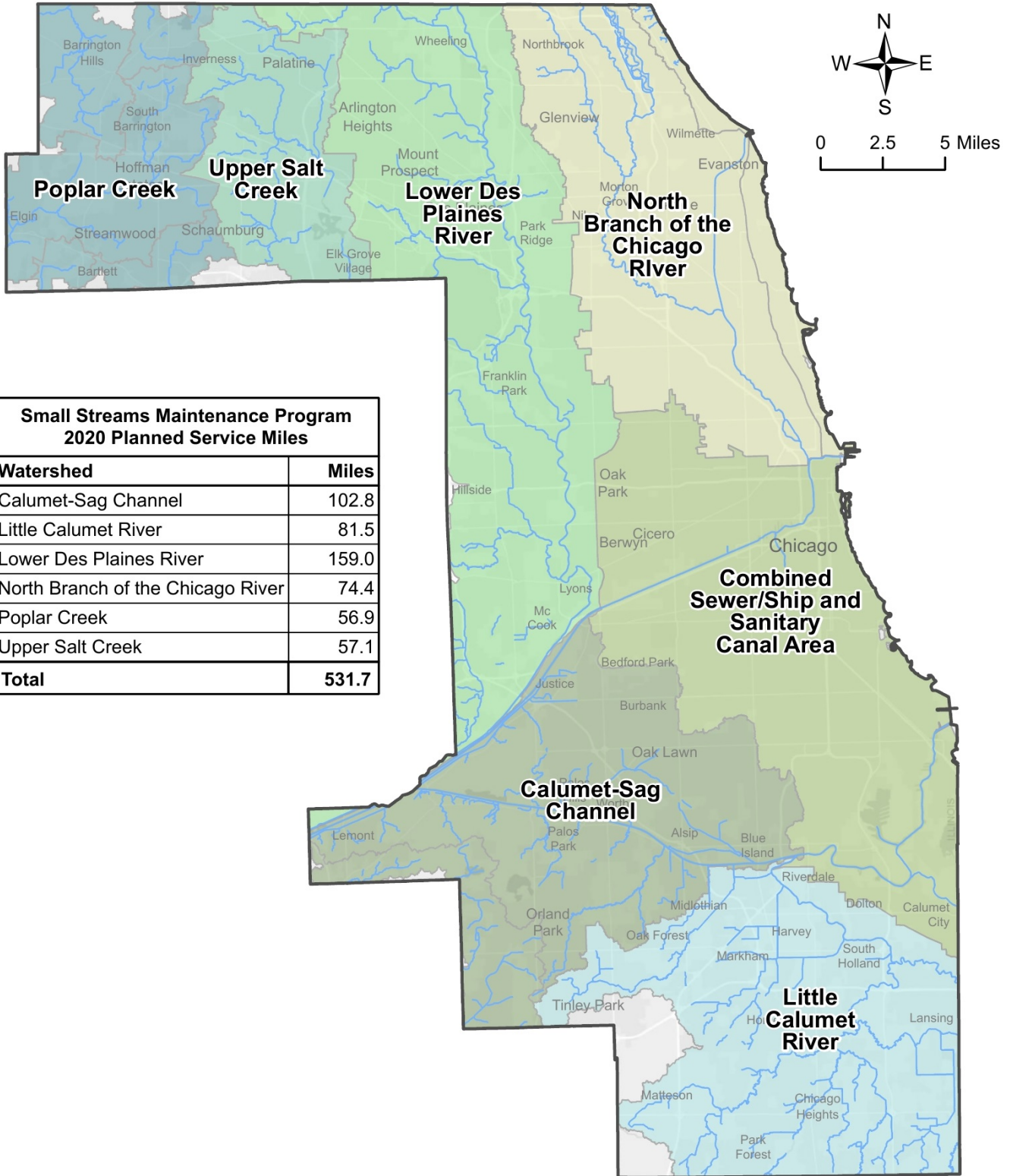


**Project Description** This project proposes to stabilize banks located along approximately 500 linear feet of Midlothian Creek in the Village of Tinley Park between 66th Court and Hickory Street. The project will use bioengineering techniques such as geolifts, live stake vegetation and gentler slopes to stabilize the bank. Rock vanes will also be used to redirect stream flow. The Village will prepare the contract documents, perform the work, and will be responsible for long-term operations and maintenance.

**Project Justification** This project will protect structures and infrastructure in imminent danger of failure from active streambank erosion and flooding.

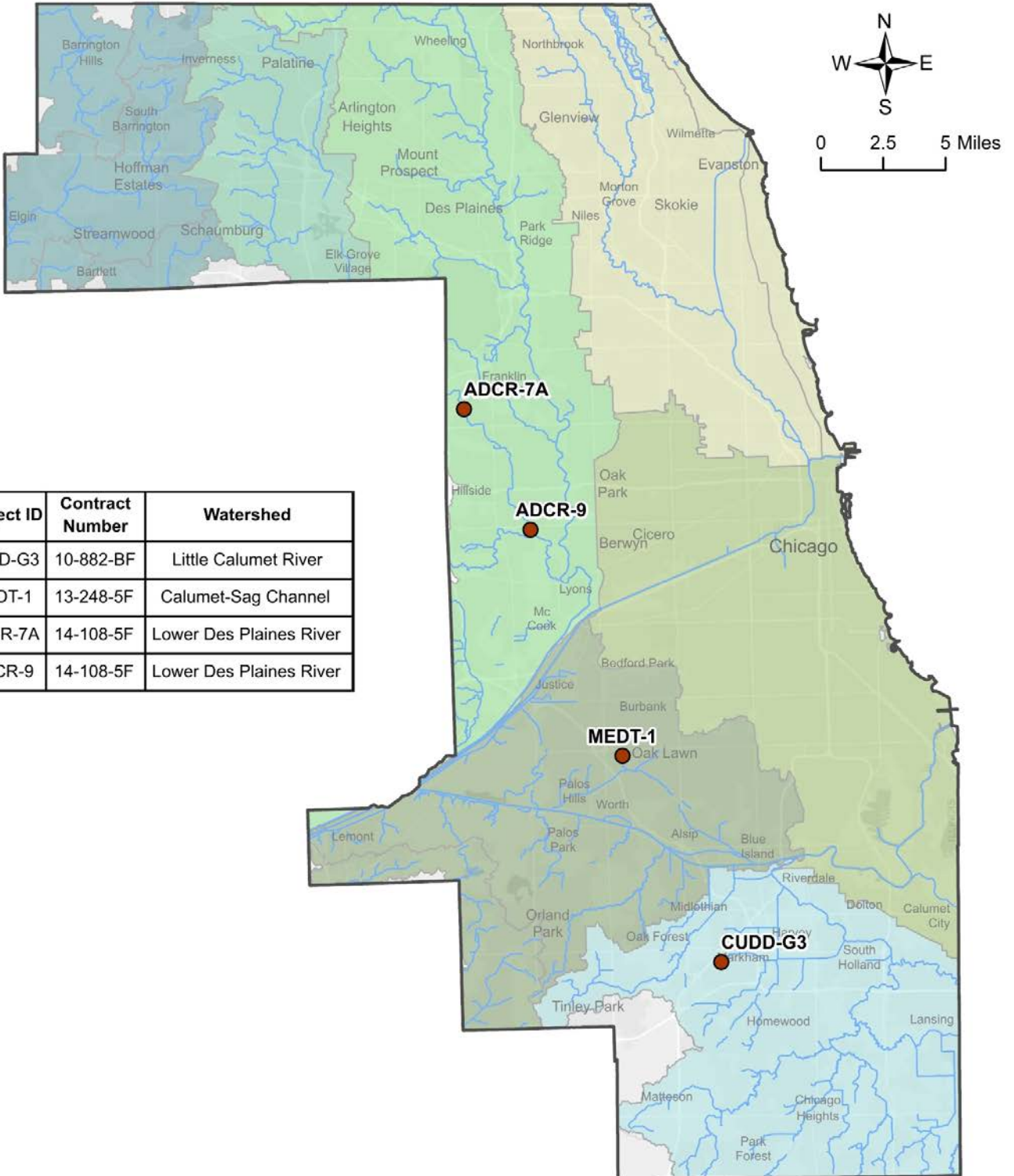
**Project Status** Design

# STORMWATER MANAGEMENT WATERSHEDS



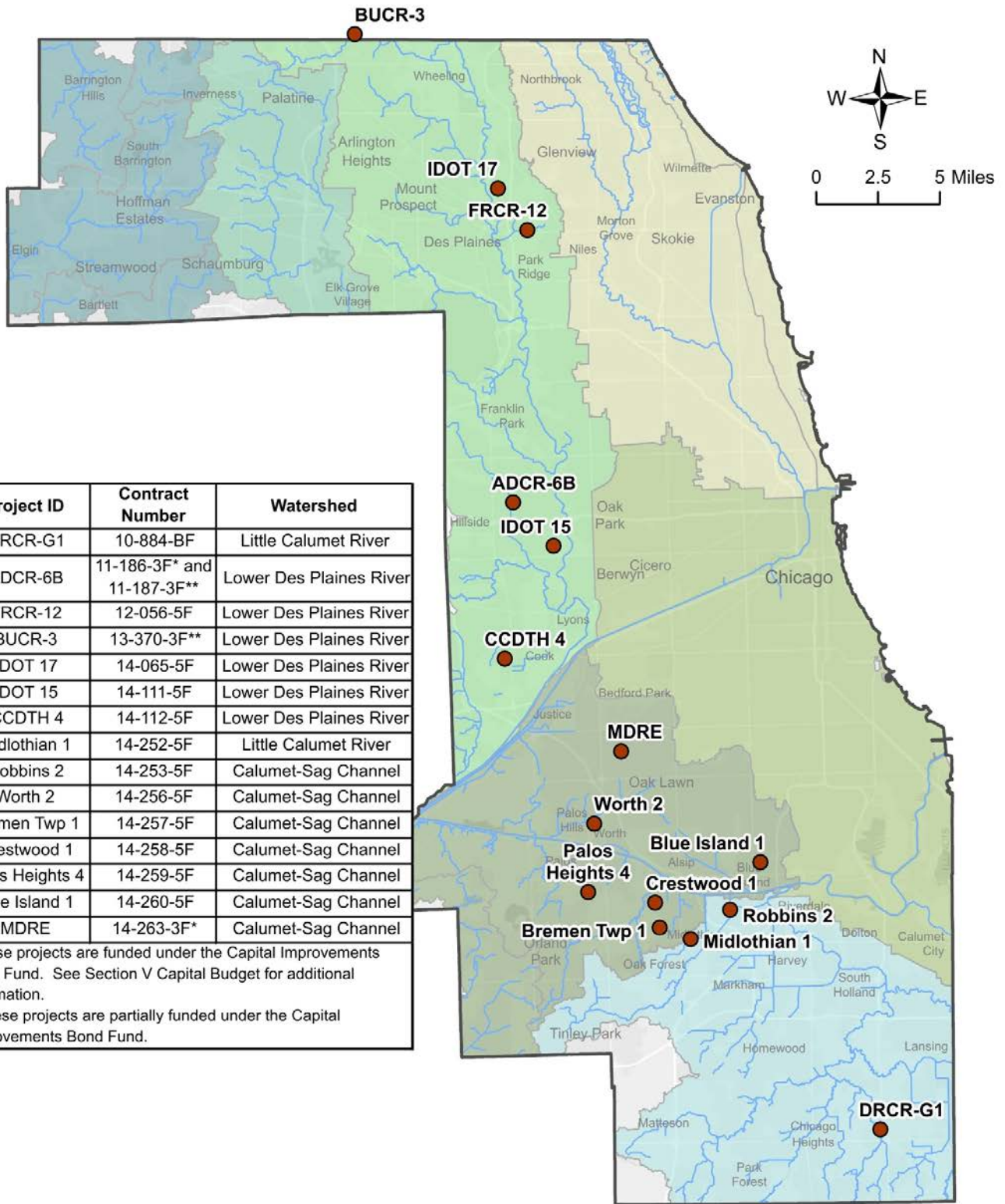


# STORMWATER MANAGEMENT PROJECTS STREAMBANK STABILIZATION



Project ID	Contract Number	Watershed
CUDD-G3	10-882-BF	Little Calumet River
MEDT-1	13-248-5F	Calumet-Sag Channel
ACDR-7A	14-108-5F	Lower Des Plaines River
ACDR-9	14-108-5F	Lower Des Plaines River

# STORMWATER MANAGEMENT PROJECTS FLOOD CONTROL

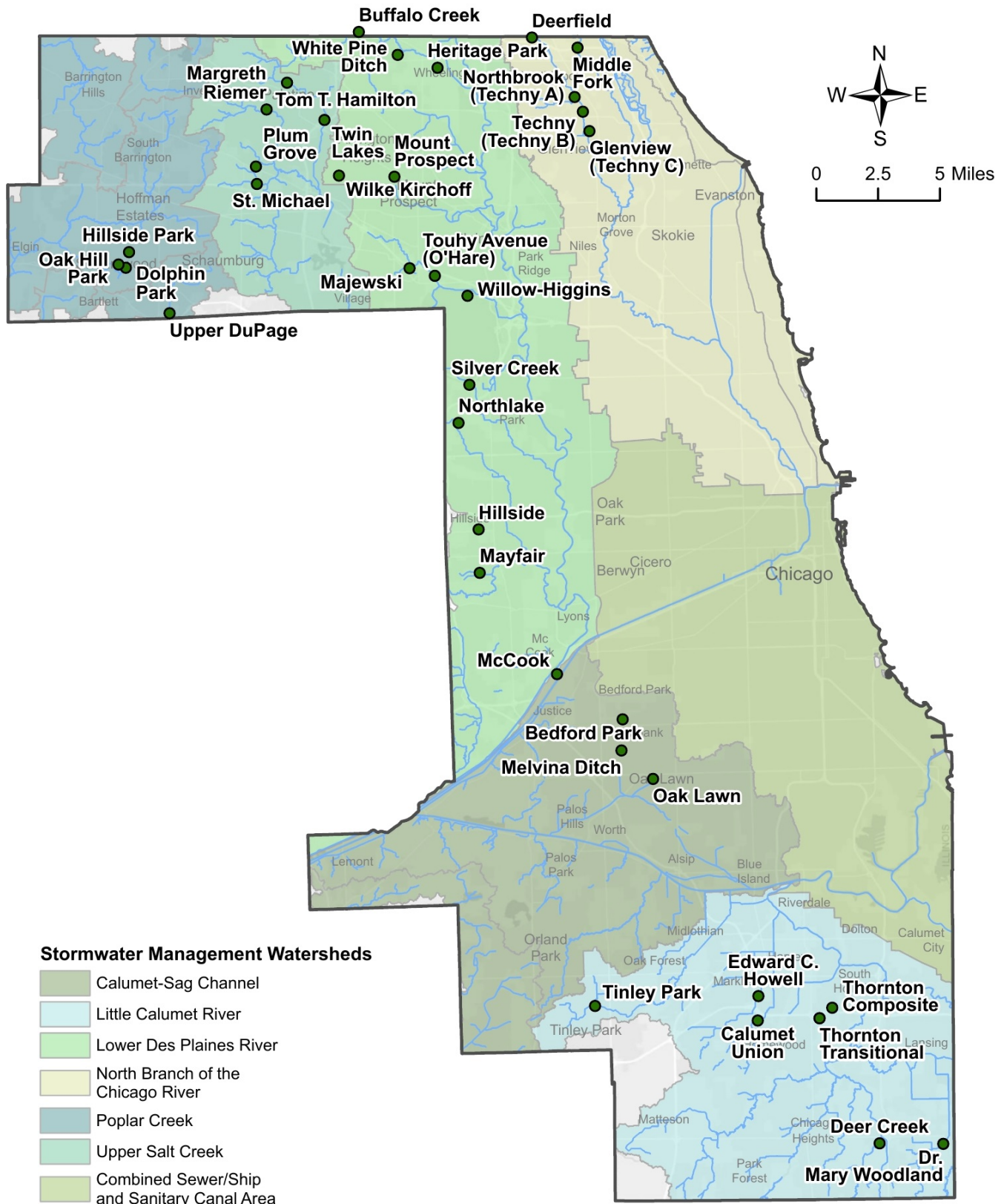


Project ID	Contract Number	Watershed
DRCR-G1	10-884-BF	Little Calumet River
ADCR-6B	11-186-3F* and 11-187-3F**	Lower Des Plaines River
FRCR-12	12-056-5F	Lower Des Plaines River
BUCR-3	13-370-3F**	Lower Des Plaines River
IDOT 17	14-065-5F	Lower Des Plaines River
IDOT 15	14-111-5F	Lower Des Plaines River
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
Worth 2	14-256-5F	Calumet-Sag Channel
Bremen Twp 1	14-257-5F	Calumet-Sag Channel
Crestwood 1	14-258-5F	Calumet-Sag Channel
Palos Heights 4	14-259-5F	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.

