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Rowers take advantage of a sunny fall morning on the North Shore Channel in Evanston.
This 2017 Budget in Brief serves as an addendum to the Metropolitan Water Reclamation District of Greater Chicago’s (District) formal budget book and provides an overview of the organization’s core mission, operations, and budget appropriations. The annual budget is the principal planning device for carrying out the mission of the District and accomplishing our operational goals. As a key communication tool, the budget shows how resources are acquired and allocated for current operations, long-range planning, and financing.

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Moving Down the Track

January 3, 2017

To Stakeholders of the Metropolitan Water Reclamation District:

The year 2017 marks the third year of the Strategic Business Plan, Recovering Resources, Transforming Water, adopted in 2015. The budget for 2017 carries the theme “Moving Down the Track.” Several visions of the past came to fruition in 2016 as the Thornton Reservoir was fully operational, the disinfection facilities at the O’Brien and Calumet Water Reclamation Plants (WRPs) became operable, the phosphorus recovery facility at the Stickney WRP was placed in service, the ANITA™ Mox treatment system was started up at the Egan WRP, the Space to Grow Program transformed several school yards, and stormwater projects are protecting citizens throughout Cook County, to name a few. These accomplishments encompass visions from the past and new visions that have been incorporated into our program in the past few years. Progress is rolling along as we continue moving down the track.

I am pleased to present the 2017 budget, which represents a comprehensive plan to meet the Strategic Business Plan’s goals in a fiscally responsible manner. 2017 will be an exciting year for the District as many milestones will be reached. The first stage of the McCook Reservoir, the final component of the Tunnel and Reservoir Plan, will be coming online with a capacity of 3.5 billion gallons. The District’s resource recovery efforts that began in 2016 will continue and expand production in 2017.

Flooding continues to be the number one issue facing the District. The Stormwater Management Program is aggressively working to minimize flood damage by helping communities with local flooding issues, acquiring flood-prone properties, and partnering with municipalities or other local governments on large capital and green infrastructure projects. The District currently has nearly 100 stormwater projects under way, including 13 Intergovernmental Agreements for the construction of large stormwater projects throughout Cook County and six Intergovernmental Agreements to acquire 132 flood-prone residential structures.

The District operates a fiscally sound organization, maintaining a AAA bond rating with Fitch Ratings and AA+ bond rating from Standard & Poor’s. Contributing to strong credit ratings, the District’s funding policies for both the Retirement Fund and Other Postemployment Benefits exemplify the District’s commitment to fiscal management. The 2017 Corporate Fund budget remains virtually flat compared to the 2016 appropriation, increasing by 0.7 percent as we continue to prioritize spending while controlling cost increases.

This Budget in Brief document is a summary of our budget and describes how the 2017 funding priorities align with our Strategic Business Plan. For the complete budget document and Strategic Business Plan, please visit mwrd.org.

The District is raising the bar on water quality initiatives, recovering resources, neutralizing energy usage, and managing stormwater.

Respectfully submitted,

Mariyana T. Spyropoulos, President
**Mission & Governance**

The District is governed by a nine-member Board of Commissioners (Board). Each commissioner is elected at large and paid a salary. Three commissioners are elected every two years for six-year terms. The Board biannually elects from its membership a President, Vice President, and Chairman of Finance. The District is an independent government and taxing body operating primarily within the boundaries of Cook County, Illinois. The agency serves an area of 882.1 square miles, including the City of Chicago and 128 surrounding communities. Wastewater is collected from municipalities by the District and conveyed to one of seven WRPs for full treatment. Clean water is then discharged to the Chicago Area Waterway System. The District is also responsible for stormwater management for all of Cook County, including areas outside of its corporate boundaries. The District’s commitment to the environmental quality of the region involves protecting Lake Michigan from pollution, maintaining public health and safety, protecting homes and businesses from flooding, and preserving water as a vital resource.

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.
The District is responsible for stormwater management for all of Cook County, including areas that currently lie outside the District’s boundaries.

