



Green Bonds

Project Expenditure Report

as of June 30, 2021



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
McCook Reservoir and Des Plaines Inflow Tunnel	6 - 7
Fox River Water Reclamation District (FRWRD) Projects	8 - 9
Buffalo Creek Reservoir Expansion	10 - 11
Appendix: Project Spending Report	13

Front Cover: McCook Reservoir Stage 1 was completed in 2017 and provides 3.5 billion gallons of storage. Stage 2 will be completed in 2029 and provide 6.5 billion gallons of storage.

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; today it provides relief for more than 3.5 million people living in a 352-square-mile area of combined sewer systems, collecting both sanitary sewage and stormwater. It 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 backflows; 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 Stage 1 of the McCook Reservoir went into service in late 2017, the percent of CSO captured has risen, and the amount of CSO volume has declined; this can be attributed to the addition of the reservoir. TARP captures the heavily polluted first flush of combined sewage from storms and continues to capture diluted sewage mixed with stormwater throughout each storm until capacity

is reached. The water captured by McCook is eventually pumped to Stickney Water Reclamation Plant for treatment. In 2021, the MWRD pumped back 48.7 billion gallons of water for treatment from the tunnels and reservoir, and even more water will be captured when McCook Reservoir Stage II comes into service.

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 by 2020, including 60 that have been found in the CAWS since 2000. Thanks in part to advancements of TARP and at MWRD water treatment operations, the waterways have experienced new life, a surge in recreational activity and economic development.

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 1.2 billion gallons of wastewater each day. The total wastewater treatment capacity is over two billion gallons per day.

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.

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

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.

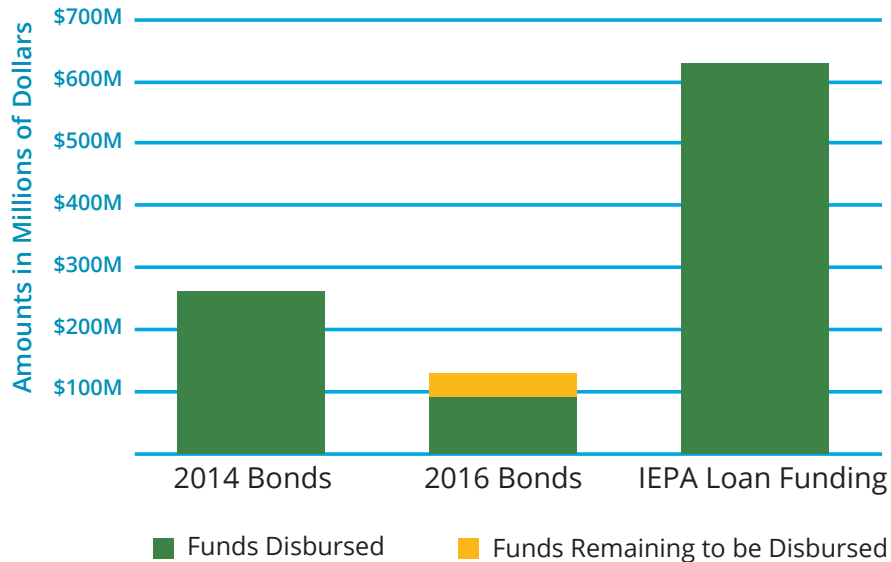
Use of proceeds

The following is a summary of the programs and projects funded by the Green Bonds as of June 30, 2021. 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, 2021



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.

McCook Reservoir and Des Plaines Inflow Tunnel

Together with the rest of the MWRD's Tunnel and Reservoir Plan (TARP), the McCook Reservoir and connecting tunnel systems will mitigate pollution and flooding from large, consecutive rain events by protecting homes, businesses, waterways, and the area's drinking water supply.

