

2016 Adopted Capital Improvement Budget



The Metropolitan District
Hartford, CT

2016 Capital Improvement Program

Summary

Overview

The Capital Improvement Program (CIP) budget is based upon the MDC's comprehensive asset management program for wastewater, water and combined programs. The objective of the program is to ensure the continued safety and efficiency of the District's water mains, sewers, pumping stations, treatment facilities buildings, and equipment. Asset management programs have been developed to maximize the effectiveness and useful life of our facilities.

The MDC will pursue funding for eligible projects under the State of Connecticut Department of Public Health's Drinking Water State Revolving Fund (water projects), State of Connecticut Department of Energy and Environmental Protection's Clean Water Fund (wastewater projects), and other State and/or Federal funding programs. Actual funding of projects is a condition of priority ranking and fund availability. Participation in such funding agreements is subject to the approval of the Metropolitan District.

Major Capital Improvement Components

Wastewater

The primary projects included in this budget are improvements and modernization to MDC's Water Pollution Control facilities. The following are some of next year's major expenditures.

Water Pollution Control Facilities – Air Permit Compliance Upgrades	4,500,000
Water Pollution Control - Electrical Systems Upgrades	3,300,000

Water

This budget will fund improvements to the water infrastructure including treatment plants, pipeline, storage facilities and pump stations. The following are some of the major expenditures for next year.

Bloomfield Transmission Main Extension	8,000,000
Radio Frequency Automated Meter Reading Program	1,500,000

Combined

The primary projects are to improve various District Administrative Facilities and Information Systems.

2016 Capital Improvement Program

Summary

Five-Year Capital Improvement Program

It is anticipated that the District will continue to complete projects associated with the 2006 and 2012 Clean Water Project referendums, during 2016. The District will continue to maintain and improve its assets to ensure the safe and efficient operation of service. In addition, the District has undertaken a comprehensive asset management program which involves a systematic replacement of water and sewer infrastructure in a proactive manner.