Population over 50,000
- Arlington Heights
- Berwyn
- Cicero
- Des Plaines
- Evanston
- Mount Prospect
- Oak Lawn
- Orland Park
- Palatine
- Schaumburg
- Skokie
- Tinley Park

Population over 30,000
- Calumet City
- Elk Grove Village
- Glenview
- Northbrook
- Park Ridge
- Streamwood
- Wheeling
District Fast Facts

The District:

✓ Serves an equivalent population of 10.35 million people: 5.25 million individuals, a commercial and industrial equivalent of 4.5 million people, and a combined sewer overflow equivalent of 0.6 million people.

✓ Owns and operates seven award-winning WRPs, 560 miles of intercepting sewers and force mains, 22 pumping stations, 34 stormwater detention reservoirs, and 2 combined sewer overflow reservoirs.

✓ Manages intercepting sewers and force mains ranging in size from 6 inches to 27 feet in diameter, which are fed by approximately 10,000 miles of sewers.

✓ Controls 76.1 miles of navigable waterways, which connect the Great Lakes with the Gulf of Mexico.

✓ Treats an average of 1.3 billion gallons of wastewater per day with a wastewater treatment capacity of over 2.0 billion gallons per day.

✓ Performs nearly 600,000 laboratory analyses per year to assure operations meet mandated standards of environmental quality, to enforce industrial standards, and to monitor water quality in waterways.

✓ Conducts numerous field investigations per year to resolve sewage and drainage questions and complaints.

✓ Captures and treats an annual average of 113.1 million pounds of various pollutants found in combined sewer overflows through the Tunnel & Reservoir Plan system.
Sources of Revenue

Tax Sources
All District funds, with the exception of the Capital Improvements Bond Fund, derive their revenues primarily from property taxes. Approximately $595.0 million of the 2017 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.

A personal property replacement tax provides tax revenue from corporations, partnerships, and the invested capital of public utilities to replace the personal property taxes that were once received from these sources. Revenue from this source is estimated at $35.4 million for 2017, a decrease of $2.5 million from the 2016 Adjusted Budget. These revenues, received directly from the State of Illinois, typically trend with the economy. However, due to an error in the State’s allocation calculation, the anticipated revenue will be decreased through 2018 for the recoupment period.

Funding Capital Projects: Bonds, Grants, & Loans
The District’s Capital Improvement Program (CIP) is financed primarily with general obligation bond sales. Additionally, a series of Public Acts have provided further non-referendum authority to the District to issue “limited bonds.” Bond sales are used to provide revenue for capital project cash flows.

The District’s debt is authorized under the Illinois Compiled Statutes. Currently, the District’s statutory debt limit is estimated at $7.5 billion. Actual outstanding debt applicable to the debt limit totals $2.8 billion, as recognized in the 2017 Budget. The debt margin, the difference between issued debt applicable to the debt limit and the statutory limit, is $4.7 billion, or 62.6 percent of the limit.

The 2017 appropriation for bond redemption and interest payments totals $228.8 million, an increase of $12.8 million, or 5.9 percent, from the 2016 Adjusted Budget. Appropriations and tax levies are adjusted for new bond sales or State Revolving Fund (SRF) loans.

Debt service for outstanding bonds consists of six refunding bonds, 10 capital improvements bonds, and 49 SRF bonds. Federal and state grants and state loans contribute funding to the District’s CIP. For 2017, $180.0 million in SRF loans is budgeted. The District anticipates receiving an annual allocation of at least $200 million in SRF loans based on the current capitalization level of state funds and repayment trends.

User Charges, Property, Services, & Miscellaneous
A major revenue source for the District is a user charge system, which imposes a surcharge above property tax payments for commercial, industrial, and tax-exempt users of the sewerage system. Estimated user charge revenues in 2017 are $47 million. Land rentals, investment income, sewer permit fees, connection impact fees, grants, and other revenues will provide an estimated $45.0 million in 2017.

Tax Levy
The overall 2017 tax levy is $595.0 million, an increase of $17.5 million, or 3.0 percent, from the 2016 adjusted levy.