Stage 1 of the McCook Reservoir became operational at the end of 2017 and has filled numerous times since then. It is a fully functioning system providing 3.5 billion gallons (BG) of storage capacity to the MWRD's communities and waterways. The reservoir and two adjoining tunnel systems have prevented more than 120 BG of combined stormwater and sewage from overflowing to waterways in its first three years. The MWRD plans to complete Stage 2 of the McCook Reservoir in 2029 to provide an additional 6.5 BG of storage. Once completed, the McCook Reservoir will provide more than \$143 million per year in flood damage reduction benefits to 3.1 million people in 37 communities, along with a total capacity of 10 BG.

Construction on the Des Plaines Inflow Tunnel (DPIT) nears completion to connect the 26-mile Des Plaines Tunnel System to the McCook Reservoir to capture and store combined stormwater and sewage that previously overflowed from sewers into waterways in rainy weather. This stored water is pumped from TARP to the Stickney WRP to be cleaned before being released to waterways. Tunnels such as DPIT improve waterway health by reducing combined sewer overflows (CSOs). The MWRD is on schedule to complete the tunnel connection by 2022.



Construction on the Des Plaines Inflow Tunnel (DPIT) nears completion to connect the 26-mile Des Plaines Tunnel System to the McCook Reservoir to capture and store combined stormwater and sewage that previously overflowed from sewers into waterways in rainy weather.

Fox River Water Reclamation District (FRWRD) Projects



The MWRD has a master agreement with the Fox River Water Reclamation District for treatment of wastewater flow from the MWRD's Poplar Creek Basin.

In 1974, as required by the U.S. Environmental Protection Agency for grant funding, the MWRD entered into a master agreement with the FRWRD for treatment of wastewater flow from the District's Poplar Creek Basin. The Agreement requires that the MWRD pay an annual cost for treatment of FRWRD wastewater based on measured flow to the facility. Additionally, the District is required to contribute capital funding for FRWRD projects that are necessary to increase or improve FRWRD's ability to treat wastewater flow to its facility.

Through an Intergovernmental Agreement, the MWRD assisted in the rehabilitation and modernization of the FRWRD's anaerobic digesters from 2018 to 2020. The project consisted of equipment replacement on four digesters, including the digester gas safety system, digester mixing system, primary sludge pumping, associated piping valves, and appurtenances. All four digester covers were rehabilitated or replaced, and improvements were also made to the electrical gear, instrumentation and controls, HVAC, and structural repairs for all facilities. The MWRD was responsible for \$1.75 million of the Anaerobic Digestion Improvements project costs, or 23.97% as determined by the percentage of total solids waste treated at the plant that is attributable to the District's Poplar Creek Basin. The total project cost included design engineering, construction, and post-award engineering services.

To address water quality in the Fox River Watershed, in 2019 the IEPA imposed stricter phosphorus effluent limits for the Pagorski Water Reclamation Facility's permit. In response, the FRWRD planned and designed two projects to meet these standards.

Initiated in 2019 and completed in 2021, the Struvite Facilities at the Pagorski WRF will reduce the phosphorus recycled within the liquid stream by precipitating it in the form of struvite within the digested biosolids. The work included the construction of a new struvite building, fluidized-bed struvite reactor, and odor control system adjacent to the existing sludge dewatering building, as well as the installation of other associated equipment within the existing sludge dewatering building. The struvite building includes a below-grade mixing pump station which will serve two new sludge equalization tanks, along with equipment, piping, and appurtenances including feed, recirculation/transfer, and jet mixing pumps; a magnesium chloride storage and feed system; an anti-foam chemical storage and feed system; reactor blowers; and associated HVAC, electrical, and instrumentation and control systems. The MWRD was responsible for \$2.5 million of the Struvite Facilities project costs, or 23.97% as determined by the percentage of total solids waste treated at the plant that is attributable to the District's Poplar Creek Basin. The total project cost includes design engineering, construction, and post-award engineering services.

