



Green Bonds

Project Expenditure Report

as of June 30, 2020



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
Energy Conservation.	6
McCook Reservoir Des Plaines Inflow Tunnel	8
Buffalo Creek Reservoir Expansion	9
Odor Control	10 - 11
Appendix: Project Spending Report	13

Front Cover: The Buffalo Creek Reservoir Expansion Project was substantially completed in 2020. The \$9.7 million project increases the existing Buffalo Creek Reservoir by approximately 180 acre feet to provide an additional 58.6 million gallons of storage to alleviate flooding for downstream communities while improving public recreation spaces at Buffalo Creek in the Lake County Forest Preserves.

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 I of 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 2019, the MWRD pumped back 54.46 BG for treatment from the tunnels and reservoir. 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 (*continued*)

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 22 pumping stations clean an average of 1.3 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

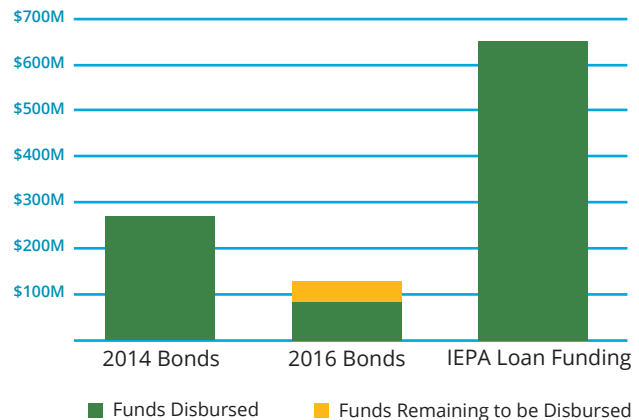
Performance metrics include optimization of aeration processes to reduce energy consumption, water reuse by converting current use of potable water in plant processes, and reduction in greenhouse gas emissions.

Use of proceeds

The following is a summary of the programs and projects funded by the Green Bonds as of June 30, 2020. 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, 2020



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.

Energy Conservation

Thanks to a \$1.5-million grant from the Illinois Environmental Protection Agency (IEPA) Office of Energy, the MWRD was able to upgrade its Stickney Water Reclamation Plant (WRP) with lighting and HVAC controls for maximum energy efficiency. The upgrades are reducing lighting energy consumption by more than 50% for approximately 7,474 fixtures that were replaced or retrofitted. Additionally, HVAC control upgrades were also made at the Mainstream Pumping Station and Kirie WRP. The total cost of these improvements was \$3.7 million.

These improvements continue a recent trend of energy efficiency upgrades and investments at MWRD facilities. In 2012, the MWRD entered into

an agreement with the Public Building Commission of Chicago to conduct an energy audit of all buildings and to participate in the Multi-Agency Guaranteed Energy Performance Contracting Program. The Energy Service Company (ESCO) Noresco conducted an audit to identify opportunities for energy reduction at MWRD facilities and replace outdated equipment with new, energy efficient equipment. The project is now complete at a total cost of \$3.4 million, which included \$2.4 million of grant funding. These improvements will not only provide an estimated annual savings of \$325,000, but they will also reduce our carbon footprint and promote a cleaner and more sustainable environment for the entire region.



The MWRD is working to become more sustainable by pursuing an array of environmental improvement projects, like LED lighting, while also developing technologies for renewable energy generation. LED light upgrades improve a pedway at the MWRD's Stickney WRP and can produce light up to 90 percent more efficiently than incandescent light bulbs.



Workers examine the inside of the Des Plaines Inflow Tunnel, part of the MWRD's Tunnel and Reservoir Plan.

McCook Reservoir Des Plaines Inflow Tunnel

Construction on the McCook Reservoir Des Plaines Inflow Tunnel (DPIT), part of the MWRD's Tunnel and Reservoir Plan (TARP), nears completion to connect the 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 have made an incredible difference in the waterway health. Area water quality has been improving since the Phase 1 tunnels began operation in the mid-1980s, and again in 2006 once they were completed. During that time, the numbers of combined sewer

overflows (CSO) were reduced from an average of 100 days per year to 50. And since the 7.9-billion gallon Thornton Composite Reservoir was added in 2015, CSOs in the Calumet River System have been virtually eliminated.