Tax Rate
The overall tax rate for 2017, based on the most recent equalized assessed valuation, totals 43.03 cents per $100 of assessed property value, no change from the 2016 adjusted rate.
Where District Money Comes From

$1,142.7 Million

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Assets Appropriated</td>
<td>$396.8 M</td>
<td>34.7%</td>
</tr>
<tr>
<td>State Revolving Fund Loans &amp; Future Bond Sales</td>
<td>$353.5 M</td>
<td>30.9%</td>
</tr>
<tr>
<td>Net Tax Sources</td>
<td>$285.0 M</td>
<td>24.9%</td>
</tr>
<tr>
<td>User Charge Income</td>
<td>$47.0 M</td>
<td>4.1%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$25.1 M</td>
<td>2.2%</td>
</tr>
<tr>
<td>Land Rentals</td>
<td>$19.0 M</td>
<td>1.7%</td>
</tr>
<tr>
<td>Grants</td>
<td>$11.1 M</td>
<td>1.0%</td>
</tr>
<tr>
<td>Investment Income</td>
<td>$4.3 M</td>
<td>0.4%</td>
</tr>
<tr>
<td>Sewer Permit Fees</td>
<td>$0.9 M</td>
<td>0.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,142.7 M</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

For a $100,000 home, the 2017 estimated District tax is $117.27.
The District uses the following funds to control its financial activities:

**CORPORATE FUND**: Pays for the day-to-day operations and general expenditures of the District, not specifically chargeable to other funds.

**CONSTRUCTION FUND**: Accounts for a specific property tax levy and other revenues used for the acquisition and maintenance of long-term assets for principal District operations.

**STORMWATER MANAGEMENT FUND**: Accounts for property tax levies and other revenues, such as interest on investments and permit fees, for planning, management, and implementation activities related to stormwater, flood, and floodwater management in Cook County.

**RESERVE CLAIM FUND**: Accounts for a specific property tax levy and other revenues and pays for claims, awards, losses, or liabilities that might be imposed against the District and for the replacement or repair of damaged property. The accounts of the Reserve Claim Fund are included in the General Corporate Fund for financial reporting purposes.

**RETIREMENT FUND**: Accounts for a specific property tax levy to fund pension costs in accordance with statutory provisions. The taxes are collected by the District and paid to the Retirement Fund, a pension trust fund.

**CAPITAL IMPROVEMENTS BOND FUND**: Accounts for bond sale proceeds authorized by the Illinois General Assembly, grants, and other revenues used for improvements, replacements, and additions to designated environmental improvement projects.

**BOND REDEMPTION & INTEREST FUND**: Accounts for property tax levies and interest on investments for the payment of principal and interest of general obligation bond issues. A subfund is created for each bond issue.

**WORKING CASH FUNDS**: The District utilizes Working Cash Funds for the Corporate Fund, Construction Fund, and Stormwater Fund for the sole purpose of making loans in anticipation of property tax collections to the respective fund.

Each individual fund has designated sources of revenues and specifications for allocated uses to ensure public money is spent appropriately.
Where District Money Goes

$1,142.7 Million

<table>
<thead>
<tr>
<th>Amount</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$414.6 M</td>
<td>36.3%</td>
<td>Construction &amp; Design</td>
</tr>
<tr>
<td>$228.8 M</td>
<td>20.0%</td>
<td>Bond Redemption &amp; Interest Fund</td>
</tr>
<tr>
<td>$187.0 M</td>
<td>16.4%</td>
<td>Plant Operation &amp; Maintenance</td>
</tr>
<tr>
<td>$125.1 M</td>
<td>10.9%</td>
<td>Staff Services</td>
</tr>
<tr>
<td>$79.5 M</td>
<td>7.0%</td>
<td>MWRD Retirement Fund</td>
</tr>
<tr>
<td>$45.8 M</td>
<td>4.0%</td>
<td>Stormwater Management</td>
</tr>
<tr>
<td>$31.3 M</td>
<td>2.7%</td>
<td>Monitoring &amp; Research</td>
</tr>
<tr>
<td>$30.6 M</td>
<td>2.7%</td>
<td>Claims &amp; Judgments</td>
</tr>
<tr>
<td>$1,142.7 M</td>
<td>100.0%</td>
<td>TOTAL</td>
</tr>
</tbody>
</table>