The Liquid Facilities project began in 2020 to improve the existing activated sludge process

at the Pagorski WRF to incorporate biological phosphorus (Bio-P) removal processes; it is expected to be completed in 2022. The work includes the construction of two primary sludge fermenters; a fermenter control building; six mixing basins; a primary effluent/return activated sludge pump station; an odor control system; a splitter box; a flowmeter/valve vault; and HVAC, electrical, and instrumentation and control system improvements. Modifications will also be made to the existing aeration basin effluent channel and the primary effluent metering flumes. New equipment, piping, and appurtenances will be installed within existing buildings and at existing structures, including new covers for both gravity thickener tanks. The project will also include modifications to process piping, as well as demolition of existing equipment, piping, structures, and appurtenances as required for the construction and installation of the improvements. The MWRD will be responsible for approximately \$7.1 million of the Liquid Facilities project costs, or 36.2% as determined by the percentage of total liquid waste treated at the plant that is attributable to the District's Poplar Creek Basin. The total project cost includes design engineering, construction, and post-award engineering services.

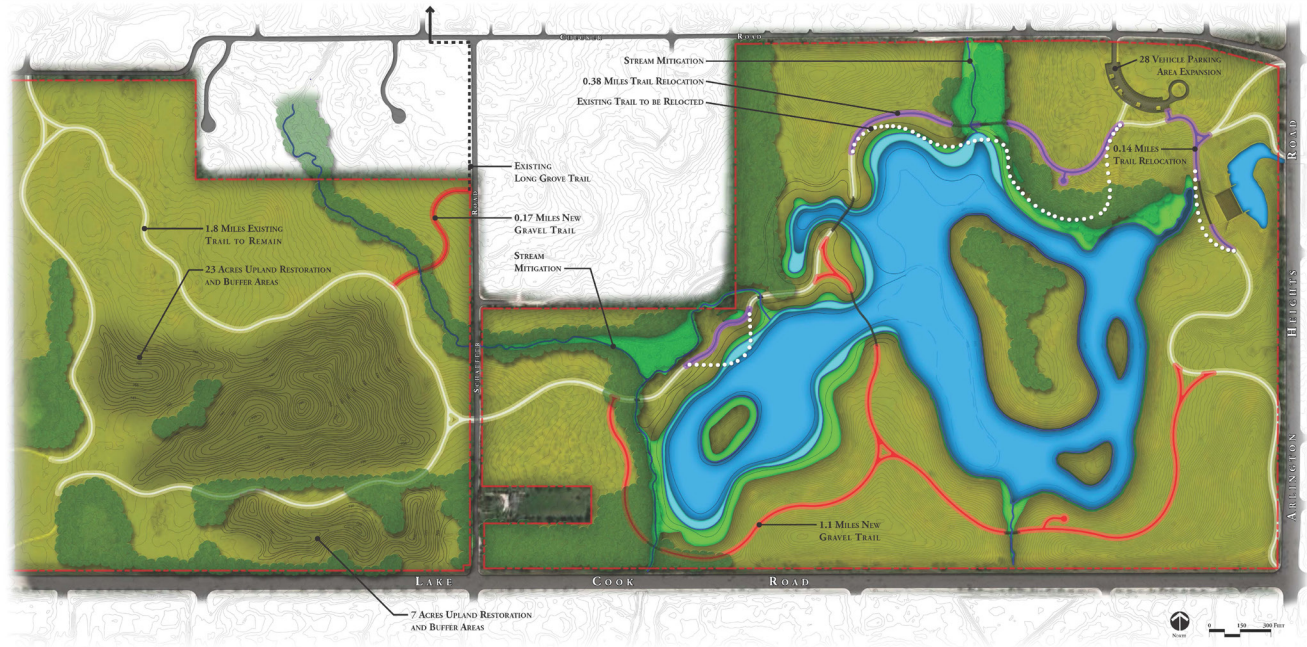
Buffalo Creek Reservoir Expansion

In 1973, the MWRD, the Lake County Forest Preserves (LCFPD) and the Village of Buffalo Grove entered into an agreement to acquire the land and construct the original Buffalo Creek Reservoir to provide flood protection for the rapidly developing communities of Buffalo Grove and Wheeling that were downstream of the Buffalo Creek. The original reservoir's construction was completed by 1983, and the volume was expanded in 1988, but the risk of overbank flooding remained for communities downstream within the Lower Des Plaines River Watershed. The LCFPD, Village of Buffalo Grove, and MWRD agreed to collaborate on a project to combine public access improvements, enhance the preserve's natural features, and expand the reservoir's volume. The project's boundaries made it unique – the reservoir lies north of the MWRD's service area in Lake County, but the expanded storage would benefit Cook County communities affected by flooding. Under the terms of an intergovernmental agreement, the MWRD agreed to cover the costs of the \$9.7 million project, while the LCFPD would be responsible for future maintenance.