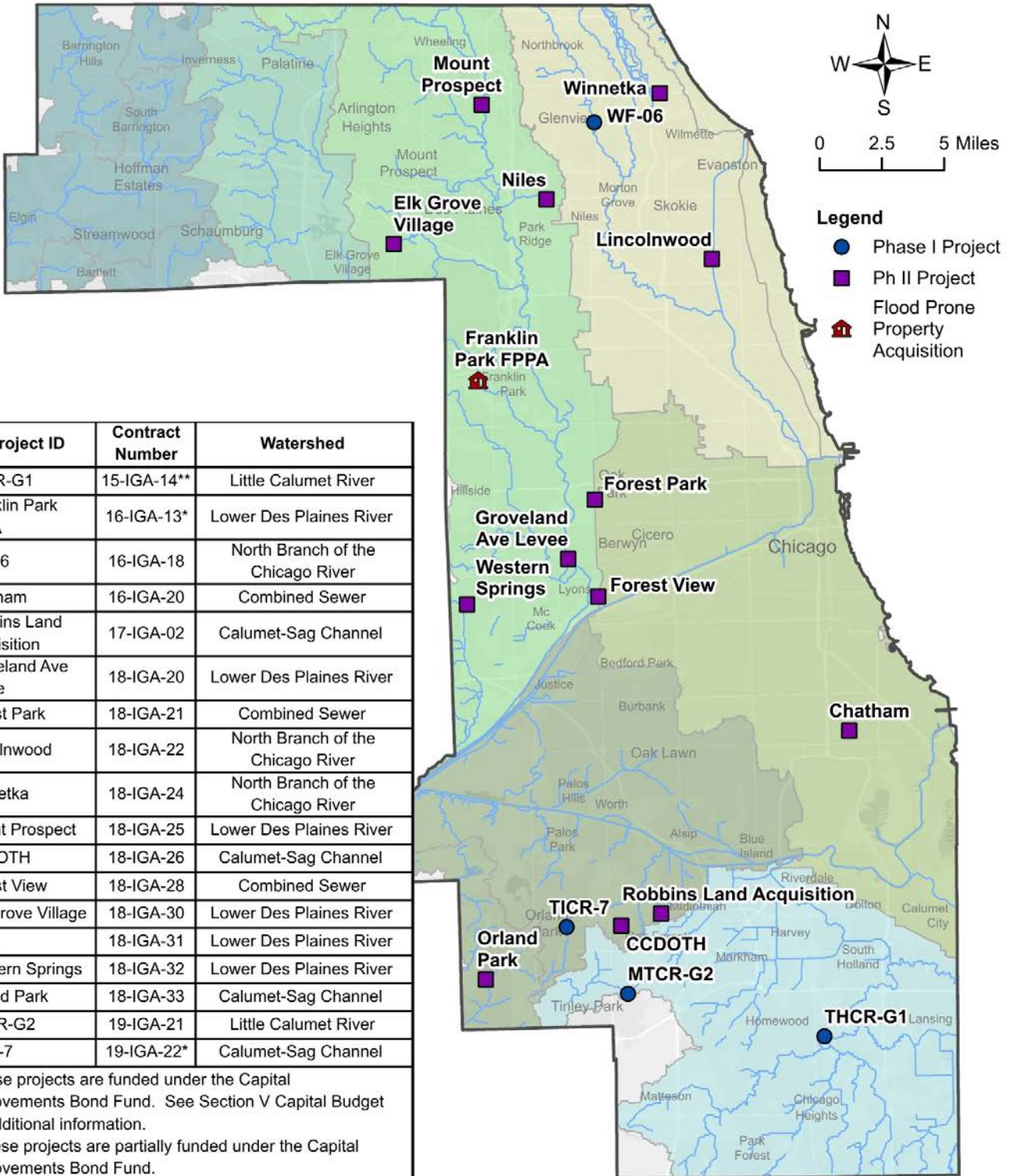


# EXISTING MWRD SUPPORTED FLOOD CONTROL RESERVOIRS

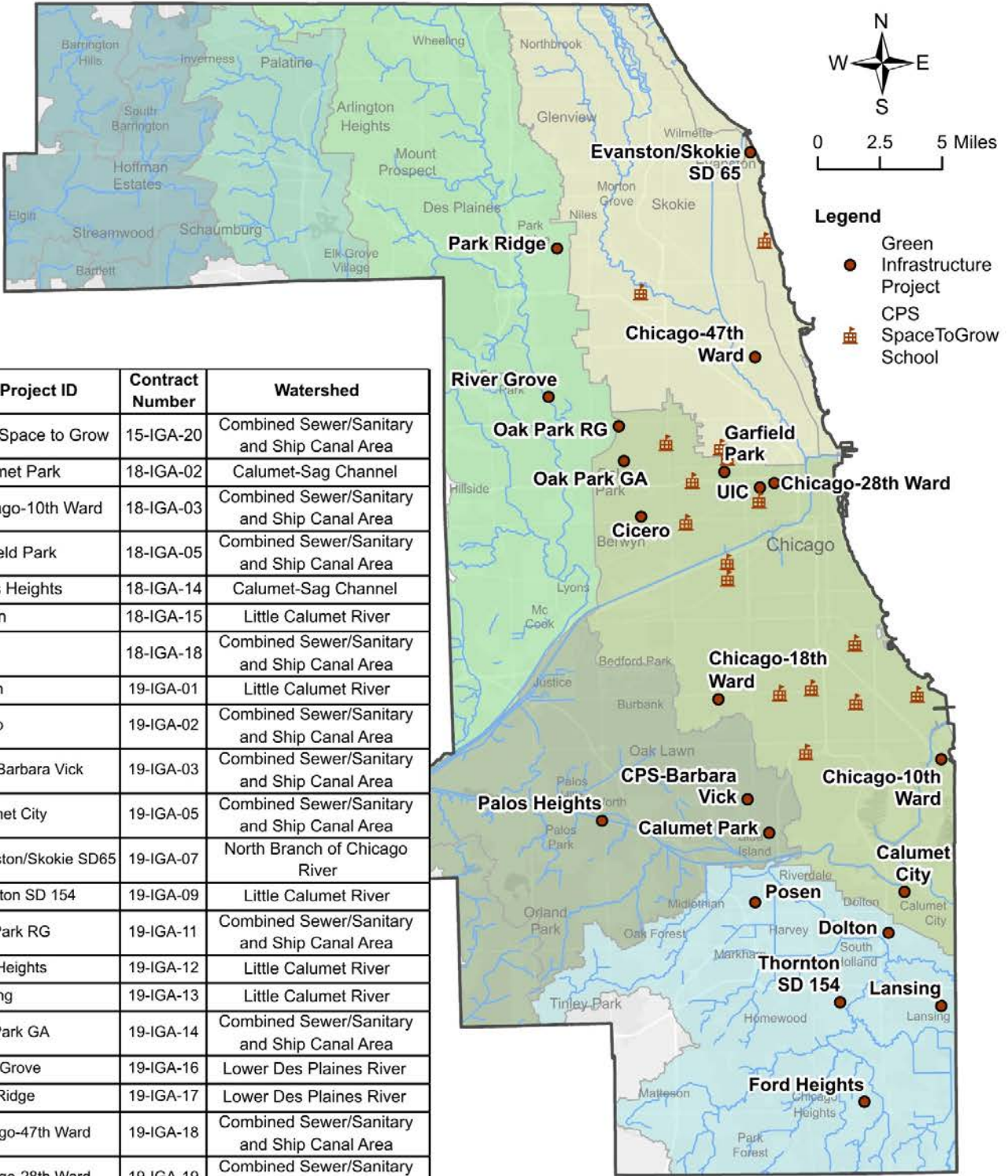




# STORMWATER MANAGEMENT PROJECTS INTERGOVERNMENTAL AGREEMENTS



# STORMWATER MANAGEMENT PROJECTS GREEN INFRASTRUCTURE



Project ID	Contract Number	Watershed
CPS Space to Grow	15-IGA-20	Combined Sewer/Sanitary and Ship Canal Area
Calumet Park	18-IGA-02	Calumet-Sag Channel
Chicago-10th Ward	18-IGA-03	Combined Sewer/Sanitary and Ship Canal Area
Garfield Park	18-IGA-05	Combined Sewer/Sanitary and Ship Canal Area
Palos Heights	18-IGA-14	Calumet-Sag Channel
Posen	18-IGA-15	Little Calumet River
UIC	18-IGA-18	Combined Sewer/Sanitary and Ship Canal Area
Dolton	19-IGA-01	Little Calumet River
Cicero	19-IGA-02	Combined Sewer/Sanitary and Ship Canal Area
CPS-Barbara Vick	19-IGA-03	Combined Sewer/Sanitary and Ship Canal Area
Calumet City	19-IGA-05	Combined Sewer/Sanitary and Ship Canal Area
Evanston/Skokie SD65	19-IGA-07	North Branch of Chicago River
Thornton SD 154	19-IGA-09	Little Calumet River
Oak Park RG	19-IGA-11	Combined Sewer/Sanitary and Ship Canal Area
Ford Heights	19-IGA-12	Little Calumet River
Lansing	19-IGA-13	Little Calumet River
Oak Park GA	19-IGA-14	Combined Sewer/Sanitary and Ship Canal Area
River Grove	19-IGA-16	Lower Des Plaines River
Park Ridge	19-IGA-17	Lower Des Plaines River
Chicago-47th Ward	19-IGA-18	Combined Sewer/Sanitary and Ship Canal Area
Chicago-28th Ward	19-IGA-19	Combined Sewer/Sanitary and Ship Canal Area
Chicago-18th Ward	19-IGA-20	Combined Sewer/Sanitary and Ship Canal Area

**50000 STORMWATER MANAGEMENT FUND**

**OBJECTIVES AND PROGRAM**

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.	\$ 14,777,000	12.7%
2. Planning, design, and construction of stormwater management projects by the District or outside agencies under agreement.	\$ 96,128,700	82.7%
3. Operation and maintenance of natural and manmade drainageways for the purpose of stormwater management.	\$ 5,352,300	4.6%
<b>Totals</b>	<b>\$ 116,258,000</b>	<b>100.0%</b>

MEASURABLE GOALS:	Unit of Measure	2018 Actual	2019 Estimated	2020 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	20	23	29
2. Expenditures for the acquisition of flood-prone properties in the Capital Improvements Bond Fund.	Dollars	\$949,000	\$2,204,400	\$2,102,000
3. Expenditures for intergovernmental cost sharing agreements relating to Green Infrastructure and Stormwater Management Phase II projects in the Stormwater Management and Capital Improvements Bond Funds.	Dollars	\$12,882,146	\$23,884,800	\$56,588,600
4. Remove 28,000 cubic yards of debris from 532 miles of small streams and rivers.	Debris Cubic Yards Removed	29,324	28,000	28,000
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:		2018	Budgeted		Change			
Number	Name	Actual	FTEs	Dollars	Dollars	Percent		
4310	Stormwater Management Planning	\$ 614,583	2020	1	\$ 8,393,000	\$ 3,702,000	78.9	a)
			2019	1	\$ 4,691,000			
4320	Stormwater Management Regulation	\$ 1,102,593	2020	42	\$ 4,340,500	\$ 604,000	16.2	b)
			2019	36	\$ 3,736,500			
4330	Operations and Maintenance	\$ 4,708,246	2020	25	\$ 5,221,100	\$ 176,900	3.5	c)
			2019	25	\$ 5,044,200			
4340	Flood Mitigation Projects	\$ 10,280,327	2020	19	\$ 96,105,900	\$ 20,274,000	26.7	d)
			2019	19	\$ 75,831,900			
4350	Administrative Overhead	\$ 931,557	2020	4	\$ 2,066,300	\$ 86,800	4.4	
			2019	4	\$ 1,979,500			
7604	Social Security and Medicare Contributions	\$ 81,001	2020	—	\$ 131,200	\$ 4,200	3.3	
			2019	—	\$ 127,000			
Totals		\$ 17,718,307	2020	91	\$ 116,258,000	\$ 24,847,900	27.2%	
			2019	85	\$ 91,410,100			

- a) Increase is due to the request for Stormwater Master Planning (\$3,754,900).
- b) Increase is due to the transfer in of four FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$330,400), the addition of one Senior Civil Engineer (\$109,000) and one Assistant Civil Engineer (\$81,600), and the revised estimate for 18-847-5F, Wetland Specialist Services for Watershed Management Permits (\$60,000).
- c) Increase is due to the reallocation of salaries to more accurately reflect current activities (\$119,100), the increased estimate for the paid overtime (\$35,000), and the revised request for 19-646-51, Small Streams Maintenance in Cook County (\$19,500).
- d) The projects proposed for each year are based on detailed watershed plans identifying flooding problems within each of the six major watersheds. 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 and complexity, project schedules, Intergovernmental Agreements lead times, and unforeseen obstacles. The numbers are provided only as a general indicator of performance.

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
4310	Stormwater Management Planning					
4311	Watershed Councils	Cost	\$ 38,189	\$ 39,900	\$ 40,600	
4312	Mapping, Surveys, and Soil Testing	Cost	\$ 264,060	\$ 322,800	\$ 179,400	a)
4313	Watershed Plan Development	Cost	\$ 311,027	\$ 4,282,700	\$ 8,127,100	b)
4314	Publications and Public Information	Cost	\$ 1,307	\$ 22,500	\$ 22,800	
4315	Geographic Information System	Cost	\$ —	\$ 23,100	\$ 23,100	
4320	Stormwater Management Regulation					
4321	Permits	Cost	\$ 801,959	\$ 1,952,500	\$ 2,426,100	c)
4322	Watershed Management Ordinance Development	Cost	\$ 233,190	\$ 104,100	\$ 106,700	
4323	Inspections	Cost	\$ 67,444	\$ 861,900	\$ 949,000	
4324	Watershed Management Ordinance Administration	Cost	\$ —	\$ 662,200	\$ 702,200	
4326	Watershed Management Ordinance Infiltration/Inflow Control Program	Cost	\$ —	\$ 155,800	\$ 156,500	
4330	Operations & Maintenance					
4331	Stormwater Detention Reservoir Activity	Cost	\$ 1,082,399	\$ 1,173,800	\$ 1,273,700	
4332	Small Streams Maintenance	Cost	\$ 2,835,979	\$ 3,109,600	\$ 3,170,800	
		Debris Cubic Yards Removed	29,324	33,000	28,000	
		Cost per Cubic Yard	\$ 96.71	\$ 94.23	\$ 113.24	
4334	Operations & Maintenance Contracted with Other Governments	Cost	\$ 165,694	\$ 165,900	\$ 168,900	
4335	Waterways Debris Removal	Cost	\$ 624,174	\$ 594,900	\$ 607,700	
<p>a) Decrease is due to the planned completion of 16-838-5C, Watershed Specific Release Rate Study, Phase II (\$143,400).</p> <p>b) Increase is due to the request for Stormwater Master Planning (\$3,754,900) and the revised estimate for 18-848-5F, Program Management of Stormwater Master Planning in Separate Sewer Area (\$254,500), offset by the revised estimate for 18-849-5F, Program Management of Stormwater Master Planning in the Combined Sewer Area (\$165,000).</p> <p>c) Increase is due to the transfer in of two FTE positions from the Engineering Corporate Fund to the Stormwater Management Fund (\$196,600), the addition of one Senior Civil Engineer (\$109,000) and one Assistant Civil Engineer (\$81,600), and the revised request for 18-847-5F, Wetland Specialist Services for Watershed Management Permits (\$60,000).</p>						

**50000 STORMWATER MANAGEMENT FUND**

**PERFORMANCE DATA**

Program Number	Measurable Activity		2018 Actual	2019 Budgeted	2020 Estimated	
4340	Flood Mitigation Projects					
4341	Planning/Design	Cost	\$ 1,977,499	\$ 13,701,500	\$ 25,293,600	d)
4342	Contract Administration	Cost	\$ 576,860	\$ 619,700	\$ 621,900	
4343	Construction	Cost	\$ 1,009,923	\$ 24,608,300	\$ 21,030,200	d)
4344	Flood Mitigation Projects Contracted with Other Governments	Cost	\$ 5,689,130	\$ 34,811,800	\$ 42,869,500	d)
4345	Land & Easements	Cost	\$ 1,026,915	\$ 2,090,600	\$ 6,290,700	d)
4350	Administrative Overhead	Cost	\$ 931,557	\$ 1,979,500	\$ 2,066,300	
7604	Social Security and Medicare Contributions	Cost	\$ 81,001	\$ 127,000	\$ 131,200	
		Totals	\$ 17,718,307	\$ 91,410,100	\$ 116,258,000	

d) The projects proposed for each year are based on detailed watershed plans identifying flooding problems within each of the six major watersheds. 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 and complexity, project schedules, Intergovernmental Agreements lead times, and unforeseen obstacles. The numbers are provided only as a general indicator of performance.