Wadsworth playground, before and after Space to Grow transformation and use of green infrastructure.
2017 Appropriations

Overall appropriations for 2017 total $1,142.7 million, a decrease of $101.4 million, or 8.2 percent, from the 2016 Adjusted Budget. Appropriations are allocated to seven separate funds. Each fund maintains a self-balancing set of accounts that are reported separately in their own financial statements. The funds are created to account for the different types of activities and legal restrictions associated with a particular function. In 2017, there are increases of $12.8 million in the Bond Redemption & Interest Fund, in the Retirement Fund of $8.7 million, in the Stormwater Management Fund of $5.3 million, the Corporate Fund of $2.7 million and in the Reserve Claim Fund of $0.4 million offset by $129.1 million in the Capital Improvements Bond Fund and $2.2 million in the Construction Fund.

### Appropriations & Expenditures, 2008–2017

(*Adjusted **Estimated)

<table>
<thead>
<tr>
<th>Year</th>
<th>2017 Budget</th>
<th>2016 Adjusted Budget</th>
<th>Dollar Increase (Decrease)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Fund</td>
<td>$368,925,800</td>
<td>$366,260,700</td>
<td>$2,665,100</td>
<td>0.73%</td>
</tr>
<tr>
<td>Capital Improvements Bond Fund</td>
<td>$354,625,600</td>
<td>$483,764,800</td>
<td>(129,139,200)</td>
<td>(26.69)%</td>
</tr>
<tr>
<td>Bond Redemption &amp; Interest Fund</td>
<td>$228,825,813</td>
<td>$216,047,130</td>
<td>$12,778,683</td>
<td>5.91%</td>
</tr>
<tr>
<td>Retirement Fund</td>
<td>$79,505,000</td>
<td>$70,772,000</td>
<td>$8,733,000</td>
<td>12.34%</td>
</tr>
<tr>
<td>Stormwater Management Fund</td>
<td>$45,800,100</td>
<td>$40,500,800</td>
<td>$5,299,300</td>
<td>13.08%</td>
</tr>
<tr>
<td>Construction Fund</td>
<td>$34,450,400</td>
<td>$36,614,400</td>
<td>(2,164,000)</td>
<td>(5.91)%</td>
</tr>
<tr>
<td>Reserve Claim Fund</td>
<td>$30,617,100</td>
<td>$30,175,900</td>
<td>$441,200</td>
<td>1.46%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,142,749,813</td>
<td>$1,244,135,730</td>
<td>($101,385,917)</td>
<td>(8.15)%</td>
</tr>
</tbody>
</table>

### Estimated Taxes for a $100,000 Home

<table>
<thead>
<tr>
<th>Year</th>
<th>2017 Budgeted</th>
<th>2016 Adjusted</th>
<th>Increase</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$117.27</td>
<td>$117.27</td>
<td>0.00</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Appropriations by Operational Objective

To comply with the Illinois Compiled Statutes, it is necessary to prepare budget estimates and appropriate funds according to programs, organizational units, performance principles, and unit cost data. The graph below displays the allocation of the 2017 appropriation and the personnel assigned to each operational objective across all funds. The District’s mission is achieved daily through six main operational functions:

- **Collection** $70,649,419 • 312 Personnel
  Operation and maintenance of pumping stations, force mains, and intercepting sewers.

- **Treatment** $112,893,520 • 459 Personnel
  Treatment of influent at water reclamation plants.

- **Solids Processing** $90,593,009 • 263 Personnel
  Processing of primary, secondary, and tertiary sludge.

- **Flood & Pollution Control** $361,731,431 • 416 Personnel
  Programs for the design and construction of flood and pollution control projects and waterways control.

- **Solids Utilization** $27,321,901 • 45 Personnel
  Drying and beneficial utilization of secondary and tertiary solids from the treatment process.

- **General Support (Debt Service, Retirement, & Reserve Funds, Support Departments)** $479,560,533 • 547 Personnel
  Indirect costs essential for achieving operational goals.

