



Green Bonds

Project Expenditure Report

as of June 30, 2019



Metropolitan Water Reclamation District of Greater Chicago

Table of Contents

Overview.	3
Four Categories of the MWRD's Green Bonds.	3
Use of Proceeds.	5
Highlighted Projects	6
Primary Treatment and Grit Removal System Project.	8
McCook Reservoir	9
Albany Park Stormwater Diversion Tunnel	10
Appendix: Project Spending Report	13

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Overview

In December 2014 and June 2016, the Metropolitan Water Reclamation District of Greater Chicago (MWRD) issued \$225 million and \$104 million respectively in Green Bonds to fund a variety of sustainability-focused projects, including streambank stabilization efforts, construction of a phosphorus recovery facility, and a capital improvements project to improve energy efficiency

and eliminate air pollution at various facilities. The MWRD issued Green Bonds to allow investors to invest directly in bonds which specifically fund, or partially fund, environmentally-beneficial capital projects undertaken by the MWRD. Green Bonds are secured by the full faith and credit of the MWRD, and therefore, holders of the bonds do not assume any specific project-related risk.

Four Categories of the MWRD's Green Bonds

1. Tunnel and Reservoir Plan (TARP)

The MWRD's innovative TARP or "Deep Tunnel" system is designed to reduce flooding and pollution caused by combined sewer overflows (CSOs). TARP was adopted in 1972 as a comprehensive pollution and flood control program for its 375 square mile combined sewer area. This area includes part or all of 52 communities, including the City of Chicago, and is one of the country's largest public works projects for pollution and flood control. The primary goals of TARP are to protect Lake Michigan – the area's primary source of drinking water – from polluted back-flows; clean area waterways; and provide an outlet for floodwaters in order to reduce basement flooding. Since it went online in 1985, the tunnel portion of TARP has reduced combined sewer overflow pollution in our rivers by about 85%. Since the Thornton Composite Reservoir came into service in late 2015, TARP has captured and prevented more than 99% of CSOs in the Calumet Service Area. The 3.5 billion gallon McCook Reservoir Stage I came online in 2017 and has already captured more than 50 billion gallons of CSO and, once Stage II is completed by 2029, water quality will improve even further.

As a result of these water quality improvements, aquatic life in waterways has flourished. The MWRD conducts fish monitoring periodically throughout its service area, which includes the Chicago, Calumet, and Des Plaines River Systems. The number of fish species found in the Chicago Area Waterway System (CAWS) has drastically increased since the 1970s when monitoring of the fish population first began. From 10 known species in 1974, that number has ballooned to 77 in 2018, including 60 that have been found in the CAWS since 2000. Thanks in part to advancements at the MWRD's water reclamation facilities, the waterways have experienced decreases in levels of ammonia and biochemical oxygen demand (BOD).

Performance metrics for TARP projects include tracking the reduction in CSOs discharged into the Chicagoland waterways, total detention and storage volume for the reservoirs during rain events, reduced frequency of diverting river water to Lake Michigan, and the quantity and diversity of fish species in the waterways measured over time.

2. Stormwater Management Program Projects

As the stormwater management authority for Cook County since 2004, the MWRD has been working to address streambank erosion and flooding issues throughout the county. In 2014, Phase II of the MWRD's Stormwater Management Program was initiated to address local drainage problems, develop stormwater master plans across Cook County and establish a program for purchasing flood prone and flood damaged property on a voluntary basis. Through partnerships with local

communities and other government organizations, the MWRD has completed numerous stormwater projects to protect homes and businesses from erosion and flooding issues.

Performance metrics include linear feet of streambank stabilized, number of structures benefiting from flood control projects, and dollar value of flood damages prevented.

3. Resource Recovery Projects

The MWRD is focusing on implementing sustainable and resilient practices in affecting a sustainable economy and financial base through the proper regulation and use of water, phosphorus, biosolids, and energy. The MWRD is pursuing innovative projects with respect to water and stormwater reuse; the MWRD completed the construction of a phosphorus recovery facility for reuse as a fertilizer and is studying food to energy gas

production from anaerobic digestion processes. Improved wastewater treatment and greater plant efficiency will allow the District to increase production of biosolids, a sustainable alternative to chemical fertilizers, including the packaging and distribution of free high quality biosolids.