The project formally broke ground on May 2, 2018. In the following years, the construction site was dewatered; erosion control and stabilization structures were repaired and installed; lands were restored and improved with selective clearing, grading banks, riffle enhancements, and native vegetation; and more than two miles of multi-use trails and seven wooden pedestrian boardwalks and two pedestrian overlooks were constructed along with an expansion of the parking lot. Construction is now complete, but the MWRD is currently in the second year of a three-year post-construction management period of native plantings at the site to ensure the establishment and survival of high-quality native vegetation. The MWRD is concurrently in the second year of a five-year management period of Main Stem Buffalo Creek and the West Unnamed Tributary; each tributary was enhanced with riffle structures and native plantings to obtain stream mitigation credit for the reservoir expansion.

The expansion has increased the reservoir's flood volume by 180.7 acre-feet, expanded the open water area by 6.3 acres and the wetland area by 14.8 acres, and planted new vegetation in an emergent zone area enlarged by 4.5 acres. The U.S. Army Corps of Engineers (USACE) estimated that the additional storage will reduce future flood damage by \$26 million, and the preservation of the surrounding land will provide environmental, aesthetic, and recreational benefits to the neighboring communities for years to come.

Buffalo Creek Reservoir Expansion Final Configuration



The Buffalo Creek Reservoir Expansion project has increased the reservoir's flood volume by 180.7 acre-feet, expanded the open water area by 6.3 acres and the wetland area by 14.8 acres, and planted new vegetation in an emergent zone area enlarged by 4.5 acres.

The next report will be prepared and posted to the MWRD's website detailing capital expenditures through June 30, 2022.

Appendix

Project Spending Report

**2016 Series C
General Obligation Unlimited Tax Capital Improvement Bonds
July 1, 2016 through June 30, 2021
\$30,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2021	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	\$ 11,852,652	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	\$ 3,597,479	50
McCook Reservoir Des Plaines Inflow Tunnel <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	\$ 1,871,061	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 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	\$ 1,330,692	50
Other Projects			\$ 4,165,165	

Project Expenditures 7/1/2016 - 6/30/2021 **\$ 24,227,185** **67%**

Principal Amount of Bonds \$ 30,000,000
Original Issue Premium \$ 5,739,300
Costs of Issuance \$ (79,534)
Fund Transfer of Investment Earnings \$ (1,000,000)
Investment Income \$ 1,489,121
Available for Spending \$ 36,148,887