In 2017, a total of 2,042 positions are budgeted across all operational objectives. The budget includes increasing 66 positions District-wide as we phase in an expanded apprenticeship program.
Operational Objective: Collection & Treatment

The District treats an average of 1.3 billion gallons of wastewater per day, with a total capacity of over 2.0 billion gallons per day. In 2017, the District expects to collect and treat approximately 480.1 billion gallons of wastewater at its seven WRPs. The District’s reclaimed wastewater, along with runoff from rainfall, is returned to the Chicago Area Waterway System, which includes local canals, rivers, and streams that serve as headwaters of the Illinois River System.

The District provides outstanding reclamation for residential and industrial wastewater, meeting permitted discharge limits virtually at all times. The water reclamation process is protected by a pre-treatment program to guard against hazardous substances and toxic chemicals. These are strictly regulated by federal and state requirements. The District routinely monitors all industry and non-residential sources to assure that those wastes are disposed of in an environmentally responsible and lawful manner.

The collection and treatment processes are performed in compliance with discharge permits issued by the Environmental Protection Agency, which regulates the quality of the effluent as it leaves the treatment plants. To enhance its treatment process and increase its level of compliance, the District has implemented a disinfection facility at the Calumet WRP in 2015 and an ultraviolet radiation disinfection system at the O’Brien WRP in 2016. The District’s high level of compliance produces consistently excellent results. The District’s overall 2015 (latest year for which figures are available) compliance with the National Pollutant Discharge and Elimination System requirements is 99.98 percent.

The District’s “Restore the Canopy, Plant a Tree” program was aided by Crystal Green fertilizer, the product made from phosphorus and nitrogen recovered at the Stickney Water Reclamation Plant.
In 2017, the District will continue its innovative program for the beneficial utilization of biosolids. A key objective of the program is to make use of biosolids’ superior nutrient qualities and soil-like characteristics in an environmentally safe manner. Land-applied biosolids can enhance crop production while reducing the need for topsoil and fertilizers. In addition to farmland applications, the program provides biosolids for park development, golf courses, recreational fields, turf rejuvenation, and final cover for municipal solids waste landfills.

Under the program, the District recycles all biosolids in land application programs in Northeastern Illinois and owns over 13,500 acres of land in Fulton County, Illinois, a location formerly used for biosolids application.

The District continues to make significant progress towards development of long-term stable markets for biosolids, resulting in significant reductions of inventory. This aggressive management places the District’s biosolids utilization program among the most cost-effective in the world.
Operational Objective: Flood & Pollution Control

Tunnel and Reservoir Plan

The District’s Tunnel & Reservoir Plan (TARP) is one of the country’s largest public works projects for pollution and flood control. TARP consists of four systems totaling 109.4 miles of tunnels, 8 to 33 feet in diameter and 150 to 300 feet underground.

Phase I, completed in 2006, provides crucial protection and can capture up to 2.3 billion gallons of the first flush of sewage contaminated stormwater from combined sewers that previously flowed into area waterways.

Phase II, the reservoir component, provides additional storage of combined sewer overflows for flood damage reduction and additional pollution control. Two of three planned storage reservoirs are complete, the Gloria A. Majewski and Thornton Composite Reservoirs. The Gloria A. Majewski Reservoir, located in Elk Grove Village, was built by the Army Corps of Engineers and finished in 1998. It provides 350 million gallons of storage. Constructed for $45 million, it has, since its completion, yielded over $315 million in flood damage reduction benefits to the three communities it serves. The Thornton Composite Reservoir was substantially completed and became operational at the end of 2015. It provides 4.8 billion gallons of storage and since its completion has captured more than 3.5 billion gallons. It is projected to provide more than $40 million per year in benefits to the residents of the 15 communities it serves.

Excavation of a 230’ x 130’ area at the McCook Reservoir began with a bang as 28,000 lbs. of explosives, requiring 996 detonators, were used to remove over 27,000 tons of limestone.
Phase II continues with the construction and opening of the final component of the TARP system, the McCook Reservoir. Comprised of two stages, the first stage is set to go online in 2017 and will provide an estimated 3.5 billion gallons of storage. The second stage, expected to be completed in 2029, will provide an estimated 6.5 billion gallons of storage. In all, the McCook Reservoir is expected to provide an additional 10 billion gallons of storage capacity when completed. The TARP reservoirs will greatly increase the volume available for capturing combined sewer overflows that previously would have been discharged to the rivers. The storage capacity of TARP, which includes tunnels and reservoirs, will be approximately 17.5 billion gallons when complete.