Performance metrics include tons of phosphorus recovered and biosolids produced.

4. Water Reclamation Plant Expansions and System Improvements

The MWRD's seven water reclamation plants and 23 pumping stations clean an average of 1.4 billion gallons of wastewater each day. The total wastewater treatment capacity is over two billion gallons per day.

The MWRD's Capital Improvements Program includes replacing, remodeling, completing, altering, constructing, and enlarging water reclamation plants, water quality improvement projects, or flood control facilities, and constructing pumping

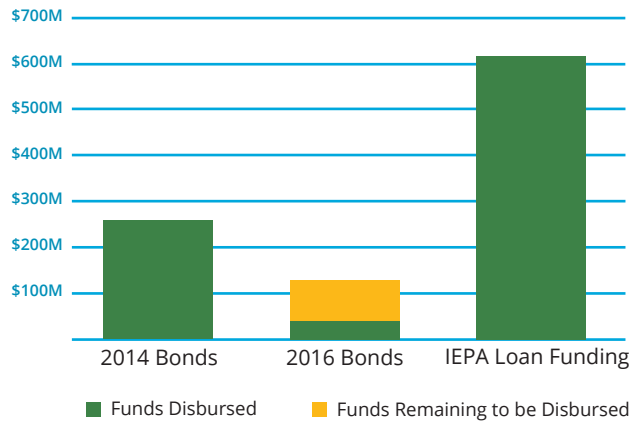
stations, tunnels, conduits, intercepting sewers and outlet sewers. It also includes purchasing air pollution equipment and property as well as covering engineering expenses for the design and construction of these various projects.

Performance metrics include optimization of aeration processes to reduce energy consumption, water reuse by converting current use of potable water in plant processes, and reduction in greenhouse gas emissions.

Use of proceeds

The following is a summary of the programs and projects funded by the Green Bonds as of June 30, 2019. In some cases, the Green Bonds may only provide partial funding for the specific program and/or project, or proceeds from both bond sales may be utilized to complete the funding of larger scale projects. Additional State Revolving Loan funding may have been, or will be, provided for use in funding the projects. All Green Bond proceeds have been segregated for use for the purposes identified in the overview section of this report. Until the proceeds are expended, specific projects may be added or deleted. Any projects added will comply with the eligible categories described in this report. See the Appendix to this report which details total project spending to date. This report will be updated annually for each series of the bonds until all bond proceeds have been disbursed.

Green Bond Funding
January 1, 2015 through June 30, 2019



Highlighted Projects

The status and description of some of the green bonds projects are provided below. Please see the Appendix for Complete Project Spending by Bond Sale.

MWRD Response to Climate Change

Despite the federal government's intention to withdraw from the Paris Agreement in June 2017, the MWRD Board of Commissioners passed a resolution one month later to honor the Agreement by continuing to reduce greenhouse gas emissions. Knowing that climate change could adversely impact the residents of Cook County and the MWRD's operations through increased precipitation and flooding, the MWRD decided the cause was too crucial to renounce. Staff sought ways to mitigate the risk of climate change ahead of the 2025 deadline.

The MWRD operates seven WRPs and 23 pumping stations, consuming approximately 600 million kilowatt hours per year of electricity. To address climate change, the MWRD's Strategic Business Plan identified various ways to protect the environment, reflecting the MWRD's diversity of important tasks and mission. The MWRD's green bond projects support the Strategic Business Plan by working towards several of its goals.