Remaining Available for Spending \$ 11,921,702 **33%**

**2016 Series D
General Obligation Limited Tax Capital Improvement Bonds
July 1, 2016 through June 30, 2021
\$20,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2021	Estimated Useful Life of Project (years)
West Side Primary Settling Tanks 1-9 and Aerated Grit Facility, SWRP <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	\$ 2,822,211	70
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	\$ 2,509,533	40
Energy Performance Projects, SSA <i>Installation of HVAC control upgrades at Mainstream Pumping Station, Stickney WRP, and Kirie WRP. Upgrade of interior lighting with LED fixtures at the Mainstream Pumping Station and Stickney WRP.</i>	1990131	\$ 5,412,000	\$ 2,461,963	20
Structural Repairs Roof Replacement 95th St, PS <i>Removal of all roofing and insulation at the upper and lower roof levels followed by installation of a steel roof deck. Repair or replacement of corroded steel roof beams at the lower roof level to restore lost structural capacity. Removal and replacement of corroded roof purlins at the upper roof level.</i>	172763D	\$ 4,600,000	\$ 1,708,840	20
Calumet Intercept Sewer 19F Rehab, CSA <i>Rehabilitation of approximately 14,051 linear feet of 60-inch sewer pipe, 252 feet of 20-inch circular sewer, 23 drop manholes, and one junction structure. Removal of an existing 48-inch cast-in-place structure, and abandoning of a 10-inch diameter pipe.</i>	112393S	\$ 14,382,247	\$ 1,240,372	50
Public Building Commission of Chicago Energy Performance Projects <i>Remediation of 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	\$ 1,205,899	20
Furnish, Deliver & Install Grit Screw Conveyors, SWRP <i>Rebuild of the existing chain and flight collector system.</i>	17902MO	\$ 2,400,000	\$ 1,195,191	5
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	\$ 1,171,444	50
Phosphorus Removal, Struvite Facilities, Fox River Water Reclamation District <i>Improvements at the FRWRD Pagorski WRF to reduce the phosphorus recycled within the liquid stream by precipitating it in the form of struvite within the digested biosolids. Construction of a new Struvite Building with a below-grade mixing pump station; fluidized-bed struvite reactor; and odor control system. In 1974, as required by the USEPA for grant funding, the District entered into a master agreement with the FRWRD for treatment of wastewater flow from the District's Poplar Creek Basin, which required the District pay an annual cost for treatment of that wastewater based on measured flow to the facility, and to contribute capital funding for FRWRD projects that are necessary to increase or improve FRWRD's ability to treat wastewater flow to its facility. Based upon the percentage of the total treated waste attributable to the Poplar Creek Basin, the District is responsible for 23.97% of the Phosphorus Removal Struvite Facilities project.</i>	18IGA35	\$ 2,635,071	\$ 1,020,374	20
Anaerobic Digester Improvement A, Pagorski WRF, Fox River Water Reclamation District <i>Replacement of the FRWRD Pagorski WRF's digester gas safety system, digester mixing system, primary sludge pumping, associated piping valves and appurtenances on Digesters 2, 3, 4, and 5. Rehabilitation/replacement of digester covers. Improvements to the electrical gear, I&C, HVAC, and structural repairs at all facilities.</i>	17IGA03	\$ 2,915,922	\$ 1,000,006	20
Boiler DCS Control Upgrades <i>Installation of controls, programming, and other required appurtenances to upgrade the obsolete controls for Boilers 1, 2, 3, 4, 5, and 7 utilized at the Digesters Facility and to provide heating and cooling for the entire plant. This project will lower maintenance costs in addition to delivering a reliable control system.</i>	16901MO	\$ 1,499,140	\$ 999,689	20

Continued on the next page.