DPIT is the final stretch in connecting 26 miles of tunnels to the McCook Reservoir. Together with the rest of TARP, the system will mitigate pollution and flooding from large, consecutive rain events by protecting homes, businesses, waterways, and the area's drinking water supply. The MWRD is on schedule to complete the tunnel connection by 2021 and the reservoir by 2029 to create a total of more than 17 billion gallons of storage capacity.



The Buffalo Creek Reservoir Expansion Project will alleviate flooding for downstream communities while improving public recreation spaces at Buffalo Creek in the Lake County Forest Preserves.

Buffalo Creek Reservoir Expansion

The Buffalo Creek Reservoir Expansion Project formally broke ground on May 2, 2018, and was substantially completed in 2020. The \$9.7-million project increases the existing Buffalo Creek Reservoir by approximately 180 acre-feet to provide an additional 58.6 million gallons of storage, which will alleviate flooding for downstream communities while improving public recreation spaces at Buffalo Creek in the Lake County Forest Preserves (LCFPD).

Through a collaborative process with the LCFPD and Buffalo Grove, the project was designed to incorporate LCFPD's planned improvements in addition to offering increased stormwater protection for Buffalo Grove and surrounding communities. The project incorporates several aesthetic and environmental enhancements: created and restored wetlands; planted hundreds of new trees and shrubs; restored upland prairie west of Schaeffer Road; restored two tributaries entering the reservoir; and stabilized one additional tributary. Public access improvements include new

pedestrian boardwalks and raised trails, and an expanded parking lot.

Along with the aesthetic and public access improvements, the project will remove 107 structures from flooding impacts along the Des Plaines River watershed, and more than 2,000 structures along Buffalo Creek and the main stem of the Des Plaines River will also receive some form of flood reduction benefit. Future flood damages are projected to be reduced by more than \$26 million.

Following construction, the MWRD will establish native plantings on site for the first three growing seasons, and monitoring and maintenance will take place to ensure the survival of native species at the site. Concurrently, MWRD will also undertake five years of monitoring and maintenance on the two reaches of stream restoration along the Buffalo Creek Main Stem and the West Unnamed Tributary.



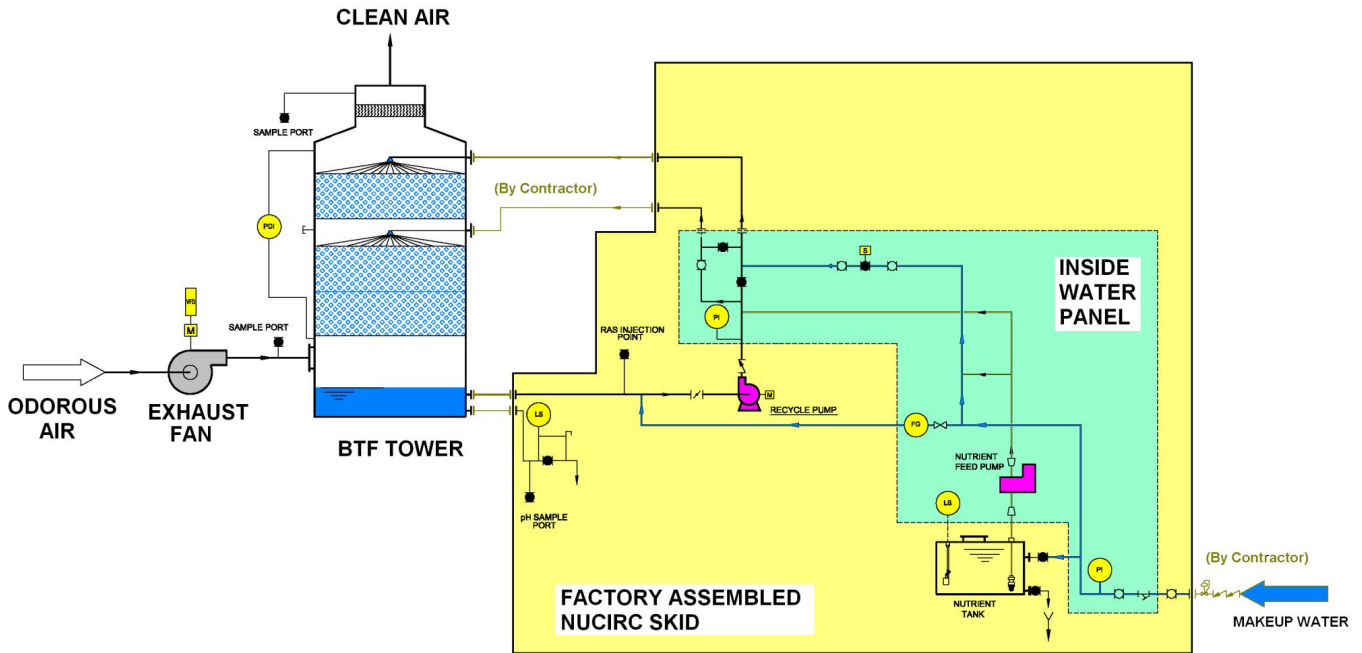
The new biotrickling filter odor control system at the Metropolitan Water Reclamation District of Greater Chicago's (MWRD's) Calumet Water Reclamation Plant will capture and remove odors from the wastewater treatment process. This new odor control facility is anticipated to be fully operational by summer 2021. In addition, the MWRD monitors for odor concerns in the surrounding communities it serves by installing sensors, conducting odor patrols and training employees to identify odorous compounds, so that appropriate mitigation measures can be taken.