Aerial view of the new primary tanks at the Stickney Water Reclamation Plant in July of 2018



New Primary Settling Tanks at Stickney Water Reclamation Plant

Reduce Greenhouse Gas Emissions & Energy Consumption

Primary Treatment and Grit Removal System Project

in late 2018 the MWRD installed a new primary treatment and grit removal system that will soon replace aging Imhoff tanks at the Stickney Water Reclamation Plant (WRP). Nine 160-foot diameter primary settling tanks and six 132-foot long aerated grit tanks, associated support facilities, service tunnels and conduits allow the MWRD to decommission 36 older Imhoff tanks. Besides increasing and improving grit removal, protecting downstream piping and equipment, and alleviating odor issues associated with the wastewater treatment process, these upgrades also position the MWRD to curb methane emissions and reduce its carbon footprint by up to 172,000 metric tons of carbon dioxide equivalents by:

- lowering biochemical oxygen demand settling;

- capturing and drastically reducing methane escaping to the atmosphere; and
- generating less nitrous oxide from discharge to the waterways, which is likely attributed to biological phosphorus removal at the WRPs.

An additional 72 tanks will be replaced by the new preliminary and primary treatment facilities. To date, the MWRD has decreased greenhouse gas emissions by over 30 percent relative to 2005 levels, and projections show that after the addition of new infrastructure, those emission levels will potentially decrease to approximately 50 percent.



USACE helps to fund the construction of the McCook Reservoir

Protect Against Flooding and Promote Resiliency

McCook Reservoir

The McCook Reservoir works to protect and improve the water quality in area waterways and reduce flooding. Stage I provides a storage capacity for 3.5 billion gallons of combined sewer overflow as part of the MWRD's TARP. From January 2018 through the beginning of November 2019, the McCook Reservoir Stage I captured approximately 51 billion gallons of combined stormwater and sewage over the course of 86 events. Between the reservoir and the adjoining Mainstream Tunnel (21 billion gallons) and Des Plaines Tunnel (14 billion gallons), the whole McCook system has captured more than 85 billion gallons, including 37 billion gallons so far in 2019. Without the reservoir, that is 85 billion gallons

of water that could easily overwhelm combined sewer systems, pollute local waterways, and flood basements and streets. Stage I of McCook is estimated to provide an average of \$114 million per year in flood reduction benefits to 3.1 million people.

This year, the MWRD secured \$33.8 million from the United States Army Corps of Engineers (USACE) to cover the federal portion of the remaining McCook Reservoir costs. This funding will help the District complete Stage 2 of the McCook Reservoir by 2029, adding 6.5 billion gallons of additional storage to TARP.



The MWRD and the City of Chicago teamed up to complete the Albany Park Stormwater Diversion Tunnel that will convey water overflowing at the North Branch of the Chicago River and send it more than a mile east to the North Shore Channel to relieve the North Side community that has experienced major flooding.

Albany Park Stormwater Diversion Tunnel

In 2019, the Albany Park Stormwater Diversion Tunnel took on water 12 times, virtually eliminating overbank flooding from the North Branch of the Chicago River that formerly impacted the Albany Park neighborhood and Eugene Field Park. The MWRD teamed up with the City of Chicago to complete the tunnel in 2018 in order to convey water overflowing at the North Branch into an

inlet shaft, thereby conveying it more than a mile east to an outlet into the North Shore Channel at River Park. The tunnel, 18 feet in diameter and located about 150 feet below Foster Avenue, kicks into operation before the water level reaches flood stages on the North Branch. The tunnel took on four rain events in 2018.

The next report will be prepared and posted to the MWRD's website detailing capital expenditures through June 30, 2020.



Stage I of the McCook Reservoir was formally unveiled on December 4, 2017 by the Metropolitan Water Reclamation District of Greater Chicago and project partner, the U.S. Army Corps of Engineers.