501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601010	Salaries of Regular Employees	\$ 5,618,805	\$ 8,626,500	\$ 8,626,500	\$ 5,963,977	\$ 8,442,000	\$ 9,325,700	\$ —
601060	Compensation Plan Adjustments	187,763	293,100	293,100	190,809	225,000	360,100	—
601070	Social Security and Medicare Contributions	81,001	127,000	127,000	89,023	120,800	131,200	—
601080	Salaries of Nonbudgeted Employees	—	20,000	20,000	—	—	20,000	—
601100	Tuition and Training Payments	9,703	11,000	11,000	5,395	10,000	42,600	—
601250	Health and Life Insurance Premiums	517,745	878,900	878,900	503,116	802,000	878,900	—
601270	General Salary Adjustments	—	—	—	—	—	143,300	—
100	TOTAL PERSONAL SERVICES	6,415,018	9,956,500	9,956,500	6,752,321	9,599,800	10,901,800	—
612010	Travel	1,526	2,000	3,800	2,789	3,300	4,400	—
612030	Meals and Lodging	2,606	4,000	11,000	9,759	10,000	11,900	—
612040	Postage, Freight, and Delivery Charges	1,307	2,500	2,500	2,000	1,400	2,500	—
612050	Compensation for Personally-Owned Automobiles	15,846	24,800	24,800	10,518	16,800	24,800	—
612080	Motor Vehicle Operating Services	6	800	800	55	200	3,100	—
612250	Court Reporting Services	12,934	12,000	12,000	12,000	12,000	49,000	—
612330	Rental Charges	2,036	2,500	2,500	2,500	1,500	2,500	—
612400	Intergovernmental Agreements	5,421,625	34,531,600	34,522,800	25,426,047	13,293,700	43,243,900	—
612430	Payments for Professional Services	283,650	775,000	775,000	373,774	278,000	635,000	—
612440	Preliminary Engineering Reports and Studies	1,098,908	7,605,500	7,403,500	3,895,156	2,118,000	14,828,200	—
612450	Professional Engineering Services for Construction Projects	348,581	6,534,400	6,534,400	3,989,354	2,071,000	14,209,600	—
612490	Contractual Services, N.O.C.	533,470	205,000	407,000	403,079	318,000	531,000	—
612520	Waste Material Disposal Charges	29,172	60,000	60,000	60,000	28,000	60,000	—
612620	Repairs to Waterway Facilities	2,382,830	2,500,000	2,500,000	2,500,000	2,250,000	2,519,500	—
612820	Computer Software Maintenance	145,000	145,000	145,000	140,000	140,000	—	—
612860	Repairs to Vehicle Equipment	—	—	—	—	—	2,000	—
612990	Repairs, N.O.C.	992	2,000	2,000	1,000	900	2,000	—
200	TOTAL CONTRACTUAL SERVICES	10,280,489	52,407,100	52,407,100	36,828,032	20,542,800	76,129,400	—
623130	Buildings, Grounds, Paving Materials, and Supplies	4,964	5,000	5,000	5,000	4,900	5,000	—
623520	Office, Printing, and Photo Supplies, Equipment, and Furniture	7,900	11,500	11,500	8,827	11,300	11,500	—

501 50000	Fund: Stormwater Management	LINE ITEM ANALYSIS						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
623560	Processing Chemicals	—	5,000	5,000	5,000	4,900	5,000	—
623680	Tools and Supplies	5,118	11,000	11,000	8,301	7,800	11,500	—
623700	Wearing Apparel	1,803	8,500	8,500	8,230	7,800	8,500	—
623990	Materials and Supplies, N.O.C.	9,475	90,400	90,400	89,514	14,000	60,400	—
634860	Vehicle Equipment	—	—	—	—	—	95,000	—
634990	Machinery and Equipment, N.O.C.	—	—	30,000	—	—	30,000	—
300	TOTAL MATERIALS AND SUPPLIES	29,259	131,400	161,400	124,872	50,700	226,900	—
645620	Waterway Facilities Structures	305,408	22,725,400	16,954,600	11,318,422	4,500,000	17,056,900	—
645630	Army Corps of Engineers Services	—	2,145,500	2,145,500	1,609,773	1,800,000	—	—
645690	Capital Projects, N.O.C.	—	400,000	400,000	—	100,000	100,000	—
645720	Preservation of Waterway Facility Structures	—	2,244,200	2,244,200	1,503,300	1,383,000	6,043,000	—
500	TOTAL CAPITAL PROJECTS	305,408	27,515,100	21,744,300	14,431,495	7,783,000	23,199,900	—
656010	Land	342,433	1,000,000	4,831,600	591,902	3,800,000	2,650,000	—
600	TOTAL LAND	342,433	1,000,000	4,831,600	591,902	3,800,000	2,650,000	—
667340	Payments for Easements	345,700	400,000	2,309,200	34,033	1,400,000	3,150,000	—
700	TOTAL FIXED AND OTHER CHARGES	345,700	400,000	2,309,200	34,033	1,400,000	3,150,000	—
TOTAL STORMWATER MANAGEMENT FUND		\$ 17,718,307	\$ 91,410,100	\$ 91,410,100	\$ 58,762,655	\$ 43,176,300	\$116,258,000	\$ —

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 either exceed Adjusted Appropriation when transfers of funds are anticipated or be less than Expenditure (Committed Budget plus Disbursement) when not all commitments are anticipated to be completed by year-end.



Fund: Stormwater Management		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					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	2		2	
HP17	Senior Civil Engineer	2	8		9	
HP15	Associate Civil Engineer	3	8		9	
HP14	Assistant Civil Engineer	2	6		8	
HP14	Engineering Technician V	—	3		3	
HP12	Engineering Technician IV	1	4		6	
HP12	Engineering Technician IV #4	—	1		1	
HP11	Administrative Specialist	—	1		1	
HP11	Engineering Technician III	—	1		1	
HP09	Administrative Clerk	—	2		2	
TOTAL 516	Local Sewer Systems Section	9	36	3,626,755	42	4,193,484
<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		1	
HP11	Administrative Specialist	1	1		1	
TOTAL 522	Stormwater Management Section	21	22	2,570,652	22	2,580,837
TOTAL	Engineering Department	30	58	6,197,407	64	6,774,321
<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		1	
HP15	Associate Civil Engineer	1	1		1	
TOTAL 634	Channel Maintenance Unit	2	2	236,240	2	268,250

Fund: Stormwater Management		POSITION ANALYSIS				
		2018	2019		2020	
Pay Plan & Grade	Class Title	Actual FTEs	Budgeted FTEs	Appropriation in Dollars	Proposed by the Executive Director	
					Budgeted FTEs	Appropriation in Dollars
<b>636</b>	<b>Boat Operations Unit</b>					
HP14	Engineering Technician V	1	2		2	
HP14	Engineering Technician V #4	1	—		—	
HP12	Engineering Technician IV	1	2		2	
HP12	Engineering Technician IV #4	1	—		—	
NR8650	Maintenance Laborer Class A Shift	2	2		2	
TOTAL 636	Boat Operations Unit	6	6	529,852	6	542,609
<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 639	Channel Maintenance Unit	4	4	394,930	4	398,715
<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 679	Collection System Unit	6	6	506,750	6	516,339
TOTAL 630	General Division	18	18	1,667,772	18	1,725,913
<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 924	Stickney Maintenance Unit	1	1	100,880	1	103,168
<b>934</b>	<b>Stickney Mechanical Operations Unit</b>					
NR8650	Maintenance Laborer Class A Shift	4	4		4	

Fund: Stormwater Management		POSITION ANALYSIS				
		2018		2019		2020
						Proposed by the Executive Director
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 934	Stickney Mechanical Operations Unit	8	8	751,712	8	768,602
TOTAL 940	Stickney Service Area General Plant Services Section	9	9	852,592	9	871,770
TOTAL	Maintenance & Operations Department	27	27	2,520,364	27	2,597,682
TOTAL	Stormwater Management	57	85	8,717,771	91	9,372,003

Note: The positions budgeted are funded by the Stormwater Management Fund while the operations remain in the Engineering and Maintenance & Operations Departments.

NOTE: Departmental appropriation totals for salaries in the Position Analysis differ from those contained in the Line Item Analysis by a factor identified to adjust for vacancies. Salary ranges corresponding to the pay plan and grade for each class title can be found in the table of Salary Schedules in the Appendix. Dollar amounts may not add up due to rounding.

**NOTE PAGE**

## SECTION VII OTHER FUNDS

Other funds included in the annual District Budget are: the Reserve Claim Fund, Bond Redemption & Interest Fund, Retirement Fund, Corporate Working Cash Fund, Construction Working Cash Fund, and Stormwater Working Cash Fund.

The Reserve Claim Fund is used to accumulate resources for the payment of claims and judgments against the District, as well as for emergency repair or replacement of District facilities. A narrative description of the purpose and operation of this fund is contained in this section along with an appropriation schedule. A tax levy ordinance for this fund is presented in Section VIII of this Budget.

The Bond Redemption & Interest Fund is used to accumulate the proceeds from property taxes and investment income, which are set aside to pay the principal and interest on the outstanding bond issues of the District. These funds are segregated and accounted for by each bond issue. A narrative description of this fund and an appropriation schedule, detailing payment of principal and interest during 2020, are included in this section. A tax levy ordinance for the principal and interest due in 2020 and 2021 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 52.

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 2020.

### Reserve Claim Fund:

<a href="#">Description of Fund, Purpose, and Operation</a> .....	<a href="#">521</a>
<a href="#">Line Item Analysis</a> .....	<a href="#">523</a>

### Bond Redemption & Interest Fund:

<a href="#">Description of Fund, Purpose, and Operation</a> .....	<a href="#">524</a>
<a href="#">Appropriation for Payment of Outstanding Bonds, 2020</a> .....	<a href="#">527</a>

### Retirement Fund:

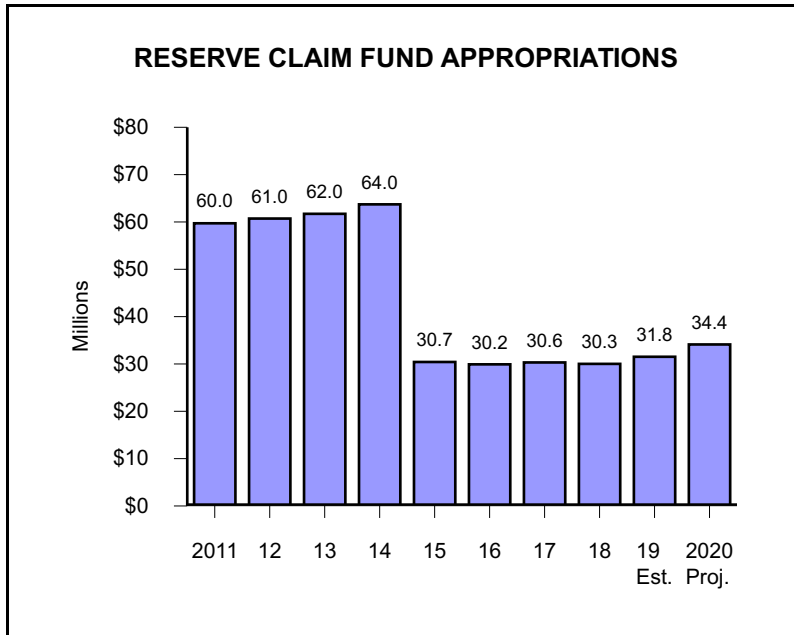
<a href="#">Description of Fund, Purpose, and Operation</a> .....	<a href="#">529</a>
<a href="#">Appropriation Ordinance</a> .....	<a href="#">532</a>

# RESERVE CLAIM FUND

## Description of Fund, Purpose, and Operation

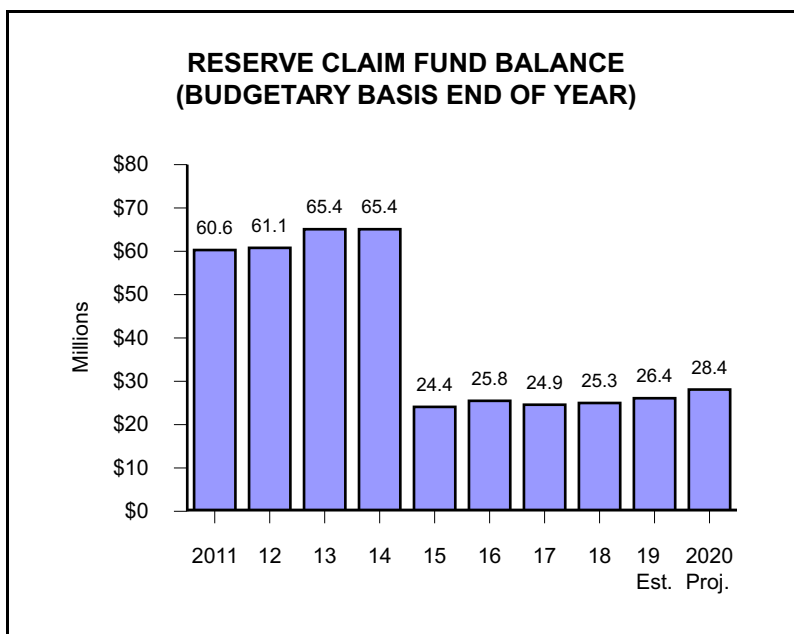
The Reserve Claim Fund is the District’s self-insurance fund. It is maintained at an appropriation level adequate to meet potential liabilities. The fund is capable of providing coverage for those risks that can be expected to be encountered and is able to pay such claims without exposing the agency 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 \$77.9 million. Resources are accumulated in this fund to the extent that revenue from the annual tax levy, personal property replacement tax, and investment income on the fund balance is reduced by the payment of claims.



*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 2019 year-end fund balance is \$26.4 million and the projection for 2020 is \$28.4 million.