**2016 Series D
General Obligation Limited Tax Capital Improvement Bonds
July 1, 2016 through June 30, 2021
\$20,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2021	Estimated Useful Life of Project (years)
Phosphorus Removal, Liquid Facilities, Fox River Water Reclamation District <i>Improvements at the FRWRD Pagorski WRF to the existing activated sludge process to incorporate biological phosphorus (Bio-P) removal processes. Construction of two primary sludge fermenters; a Fermenter Control Building; six mixing basins; a primary effluent/return activated sludge pump station; an odor control system; a splitter box; a flowmeter/valve vault; and other associated equipment and modifications. In 1974, as required by the USEPA for grant funding, the District entered into a master agreement with the FRWRD for treatment of wastewater flow from the District's Poplar Creek Basin, which required the District pay an annual cost for treatment of that wastewater based on measured flow to the facility, and to contribute capital funding for FRWRD projects that are necessary to increase or improve FRWRD's ability to treat wastewater flow to its facility. Based upon the percentage of the total treated waste attributable to the Poplar Creek Basin, the District is responsible for 36.20% of the Phosphorus Removal Liquid Facilities project. (Liquid stream projects have a larger percentage cost share, since solids projects also treat solids from other FRWRD facilities.)</i>	18IGA36	\$ 9,761,692	\$ 982,478	20
Emerson DCS Upgrade <i>Upgrade of the Distributed Control System (DCS) at Kirie, Egan, and Hanover Park with optimization of the current installation to minimize cost and installation time. The upgraded system will provide the operators with quicker information while incurring lower maintenance costs. The DCS system will provide control and monitoring for all three plants.</i>	1870431	\$ 1,941,564	\$ 873,946	10
Civil, Structural, Architectural Support <i>Professional Civil, Structural, and Architectural support services to assist Engineering Department staff with design, inspections, materials testing, and exploratory investigation. Work is performed via Task Orders on an as-needed basis.</i>	098753D	\$ 4,500,000	\$ 860,230	Varies
Civil Consulting Support Services <i>Professional civil engineering support services to assist the Engineering Department staff on design and post-award related issues on an as-needed basis.</i>	148203S	\$ 1,750,000	\$ 762,054	Varies
Other Projects			\$ 5,328,862	
Project Expenditures 7/1/2016 - 6/30/2021			\$ 26,143,092	100%
		Principal Amount of Bonds	\$ 20,000,000	
		Original Issue Premium	\$ 4,718,891	
		Costs of Issuance	\$ (53,675)	
		Investment Income	\$ 1,477,876	
		Available for Spending	\$ 26,143,092	
		Remaining Available for Spending	\$ -	0%

**2016 Series E
General Obligation Unlimited Tax Bonds (Alternate Revenue Source)
July 1, 2016 through June 30, 2021
\$50,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2021	Estimated Useful Life of Project (years)
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	\$ 9,740,395	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 107 structures will receive flood protection from the expansion.</i>	133703F	\$ 9,678,900	\$ 7,773,393	50
Albany Park Stormwater Diversion Tunnel <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
Addison Creek Reservoir <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	\$ 4,968,803	50
Addison Creek Channel Improvements <i>Improvements to channel conveyance and stabilization 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	\$ 2,928,834	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	\$ 2,422,183	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	\$ 1,493,950	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	\$ 1,403,026	50
Other Projects			\$ 1,087,750	
Project Expenditures 7/1/2016 - 6/30/2021			\$ 38,563,722	63%
		Principal Amount of Bonds	\$ 50,000,000	
		Original Issue Premium	\$ 10,545,322	
		Costs of Issuance	\$ (131,789)	
		Fund Transfer of Investment Earnings	\$ (2,000,000)	
		Investment Income	\$ 2,891,666	
		Available for Spending	\$ 61,305,199	
Remaining Available for Spending			\$ 22,741,477	37%

**Illinois Environmental Protection Agency Funding
State Revolving Funds Series General Obligation Bonds
July 1, 2020 through June 30, 2021**