**Industrial Waste Monitoring & Pollution Control**

The District effectively eliminates offensive or dangerous discharges into the public sewer system through the administration of the Sewage and Waste Control Ordinance. It specifies limits on the quantity and quality of wastes discharged by industrial users as required by the United States Environmental Protection Agency. The discharges, unless properly controlled and treated, could interfere with the District’s treatment processes and adversely impact waterways. Industries and non-residential sources are routinely monitored by the District to ensure wastes are disposed of in an environmentally responsible and lawful manner. The District also operates a user charge system, which imposes a surcharge above property tax payments for commercial, industrial, and tax-exempt users of the sewerage systems.

The District is designated by the Illinois Environmental Protection Agency as an official response unit for chemical and hazardous waste spills in Cook County and in that capacity responds to an average of 267 emergency calls a year from fire and police officials, citizens, and other federal and state agencies. In addition, boat patrols are routinely conducted to locate pollution sources and monitor lakefront recreational events to prevent pollution from entering Lake Michigan.

**Stormwater Management**

As the stormwater management authority for Cook County, the District addresses flooding on multiple fronts through the administration of the Small Streams Maintenance Program (SSMP), the management of regional watershed projects to address existing flooding damages, and the comprehensive stormwater management regulatory ordinance, known as the Watershed Management Ordinance (WMO). Through the efforts of the SSMP, approximately 35,000 cubic yards of debris and blockage are removed annually from the 532 miles of small streams within the District’s service area to facilitate stream flow and reduce flooding. The District developed six watershed plans to identify potential projects to reduce the potential for damage to life, public health, safety, and property from overbank flooding. Overbank flooding damages are estimated at nearly $1.0 billion over a 50-year return period. The WMO provides uniform minimum countywide stormwater management regulations. In addition, the District also owns and operates 34 stormwater detention reservoirs to provide regional stormwater control benefits.

The District performs stormwater management outreach through the Watershed Planning Councils, the media, and its website. The goal is to reach all stakeholders: municipal leaders, grassroots organizations, non-governmental organizations, taxpayers, and students. To deepen the public’s understanding of the District’s critical role, its stormwater management mission, and the public’s responsibilities in achieving quality results, the District’s Office of Public Affairs provides key messages using a variety of formats to keep the public apprised of the progress of the SSMP and other stormwater management programs.
Building the Future: Capital Funds & Projects

Capital improvements preserve the useful life or increase the capacity or efficiency of District facilities. Capital projects involve the acquisition, improvement, replacement, remodeling, completion, alteration, construction, and enlargement of District facilities. Through proper operation, maintenance, repair, and replacement, the District ensures continued efficient and reliable service and protection of its investment and infrastructure, while meeting necessary permit requirements. The Capital Improvement Program (CIP) identifies and prioritizes projects to upgrade and modernize obsolete equipment and facilities. In 2017, 153 projects will be in the planning, design, or construction phases.

Funding for the CIP consists of the sale of capital improvements bonds, general property tax revenues, SRF loans, and federal and state grants. The appropriation for the 2017 CIP, which includes the Capital Improvements Bond and Construction Funds, is $389,076,000. The Construction Fund appropriation is $34.5 million and provides pay-as-you-go funding for projects that typically do not exceed $500,000. The Capital Improvements Bond Fund appropriation is $354.6 million. For the Capital Improvements Bond Fund, the full anticipated construction cost of projects are appropriated in the year projects are awarded, while expenditures are incurred over the duration of the project.

The District operates a fiscally sound organization, maintaining a AAA bond rating with Fitch Ratings and a AA+ bond rating from Standard & Poor’s. Since 1969, the District has sold $6.0 billion in bonds to support its CIP. Most recently, the District issued general obligation bonds valued at $427 million in July 2016. Solid ratings led to strong investor confidence at the sale, resulting in excess of $120 million in savings on future debt service as the District was able to take advantage of 51-year-low interest rates.