Appendix

Project Spending Report

**2014 Series C
General Obligation Limited Tax Capital Improvement Bonds
January 1, 2015 through June 30, 2019
\$75,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 1/1/2015 - 6/30/2019	Estimated Useful Life of Project (years)
West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP¹ <i>Construction of nine primary settling tanks (PST) and six aerated grit tanks. This will utilize more modern and effective treatment equipment.</i>	041283P	\$ 223,017,405	\$ 24,040,241	70
Aeration Tanks Auto in Battery ABCD, SWRP <i>Automation of angle globe valves and modification of associated air drop piping to improve process control during biological phosphorus removal at the Stickney WRP.</i>	151223P	\$ 6,566,307	\$ 6,463,486	50
Albany Park Stormwater Diversion Tunnel² <i>Installation of a stormwater diversion tunnel to alleviate overland flooding in the Albany Park neighborhood in Chicago to reduce overbank flooding affecting 336 structures in the area.</i>	140663F	\$ 24,750,000	\$ 6,187,601	50
Rehabilitation of the A/B & C/D Service Tunnels - Phase One, SWRP <i>Rehabilitation of service tunnels and pump discharge conduits to restore structural capacity, extend service life, and prevent further damage to the utilities inside the tunnels.</i>	041312D	\$ 14,047,000	\$ 3,923,350	50
Calumet TARP Pumping Station Improvements, CWRP <i>Replacement of TARP pumps and motors, installation of new variable frequency drives (VFDs) for pumps, and modification of suction and discharge piping. Construction of low pressure steam line will be constructed from high-level influent pumping station to TARP for heating needs. Completion and restoration of grading, roads, and site work disturbed during construction. This will increase firm pumping capacity of each pump room while restoring dependability of equipment; additionally, VFDs will allow better control of pumping and reduce energy costs by matching pump speed with flow needs.</i>	062123M	\$ 35,288,000	\$ 2,934,518	35
Disinfection Final Design & Post Award, NSWRP³ <i>Construction of UV light disinfection facilities and improvements to existing infrastructure at the O'Brien WRP to protect health and preserve the recreational function of the Chicago Area Waterway System.</i>	110543P	\$ 61,724,000	\$ 2,884,905	50
Centrifuge Building and Sludge Loading System Upgrades, EWRP & HPWRP <i>Replacement of conveyor, pumps, silos, tanks, piping, valves, and flow meters. Reline two aged polymer tanks. Modify aeration tank A-1 at the Hanover Park WRP as part of the energy conservation study pilot test. This will eliminate a bottleneck in the dewatering and biosolids hauling operations and reduce odor and spill problems, improve system performance, and reduce maintenance costs and operator attention.</i>	064943P	\$ 10,600,000	\$ 2,834,184	20
Rehabilitation of Bridges, NSA <i>Replacement of sidewalks, removal of encasing concrete from steel girders and beams, and strengthening and painting of steel members. Two bridges will be modified to be bicycle-friendly. This will improve the safety of pedestrians and bicyclists, and protect the structures from further corrosion.</i>	148243D	\$ 2,093,000	\$ 2,396,067	50
Civil, Structural, Architectural Support <i>Consulting services to provide miscellaneous Civil, Structural and Architectural Design and Inspection Services for the next three years on an as-needed basis.</i>	098753D	\$ 3,000,000	\$ 2,299,524	20
Covered Composting System, CWRP <i>Construction of a covered composting system according to USEPA standards to produce an exceptional quality Class A Bio-solids product and contain odors.</i>	162703P	\$ 23,635,000	\$ 2,208,263	50
Public Building Commission of Chicago Energy Performance Projects <i>Remedy all North Service Area facilities deficiencies identified in the Energy Efficiency Program Investment Grade Audit conducted by the Public Building Commission and Noresco, LLC., including installation of light-emitting diodes and steam blanket, and retro commissioning of Heating, Ventilation, and Air Conditioning equipment.</i>	1870631	\$ 3,500,000	\$ 1,878,245	20
Nitrogen Removal in Centrate, EWRP <i>Partial nitrification-deammonification of centrate at the Egan WRP using ANITA Mox Moving Bed Biofilm Reactors. This process will use significantly less energy compared to conventional nitrogen removal, reduce odors and corrosion in the conduit that conveys the flow, and decrease the load on the O'Brien WRP.</i>	134093P	\$ 2,675,000	\$ 1,776,429	35