2016 Capital Improvement Program

Summary

Wastewater	2016	2017	2018	2019	2020
Assessable Sewer Program	\$ 300,000	\$ 50,000	\$ 50,000	\$ 100,000	\$ 100,000
General Purpose Sewer	500,000	750,000	1,000,000	1,000,000	1,000,000
Hartford WPCF - Air Permit Compliance Upgrades	4,500,000	-	-	-	-
Paving Program	1,400,000	1,000,000	1,000,000	1,500,000	2,000,000
Private Property Inflow Disconnect Program	50,000	25,000	25,000	25,000	25,000
Sewer Rehabilitation Program	3,600,000	2,500,000	2,500,000	1,500,000	1,500,000
Various Sewer Pipe Replacement/Rehab – District Wide	1,000,000	2,000,000	3,000,000	3,000,000	3,000,000
WPC Electrical Systems Upgrades	3,300,000	-	-	-	-
WPC Equipment & Facilities Improvements	2,100,000	2,000,000	3,000,000	2,250,000	2,250,000
WPC Plant Infrastructure Renewal and Replacements	3,200,000	2,700,000	2,800,000	2,900,000	3,000,000
Dividend Brook Drainage Area (Phase 1)	-	4,500,000	-	-	-
Dividend Brook Drainage Area (Phase 2)	-	-	-	5,000,000	-
Dividend Brook Drainage Area (Phase 3)	-	-	7,500,000	-	-
Hartford WPCF Final Settling Tanks 1, 3 & 5	-	7,500,000	-	-	-
Inspection of Large Diameter Sewers - Phase II	-	700,000	-	-	-
Hartford WPCF Final Settling Tanks 2, 4 & 6	-	-	12,000,000	-	-
East Hartford WPCF Plant Infrastructure Renewal and Replacements	-	3,750,000	-	-	-
Rocky Hill Upgrade: Sludge Storage, Headworks, & Stormwater PS	-	-	10,000,000	-	-
WPC Supervisory Control and Data Acquisition (SCADA) Upgrades	-	2,000,000	-	2,000,000	-
Hartford WPCF Centrifuge Replacement & Overhead Crane	-	4,000,000	-	-	-
Hartford WPCF Secondary Facility General & Architectural Improvements	-	-	10,000,000	-	-
Hartford WPCF Aeration Tanks 1 & 2 Concrete & Rehabilitation	-	-	-	12,500,000	-
WPC Electrical Systems Upgrades	-	-	2,000,000	-	-
Hartford Sludge Cake Receiving	-	-	9,500,000	-	-
Hartford WPCF Aeration Tanks 3 & 4 - Concrete & Rehabilitation	-	-	-	13,000,000	-
Hartford WPCF Aeration Tanks 5 & 6 - Concrete & Rehabilitation	-	-	-	-	13,500,000
Hartford WPCF DAFT Sludge Equalization & Screening	-	-	12,500,000	-	-
Backwater Valve Program	-	-	100,000	-	100,000
Renewable Energy Projects – Sewer Facilities	-	-	-	3,000,000	-
CCTV Design Review	-	187,500	187,500	187,500	187,500
CCTV Generated Sewer Contracts	-	7,500,000	1,200,000	10,000,000	1,500,000
Governor's Highway Pump Station, East Hartford	-	500,000	-	-	-
Pump Station Upgrades – Howard Avenue, Wethersfield	-	-	-	1,350,000	-
Pump Station Upgrades – Island Road, Windsor	-	-	-	3,000,000	-
Mohawk Dr Pump Station, East Hartford	-	-	-	3,500,000	-
Prasser Pump Station, East Hartford	-	-	-	2,100,000	-
Pump Station Replacement – Stonehedge - Ochialini, Newington	-	-	-	2,000,000	-
Expansion of Sewer SWMM Model	-	-	3,500,000	-	-
Southwest Newington Collection System Study	-	-	-	500,000	-
Mountain Farms Area Sewer Main Extension, West Hartford	-	5,000,000	-	-	-
Pierson Lane - Sewer Extension	-	1,110,000	-	-	-
Rainbow Trunk WWPS - Windsor	-	-	6,995,000	-	-
Oakwood Avenue, West Hartford (I-84 to Flatbush Ave) Phase 2	-	2,840,000	-	-	-
Madison Avenue Sewer and Water Main Replacement	-	2,150,000	-	-	-
Total Wastewater	\$19,950,000	\$52,762,500	\$88,857,500	\$70,412,500	\$28,162,500

2016 Capital Improvement Program

Summary

Water	2016	2017	2018	2019	2020
General Purpose Water Program	\$ 3,000,000	\$ 3,500,000	\$ 3,500,000	\$ 4,500,000	\$ 4,500,000
Bloomfield Transmission Main Extension	8,000,000	7,500,000	-	-	-
WMR Simmons Road Area, East Hartford	3,800,000	-	-	-	-
Paving Program	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Radio Frequency Automated Meter Reading Program	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000
WMR Garden Street Area, Wethersfield	1,000,000	-	-	-	-
Land Acquisition for Water Facilities, Supply and Treatr	500,000	-	1,000,000	-	1,000,000
Water Supply Improvements - Raw Water Transmissioi	500,000	-	-	-	-
WMR Bond Street Area, Hartford (Phase 2)	-	-	3,000,000	-	-
Water Treatment Facility Upgrades	-	2,500,000	3,000,000	3,500,000	3,500,000
WMR Madison Avenue Area, Hartford	-	6,200,000	-	-	-
WMR Buckingham Street Area, Hartford	-	-	6,000,000	-	-
WMR Webster Hill Area, West Hartford	-	-	-	5,000,000	-
Water Storage Tank Improvement	-	4,000,000	2,000,000	2,000,000	2,000,000
WMR Farmington Avenue 11, Hartford	-	3,500,000	-	-	-
WMR Church Street, Hartford	-	3,000,000	-	-	-
Water Supply Improvements - Facilities	-	2,000,000	2,000,000	3,000,000	3,000,000
Renewable Energy Projects - Water Facilities	-	500,000	-	500,000	-
WMR Oakwood Avenue, West Hartford (Phase 2)	-	-	2,500,000	-	-
Long Hill Road Connector WM	-	-	2,500,000	-	-
WHWTP South Storage Tank Installation	-	-	7,000,000	-	-
WHWTP Filter Bed Rehabilitation	-	-	2,000,000	2,000,000	-
Hydrant Replacement Program	-	-	1,600,000	-	1,600,000
Various Transmission Main Design & Construction	-	-	-	2,100,000	2,100,000
Reservoir #3 Dam Improvements	-	-	4,000,000	-	-
Simsbury Road WPS, Bloomfield	-	-	2,000,000	-	-
Uplands Way WPS, Glastonbury	-	-	-	2,000,000	-
Water Pump Stations Improvements	-	-	3,000,000	2,000,000	2,000,000
Water Main Replacement, Various Locations	-	-	3,500,000	15,000,000	12,000,000
Assessable Water Fund	-	-	1,500,000	-	2,000,000
Total Water	\$ 21,300,000	\$ 37,700,000	\$ 55,100,000	\$ 46,600,000	\$ 38,700,000