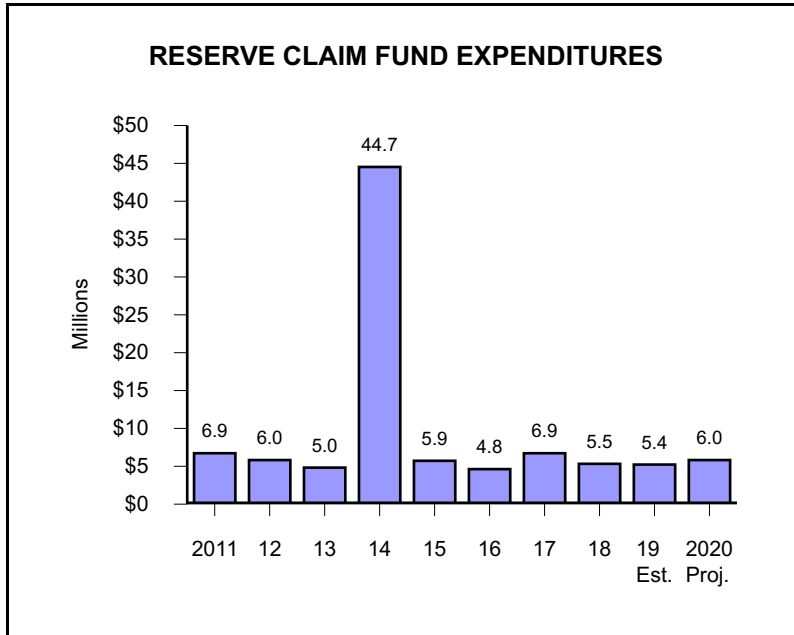


*The Statutory Limit for Budget Year 2020 Proj. is \$77.9 million.*

*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 2020, accounts payable and other liabilities are estimated at \$0.3 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						
		2018	2019			2020		
Account Number	Account Name	Expenditure	Original Appropriation	Adjusted Appropriation 09/30/19	Expenditure (Committed Budget plus Disbursement) 09/30/19	Estimated Expenditure 12/31/19	Proposed by Executive Director	Recommended by Committee on Budget and Employment
601090	Employee Claims	\$ 4,213,964	\$ 10,000,000	\$ 10,000,000	\$ 2,643,795	\$ 4,400,000	\$ 10,000,000	\$ —
100	TOTAL PERSONAL SERVICES	4,213,964	10,000,000	10,000,000	2,643,795	4,400,000	10,000,000	—
667220	General Claims and Emergency Repair and Replacement Costs	1,283,102	21,767,800	21,767,800	1,455,885	1,000,000	24,395,000	—
700	TOTAL FIXED AND OTHER CHARGES	1,283,102	21,767,800	21,767,800	1,455,885	1,000,000	24,395,000	—
TOTAL RESERVE CLAIM FUND		\$ 5,497,066	\$ 31,767,800	\$ 31,767,800	\$ 4,099,680	\$ 5,400,000	\$ 34,395,000	\$ —
NOTE: Amounts may not add up due to rounding.								



# BOND REDEMPTION & INTEREST FUND

## Description of Fund, Purpose, and Operation

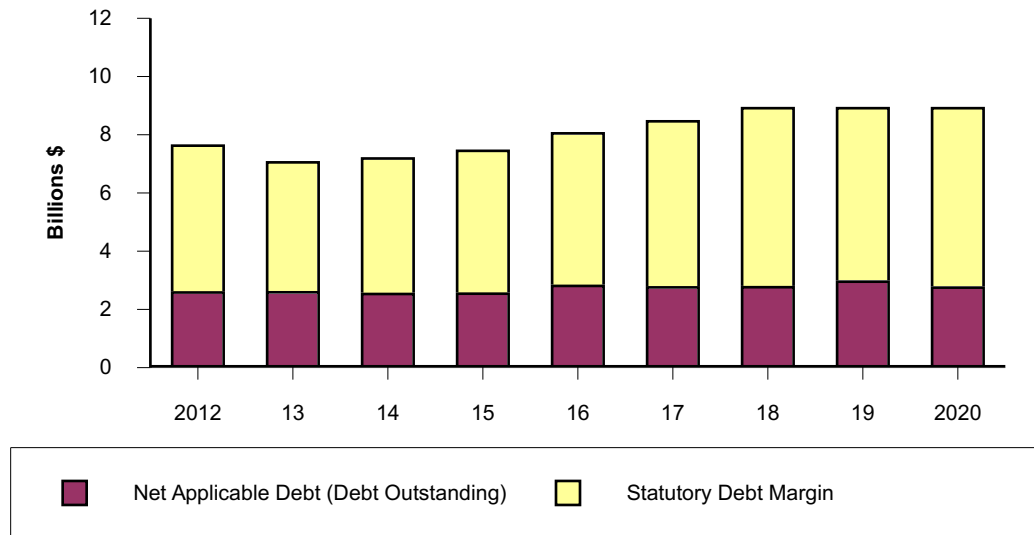
The District's Bond Redemption & Interest Fund is a debt service fund established to account for annual property tax levies and certain other revenues, principally interest on investments, which are used for the payment of interest and redemption of general obligation bond issues. Sub-funds are established for each debt issue.

### Debt Limits, Margins, and Borrowing Authority

Applicable Illinois State Statutes establish the following limitations relative to the District:

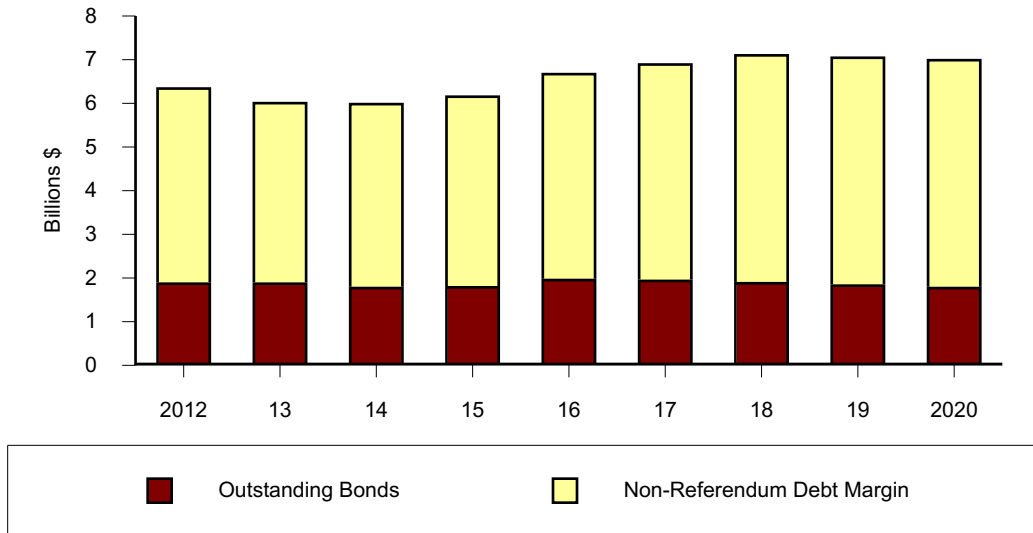
- General Obligation Notes may be issued at an amount not to exceed 85 percent of the current General Corporate Fund tax levy.
- The District may fund up to 100 percent of the aggregate total of the estimated amount of taxes levied or to be levied for corporate purposes plus the General Corporate Fund 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 (\$155.8 billion for 2018) within the District boundary. On December 31, 2019, the District's statutory debt limit is estimated at \$9.0 billion, with a net applicable debt of \$2.8 billion and an estimated statutory debt margin of \$6.2 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, 2019, it is estimated that the District's outstanding capital improvement and refunding bonds will total \$1.8 billion with a non-referendum statutory debt limit of \$5.2 billion and a non-referendum bonded debt margin of \$3.4 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 2034, as extended, effective January 1, 2020. 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. The debt service extension limitation for the District, related to the 2019 tax year, is \$169.2 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 (\$155.8 billion for 2018) 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

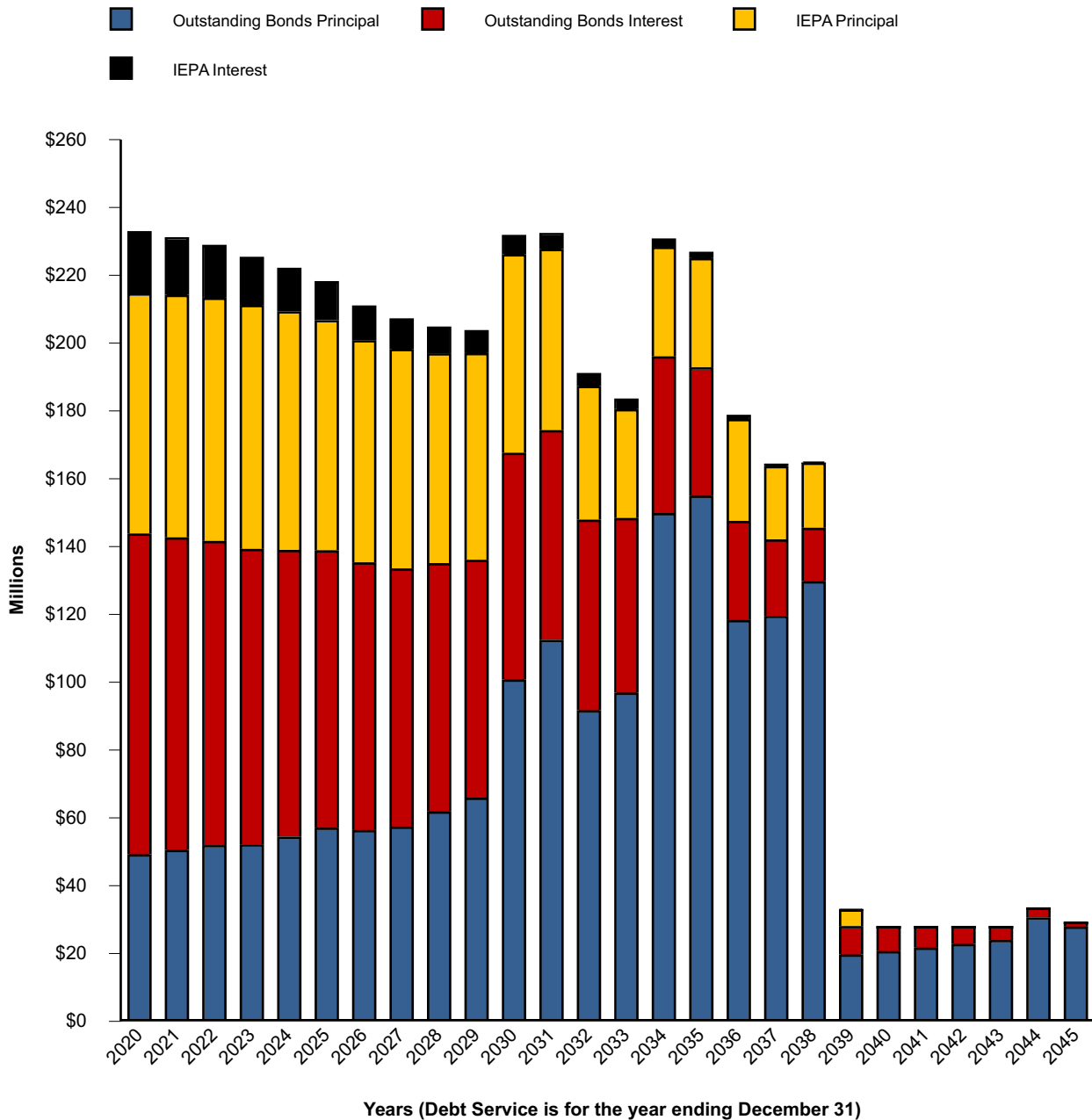
## Description of Fund, Purpose, and Operation (continued)

### 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 2020**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2020		JULY 1, 2020		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	5,476,172 (1)	—	5,476,172 (2)	7,335,000 (2)	18,287,344
2011 Unlimited Tax Series C	3.0 to 5.0	1,038,966 (1)	—	1,038,966 (2)	350,000 (2)	2,427,932
2014 Limited Tax Series C	2.0 to 5.0	1,478,375 (1)	—	1,478,375 (2)	5,040,000 (2)	7,996,750
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	1,128,675 (1)	—	1,128,675 (2)	1,015,000 (2)	3,272,350
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	2.221	\$ 12,238	\$ 32,174	\$ 11,956	\$ 32,456	\$ 88,824
14N SRF L175371	1.995	11,656	30,644	11,388	30,912	84,600
14O SRF L175305	1.750	26,668	67,956	26,074	68,550	189,248
16A SRF L174555	1.750	1,086,728	2,769,194	1,062,497	2,793,424	7,711,843
14P SRF L175369	1.560	26,422	76,926	25,821	77,527	206,696
16C SRF L175367	1.760	51,216	122,023	50,142	123,097	346,478
14B SRF L175171	2.210	26,941	61,630	26,259	62,311	177,141
14C SRF L174559	2.295	205,642	449,782	200,480	454,943	1,310,847
14D SRF L175263	1.860	105,211	257,568	102,816	259,963	725,558
14E SRF L173062	1.860	390,556	926,417	381,941	935,033	2,633,947
14F SRF L175342	1.750	697,709	1,673,529	683,066	1,688,172	4,742,476
14G SRF L175152	1.860	176,759	419,279	172,859	423,179	1,192,076
14H SRF L175355	1.860	10,307	27,862	10,047	28,122	76,338
14K SRF L175366	1.860	46,483	113,796	45,425	114,854	320,558
14L SRF L175368	1.750	45,773	120,338	44,718	121,392	332,221
09D SRF L174558	2.295	313,331	998,931	301,868	1,010,394	2,624,524
12A SRF L174710	2.295	67,370	171,778	65,399	173,749	478,296
12B SRF L174712	2.295	57,698	147,114	56,009	148,803	409,624
12C SRF L174621	1.995	121,768	314,193	118,633	317,327	871,921
12D SRF L174988	1.930	215,207	819,646	207,297	827,556	2,069,706
12E SRF L174709	1.930	45,330	130,717	44,069	131,979	352,095
12F SRF L174989	1.930	435,074	1,533,912	420,271	1,548,714	3,937,971
12G SRF L174923	1.930	313,681	735,195	306,586	742,289	2,097,751
12H SRF L174924	1.930	194,502	724,556	187,509	731,548	1,838,115
12L SRF L175161	2.210	326,266	720,213	318,308	728,171	2,092,958
12J SRF L175172	1.995	22,236	61,718	21,620	62,333	167,907
12K SRF L174925	1.995	115,093	307,857	112,022	310,927	845,899
09A SRF L173074	1.250	191,845	1,147,609	184,671	1,154,783	2,678,908
09B SRF L173064	—	—	191,445	—	191,445	382,890
09C SRF L173063	—	—	55,979	—	55,979	111,958

(1) Interest Payable June 1, 2020 (2) Interest and Principal Payable December 1, 2020