**2014 Series C
General Obligation Limited Tax Capital Improvement Bonds
January 1, 2015 through June 30, 2019
\$75,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 1/1/2015 - 6/30/2019	Estimated Useful Life of Project (years)
Distributed Control System for WSPS & RAPS, SSA <i>Implementation of a Distributed Control System to interface with and replace critical components of the existing computer monitoring and control system for solids processes at the Stickney WRP, Mainstream Pumping Station, and Stickney Service Area remote/unmanned facilities to improve monitoring and control.</i>	91177DE	\$ 9,789,000	\$ 1,732,303	20
Distributed Control System for MSPS and Other Remote Stations, SSA <i>Implementation of a Distributed Control System to interface with and replace critical components of the existing computer monitoring and control system for solids processes at the Stickney WRP, Mainstream Pumping Station, and Stickney Service Area remote/unmanned facilities to improve monitoring and control.</i>	91177CE	\$ 33,115,000	\$ 1,522,097	20
Civil, Structural & Architectural Engineering Consulting Services <i>Consulting services to augment District staff on specialized design or inspection, or when additional staffing is needed.</i>	098723D	\$ 2,990,195	\$ 1,414,813	20
Heavy Building Storage Site Improvements⁴ <i>Construction of a new concrete pavement area surrounding the heavy equipment storage building at the Calumet WRP, and construction of a new bulk material storage building at the O'Brien WRP.</i>	178453P	\$ 1,560,000	\$ 1,412,267	50
Install Baffle Plates for Final Settling Tanks, OWRP <i>Removal of a steel and wood baffle plate in Final Settling Tank B-1 and installation of a circular, fiber reinforced plastic baffle plates and support framing under the bottoms of the influent wells in each of the converted final settling tanks to improve the solids settling and removal process, and contribute to compliance with the District's National Pollutant Discharge Elimination System limits.</i>	150743D	\$ 1,405,000	\$ 1,303,300	50
Furnish Deliver & Install Disc Filters, HPWRP <i>Furnish, deliver, and install disc filters at the Hanover Park WRP to reduce filter backwash from eight percent to less than one percent to reduce energy and chemical use.</i>	17708MO	\$ 1,313,000	\$ 1,301,058	20
North Branch Dam Removal and River Riparian Connectivity <i>Removal of the North Branch Dam and concrete streambed to restore riparian connectivity; bank stabilization; and habitat restoration from Lawrence Avenue to Peterson Avenue. This 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.</i>	16IGA22	\$ 2,500,000	\$ 1,162,159	50
Wet Weather Treatment Facility and Reservoir, LWRP <i>Expansion of interceptor sewer from the Village of Lemont's combined sewer area; construction of a wet-weather treatment facility to provide primary treatment and disinfection; and construction of an equalization reservoir to buffer the peak wet-weather flows from the Village's separate sewer area. This will assist with providing adequate treatment of excess flows during wet-weather periods at the Lemont WRP per IEPA requirements.</i>	107163P	\$ 29,154,000	\$ 1,062,543	70
Other Projects			\$ 19,194,616	
Project Expenditures 1/1/2015 - 6/30/2019			\$ 89,931,969	100%
		Principal Amount of Bonds	\$ 75,000,000	
		Original Issue Premium	\$ 14,022,875	
		Costs of Issuance	\$ (248,244)	
		Investment Income	\$ 1,157,338	
		Available for Spending	\$ 89,931,969	
Remaining Available for Spending			\$ -	0%

¹The majority of the project was funded by IEPA State Revolving Fund Series bonds

²A portion of the project was funded by Unlimited Tax 2016 Series E bonds

³The majority of the project was funded by IEPA State Revolving Fund Series bonds

⁴A portion of the project was funded by Limited Tax 2016 Series D bonds

2016 Series C
General Obligation Unlimited Tax Capital Improvement Bonds
July 1, 2016 through June 30, 2019
\$30,000,000 Principal