Odor Control

Installation of new odor control systems is well underway at various facilities within the Calumet, Hanover Park, and Kirie WRPs. The existing facilities either do not have an odor control system or have a system that is not effective, and they have been emitting odorous air that negatively affects MWRD staff and neighboring communities, including an elementary school adjacent to the Hanover Park WRP. The new odor control system utilizes a biofilter or biotrickling filter, where growths of naturally occurring bacteria which have an affinity for sulfur-containing compounds (such as hydrogen sulfide) occur on media with large surface area. This material can be lava rock, or a similar proprietary material, though wood chips may also be used. An odorous airstream is directed through the biofilter, and the bacteria consume the offensive compounds. The WRP's

effluent water is used to humidify the odorous air and feed the biofilm. As new cultures grow and old ones die, the old slough off the media and are simply recirculated back to the plant influent. Inorganic biofilter material is guaranteed to last ten years or more, without being changed or even touched by operators. In other words, once the material is manufactured, it will remain there for a very long time with no additional manufacturing costs, hauling costs, nor disposal costs to contend with, and no chemicals are necessary or desirable. The lack of transport and disposal costs and chemicals makes this an extremely green system. The new systems are expected to be fully operational by mid-2021 to provide a combined savings of at least 80 labor hours and \$20,000 per year.

PROCESS FLOW DIAGRAM



An exhaust fan removes odorous air from certain process areas and directs it to the biotrickling filter. The air stream is humidified using plant effluent water, and is blown through the media upon which a live culture of bacteria with an affinity for odorous compounds is attached. If odorous compounds are not all consumed by the bacteria, any remaining odors are removed by the carbon polisher. The exhaust from the biotrickling filter has no odors.

The next report will be prepared and posted to the MWRD's website detailing capital expenditures through June 30, 2021.

Appendix

Project Spending Report

**2016 Series C
General Obligation Unlimited Tax Capital Improvement Bonds
July 1, 2016, through June 30, 2020
\$30,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2020	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	\$ 10,450,139	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	\$ 2,464,090	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	\$ 1,503,986	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			\$ 3,443,461	

Project Expenditures 7/1/2016 - 6/30/2020 \$ 20,602,504 **57%**

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 \$ 1,475,138
Available for Spending \$ 36,134,904

Remaining Available for Spending \$ 15,532,400 **43%**

**2016 Series D
General Obligation Limited Tax Capital Improvement Bonds
July 1, 2016, through June 30, 2020
\$20,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2020	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	\$ 2,817,311	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	\$ 2,166,924	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	\$ 1,549,140	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	\$ 1,032,848	20
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
Furnish, Deliver & Install Grit Screw Conveyors, SWRP <i>Rebuild of the existing chain and flight collector system.</i>	17902MO	\$ 2,400,000	\$ 1,042,015	5
Anaerobic Digester Improvement A, Pagorski WRP, Fox River Water Reclamation District <i>Replacement of the FRWRD Pagorski WRP'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>	171GA03	\$ 2,915,922	\$ 1,000,006	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
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	\$ 851,914	20
Phosphorus Removal, Struvite Facilities, Fox River Water Reclamation District <i>Improvements at the FRWRD Pagorski WRP 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>	181GA35	\$ 2,635,071	\$ 798,145	20