Project Name	Project Number	Estimated Total Project Cost	Estimated Useful Life of Project (years)	Spending 7/1/2020 - 6/30/2021	Spending 1/1/2015 - 6/30/2020	Cumulative Spending 1/1/2015 - 6/30/2021
Addison Creek Reservoir <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	\$ 17,786,225	\$ 20,950,224	\$ 38,736,449
Digester Sludge Heating System Upgrades <i>Replace digester hot water boilers with steam to hot water converters, replace heat exchangers, clean digesters and provide new gas mixing systems within digesters. Project will result in increased efficiency, increased gas production and remove equipment not in compliance with current codes.</i>	182773M	\$ 25,499,000	50	\$ 13,611,808	\$ 1,703,465	\$ 15,315,273
McCook Reservoir Des Plaines Inflow Tunnel <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	50	\$ 11,983,101	\$ 88,870,443	\$ 100,853,544
Digester Rehab & Gas Piping Replacement <i>Installation of two 20" digester gas mains to replace a single pipe which has become partially clogged and cannot be taken out of service, to allow transfer of additional gas created by improvements to other processes at the Stickney WRP. Replacement of sludge pumps, installation of macerators, and upgrades to city and effluent water piping.</i>	171403P	\$ 13,725,000	50	\$ 9,441,908	\$ 1,594,578	\$ 11,036,486
Odor Control Facilities @WASSTRIP...SWRP <i>Installation of three biofilters at Stickney WRP for controlling odorous emissions from the SW Coarse Screens, the WASSTRIP Process and Overhead Weir structure, and the Post-Digestion Centrifuge Facility. Local residents will benefit from reduced odors from the plant.</i>	171343M	\$ 16,485,000	50	\$ 8,810,377	\$ 2,015,239	\$ 10,825,616
Installation of Mechanical Mixers, SWRP <i>Installation of mechanical mixers in the first pass of each aeration tank in Aeration Batteries A, C, and D, including all electrical equipment and infrastructure upgrades. This project will properly mix the anaerobic zones in the biological phosphorus removal process to ensure better performance of this treatment process.</i>	191573P	\$ 8,722,028	20	\$ 5,312,340	\$ -	\$ 5,312,340
Modifications to TARP Structures <i>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.</i>	178423H	\$ 3,548,312	50	\$ 3,004,745	\$ 320,035	\$ 3,324,780
Furnish & Deliver Odor Control Systems <i>Installation of a new odor control system at the Calumet, Hanover Park, and Kirie WRPs to reduce odor emissions negatively affecting District staff and neighboring communities, and to potentially reduce influent chlorination costs. Local residents and a school will no longer be subject to odors.</i>	178443P	\$ 4,098,000	20	\$ 1,592,501	\$ 2,100,558	\$ 3,693,059
Final Reservoir Prep, Thornton Composite Reservoir, CSA <i>Construction of a 20-foot diameter concrete lined connection tunnel and drop shaft, installation of inclinometers, and various site work, including access roads, walkways, ramps, an overlook, fencing, and landscaping.</i>	042034F	\$ 53,905,330	50	\$ 1,183,257	\$ -	\$ 1,183,257
Other Projects				\$ 1,192,742	\$ 539,095,177	\$ 540,287,919

Project Expenditures by Period	7/01/2020 - 6/30/2021	1/01/2015 - 6/30/2020	Cumulative Expenditures
	\$ 73,919,004	\$ 656,649,719	\$ 730,568,723



Black egrets are among the wildlife found along the MWRD's waterways.

Back Cover: In 2020, the MWRD partnered with the Illinois Monarch Project to help protect monarch butterflies from becoming extinct. Studies suggest that monarch butterfly populations have rapidly declined due to habitat loss and climate change. Milkweed is the sole source of food for monarch caterpillars. As the regional authority for stormwater management, the MWRD has invested in native prairie landscaping across its land because native plants, like milkweed, play an important role in absorbing more water. With extensive root systems, native plants can help reduce flooding and also help improve local water quality.



Contact Us

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street
Chicago, Illinois 60611
312.751.5600

Mary Ann Boyle, CPA
Treasurer
312.751.5150
boylem@mwrdd.org

Visit us at mwrdd.org.



Board of Commissioners

Kari K. Steele, *President*

Barbara J. McGowan, *Vice President*

Marcelino Garcia, *Chairman of Finance*

Cameron Davis

Kimberly Du Buclet

Josina Morita

Eira L. Corral Sepúlveda

Mariyana T. Spyropoulos

Brian A. Perkovich, Executive Director