2016 Capital Improvement Program

Summary

Combined	2016	2017	2018	2019	2020
Survey & Construction	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
Engineering Services	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Construction Services	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Technical Services	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000
Administrative Facilities Improvement Program	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fleet Replacement	1,300,000	800,000	-	800,000	-
Underground Storage Tanks - Removal & Replacement	800,000	-	-	-	-
Information Systems / IT Upgrades	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Total Combined	\$ 22,500,000	\$ 21,200,000	\$ 20,400,000	\$ 21,200,000	\$ 20,400,000

2016 Capital Improvement Program

Appropriation

The Metropolitan District's Capital Improvement Program budget for 2016 totals \$63,750,000 as reflected in the following summary, wastewater programs total \$19,950,000; water programs total \$21,300,000; and combined programs total \$22,500,000.

Wastewater

Assessable Sewer Program	\$ 300,000
General Purpose Sewer	500,000
Hartford WPCF - Air Permit Compliance Upgrades	4,500,000
Paving Program	1,400,000
Private Property Inflow Disconnect Program	50,000
Sewer Rehabilitation Program	3,600,000
Various Sewer Pipe Replacement/Rehab – District Wide	1,000,000
WPC Electrical Systems Upgrades	3,300,000
WPC Equipment & Facilities Improvements	2,100,000
WPC Plant Infrastructure Renewal and Replacements	<u>3,200,000</u>
Total Wastewater	\$ 19,950,000

2016 Capital Improvement Program

Appropriation

Water

General Purpose Water Program	\$ 3,000,000
Bloomfield Transmission Main Extension	8,000,000
WMR Simmons Road Area, East Hartford	3,800,000
Paving Program	3,000,000
Radio Frequency Automated Meter Reading Program	1,500,000
WMR Garden Street Area, Wethersfield	1,000,000
Land Acquisition for Water Facilities, Supply and Treatment	500,000
Water Supply Improvements - Raw Water Transmission Mains	<u>500,000</u>

Total Water **\$21,300,000**

2016 Capital Improvement Program

Appropriation

Combined

Construction Services	\$ 3,500,000
Engineering Services	2,500,000
Fleet Replacement	1,300,000
Administrative Facilities Improvement Program	1,000,000
Technical Services	3,400,000
Information Systems /IT Upgrades	5,000,000
Underground Storage Tanks - Removal & Replacement	800,000
Survey & Construction	<u>5,000,000</u>
Total Combined	\$ 22,500,000

2016 Capital Improvement Program

Wastewater

The following is a list of the recommended wastewater system programs and projects to be funded through the MDC's 2016 Capital Improvement Program budget. Each is considered to be a separate undertaking in accordance with Section 3-11 of the Charter of the Metropolitan District.