**2016 Series D
General Obligation Limited Tax Capital Improvement Bonds
July 1, 2016, through June 30, 2020
\$20,000,000 Principal**

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2020	Estimated Useful Life of Project (years)
Phosphorus Removal, Liquid Facilities, Fox River Water Reclamation District <i>Improvements at the FRWRD Pagorski WRP 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	\$ 779,284	20
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
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	\$ 632,549	35
Other Projects			\$ 4,183,003	
Project Expenditures 7/1/2016 - 6/30/2020			\$ 23,410,488	90%

Principal Amount of Bonds	\$ 20,000,000
Original Issue Premium	\$ 4,718,891
Costs of Issuance	\$ (53,675)
Investment Income	\$ 1,476,569
Available for Spending	\$ 26,141,785
Remaining Available for Spending	\$ 2,731,297 10%

2016 Series E
General Obligation Unlimited Tax Bonds (Alternate Revenue Source)
July 1, 2016, through June 30, 2020
\$50,000,000 Principal

Project Name	Project Number	Estimated Total Project Cost	Spending 7/1/2016 - 6/30/2020	Estimated Useful Life of Project (years)
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	\$ 7,690,305	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	\$ 7,467,618	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 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	\$ 2,662,977	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>	161GA11	\$ 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	\$ 1,482,132	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	\$ 1,103,631	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	\$ 779,449	50
Other Projects			\$ 984,334	

Project Expenditures 7/1/2016 - 6/30/2020 **\$ 31,338,017** **51%**

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	\$ 2,850,625
Available for Spending	\$ 61,264,158

Remaining Available for Spending **\$ 29,926,141** **49%**

**Illinois Environmental Protection Agency Funding
State Revolving Funds Series General Obligation Bonds
July 1, 2019, through June 30, 2020**

Project Name	Project Number	Estimated Total Project Cost	Estimated Useful Life of Project (years)	Spending 7/1/2019 - 6/30/2020	Spending 1/1/2015 - 6/30/2019	Cumulative Spending 1/1/2015 - 6/30/2020
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	\$ 19,485,748	\$ 1,464,476	\$ 20,950,224
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	\$ 5,485,527	\$ 83,384,916	\$ 88,870,443
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	\$ 2,100,558	\$ -	\$ 2,100,558
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	\$ 2,015,239	\$ -	\$ 2,015,239
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	\$ 1,703,466	\$ -	\$ 1,703,466
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	\$ 1,594,578	\$ -	\$ 1,594,578
Rehabilitation of North Branch PS, NSA <i>Installation of grouted fiberglass fiber reinforced plastic jackets around the existing concrete columns to protect columns from erosion. Repair of underwater deteriorated concrete of the east wall and under the deck wall. Repair of deteriorated concrete stairs and concrete deck. Restoration of balustrade and deck lighting.</i>	160793D	\$ 3,250,000	20	\$ 982,595	\$ 907,099	\$ 1,889,694
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	50	\$ 883,076	\$ 11,706,660	\$ 12,589,736
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	\$ 872,926	\$ 7,797,710	\$ 8,670,636
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	\$ 629,963	\$ 19,381,385	\$ 20,011,348
Other Projects				\$ 473,953	\$ 495,779,844	\$ 496,253,797

Project Expenditures by Period	7/01/2019 - 6/30/2020	1/01/2015 - 6/30/2019	Cumulative Expenditures
	\$ 36,227,629	\$ 620,422,090	\$ 656,649,719

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@mwrld.org

Visit us on the web at mwrld.org



Board of Commissioners

Kari K. Steele, President
Barbara J. McGowan, Vice President
Mariyana T. Spyropoulos, Acting Chairman of Finance

Cameron Davis
Kimberly Du Buclet
Marcelino Garcia
Josina Morita
Eira L. Corral Sepúlveda
Debra Shore

Brian A. Perkovich, Executive Director