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2019	Estimated Useful Life of Project (years)
McCook Reservoir Vulcan Agreement Hard Costs, SSA <i>Agreement with Vulcan to mine out a rough hole at the site of the McCook CUP Reservoir.</i>	73161EH	\$ 94,717,000	\$ 7,695,690	50
Thornton Composite Reservoir Mining, Land, and Corp Costs, CSA <i>Acquisition of the north lobe of the Thornton Quarry, and mining and use of the west lobe for the transitional reservoir. This 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.</i>	772352F	\$ 52,806,000	\$ 1,626,709	50
McCook Reservoir (CUP), Stages 1, 2 & 3 <i>Local matching contribution to the construction of the McCook Reservoir, an essential part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from combined sewer overflows (CSO) and comply with federal and state water quality standards.</i>	731612H	\$ 657,600,000	\$ 1,410,136	50
McCook Reservoir Des Plaines Inflow Tunnel⁵ <i>Construction of a tunnel that will connect the Des Plaines tunnel directly to the McCook Reservoir including a gate shaft, primary gate, backup gate, gate control building, temporary construction access shaft, tunnel portal and highway stability measures, and an energy dissipation apron with baffle blocks. The McCook Reservoir project will help prevent flooding and pollution from combined sewer overflows (CSO).</i>	131064F	\$ 109,841,000	\$ 1,145,840	50
Other Projects			\$ 3,158,199	
Project Expenditures 7/1/2016 - 6/30/2019			\$ 15,036,574	41%
		Principal Amount of Bonds	\$ 30,000,000	
		Original Issue Premium	\$ 5,739,300	
		Costs of Issuance	\$ (79,534)	
		Investment Income	\$ 1,143,807	
		Available for Spending	\$ 36,803,573	
		Remaining Available for Spending	\$ 21,766,999	59%

⁵The majority of the project was funded by IEPA State Revolving Fund Series bonds in prior years.

2016 Series D
General Obligation Limited Tax Capital Improvement Bonds
July 1, 2016 through June 30, 2019
\$20,000,000 Principal

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2019	Estimated Useful Life of Project (years)
Summit Conduit Rehabilitation, SSA <i>Rehabilitation of concrete sewer and inlet & outlet structures at the Summit Conduit to restore the hydraulic and structural integrity of the sewers and inlet/outlet structures.</i>	161263S	\$ 2,900,000	\$ 281,088	50
Furnish, Deliver & Install Grit Screw Conveyors, SWRP <i>Rebuild of the existing chain and flight collector system.</i>	17902MO	\$ 2,400,000	\$ 256,500	5
Heavy Building Storage Site Improvements⁶ <i>Construction of a new concrete pavement area surrounding the heavy equipment storage building at the Calumet WRP, and construction of a new bulk material storage building at the O'Brien WRP.</i>	178453P	\$ 1,560,000	\$ 232,190	50
Switchgear & Motor Control Center Replacement, OWRP <i>Replacement of the Process Control Building 480-volt switchgear, Aerated Grit Motor Control Center (MCC), Scum Concentration MCC, Battery D MCC, and Process Control MCC 19A & 19B to address deteriorating conditions and ongoing maintenance, operation, and safety issues, and to prevent any catastrophic failures.</i>	170803E	\$ 3,577,000	\$ 227,790	40
Other Projects			\$ 828,736	
Project Expenditures 7/1/2016 - 6/30/2019			\$ 1,826,304	7%
		Principal Amount of Bonds	\$ 20,000,000	
		Original Issue Premium	\$ 4,718,891	
		Costs of Issuance	\$ (53,675)	
		Investment Income	\$ 1,214,809	
		Available for Spending	\$ 25,880,025	
		Remaining Available for Spending	\$ 24,053,721	93%

⁶A portion of the project was funded by Limited Tax 2014 Series C bonds

2016 Series E
General Obligation Unlimited Tax Bonds (Alternate Revenue Source)
July 1, 2016 through June 30, 2019
\$50,000,000 Principal