Wastewater

Assessable Sewer Program	\$ 300,000
General Purpose Sewer	500,000
Hartford WPCF - Air Permit Compliance Upgrades	4,500,000
Paving Program	1,400,000
Private Property Inflow Disconnect Program	50,000
Sewer Rehabilitation Program	3,600,000
Various Sewer Pipe Replacement/Rehab – District Wide	1,000,000
WPC Electrical Systems Upgrades	3,300,000
WPC Equipment & Facilities Improvements	2,100,000
WPC Plant Infrastructure Renewal and Replacements	<u>3,200,000</u>
Total Wastewater	\$ 19,950,000

2016 Capital Improvement Program

Wastewater

The projects that comprise the wastewater system programs are necessary to enhance, upgrade and rehabilitate the extensive sewer infrastructure throughout the District and to improve the efficiency and effectiveness of facility operations. The following positions are included in wastewater program:

Authorized Positions

<u>Title</u>	<u>Number</u>
Compressor Truck Operator	2
Equipment Operator 1	1
Pipe Joiner	1
Sewer Maintainer 1	3
Sewer Maintenance Crew Leader	2
System Repair Supervisor	1
Truck Driver 2	4
Utility Systems Monitoring Tech 1	<u>2</u>
Total	16

2016 Capital Improvement Program

Wastewater

Program – Assessable Sewer Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$300,000	SCS.SR0014.01	5630

Description

Extension of existing sanitary sewers resulting from property owner petitions for public sewer service within the District's sewer service area. This project includes design, construction and project administration. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To provide sanitary sewer service to property owners within the District's service area by extending local sewer mains. Property owners to be served have either a specific health concern or a desire for public sanitary sewer service.

Prior Appropriation

This appropriation is an increase to the 2014 Assessable Sewer Program, authorization for \$500,000 (SCS.SR0014.01). Total appropriation for this project will now be \$800,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$300,000 is hereby appropriated for the extension of existing sanitary sewers resulting from property owner petitions for public sewer service within the District's sewer service area, including design, construction, project administration, legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2014 Assessable Sewer Program appropriation and bond authorization for \$500,000 (SCS.SR0014.01). The total appropriation for this project will now be \$800,000.

2016 Capital Improvement Program

Wastewater

Program – General Purpose Sewer

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$500,000	SCS.SR0015.04	5113

Description

Planning, Design and Construction of the replacement and/or rehabilitation of existing sewer mains, pump stations, and any related collection system appurtenances at various locations District wide as a result of infrastructure exceeding useful life. Projects may also include electrical, mechanical, or renewable energy upgrades at District facilities. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

Planning, Design and Construction of the replacement and/or rehabilitation of existing sewer mains, pump stations, and any related collection system appurtenances at various locations District wide as a result of infrastructure exceeding useful life.

Prior Appropriation

This appropriation is an increase to the 2015 General Purpose Sewer Program, authorization for \$2,500,000 (SCS.SR0015.04). Total appropriation for this project will now be \$3,000,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$500,000 is hereby appropriated for the General Purpose Sewer Program including planning, design and construction of the replacement and/or rehabilitation of existing sewer mains, pump stations, and any related collection system appurtenances at various locations District wide as a result of infrastructure exceeding its useful life, and for legal, administrative and other financing costs related thereto. Such Projects may also include electrical, mechanical, or renewable energy upgrades at District facilities. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 General Purpose Sewer Program appropriation and bond authorization for \$2,500,000 (SCS.SR0015.04). The total appropriation for this project will now be \$3,000,000.

2016 Capital Improvement Program

Wastewater

Program – Hartford WPCF Air Permit Compliance

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$4,500.000	WPC.FA0116.01	5113

Description

This project is for the design and construction of facilities to allow the Hartford WPCF to comply with new EPA and CT DEEP air quality regulations for new facilities coming on line.

Purpose

This project is for the design and construction of facilities to allow the Hartford WPCF to comply with new EPA and CT DEEP air quality regulations

Future Appropriations

No additional appropriation requests are anticipated next year.

Bond Language

The sum of \$4,500,000 is hereby appropriated for the design and construction of facilities to allow the Hartford Water Pollution Control Facility to comply with new Environmental Protection Agency and Connecticut Department of Energy and Environmental Protection air quality regulations, and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Wastewater

Program – Paving Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,400,000	SCS.SR0015.08	5113

Description

Pavement restoration of paved and unpaved areas including sidewalks, spoil material disposal and materials from stock. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To restore sites associated with various sewer installations and replacements.