**BOND REDEMPTION & INTEREST FUND****Appropriation for Payment of Outstanding Bonds During the Year 2020**

BOND ISSUE	RATES OF INTEREST	JANUARY 1, 2020		JULY 1, 2020		TOTAL PAYABLE
		INTEREST PAYABLE	PRINCIPAL PAYABLE	INTEREST PAYABLE	PRINCIPAL PAYABLE	
<b>State Revolving Fund Bonds - Series (continued):</b>						
09I SRF L174675	1.250	\$ 42,133	\$ 273,449	\$ 40,424	\$ 275,157	\$ 631,163
07A SRF L172625	2.500	318,078	1,067,151	304,739	1,080,490	2,770,458
07B SRF L172850	2.500	221,230	703,907	212,431	712,706	1,850,274
07C SRF L172770	—	—	1,666,667	—	1,666,667	3,333,334
09G SRF L173075	1.250	122,385	738,148	117,770	742,762	1,721,065
09H SRF L173800	—	—	18,397	—	18,396	36,793
09E SRF L173005	1.250	157,750	981,748	151,614	987,884	2,278,996
07D SRF L172763	2.500	72,551	243,405	69,507	246,449	631,912
09F SRF L174557	1.250	261,042	1,561,103	251,285	1,570,860	3,644,290
04G SRF L172611	2.500	22,863	111,622	21,469	113,016	268,970
04H SRF L172849	2.500	371,858	1,396,863	354,398	1,414,324	3,537,443
01A SRF L172126	2.570	206,077	1,692,259	184,331	1,714,005	3,796,672
97DD SRF L171152	2.905	56,607	462,918	49,883	469,641	1,039,049
01B SRF L172127	2.500	246,195	1,681,380	225,178	1,702,397	3,855,150
01C SRF L172128	2.500	253,091	1,444,054	235,040	1,462,104	3,394,289
04A SRF L172485	2.500	142,302	647,152	134,213	655,241	1,578,908
04B SRF L172488	2.500	166,236	756,000	156,787	765,449	1,844,472
04C SRF L172493	2.500	14,676	71,649	13,780	72,545	172,650
04D SRF L172494	2.500	14,074	68,710	13,215	69,569	165,568
04E SRF L172495	2.500	49,239	209,402	46,621	212,020	517,282
04F SRF L172496	—	—	99,368	—	99,367	198,735
12O SRF L175166	1.995	39,799	106,454	38,736	107,516	292,505
12I SRF L175222	2.210	48,968	108,093	47,773	109,288	314,122
12M SRF L175168	2.210	123,940	255,387	121,118	258,209	758,654
12N SRF L175164	1.995	24,761	63,890	24,124	64,527	177,302
14I SRF L175223	1.860	66,866	158,608	65,390	160,083	450,947
14J SRF L175219	2.210	38,642	88,399	37,665	89,375	254,081
97BB SRF L171151	2.535	8,150	319,460	4,101	323,509	655,220
14A SRF L173076	2.210	787,906	1,739,256	768,687	1,758,474	5,054,323
97CC SRF L172031	2.535	72,683	1,118,167	58,511	1,132,339	2,381,700
16D SRF L175460	1.750	64,792	170,347	63,302	171,836	470,277
<b>Refunding Bonds - Series:</b>						
2014 Limited Tax Series D	2.0 to 5.0	\$ 1,029,500 (1)	\$ —	\$ 1,029,500 (2)	\$ 13,280,000 (2)	\$ 15,339,000
2007 Unlimited Tax Series A	4.0 to 5.0	1,755,000 (1)	—	1,755,000 (2)	22,250,000 (2)	25,760,000
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>\$ 56,642,549</b>	<b>\$ 35,233,394</b>	<b>\$ 56,299,787</b>	<b>\$ 84,846,137</b>	<b>\$ 233,021,867</b>

(1) Interest Payable June 1, 2020 (2) Interest and Principal Payable December 1, 2020

# 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, survivor, and disability benefits to the employees of the Metropolitan Water Reclamation District of Greater Chicago in accordance with Chapter 40, Act 5, Articles 1, 13, and 20 of the Illinois Compiled Statutes (Statute). The primary goal of the Fund is to provide required benefits to the members while preserving the fiscal integrity and financial stability of the Fund.

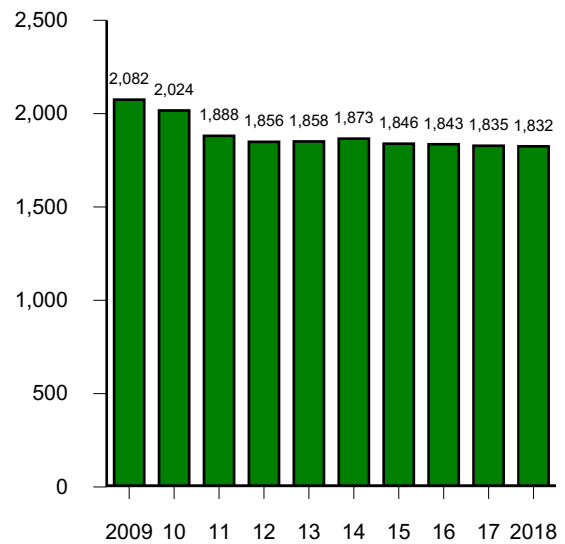
On August 3, 2012, the Governor signed Public Act 97-0894, which increased the nine percent required employee contributions one percent per year for three years beginning in 2013 to the current contribution of 12 percent for employees who first became a member of the Fund or certain reciprocal systems before January 1, 2011 (Tier I). In 2014, the District's Board of Commissioners adopted a Funding Policy that incorporated a funding goal that will achieve a 100 percent funding ratio by the year 2050. Currently, the required employer contribution is based on the actuarially determined contribution required to achieve the District's funding goal but not to exceed an amount equal to employee contributions two years prior multiplied by 4.19.

As of December 31, 2018, the Fund had 1,832 active (contributing) participants, 1,848 employee annuitants, 571 spouse annuitants, and 24 child annuitants. In addition, the Fund had 32 District employees receiving disability benefits at the end of the year.

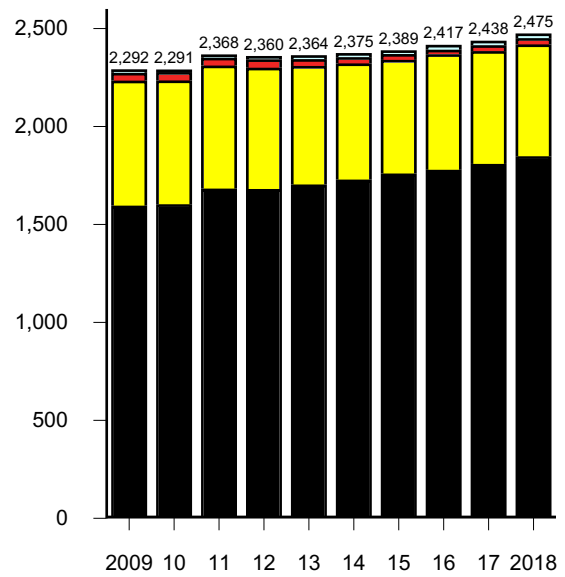
Additions to the Fund are from the following sources:

- Employee contributions - beginning in 2015, (Tier I) employees contribute 12 percent of salary to the Fund. Employees hired on or after January 1, 2011 (Tier II) contribute nine percent of salary.
- Employer contributions - include real estate property tax levies and the Personal Property Replacement Tax. In 2020, the District will levy a tax which will produce a sum that will be sufficient to meet the funding goals of the District's Funding Policy.
- Net investment income - includes dividends and interest, as well as realized and unrealized appreciation (depreciation) in the fair value of the investments, less investment expense.

**Active Participants**



**Beneficiaries**



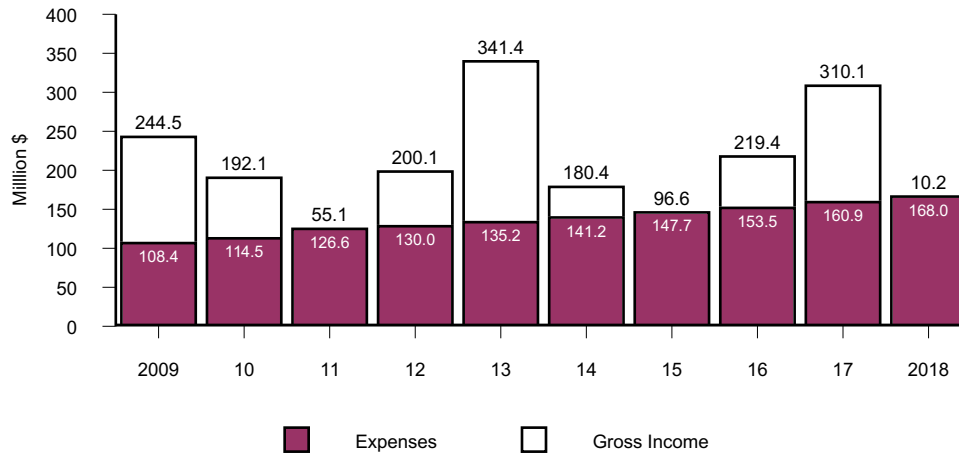
- Employee Annuitants
- Spouse Annuitants
- Disabilities
- Children's Annuitants

# RETIREMENT FUND

## Description of Fund, Purpose, and Operation (continued)

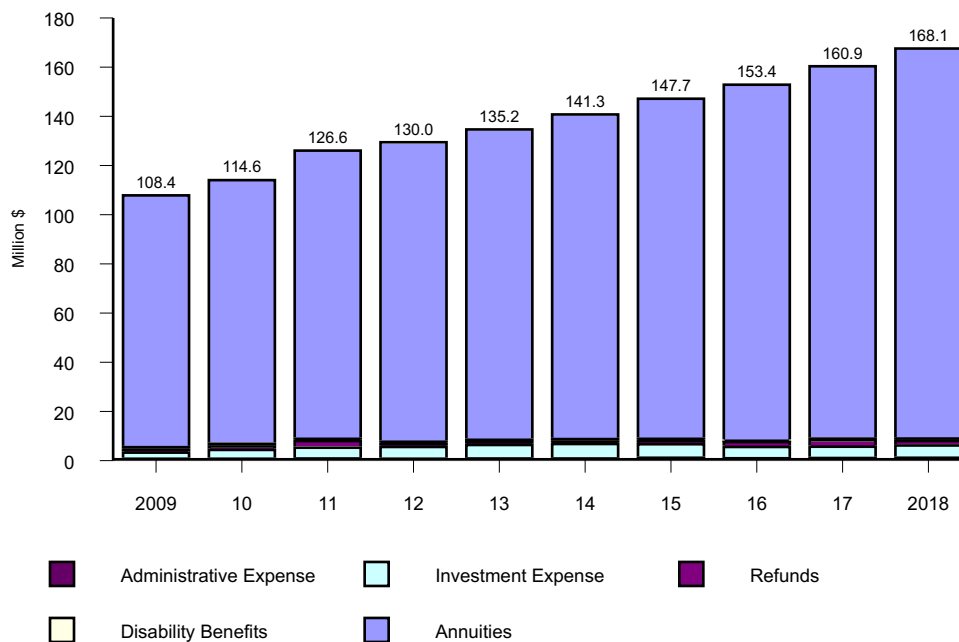
Gross income for 2018 was \$10.2 million, which is a combination of employee and employer contributions of \$108.2 million, investment income of \$(98.3) million, securities lending income of \$307,100, and other income of \$15,400; reflecting an income of \$299.9 million less than in 2017. Total investment income in 2018 was lower 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**



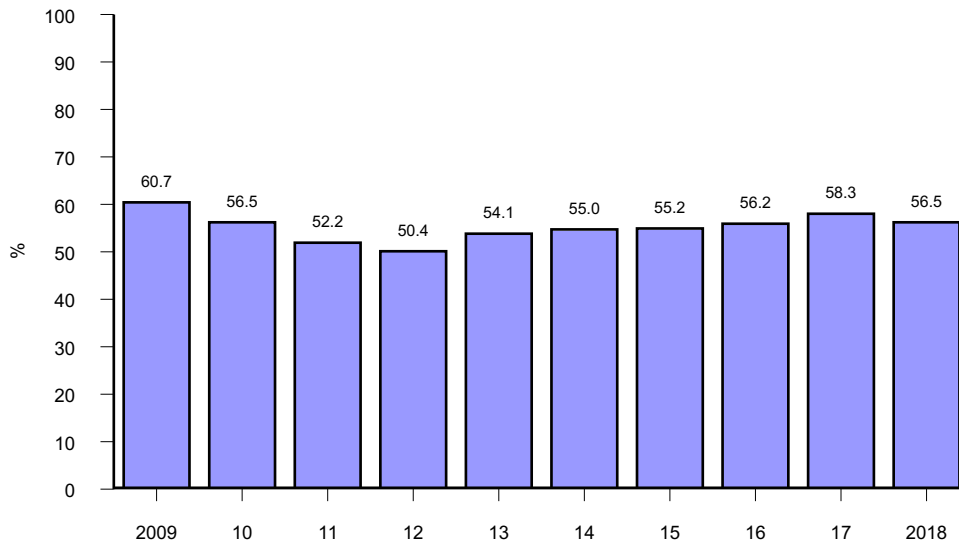
Expenses for 2018 include annuity and disability benefit payments of \$159.5 million investment management expenses of \$5.0 million, administrative expenses of \$1.7 million, and refunds of \$1.8 million for a total of \$168.0 million.

**Expenses**

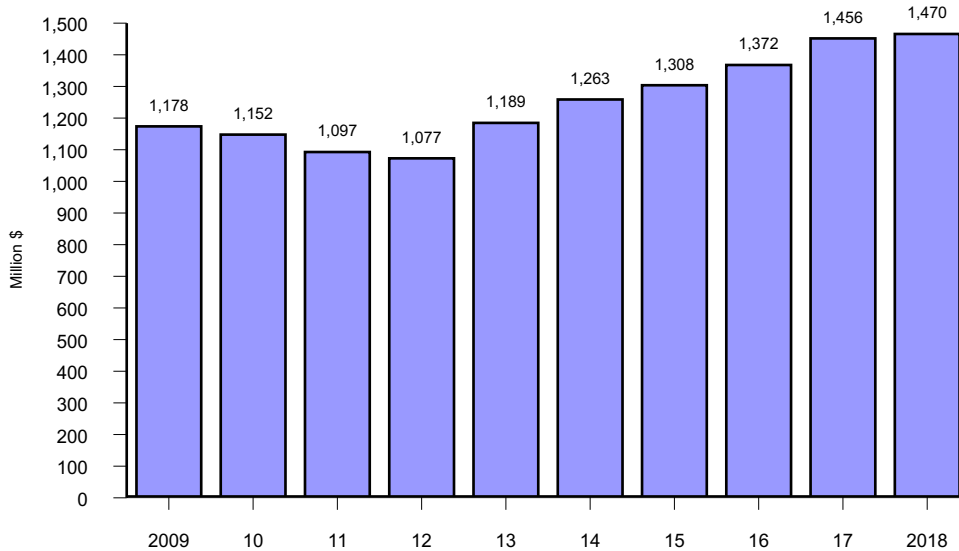


As of December 31, 2018, the funded ratio of the Fund was 56.5 percent utilizing the Actuarial Asset Value required by the Governmental Accounting Standards Board. The funded ratio has been in the range of 50.4 percent to 60.7 percent over the last ten years.

**Funded Ratio at Actuarial Value**



**Assets at Actuarial Value**



For the 2020 Budget, the gross property tax levy totals \$72.2 million, an increase of \$0.66 million, or 0.93 percent, above the 2019 adjusted levy. The 2020 Personal Property Replacement Tax allocation to the Retirement Fund is \$18.4 million. The 2020 appropriation is \$87.3 million, an increase of \$0.04 million, or 0.04 percent, above the 2019 Adjusted Budget.



**APPROPRIATION ORDINANCE NUMBER O19-008**  
**(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 \$87,319,000.

*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, 2020.

Approved as to Form and Legality:

*Deputy General Counsel*

*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 2020 levies.

This section includes 2020 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 2020 Tax Levy for Payment of Outstanding Bonds, can also be found in this section.

<a href="#">Retirement Fund and Corporate Fund</a> .....	<a href="#">533</a>
<a href="#">Construction Fund</a> .....	<a href="#">534</a>
Bond Redemption & Interest Fund:	
<a href="#">Tax Levy Ordinance for Outstanding Bonds</a> .....	<a href="#">535</a>
<a href="#">Tax Levy for Payment of Outstanding Bonds, 2020</a> .....	<a href="#">538</a>
<a href="#">Reserve Claim Fund</a> .....	<a href="#">540</a>
<a href="#">Stormwater Management Fund</a> .....	<a href="#">541</a>

**ORDINANCE NUMBER O19-009**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR  
 BEGINNING JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
 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, 2020  
 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, 2020, for the fiscal year ending December 31, 2020, 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 \$72,227,600 which includes the sum of \$2,527,966 as a reserve for loss in collection of taxes, distributed as

Contributions for Service Retirement Allowances and Spouses’ Allowances .....	\$ 13,507,668
Contributions for Ordinary Disability Benefits .....	954,899
Contributions for Duty Disability Benefits .....	217,108
Contributions for Expense of Administration.....	1,522,954
Contributions for Children’s Annuities .....	117,201
Contributions for Current and Past Service Requirements.....	55,907,770
	<u>\$ 72,227,600</u>

For Corporate Purposes of the said Metropolitan Water Reclamation District of Greater Chicago, “the sum of \$266,455,300 which includes the sum of \$9,325,936 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 2020 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, 2020, 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, 2020.