The District’s overall CIP includes 2017 project awards, land, support, future projects, and projects under construction, with a total cost of approximately $1.2 billion, as displayed in the graph below.

---

Overall Capital Improvement Program

- $594.7 M, 48% Projects Under Construction
- $297.0 M, 24% 2017 Project Awards
- $272.7 M, 22% Future Project Awards
- $76.9 M, 6% Support & Land Acquisition
- $1.2 Billion TOTAL

---
The CIP supports the goals and values established in the Strategic Business Plan, Recovering Resources, Transforming Water. In addition to TARP and Stormwater infrastructure projects, the CIP includes resource recovery and energy neutrality projects.

**Resource Recovery**

The District understands the obligation to implement sustainable practices and has invested in research and development of resource recovery programs. In 2016, in partnership with Ostara Nutrient Recovery, 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 Chicago Area Waterway System and downstream through the Mississippi River to the Gulf of Mexico. In addition the District is investigating using algae to remove nutrients from water in the Algae Research Greenhouse at our O’Brien WRP. In this pilot facility, algae grown on moving membranes removes nutrients from water, which could be used to produce biodiesel, dyes, fish food, and other products.

**Energy Neutrality**

During 2017, the District will continue to evaluate processes and design treatment processes to optimize energy efficiency in order to reach our goal of energy neutrality by 2023. In addition to implementing a food to energy program that will maximize use of digester capacity, the District is marketing electrical capacity at the Lockport Powerhouse, optimizing aeration processes that will reduce energy consumption by 25 percent, and introducing solar thermal and sewer thermal systems to heat water at the WRPs.
MOVING DOWN THE TRACK

The District is on track as we embark on the third year of our strategic business plan adopted in 2015. Guided by the vision statement, “Recovering Resources, Transforming Water,” we have made steady progress toward the six goals established in the strategic plan: Add Value, Excellence, Resource Recovery, Develop Employees, Leading Partnerships, and Technology.

**Add Value** The District is pursuing opportunities to add value throughout our operations. We are producing a high quality, valuable composted soil amendment by blending wood chips from the City of Chicago with biosolids, a product of our wastewater treatment process. In 2016 we scaled up our operations, adding a new composting machine which is able to efficiently turn and aerate 20,000 cubic yards of compost per day.

**Excellence** We are focused on achieving excellent results at all levels of our organization. One of our biggest projects, the Tunnel and Reservoir Plan, is on schedule and functioning as designed, providing water quality and flood prevention benefits throughout the Chicago region. In 2015, Thornton Composite Reservoir went online and has virtually eliminated combined sewer overflows within its service area. The first phase of the 10 billion gallon McCook Reservoir is scheduled to go online in 2017.

**Resource Recovery** The District is committed to implementing sustainable and resilient practices and has embraced a resource recovery model in our operations. In addition to large scale resource recovery work such as the phosphorus recovery facility at our Stickney Water Reclamation Plant, we are also looking to the future and considering emerging technologies. We are investigating using algae to remove nutrients from water in the Algae Research Greenhouse at our O’Brien Water Reclamation Plant.

**Develop Employees** We have the best employees in the industry and are investing in our future by developing our employees. We continue to strive to reach the goal of providing every employee with 24 hours of training opportunities annually to enhance their knowledge and skills for both current and future positions. In addition, the District’s internship program attracts future leaders to the organization by providing college students in our community with learning opportunities and employee development that is relevant to their academic pursuits.

**Leading Partnerships** The District recognizes the importance of active involvement in the world around us and is working to develop strong relationships with constituents on a local, state, and national level. We are partnering with municipalities to address local flooding issues, providing needed assistance to complete flood mitigation and green infrastructure projects throughout our service area. We partnered with the Village of Northbrook on their 7.5 million gallon Wescott Park Stormwater Storage Facility being built to treat stormwater to irrigate the park and to help prevent neighborhood flooding.

**Technology** The District is embracing a new era of technology that delivers reliable and useful information. We are working to simplify SAP to increase utilization and maximize effectiveness while using current capabilities and enhancing use of available platforms.