Prior Appropriation

This appropriation is an increase to the 2015 Paving Program, authorization for \$2,500,000 (SCS.SR0015.08). Total appropriation for this project will now be \$3,900,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$1,400,000 is hereby appropriated for pavement restoration of paved and unpaved areas including sidewalks, spoil material disposal and materials from stock, and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Paving Program appropriation and bond authorization for \$2,500,000 (SCS.SR0015.08). The total appropriation for this project will now be \$3,900,000.

2016 Capital Improvement Program

Wastewater

Program - Private Property Inflow Disconnect Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$50,000	SCS.EQ0014.02	5113

Description

Install sump pumps to allow for the discharge of inflow water to the outside lawn area and to disconnect footing drains, floor drains and roof leader drains from the sanitary system. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To eliminate storm water from the sanitary sewer system.

Prior Appropriation

This appropriation is an increase to the 2014 Private Property Inflow Disconnect Program, authorization for \$100,000 (SCS.EQ0014.02). Total appropriation for this project will now be \$150,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$50,000 is hereby appropriated for the installation of sump pumps to allow for the discharge of water to the outside lawn area and to disconnect footing drains, floor drains and roof leader drains from the sanitary system and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2014 Private Property Inflow Disconnect Program appropriation and bond authorization for \$100,000 (SCS.EQ0014.02). The total appropriation for this project will now be \$150,000.

2016 Capital Improvement Program

Wastewater

Program – Sewer Rehabilitation Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,600,000	SCS.SR0016.01	5803

Description

Project includes District staffing and equipment and outside services to conduct sewer system investigations (i.e. Closed Captioned TV Inspection/Sonar/Laser methods) to support the design and construction of rehabilitation and replacement of the District's deteriorating segments of the sewer infrastructure. Project includes staffing.

Purpose

The project is being done in accordance with CMOM requirements.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$3,600,000 is hereby appropriated for the conduct of sewer system investigations to support the design and construction of rehabilitation and replacement of deteriorating segments of the District's sewer infrastructure, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Compressor Truck Operator	2	7930001
Equipment Operator 1	1	
Pipe Joiner	1	
Sewer Maintainer 1	3	
Sewer Maintenance Crew Leader	2	
System Repair Supervisor	1	
Truck Driver 2	4	
Utility Systems Monitoring Tech 1	<u>2</u>	
Total	16	

2016 Capital Improvement Program

Wastewater

Program – Various Sewer Pipe Replacement/Rehab – District Wide

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,000,000	SCS.SR0016.02	5113

Description

Design and construction of sewer system upgrades, replacements and rehabilitation measures as a result of aging and deteriorating infrastructure located District-wide including survey, sewer easement clearing and closed caption TV inspection. The replacement, rehabilitation and or upgrade of District infrastructure. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To rehabilitate or replace the sanitary sewer pipelines. The replacement includes pipelines that include various materials, but not limited to Black Styrene Pipe, tile pipe, concrete pipe etc.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$1,000,000 is hereby appropriated for the design and construction of sewer system upgrades, replacements and rehabilitation measures as a result of aging and deteriorating infrastructure located District-wide including survey, sewer easement clearing, closed caption TV inspection, the replacement, rehabilitation and or upgrade of District infrastructure, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Wastewater

Program – WPCF Electrical Upgrades

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,300,000	WPC.FA0016.01	5113

Description

This project will design and construct a variety of electrical and related improvements to the four water pollution control facilities to modernize existing electrical and related infrastructure. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

The current electrical infrastructure improvements were done in 1970's and are now beyond useful life and in need of upgrades to meet modern design standards for efficiency, reliability, maintainability and safety.

Future Appropriations

No additional appropriation requests are anticipated over the next four years.

Bond Language

The sum of \$3,300,000 is hereby appropriated for the design and construction of a variety of renewals and replacements the four water pollution control facilities to modernize existing systems and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Wastewater

Program – WPC Equipment & Facilities Improvements

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$2,100,000	WPC.FA0015.01	5113

Description

This project will rehabilitate multiple Water Pollution Control assets to improve operational readiness/reliability, safety posture, increase wastewater processing capabilities and add asset life. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To refurbish and rebuild various equipment.