Approved as to Form and Legality:

Approved:

*Deputy General Counsel*

*President,  
 Board of Commissioners of the  
 Metropolitan Water Reclamation District  
 of Greater Chicago*

*General Counsel*

**ORDINANCE NUMBER O19-010**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
 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, 2020  
 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, 2020 for the fiscal year ending December 31, 2020, 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, administrative buildings, flood control facilities, or water quality improvement projects, 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 \$7,000,000 which includes the sum of \$245,000 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

2020 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, 2020, 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 2020 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 2020 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, 2020.

Approved as to Form and Legality:

Approved:

*Deputy General Counsel*

*President,  
 Board of Commissioners of the  
 Metropolitan Water Reclamation District  
 of Greater Chicago*

*General Counsel*

**ORDINANCE NUMBER O19-011**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
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, 2020, and all taxable property in townships or parts of townships disconnected from the Metropolitan Water Reclamation District of Greater Chicago prior to January 1, 2020, 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:

2016 Qualified Energy Conservation Limited Tax Series F	07/07/16	\$ 165,804
2009 Limited Tax Series	08/26/09	35,564,767
2011 Limited Tax Series B	07/27/11	20,865,901
2011 Unlimited Tax Series C	07/27/11	2,142,417
2014 Limited Tax Series C	01/06/15	7,434,975
2014 Unlimited Tax Series A	01/06/15	5,181,348
2014 Alternate Revenue Unlimited Tax Series B	01/06/15	3,390,570
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

State Revolving Funds Bonds - Series:

09D SRF L174558	\$ 2,719,713
12A SRF L174710	495,644
12B SRF L174712	424,480
12C SRF L174621	913,248
12D SRF L174988	2,144,773
12E SRF L174709	364,865
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	889,061
12L SRF L175161	2,557,534
12M SRF L175168	873,990
12N SRF L175164	186,528
12O SRF L175166	303,113
14A SRF L173076	5,237,640
14B SRF L175171	183,566
14C SRF L174559	1,358,390
14D SRF L175263	828,388
14E SRF L173062	2,914,926
14F SRF L175342	4,930,622
14G SRF L175152	1,364,037

**ORDINANCE NUMBER O19-011**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
 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 .....		256,092
14Q SRF L175539 .....		302,290
14R SRF L175517 .....		1,936,468
16A SRF L174555 .....		8,497,409
16B SRF L172129 .....		273,531
16C SRF L175367 .....		2,134,539
16D SRF L175460 .....		503,633
16G SRF L174708 .....		558,617
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
97CC SRF L172031 .....		2,468,083

**ORDINANCE NUMBER O19-011**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
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 .....	\$ 26,727,980
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 .....	13,989,638
2016 Unlimited Tax Series A .....	07/07/16 .....	14,555,959
2016 Limited Tax Series B .....	07/07/16 .....	2,141,451
		\$ 246,537,587

*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 2020 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, 2020, 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, 2020 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, 2020.

Approved as to Form and Legality:

Approved:

*Deputy General Counsel*

*President, Board of Commissioners of the  
Metropolitan Water Reclamation District  
of Greater Chicago*

*General Counsel*

## BOND REDEMPTION AND INTEREST FUND

### 2020 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>						
2016 Qualified Energy Conservation Limited Tax Series F	07/07/16	6/1/20 - 12/1/20	\$ 160,000	\$ —	\$ 5,804	\$ 165,804
2009 Limited Tax Series	08/26/09	6/1/20 - 12/1/20	34,320,000	—	1,244,767	35,564,767
2011 Limited Tax Series B	07/27/11	6/1/20 - 12/1/20	10,585,594	9,550,000	730,307	20,865,901
2011 Unlimited Tax Series C	07/27/11	6/1/20 - 12/1/20	2,067,432	—	74,985	2,142,417
2014 Limited Tax Series C	01/06/15	6/1/20 - 12/1/20	2,704,751	4,470,000	260,224	7,434,975
2014 Unlimited Tax Series A	01/06/15	6/1/20 - 12/1/20	5,000,001	—	181,347	5,181,348
2014 Alternate Revenue Unlimited Tax Series B	01/06/15	6/1/20 - 12/1/20	2,226,900	1,045,000	118,670	3,390,570
2016 Alternate Revenue Unlimited Tax Series E	07/07/16	6/1/20 - 12/1/20	2,500,000	—	90,674	2,590,674
2016 Unlimited Tax Series C	07/07/16	6/1/20 - 12/1/20	1,500,001	—	54,404	1,554,405
2016 Limited Tax Series D	07/07/16	6/1/20 - 12/1/20	1,000,001	—	36,269	1,036,270
<b>State Revolving Funds Bonds - Series:</b>						
09D SRF L174558	07/01/13	7/1/20 - 1/1/21	\$ 545,231	\$ 2,079,292	\$ 95,190	\$ 2,719,713
12A SRF L174710	07/01/14	7/1/20 - 1/1/21	120,737	357,559	17,348	495,644
12B SRF L174712	07/01/14	7/1/20 - 1/1/21	103,402	306,221	14,857	424,480
12C SRF L174621	07/01/16	7/1/20 - 1/1/21	223,690	657,594	31,964	913,248
12D SRF L174988	07/01/15	7/1/20 - 1/1/21	374,356	1,695,350	75,067	2,144,773
12E SRF L174709	07/01/15	7/1/20 - 1/1/21	81,720	270,375	12,770	364,865
12F SRF L174989	07/01/15	7/1/20 - 1/1/21	725,542	3,310,140	146,372	4,182,054
12G SRF L174923	07/01/18	7/1/20 - 1/1/21	608,986	1,550,362	78,318	2,237,666
12H SRF L174924	07/01/15	7/1/20 - 1/1/21	339,448	1,498,666	66,667	1,904,781
12I SRF L175222	07/01/16	7/1/20 - 1/1/21	92,466	232,228	11,776	336,470
12J SRF L175172	07/01/15	7/1/20 - 1/1/21	40,106	127,800	6,090	173,996
12K SRF L174925	07/01/15	7/1/20 - 1/1/21	211,380	646,564	31,117	889,061
12L SRF L175161	07/01/16	7/1/20 - 1/1/21	702,836	1,765,184	89,514	2,557,534
12M SRF L175168	07/01/18	7/1/20 - 1/1/21	253,294	590,106	30,590	873,990
12N SRF L175164	07/01/16	7/1/20 - 1/1/21	45,688	134,312	6,528	186,528
12O SRF L175166	07/01/15	7/1/20 - 1/1/21	72,067	220,437	10,609	303,113
14A SRF L173076	07/01/16	7/1/20 - 1/1/21	1,439,357	3,614,966	183,317	5,237,640
14B SRF L175171	07/01/16	7/1/20 - 1/1/21	49,046	128,095	6,425	183,566
14C SRF L174559	07/01/16	7/1/20 - 1/1/21	374,617	936,229	47,544	1,358,390
14D SRF L175263	07/01/18	7/1/20 - 1/1/21	218,541	580,853	28,994	828,388
14E SRF L173062	07/01/18	7/1/20 - 1/1/21	769,002	2,043,902	102,022	2,914,926
14F SRF L175342	07/01/19	7/1/20 - 1/1/21	1,295,999	3,462,051	172,572	4,930,622
14G SRF L175152	07/01/18	7/1/20 - 1/1/21	359,854	956,442	47,741	1,364,037
14H SRF L175355	07/01/17	7/1/20 - 1/1/21	18,828	57,718	2,776	79,322
14I SRF L175223	07/01/18	7/1/20 - 1/1/21	213,612	567,752	28,340	809,704
14J SRF L175219	07/01/16	7/1/20 - 1/1/21	84,295	220,157	11,042	315,494
14K SRF L175366	07/01/18	7/1/20 - 1/1/21	92,018	244,570	12,208	348,796
14L SRF L175368	07/01/18	7/1/20 - 1/1/21	86,460	246,604	12,080	345,144
14M SRF L175372	07/01/18	7/1/20 - 1/1/21	23,159	66,055	3,236	92,450
14N SRF L175371	07/01/18	7/1/20 - 1/1/21	24,703	70,459	3,451	98,613
14O SRF L175305	07/01/18	7/1/20 - 1/1/21	50,950	145,320	7,119	203,389
14P SRF L175369	07/01/18	7/1/20 - 1/1/21	60,979	186,150	8,963	256,092
14Q SRF L175539	07/01/20	7/1/20 - 1/1/21	79,840	211,870	10,580	302,290
14R SRF L175517	07/01/20	7/1/20 - 1/1/21	573,160	1,295,532	67,776	1,936,468



**BOND REDEMPTION AND INTEREST FUND**  
**2020 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>						
16A SRF L174555	07/01/18	7/1/20 - 1/1/21	\$ 2,128,646	\$ 6,071,354	\$ 297,409	\$ 8,497,409
16B SRF L172129	07/01/20	7/1/20 - 1/1/21	78,427	185,530	9,574	273,531
16C SRF L175367	07/01/19	7/1/20 - 1/1/21	563,766	1,496,064	74,709	2,134,539
16D SRF L175460	07/01/18	7/1/20 - 1/1/21	123,014	362,992	17,627	503,633
16G SRF L174708	07/01/20	7/1/20 - 1/1/21	177,000	362,065	19,552	558,617
09A SRF L173074	07/01/12	7/1/20 - 1/1/21	333,075	2,345,832	97,163	2,776,070
09B SRF L173064	06/21/11	7/1/20 - 1/1/21	—	382,890	13,887	396,777
09C SRF L173063	01/15/11	7/1/20 - 1/1/21	—	111,957	4,062	116,019
09I SRF L174675	06/21/11	7/1/20 - 1/1/21	72,206	558,956	22,892	654,054
07A SRF L172625	06/17/10	7/1/20 - 1/1/21	541,269	2,229,188	100,484	2,870,941
07B SRF L172850	07/01/10	7/1/20 - 1/1/21	379,871	1,470,402	67,109	1,917,382
07C SRF L172770	01/01/11	7/1/20 - 1/1/21	—	3,333,334	120,898	3,454,232
09G SRF L173075	07/01/13	7/1/20 - 1/1/21	212,213	1,508,851	62,424	1,783,488
09H SRF L173800	04/23/11	7/1/20 - 1/1/21	—	36,794	1,334	38,128
09E SRF L173005	08/06/11	7/1/20 - 1/1/21	272,202	2,006,793	82,659	2,361,654
07D SRF L172763	06/10/10	7/1/20 - 1/1/21	123,458	508,453	22,920	654,831
09F SRF L174557	07/01/16	7/1/20 - 1/1/21	453,235	3,191,055	132,176	3,776,466
04G SRF L172611	01/31/07	7/1/20 - 1/1/21	35,802	233,167	9,756	278,725
04H SRF L172849	07/01/09	7/1/20 - 1/1/21	619,514	2,917,930	128,301	3,665,745
01A SRF L172126	07/01/04	7/1/20 - 1/1/21	257,402	3,539,269	137,704	3,934,375
97DD SRF L171152	07/01/04	7/1/20 - 1/1/21	65,260	973,788	37,688	1,076,736
01B SRF L172127	07/01/05	7/1/20 - 1/1/21	342,888	3,512,261	139,825	3,994,974
01C SRF L172128	06/16/06	7/1/20 - 1/1/21	377,782	3,016,507	123,110	3,517,399
04A SRF L172485	05/15/08	7/1/20 - 1/1/21	227,062	1,351,845	57,267	1,636,174
04B SRF L172488	05/28/08	7/1/20 - 1/1/21	265,252	1,579,220	66,898	1,911,370
04C SRF L172493	03/27/07	7/1/20 - 1/1/21	22,981	149,669	6,262	178,912
04D SRF L172494	01/31/07	7/1/20 - 1/1/21	22,038	143,529	6,006	171,573
04E SRF L172495	05/30/08	7/1/20 - 1/1/21	79,858	437,423	18,763	536,044
04F SRF L172496	04/23/11	7/1/20 - 1/1/21	—	198,736	7,208	205,944
97CC SRF L172031	07/01/04	7/1/20 - 1/1/21	44,529	2,337,171	86,383	2,468,083
<b>Refunding Bonds - Series:</b>						
2007 Unlimited Tax Series A	03/21/07	6/1/20 - 12/1/20	\$ 2,397,501	\$ 23,395,000	\$ 935,479	\$ 26,727,980
2007 Unlimited Tax Series B	03/21/07	6/1/20 - 12/1/20	4,821,863	—	174,886	4,996,749
2007 Limited Tax Series C	03/21/07	6/1/20 - 12/1/20	5,347,650	—	193,957	5,541,607
2014 Limited Tax Series D	01/06/15	6/1/20 - 12/1/20	1,395,001	12,105,000	489,637	13,989,638
2016 Unlimited Tax Series A	07/07/16	6/1/20 - 12/1/20	14,046,500	—	509,459	14,555,959
2016 Limited Tax Series B	07/07/16	6/1/20 - 12/1/20	2,066,500	—	74,951	2,141,451
<b>TOTAL</b>			<b>\$ 110,313,814</b>	<b>\$ 127,594,940</b>	<b>\$ 8,628,833</b>	<b>\$ 246,537,587</b>

(A) Reserve at 3.5%

**ORDINANCE NUMBER O19-012**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
 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, 2020  
 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, 2020, for the fiscal year ending December 31, 2020, 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 sanitary district in matters including, but not limited to, the Workers’ Compensation Act or the Workers’ 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 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 2020 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, 2020, 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, 2020.

Approved as to Form and Legality:

Approved:

*Deputy General Counsel*

*President,  
 Board of Commissioners of the  
 Metropolitan Water Reclamation District  
 of Greater Chicago*

*General Counsel*

**ORDINANCE NUMBER O19-013**

**FOR THE LEVY OF TAXES FOR THE FISCAL YEAR BEGINNING  
 JANUARY 1, 2020 AND ENDING DECEMBER 31, 2020  
 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, 2020  
 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, 2020, for the fiscal year ending December 31, 2020, 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 2020, 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, 2020, 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, 2020.