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2019	Estimated Useful Life of Project (years)
Albany Park Stormwater Diversion Tunnel⁷ <i>Installation of a stormwater diversion tunnel to alleviate overland flooding in the Albany Park neighborhood in Chicago to reduce overbank flooding affecting 336 structures in the area.</i>	140663F	\$ 24,750,000	\$ 6,745,388	50
Buffalo Creek Reservoir Expansion <i>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, including relocating trails and bridges above the reservoir's inundation level. Approximately 104 structures will receive flood protection from the expansion.</i>	133703F	\$ 9,678,900	\$ 3,580,827	50
Melvina Ditch Reservoir Improvements <i>Expansion of the existing Melvina Ditch Reservoir; modification of the pump station to accommodate the reservoir expansion, and installation of a new emergency overflow weir to reduce the likelihood of reservoir overtopping. This will help alleviate flooding in Burbank and Oak Lawn.</i>	142633F	\$ 21,452,000	\$ 2,468,424	50
Addison Creek Channel Improvements <i>Improvements to channel conveyance such as open channel, gabions, sheet piles, riprap, and stream clearing in Northlake, Melrose Park, Stone Park, Bellwood, Westchester, and Broadview.</i>	111873F	\$ 48,133,000	\$ 2,061,221	50
Des Plaines Land Acquisition <i>Purchase of 49 flood-prone homes along the Des Plaines River as part of a cost sharing agreement with the City of Des Plaines to reduce flood hazard risk.</i>	16IGA11	\$ 3,625,000	\$ 1,969,191	100
Lyons Levee Flood Control Improvements <i>Restoration and improvement of the Lyons Levee to elevate it to modern design standards, provide flood protection, and prevent overtopping by events up to a 100-year design flood. Overtopping has resulted in major flooding in the recent past (2013), and could jeopardize the ComEd substation that is located east of Forest View and create the potential for power disruptions or failures at Midway Airport and the Stickney Water Reclamation Plant.</i>	131993F	\$ 3,500,000	\$ 1,441,738	50
Flood Control Project on Midlothian Creek in Robbins (Design) <i>Design of a wetland lake/park and outfall channel to the Cal-Sag Channel to provide a 100-year storm level of protection for the 137th St. and Kedzie Ave. Project Area in Robbins, IL.</i>	142533F	\$ 1,815,130	\$ 850,336	50
Addison Creek Reservoir⁸ <i>Excavation and installation of flood control reservoir in Bellwood; includes control structure, inlet structure, spillway, piping and a pump station. This will reduce overbank flooding to approximately 2,200 structures along Addison Creek and serve as compensatory storage for a channel improvement project.</i>	111863F	\$ 109,542,000	\$ 708,853	50
Other Projects			\$ 724,596	
Project Expenditures 7/1/2016 - 6/30/2019			\$ 20,550,574	33%
		Principal Amount of Bonds	\$ 50,000,000	
		Original Issue Premium	\$ 10,545,322	
		Costs of Issuance	\$ (131,789)	
		Investment Income	\$ 2,258,195	
		Available for Spending	\$ 62,671,728	
Remaining Available for Spending			\$ 42,121,154	67%

⁷A portion of the project was funded by Limited Tax 2014 Series C bonds

⁸The majority of the project will be funded by IEPA State Revolving Fund Series bonds

**Illinois Environmental Protection Agency Funding
State Revolving Funds Series General Obligation Bonds
July 1, 2018 through June 30, 2019**