Prior Appropriation

This appropriation is an increase to the 2015 WPC Equipment & Facilities Improvements, authorization for \$2,600,000 (WPC.FA0015.01). Total appropriation for this project will now be \$4,700,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$2,100,000 is hereby appropriated for the rehabilitation of multiple water pollution control assets to improve operational readiness/reliability, safety posture, increase wastewater processing capabilities and add asset life, and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 WPC Equipment & Facilities Improvements appropriation and bond authorization for \$2,600,000 (WPC.FA0015.01). The total appropriation for this project will now be \$4,700,000.

2016 Capital Improvement Program

Wastewater

Program - WPC Plant Infrastructure Renewal and Replacements

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,200,000	WPC.FA0015.02	5113

Description

This project will design and construct a variety of renewal and replacements at the four water pollution control facilities to modernize existing systems. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

On-going work at all four water pollution control facilities to address various mechanical, electrical, instrumentation and controls systems. Safety improvements are also planned.

Prior Appropriation

This appropriation is an increase to the 2015 WPC Plant Infrastructure Renewal and Replacements, authorization for \$1,300,000 (WPC.FA0015.02). Total appropriation for this project will now be \$4,500,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$3,200,000 is hereby appropriated for the design and construction of a variety of renewal and replacements at the four water pollution control facilities to modernize existing systems, including design improvements for the Hartford WPCF BNR III, and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 WPC Plant Infrastructure Renewal and Replacements appropriation and bond authorization for \$1,300,000 (WPC.FA0015.02). The total appropriation for this project will now be \$4,500,000.

2016 Capital Improvement Program

Water

The following is a list of the recommended water system programs and projects to be funded through the MDC's 2016 Capital Improvement Program budget. Each is considered to be a separate undertaking in accordance with Section 3-11 of the Charter of the Metropolitan District.

Water

General Purpose Water Program	\$ 3,000,000
Bloomfield Transmission Main Extension	8,000,000
WMR Simmons Road Area, East Hartford	3,800,000
Paving Program	3,000,000
Radio Frequency Automated Meter Reading Program	1,500,000
WMR Garden Street Area, Wethersfield	1,000,000
Land Acquisition for Water Facilities, Supply and Treatment	500,000
Water Supply Improvements - Raw Water Transmission Mains	<u>500,000</u>
Total Water	\$21,300,000

2016 Capital Improvement Program

Water

The projects that comprise the water system programs are necessary to extend, upgrade and maintain the extensive water infrastructure throughout the District and to enhance the efficiency and effectiveness of facility operations. The following positions are included in the water program:

Authorized Positions

<u>Title</u>	<u>Number</u>
Customer Service Maintainer 1	6
Meter Maintenance Crew Leader	1
Meter Rebuilding Crew Leader	1
Senior Clerk	<u>1</u>
Total	9

2016 Capital Improvement Program

Water

Program – General Purpose Water Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,000,000	WDS.DM0016.01	2113

Description

Design and construction of the replacement of existing water mains and related to system-wide equipment/infrastructure improvements, excluding vehicles. Projects may also include electrical, mechanical or renewable energy upgrades at District facilities. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To enhance the effectiveness, efficiency and safety of the District's water supply, treatment and distribution systems.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$3,000,000 is hereby appropriated for the design and construction of replacement of existing water mains, system-wide equipment/infrastructure improvements (excluding vehicles), electrical, mechanical and renewable energy upgrades at District facilities, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Water

Program – Bloomfield Transmission Main Extension

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$8,000,000	WDS.TM0516.01	2113

Description

Design, construction, inspection and associated work to extend a transmission main from Burr Road to Woodland Avenue in Bloomfield. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To connect two existing transmission mains, increasing the available water flows available in Bloomfield and Windsor, and decreasing the pressure losses during peak flows.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$8,000,000 is hereby appropriated for the design, construction, inspection and associated work to extend a transmission main from Burr Road to Woodland Avenue in Bloomfield, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Water

Program – Water Main Replacement – Simmons Road Area, East Hartford

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,800,000	WDS.DM0716.01	2113

Description

The project will consist of the design, construction, inspection and associated work to replace water mains in Simmons Road area of East Hartford. Streets include, but are not limited to, Gold Street, Clement Road, Simmons Road, Cumberland Drive, Gould Drive and Gould Circle. The District costs may include salary, benefits and overhead.