Approved as to Form and Legality:

Approved:

*Deputy General Counsel*

*President,  
 Board of Commissioners of the  
 Metropolitan Water Reclamation District  
 of Greater Chicago*

*General Counsel*

**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 46 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	\$3,275.30	NR6275	\$4,902.40	PR5153	\$3,884.00	PR5975	\$4,210.40	PR7579	\$4,194.40
NR1835	\$2,939.20	NR6441	\$3,537.60	PR5155	\$4,044.00	PR5989	\$4,330.40	PR7743	\$4,040.00
NR1853	\$3,318.40	NR6810	\$3,468.80	PR5159	\$4,084.00	PR6453	\$4,088.00	PR7773	\$3,968.00
NR1857	\$3,537.60	NR6831	\$4,072.00	PR5353	\$3,750.40	PR6459	\$4,408.00	PR7775	\$4,208.00
NR2483	\$3,318.40	NR6832	\$4,218.40	PR5553	\$3,784.00	PR6473	\$3,048.00	PR7779	\$4,368.00
NR3641	\$2,377.60	NR7393	\$4,449.60	PR5555	\$4,020.80	PR6479	\$3,308.00	PR1025	\$2,152.80 to \$3,523.20
NR3642	\$2,601.60	NR7394	\$5,292.80	PR5753	\$4,080.00	PR7343	\$3,948.00	TR3509	\$2,079.09
NR5369	\$3,335.20	NR7399	\$3,605.60	PR5755	\$4,324.00	PR7347	\$4,428.00		
NR6210	\$3,650.40	NR8331	\$3,537.60	PR5759	\$4,408.00	PR7349	\$4,188.00		
NR6232	\$3,832.80	NR8650	\$3,318.40	PR5933	\$4,004.00	PR7423	\$4,272.00		
NR6233	\$4,024.80	NR8651	\$3,159.20	PR5935	\$4,284.00	PR7424	\$4,672.00		
NR6251	\$4,669.60	NR8652	\$2,203.20	PR5953	\$3,640.00	PR7425	\$4,992.00		
NR6271	\$4,700.80	NR8660	\$1,943.20	PR5955	\$3,968.00	PR7573	\$3,914.40		
NR6272	\$4,449.60	NR8661	\$2,137.80	PR5973	\$4,050.40	PR7575	\$4,114.40		

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 2018 and 2019 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>
Austin, Marcus	DeVry University	Sep 2018	Master of Project Management
Huang, Shao-Kuang	Roosevelt University	May 2019	Master of Science in Accounting
Ito, Tracy	DePaul University	Jun 2019	Master of Science in Human Resources
Kim, Kevin	Illinois Institute of Technology	May 2019	Juris Doctor
Lopez, Karla	DeVry University	Sep 2018	Bachelor of Science in Business Administration
Mihalache, Mircea	Northwestern University	Jun 2018	Master of Science
Miller, Patrick	University of Cincinnati	Dec 2018	Master of Science
Nielson, Gregory	Independence University	Aug 2018	Bachelor of Science in Business Administration
Pappu, Spandana	Roosevelt University	May 2019	Master of Science
Reichling, John	Indiana Wesleyan University	Feb 2019	Master of Business Administration
Rijal, Dev	University of Florida	May 2019	Master of Science with a major in Environmental Engineering Sciences
Schade, Ann	Saint Xavier University	Dec 2018	Master of Business Administration
Thomas, Paul	DeVry University	Dec 2018	Bachelor of Science in Electronics Engineering Technology
Zigulich, Michael	Illinois Institute of Technology	May 2019	Master of Engineering in Environmental Engineering



# 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		
2020*									
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	

\* The 2020 numbers are pending.

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

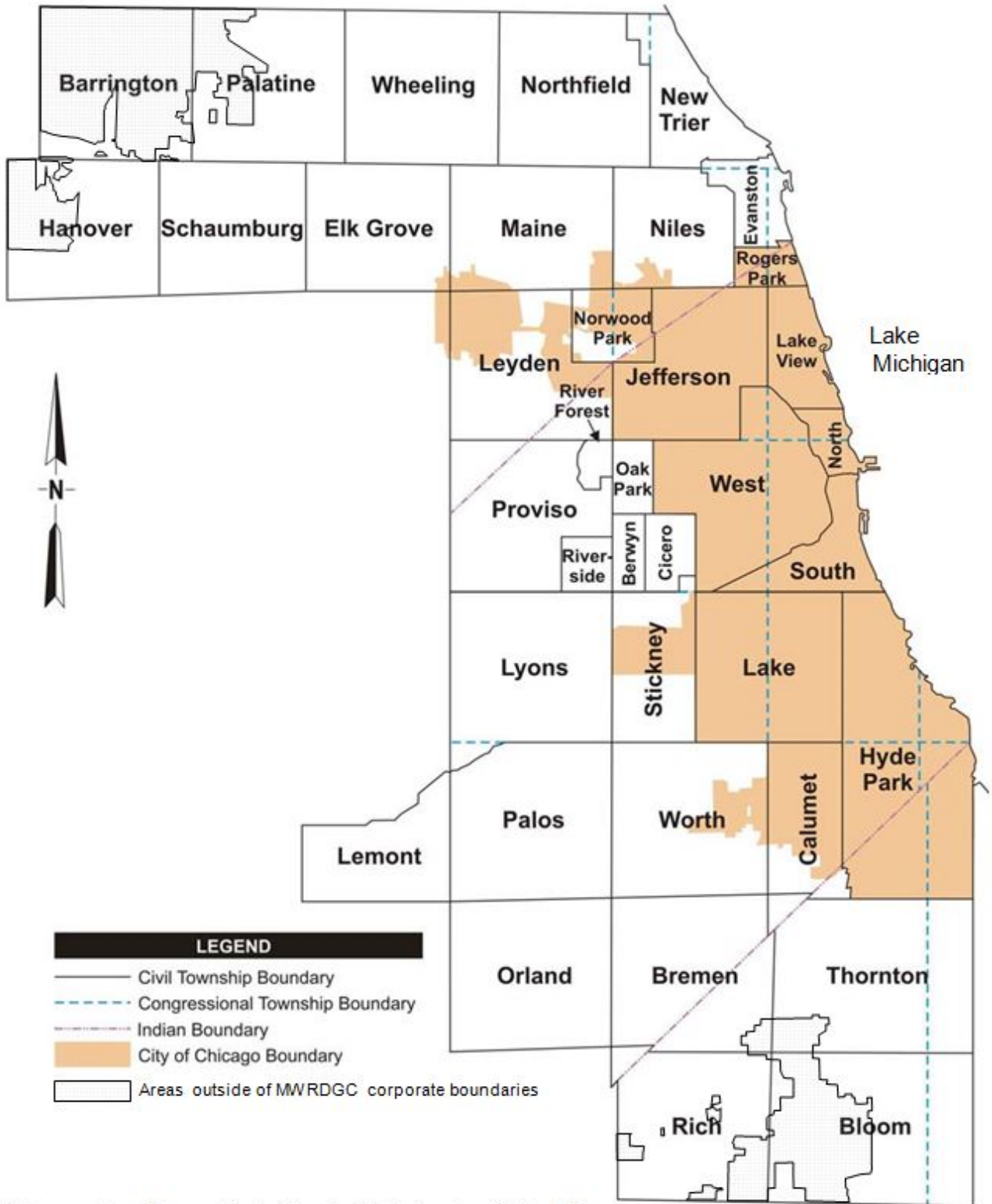
(in thousands of dollars)

Fiscal Year Ended Dec. 31	Taxes Levied for the Fiscal Year	Collected within the First Year		
		Amount	Percentage of Levy	Final Due Date
2018	\$ 616,233	\$ —	—	8/1/2019
2017	593,135	581,007	98.0	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

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, 2018.

# 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 2013 - 2018 (in \$ millions)

Township	2013	2014	2015	2016	2017	2018	Average Annual Change
<b>Suburban</b>							
Barrington	\$ 325	328	\$ 326	\$ 319	\$ 328	\$ 320	-1.56 %
Berwyn	647	596	581	600	735	707	0.93 %
Bloom	474	450	440	456	490	483	-0.56 %
Bremen	1,566	1,469	1,425	1,480	1,648	1,617	-0.52 %
Calumet	176	177	176	179	199	189	0.58 %
Cicero	586	555	536	554	647	629	0.40 %
Elk Grove	3,128	3,184	3,103	3,516	3,559	3,521	-0.27 %
Evanston	2,202	2,245	2,196	2,670	2,740	2,721	1.81 %
Hanover	1,406	1,426	1,379	1,608	1,615	1,575	-0.32 %
Lemont	733	715	711	755	914	892	2.67 %
Lyden	2,331	2,332	2,409	2,753	2,794	2,727	0.75 %
Lyons	3,465	3,469	3,373	3,523	4,267	4,124	2.29 %
Maine	3,729	3,778	3,666	4,308	4,383	4,281	-0.40 %
New Trier	4,151	4,201	4,075	4,987	5,097	4,921	1.61 %
Niles	3,810	3,886	3,818	4,461	4,542	4,456	0.82 %
Northfield	4,722	4,787	4,627	5,531	5,716	5,585	1.31 %
Norwood Park	726	745	727	839	852	839	0.02 %
Oak Park	1,369	1,383	1,334	1,387	1,656	1,592	1.69 %
Orland	2,921	2,829	2,753	2,890	3,310	3,221	0.88 %
Palatine	2,597	2,628	2,557	2,977	2,987	2,913	-0.11 %
Palos	1,369	1,330	1,290	1,350	1,577	1,509	0.85 %
Proviso	2,723	2,652	2,573	2,679	3,150	3,065	1.26 %
Rich	1,044	988	962	1,007	1,098	1,073	-0.80 %
River Forest	493	488	470	486	586	565	1.48 %
Riverside	505	489	474	495	575	555	0.70 %
Schaumburg	3,949	3,999	3,892	4,497	4,549	4,449	0.27 %
Stickney	972	935	914	956	1,102	1,073	0.64 %
Thornton	1,718	1,662	1,651	1,699	1,770	1,715	-1.32 %
Wheeling	4,185	4,253	4,152	4,894	4,952	4,906	0.54 %
Worth	3,011	2,847	2,752	2,880	3,341	3,239	0.52 %
<b>City of Chicago</b>							
Hyde Park	3,576	3,648	3,890	4,077	4,143	4,280	2.30 %
Jefferson	10,529	10,741	11,311	11,735	11,960	13,439	3.43 %
Lake	6,227	6,364	6,684	6,970	6,978	7,309	2.06 %
Lake View	8,416	8,654	9,521	9,782	10,020	11,077	3.88 %
North Chicago	12,079	12,509	14,197	14,839	15,718	18,174	6.32 %
Rogers Park	1,299	1,318	1,376	1,433	1,449	1,624	2.76 %
South Chicago	12,050	13,277	14,559	15,297	16,119	18,201	6.45 %
West Chicago	8,188	8,398	9,427	9,883	10,380	12,222	6.81 %
<b>Total EAV</b>	<b>123,400</b>	<b>125,736</b>	<b>130,305</b>	<b>140,752</b>	<b>147,946</b>	<b>155,788</b>	<b>2.74%</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"</i>
		<i>Tunnel and Reservoir Plan Phase I, one of the "Top Ten Chicago Area Public Works Projects of the 20th Century"</i>
		<i>Tunnel and Reservoir Plan Phase I, Member's Choice for "Most Significant Chicago Area Public Works Projects of the 20th Century"</i>
	1995	<i>The American Public Works Association Award for the District's Innovative Energy Audit and Control Program</i>
1981	<i>Outstanding Public Works Project of the Year for the Tunnel and Reservoir Plan</i>	
American Public Works Association, Chicago Metro Chapter	2016	<i>Project of the Year (Environment, More than \$75 Million) for the Thornton Composite Reservoir</i>
		<i>Public Works Project Excellence Award for the Thornton Composite Reservoir</i>
American 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>
Environmental Systems Research Institute	2019	<i>Special Achievement in Geographic Information System (SAG) Award</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	2019-1985	<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>
	2018-2007	<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 2018</i>
	2018-1975	<i>Certificate of Achievement for Excellence in Financial Reporting - Comprehensive Annual Financial Report for Fiscal Years 1975 through 2018</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	2018	<i>Legislative Award for the Watershed Management Ordinance</i>
	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>
Illinois Department of Natural Resources	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>
	2017	<i>Illinois Mined Land Reclamation Award in the non-coal category for the McCook Reservoir</i>
Illinois Engineering Council	2016	<i>Illinois Mined Land Reclamation Award in the non-coal category for the Thornton Composite Reservoir</i>
	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>
	2007	<i>Safety and Health Outstanding Safety Performance Award for North Side and Calumet Water Reclamation Plants</i>
Illinois Safety Council and Greater Chicago Safety Council		<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	
Illinois Society of Professional Engineers	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>
	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	2019	<i>National Environmental Achievement Award (NEAA) in the Operations &amp; Environmental Performance Category</i>
	2018	<i>NACWA Award for Compliance with National Pollutant Discharge Elimination System, Platinum Award for 27 consecutive years of full compliance for Calumet Water Reclamation Plant; Platinum Award for 22 consecutive years of full compliance for Lemont Water Reclamation Plant; Platinum Award for 14 consecutive years of full compliance for James C. Kirie Water Reclamation Plant; Platinum Award for 13 consecutive years of full compliance for Terrence J. O'Brien Water Reclamation Plant; Platinum Award for 11 consecutive years of full compliance for Hanover Park Water Reclamation Plant; and Platinum Award for five consecutive years of full compliance 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>
	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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

- National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)
- 2015 *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*
- NACWA Award for Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan and Stickney Water Reclamation Plants*
- 2014 *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*
- 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*
- NACWA Award for Compliance with National Pollutant Discharge Elimination System, Gold Award for John E. Egan and Stickney Water Reclamation Plants*
- 2013 *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*
- NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan and Stickney Water Reclamation Plants*
- Richard Lanyon, former Executive Director, was inducted into the Hall of Fame and became the fifth former District executive in its ranks. The other four are former Director of M&R Dr. Cecil Lue-Hing and former General Superintendents Bart Lynam, Hugh McMillan, and Ben Sosewitz*
- 2012 *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*
- NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant*
- 2011 *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*
- NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant*
- NACWA Award for Compliance with National Pollutant Discharge Elimination System, Silver Award for John E. Egan Water Reclamation Plant*
- 2010 *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*
- NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park Water Reclamation Plant*



**AWARDS AND ACHIEVEMENTS RECOGNITION**

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	2009	<i>NACWA Award for Full Compliance with National Pollutant Discharge Elimination System, Gold Award for Hanover Park and North Side Water Reclamation Plants</i>
		<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>
	2008	<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>
		<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>
		<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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

National Association of Clean Water Agencies (NACWA), formerly known as Association of Metropolitan Sewerage Agencies (continued)	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>
	1998	<i>Gold Award for 100% Compliance with National Pollutant Discharge System Permit Standards - Stickney, Calumet, North Side, Hanover Park, James C. Kirie, and Lemont Water Reclamation Plants</i>
	1997	<i>National Achievement Outstanding Operations Award to North Side Water Reclamation Plants for its Instrumentation Project</i>
		<i>Platinum Award for 100% Compliance for more than five years with National Pollutant Discharge System Permit Standards - Calumet and North Side Water Reclamation Plants</i>
		<i>Gold Award for 100% Compliance with National Pollutant Discharge System Permit Standards - James C. Kirie, Lemont, and Stickney Water Reclamation Plants</i>
		<i>Silver Award for 99.9% Compliance with National Pollutant Discharge System Permit Standards - John E. Egan and Hanover Park Water Reclamation Plants</i>
	1993	<i>Outstanding Operations Award for Sidestream Pool Aeration Stations</i>
National Association of Flood and Stormwater Management Agencies (NAFSMA)	2016	<i>Green Infrastructure Award, First Place in the Large Agency Category for the Space to Grow Program</i>
National Association of Government Defined Contribution Administrators	2013, 2009	<i>Leadership Recognition Award of Distinction for National Save for Retirement Week Campaign</i>
National Association of State Land Reclamationists (NASLR)	2017	<i>Best Innovation Award in Mining Category for the McCook Reservoir Stage 2</i>
National Biosolids Partnership (Water Environment Federation and National Association of Clean Water Agencies)	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	2019-2003	<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>