Project Name	Project Number	Estimated Total Project Cost	Estimated Useful Life of Project (years)	Spending 7/1/2018 - 6/30/2019	Spending 1/1/2015 - 6/30/2018	Estimated Cost Remaining
West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP⁹ <i>Construction of nine primary settling tanks (PST) and six aerated grit tanks. This will utilize more modern and effective treatment equipment.</i>	041283P	\$ 223,017,405	70	\$ 15,350,775	\$ 207,666,630	\$ -
Salt Creek Intercepting Sewer 2 Rehabilitation, SSA <i>Rehabilitation of intercepting sewer and junction chambers; rehabilitation, rebuilding, raising, and construction of manholes; and modifications of control structure. This will resolve the problems of cracks/holes, sewage solids deposits, sags, offset joints, root intrusion, infiltration, and concrete corrosion due to the action of hydrogen sulfide generated by the decomposition of settled solids.</i>	061553S	\$ 43,878,000	50	\$ 6,919,963	\$ 35,745,195	\$ 1,212,842
Conversion of Two New Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP <i>Conversion of gravity concentration tanks into fermenters; installation of a pumping station to pump fermentate directly into the West Side primary effluent conduit feeding the secondary aeration batteries; and installation of a gas detection system for the new gravity concentration tank building to meet code requirements. This project is part of the District's initiative to recover phosphorus at the Stickney Water Reclamation Plant and to meet a new regulatory limit for phosphorus in the effluent.</i>	151243P	\$ 4,094,860	50	\$ 3,492,646	\$ -	\$ 602,214
A/B and C/D Service Tunnel and Connecting Tunnel Rehabilitation - Phase II, SWRP <i>Rehabilitation of the A/B and C/D service tunnels, and replacement of connecting tunnel in between. This will restore structural capacity, extend service life, and prevent further damage to the utilities inside the tunnels.</i>	041323D	\$ 20,519,000	50	\$ 3,490,792	\$ 15,890,593	\$ 1,137,615
McCook Reservoir Expanded Stage 2 Slope Stabilization and Retaining Walls, SSA <i>Construction of a soil nail retaining wall and slope stabilization work on the McCook Reservoir. This will provide sufficient mining reserves to achieve the intended capacity of 10 billion gallons as part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from combined sewer overflows.</i>	161254F	\$ 8,210,092	50	\$ 3,162,045	\$ 5,048,047	\$ -
Streambank Stabilization Project on Oak Lawn Creek <i>Stabilization of approximately 1,200 linear feet of Oak Lawn Creek, from Central Avenue to Massasoit Avenue, using soldier piles and precast concrete panels. Trees and other plantings will be installed upon the completion of the wall. The creek banks have deteriorated due to hydraulic erosion and slope failures, thus potentially compromising the slopes and impacting residential structures in the vicinity.</i>	102373F	\$ 3,035,000	30	\$ 2,165,754	\$ 842,453	\$ 26,793
Phosphorus Recovery System, SWRP <i>Construction of a phosphorus recovery facility, including a building to house the recovery process and product storage, installation of Ostara Pearl reactors, and installation of pumping equipment and appurtenances to transfer concentrates to this facility. This will reduce phosphorus concentrates in Stickney WRP effluent.</i>	11195AP	\$ 34,735,981	70	\$ 2,078,701	\$ 32,657,280	\$ -
Disinfection Final Design & Post Award, NSWRP¹⁰ <i>Construction of UV light disinfection facilities and improvements to existing infrastructure at the O'Brien WRP to protect health and preserve the recreational function of the Chicago Area Waterway System.</i>	110543P	\$ 61,724,000	50	\$ 1,598,987	\$ 60,125,013	\$ -
D799 Switchgear Replacement, SWRP <i>Replacement of switchgear and feeder cables. This will improve reliability, reduce the risk of failure, provide enhanced safety features, allow future expansion, and ensure an appropriate level of service.</i>	091823E	\$ 12,645,300	30	\$ 1,571,662	\$ 6,226,048	\$ 4,847,590

**Illinois Environmental Protection Agency Funding
State Revolving Funds Series General Obligation Bonds
July 1, 2018 through June 30, 2019**

Project Name	Project Number	Estimated Total Project Cost	Estimated Useful Life of Project (years)	Spending 7/1/2018 - 6/30/2019	Spending 1/1/2015 - 6/30/2018	Estimated Cost Remaining
Addison Creek Reservoir¹¹ <i>Excavation and installation of flood control reservoir in Bellwood; includes control structure, inlet structure, spillway, piping and a pump station. This will reduce overbank flooding to approximately 2,200 structures along Addison Creek and serve as compensatory storage for a channel improvement project.</i>	111863F	\$ 109,542,000	50	\$ 1,464,476	\$ -	\$ 108,077,524
Other Projects				\$ 1,592,808	\$ 229,336,913	

Project Expenditures by Period	7/01/2018 - 6/30/2019	1/01/2015 - 6/30/2018	Cumulative Expenditures
	\$ 42,888,609	\$ 593,538,172	\$ 636,426,781

⁹A portion of the project was funded by Limited Tax 2014 Series C bonds

¹⁰A portion of the project was funded by Limited Tax 2014 Series C bonds

¹¹A portion of the project was funded by Unlimited Tax 2016 Series E bonds



About 50 sheep and goats with Vegetation Solutions peruse the grounds at Lemont Water Reclamation Plant, looking for something to munch on. This form of landscaping will reduce the need for herbicides and fuel to mow and trim plants. The animals are fenced in to graze on invasive plants and overgrowth and work together to cut down plant overgrowth and other rising vegetation. What the sheep don't eat, the goats will, and what the goats don't touch, the sheep will usually devour.

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