**AWARDS AND ACHIEVEMENTS RECOGNITION**

United States Environmental Protection Agency (continued)	2008	<i>Exemplary Biosolids Management Award - First Place in the Public Acceptance Category</i>
	2004	<i>National Second Place Clean Water Act Recognition Award, James C. Kirie Water Reclamation Plant, for Outstanding Operations and Maintenance, Large Advanced Plant</i>
	2003	<i>Certificate of Recognition as a Clean Water Partner for the 21st Century</i>
	1998	<i>Designation of the Chicago River as "One of the 25 Outstanding Success Stories in the Nation on the Occasion of the 25th Anniversary of the Clean Water Act"</i>
	1996	<i>Award of Excellence for First Place in Category Five in the National Pretreatment Program</i>
	1995	<i>National Pretreatment Award recognizing excellence in the administration of the District's Pretreatment Program</i>
	1994	<i>National First Place Award recognizing the District's Outstanding Combined Sewer Overflow Control Program</i>
		<i>Award for Excellence in Maintenance and Operations Category in Region V as the Best Large Advanced Plant - James C. Kirie Water Reclamation Plant</i>
	1993	<i>Second Place for Outstanding Treatment Facility by Stickney and John E. Egan Water Reclamation Plants in the Area of Maintenance and Operations</i>
	1992	<i>North Side Treatment Plant named "Best in the Midwest" for Municipal Pollution Control</i>
		<i>Affirmative Action Program named "Best in the Country"</i>
	1991	<i>Special Award for Sustained Outstanding Long-Term Contribution to the Beneficial Use of Sludge at the Prairie Plan, Fulton County</i>
		<i>Award for the Affirmative Action Program</i>
United States Green Building Council	2015	<i>Best of Green Schools Award for Collaboration, Space to Grow Partnership</i>
	2014	<i>Emerald Award for the Space to Grow Program in the Chapter Mission category recognizes the impact collaborations can have in building better, brighter, and healthier spaces to live, learn, and work</i>
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 Plan</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	Principal Environmental Scientist
	Student Contest Committee	Oladeji, Dr. Olawale	Senior 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
City of Chicago Sister Agencies	Sister Agency Testing Committee	Coleman, Edward	Human Resources Manager
	Human Resources Round Table Committee	Kosowski, Thaddeus	Assistant Director of Human Resources
	Sister Agency Testing Committee	Urian, Stefanie	Human Resource Analyst
	Sister Agency Testing Committee	Vanella, Patricia	Human Resource Analyst
Civil Engineer Professional Advisory Council	Member	Podczerwinski, Edward	Director of Monitoring & Research
Decalogue Society	Anti-Semitism Committee	Saindon, Pamela	Principal 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
Environtropica	Associate Editor	Tian, Dr. Guanglong	Principal Environmental Scientist
Global Tunnel Xchange	Committee Member	Fitzpatrick, Kevin	Managing Civil Engineer
Government College Relations Council	Council Member	Coleman, Edward	Human Resources Manager
Great Lakes Employment Assessment Network	Program Officer	Urian, Stefanie	Human Resources Analyst
Human Resources Round Table for the City of Chicago Sister Agencies	Member	Kosowski, Thaddeus J.	Assistant Director of Human Resources

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
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
	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 Loss Reduction Strategy, Policy Working Group		
	Bacteria Stakeholders Workgroup	Rijal, Dr. Geeta K.	Principal Environmental Scientist
	Nutrient Loss Reduction Strategy, Agricultural Watershed Partnership	Tian, Dr. Guanglong	Principal Environmental Scientist
	Nutrient Loss 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
	Marketing/Communications Committee	Kosowski, Thaddeus J.	Assistant Director of Human Resources
Illinois State Bar Association's Section on Environmental Law	Secretary of the Environmental Section Counsel	Mihalopoulos, Jorge	Principal Attorney
Illinois Water Association	North American Utility Subcommittee for the Task Group on Meta-Data Collection and Organization in Wastewater Treatment and Wastewater Resource Recovery Systems	Yang, Fenghua	Senior Environmental Research Scientist
Illinois Water Environment Association	Committee Chair, Sustainability Committee	Brose, Dr. Dominic	Senior Environmental Research Scientist
	Member, Biosolids Committee		
	Committee Chair, Social Media	Cooney, Dylan	Senior Civil Engineer
	Biosolids and Resources Recovery Committee	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	Leaders Innovation Forum for Technology Committee	Cummings, Joseph	Managing Engineer
	Chairman, Safety and Security Committee	Delathouwer, Tim	Safety Coordinator
	Vice Chair of the Electrical Power, Energy, and Controls Committee	Gottardo, Glenn	Managing Electrical Engineer
	Operator Training Committee	Kohlhaas, Lynn	Principal Civil Engineer
	Plant Operations Committee		
	Removal and Recovery Committee	Kozak, Dr. Joseph A.	Principal Environment Scientist
	Nutrient Removal Committee		
	Chair, Biosolids and Resources Recovery Committee	Kumar, Dr. Kuldip	Senior Environmental Research Scientist
	Chairperson of the Students and Young Professionals Committee	Matias, Meagan	Senior Civil Engineer

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Illinois Water Environment Association (continued)	Plant Operations Committee	Matual, Sandra	Treatment Plant Operator III
	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
	Sustainability Committee	Qin, Dongqi	Senior Environmental Research Scientist
	Scholarship and Charitable Giving Committee	Rijal, Dr. Geeta K.	Principal Environmental Scientist
	Water Environment Federation Delegate	Rose, Rebecca	Supervising Environmental Chemist
	Committee Chair, Leaders Innovation Forum for Technology	Schipma, Jane	Treatment Plant Operator III
	Nutrient Renewal and Recovery Committee		
	Operator Training Committee		
	Vice-Chair, Industrial Pretreatment Committee	Scapardine, Barbara	Environmental Specialist
	Vice-Chair, Sustainability Committee		
	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
	President Elect	Wu, Fred	Senior Civil Engineer
	Chairman of the Membership Committee		
	Collection Facilities Committee Member		
	Scholarship and Charitable Giving Committee		
Students and Young Professionals Committee			
Operator Training Committee	Zigulich, Michael	Associate Civil Engineer	
Plant Operations Committee			
Treasurer	Scapardine, Barbara	Environmental Specialist	
Industrial Water, Waste, and Sewage Group	Vice Chair of the Executive Committee	Nator, Mohammed	Senior Electrical Engineer
Institute of Electrical and Electronics Engineers, Power & Energy Society-Chicago	Agricultural Soil CO2 Expert Committee	Tian, Dr. Guanglong	Principal Environmental Scientist
Inter-Governmental Panel on Climate Change	Editorial Board	Oskouie, Dr. Ali	Senior Environmental Research Scientist
International Journal of Environmental Science and Technology	Founding and Organizing Member	Goldberg, Lisa A.	Deputy General Council
Local Governmental Law Consortium	Founding and Organizing Member	Saindon, Pamela	Principal Attorney
Lower Des Plaines Watershed Group	Member at Large, Executive Committee	Wasik, Jennifer	Principal Environmental Scientist

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Midwest Water Analysts Association	Secretary	Miller, Sarah	Senior Environmental Chemist
	Steering Committee	Poshyvanyk, Paul	Environmental Chemist
	Steering Committee	Rose, Rebecca	Supervising Environmental Chemist
	President	Stefanich, Tricia	Supervising Environmental Chemist
Molecular Diversity Preservation International and Multidisciplinary Digital Publishing Institute	Peer Reviewer for the Water Journal, the Fluids Journal, Geoscientific Model Development, and Resources	Oskouie, Dr. Ali	Senior Environmental Research Scientist
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
	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	Wasik, Jennifer	Principal Environmental Scientist
	Water Quality Committee	Yarnik, Greg	Supervising Environmental Specialist
The National Environmental Laboratory Accreditation Conference	Contributing Member	Grunwald, Pawel	Supervising Environmental Chemist
National Public Employee Labor Relations Association	Member, Board of Directors	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 & 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	Member, Intelligent Water Systems Focus Group	Chavich, John	Assistant Director of Monitoring & Research
	Residuals and Biosolids Committee	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	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

<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Water Environment Federation (continued)	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
	Member, Resource Recovery Facilities Task Group	Stefanich, Tricia	Supervising Environmental Chemist
	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	Design and Implementation of Peracetic Acid for Municipal Water and Wastewater Related Processes Subcommittee	Patel, Kamlesh
Vice Chairman of the Workgroup on Shortcut Nitrogen Removal		Zhang, Dr. Heng	Assistant Director of Monitoring & Research
Workgroup on Digestion Enhancements Committee			
Workgroup on Energy from Wastewater Committee			
Water Research Foundation (formerly Water Environment & Reuse Foundation)	Project Advisory Committee, Occurrence of PFAS Compounds in U.S. Wastewater Treatment Plants	Cox, Dr. Albert	Environmental Monitoring & Research Manager
	Leaders Innovation Forum for Technology Committee	Fitzpatrick, Kevin	Managing Civil Engineer
	Trace Organics in Biosolids Research Challenge Committee	Kumar, Dr. Kuldip	Principal Environmental Scientist
	Steering Committee, Leaders Innovation Forum for Technology	Kunetz, Thomas	Assistant Director of Monitoring & Research
	Member, LIFT - Link New Technology Review Committee	Oskouie, Dr. Ali	Senior Environmental Research Scientist
	Member, Odors and Air Pollutants Review Committee		
	Design and Implementation of Peracetic Acid for Municipal Water and Wastewater Related Processes Subcommittee	Patel, Kamlesh	Senior Environmental Research Scientist
	Project Advisory Committee, Unlocking the Potential of Mixed-Microbial Fermentation for Enhancing Carbonaceous Resource Recovery from Organic Wastes		
	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



<b>PROFESSIONAL ORGANIZATION</b>	<b>MEMBERSHIP ROLE</b>	<b>EMPLOYEE NAME</b>	<b>JOB TITLE</b>
Water Research Foundation (formerly Water Environment & Reuse Foundation) (continued)	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 & 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>JULIE</b>	Joint Utility Location Information for Excavators, Inc.
<b>DWP</b>	Detailed Watershed Plan	<b>kWh</b>	kilowatt-hour
<b>EAP</b>	Employee Assistance Program	<b>KWRP</b>	Kirie Water Reclamation Plant
<b>EAV</b>	Equalized Assessed Valuation	<b>LASMA</b>	Lawndale Avenue Solids Management Area
<b>EBPR</b>	Enhanced Biological Phosphorus Removal	<b>LED</b>	Light-emitting Diode
<b>EEO</b>	Equal Employment Opportunity	<b>LF</b>	Linear Feet
<b>EQ</b>	Exceptional Quality	<b>LIMS</b>	Laboratory Information Management System
<b>EWRP</b>	Egan Water Reclamation Plant	<b>LPH</b>	Lockport Powerhouse
<b>F&amp;D</b>	Furnish & Deliver	<b>LSSS</b>	Local Sewer Systems Section
<b>FD&amp;I</b>	Furnish, Deliver, & Install	<b>LWRP</b>	Lemont Water Reclamation Plant
<b>FESOP</b>	Federally Enforceable State Operating Permit	<b>mg/L</b>	milligrams per liter
<b>FMLA</b>	Family Medical Leave Act	<b>M&amp;O</b>	Maintenance & Operations
<b>FTE</b>	Full-Time Equivalent		
<b>GAAP</b>	Generally Accepted Accounting Principles		



**ACRONYMS (continued)**

<b>M&amp;R</b>	Monitoring & Research	<b>RAS</b>	Return Activated Sludge
<b>MBE</b>	Minority-owned Business Enterprise	<b>RFP</b>	Request for Proposal
<b>MGD</b>	Millions of Gallons per Day	<b>RMIS</b>	Risk Management Information System
<b>MMS</b>	Maintenance Management System	<b>SAN</b>	Storage Area Network
<b>MOB</b>	Main Office Building - 100 E. Erie St., Chicago, Illinois	<b>SAP</b>	SAP is a German computer software firm
<b>MOBA</b>	Main Office Building McMillan Pavilion - 111 E. Erie St., Chicago, Illinois	<b>SBE</b>	Small Business Enterprise
<b>MOBC</b>	Main Office Building Complex - MOB & MOBA	<b>SBP</b>	Strategic Business Plan
<b>MOP</b>	Manual of Procedures	<b>SEPA</b>	Sidestream Elevated Pool Aeration stations
<b>MSC</b>	Material Service Corporation	<b>SIU</b>	Significant Industrial User
<b>MSPS</b>	Mainstream Pumping Station	<b>SPO</b>	Sewer Permit Ordinance
<b>MWRD</b>	Metropolitan Water Reclamation District	<b>SRF</b>	State Revolving Fund loan program
<b>NAA</b>	Net Assets Appropriable	<b>SS</b>	Suspended Solids
<b>NACWA</b>	National Association of Clean Water Agencies	<b>SSA</b>	Stickney Service Area
<b>NBP</b>	National Biosolids Partnership	<b>SSMP</b>	Small Streams Maintenance Program
<b>NBPS</b>	North Branch Pumping Station	<b>SWCO</b>	Sewage and Waste Control Ordinance
<b>NCBP</b>	Non-Core Business Projects	<b>SWRP</b>	Stickney Water Reclamation Plant
<b>NPDES</b>	National Pollutant Discharge Elimination System	<b>TAM</b>	Technical, Administrative, and Managerial
<b>NSA</b>	North Service Area	<b>TARP</b>	Tunnel and Reservoir Plan
<b>NSWRP</b>	North Side Water Reclamation Plant (renamed OWRP)	<b>TGM</b>	Technical Guidance Manual
<b>OM&amp;R</b>	Operations, Maintenance, & Replacement costs	<b>TIF</b>	Tax Increment Financing
<b>OPEB</b>	Other Postemployment Benefits	<b>UCO</b>	User Charge Ordinance
<b>OSHA</b>	Occupational Safety and Health Administration	<b>USEPA</b>	United States Environmental Protection Agency
<b>OUC</b>	Office of Underground Coordination	<b>UV</b>	Ultraviolet
<b>OWRP</b>	O'Brien Water Reclamation Plant (formerly known as NSWRP)	<b>VBE</b>	Veteran-owned Business Enterprise
<b>PBF</b>	Public Budget Formulation	<b>VFD</b>	Variable Frequency Drive
<b>P&amp;MM</b>	Procurement & Materials Management	<b>WASSTRIP®</b>	Waste Activated Sludge Stripping to Remove Internal Phosphorus
<b>PO</b>	Purchase Order	<b>WBE</b>	Women-owned Business Enterprise
<b>PPO</b>	Participating Provider Option	<b>WEFTEC</b>	Water Environment Federation's Technical Exhibition and Conference
<b>PPRT</b>	Personal Property Replacement Tax	<b>WMO</b>	Watershed Management Ordinance
<b>PS</b>	Pumping Station	<b>WRP</b>	Water Reclamation Plant
<b>PST</b>	Primary Settling Tank		
<b>RAPS</b>	Racine Avenue Pumping Station		



## 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** Egan Treatment Plant placed into operation.
- 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.
- 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.
- 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.
- 2000** District celebrated the 100th anniversary of the reversal of the Chicago River and completed a century of protecting Chicago's water environment; ASCE names Chicago Wastewater System one of only 10 worldwide civil engineering Monuments of the Millennium.
- 2003** Thornton Transitional Reservoir placed into operation.
- 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.
- 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.
- 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.



# MWRD Water Reclamation Plants



**Calumet Water Reclamation Plant** is the longest performing of the MWRD's seven WRPs. In operation since 1922, it serves residents and businesses in the southern portion of Cook County to clean more than 350 million gallons of wastewater per day on average. The plant's service population is more than one million people in an area of about 300 square miles.



**John E. Egan Water Reclamation Plant** serves more than 160,000 residents in a 44 square mile area. In operation since 1975, the Egan WRP cleans an average of 30 million gallons of wastewater per day.



**Hanover Park Water Reclamation Plant** has been serving residents in northwestern Cook and DuPage County communities since 1963. The Hanover Park WRP serves more than 56,000 people within an 11.2 square mile area and cleans an average of 12 million gallons per day.



**James C. Kirie Water Reclamation Plant** opened in 1980, making it the newest of the MWRD's seven wastewater treatment plants. The 108-acre Kirie plant serves a population of about 264,000 residents in a 65.2 square mile area to clean more than 50 million gallons of wastewater per day.



**Lemont Water Reclamation Plant** is a small but industrious MWRD facility that provides wastewater treatment for a service area of more than 20 square miles that includes nearly 23,000 people in the village of Lemont. It opened in 1961 and cleans an average of 2.5 million gallons of wastewater per day.



**Terrence J. O'Brien Water Reclamation Plant** was built to serve residents in communities north of downtown Chicago. In operation since 1928, the O'Brien WRP serves over 1.3 million people in an area of 143 square miles and cleans an average of 230 million gallons of wastewater per day.

**Stickney Water Reclamation Plant** (front cover) is one of the largest wastewater treatment facilities in the world. It serves residents in the central part of Chicago as well as 46 other communities within a 260 square mile area. Opened in two phases in 1930 and 1939, the Stickney plant currently serves more than 2.3 million people and cleans an average of 700 million gallons of wastewater per day.

**Metropolitan Water Reclamation District of Greater Chicago**

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