Purpose

To replace aging pipelines and structures.

Future Appropriations

No additional appropriation requests are anticipated next year.

Bond Language

The sum of \$3,800,000 is hereby appropriated for the design, construction, inspection and associated work to replace water mains in the Simmons Road area of East Hartford, including those in Gold Street, Clement Road, Simmons Road, Cumberland Drive, Gould Drive and Gould Circle, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Water

Program – Paving Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,000,000	WDS.DM0016.02	2113

Description

Pavement restoration of paved and unpaved areas including sidewalks, spoil material disposal and materials from stock. District forces may be utilized for this program. District costs may include design, construction, inspection, materials, equipment, salary, benefits & overhead.

Purpose

To restore the sites as a result of various water main installations.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$3,000,000 is hereby appropriated for pavement restoration of paved and unpaved areas including sidewalks, spoil material disposal and materials from stock, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Water

Program – Radio Frequency Automated Meter Reading Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,500,000	WDS.MT0015.01	2318

Description

The Radio Frequency Meter Program standardizes and replaces meters through the long term meter program. The District costs may include salary, benefits and overhead. Project includes staffing.

Purpose

To reduce the number of estimated water bills, replace meters that have exceeded manufacturers suggested life expectancy, replace outdated and non-supported telephone automated meter reading systems and standardize meters.

Prior Appropriation

This appropriation is an increase to the 2015 Radio Frequency Automated Meter Reading Program, authorization for \$3,000,000 (WDS.MT0015.01). Total appropriation for this project will now be \$4,500,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$1,500,000 is hereby appropriated for the radio frequency meter program, standardizing and replacing radio frequency meters and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Radio Frequency Automated Meter Reading Program appropriation and bond authorization for \$3,000,000 (WDS.MT0015.01). The total appropriation for this project will now be \$4,500,000.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Customer Service Maintainer 1	6	7930002
Meter Maintenance Crew Leader	1	
Meter Rebuilding Crew Leader	1	
Senior Clerk	1	
Total	9	

2016 Capital Improvement Program

Water

Program – Water Main Replacement Garden Street Area, – Wethersfield

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,000,000	WDS.TM0215.01	2113

Description

This project will consist of the design and construction of water main replacements in the Garden Street area in Wethersfield. Streets include, but are not limited to Garden Street, Lincoln Road, Garden Court, Dorchester Road, and Deerfield Road. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To replace aging pipelines and structures.

Prior Appropriation

This appropriation is an increase to the 2015 Water Main Replacement Garden Street Area, – Wethersfield, authorization for \$2,000,000 (WDS.TM0215.01). Total appropriation for this project will now be \$3,000,000.

Future Appropriations

No additional appropriation requests are anticipated next year.

Bond Language

An additional sum of \$1,000,000 is hereby appropriated for the design and construction of water main replacements in the Garden Street area in Wethersfield, including, but are not limited to water main replacements in Garden Street, Lincoln Road, Garden Court, Dorchester Road, and Deerfield Road and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Water Main Replacement – Garden (WDS.TM0215.01). The total appropriation for this project will now be \$3,000,000.

2016 Capital Improvement Program

Water

Program – Land Acquisition for Water Facilities, Supply and Treatment

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$500,000	WDS.LA0015.01	2113

Description

Funds shall be used for identification, negotiation and acquisition of land and/or easements to preserve watershed lands or for water treatment, transmission and distribution facilities including but not limited to treatment plants, pump stations, storage tanks, specialty valves and piping within the District's water service area.

Purpose

To identify and acquire land and/or easements to preserve watershed lands or for the construction of water facilities and piping in areas where the existing transmission system is deficient, requiring improvement in storage or pressure.

Prior Appropriation

This appropriation is an increase to the 2015 Land Acquisition for Water Facilities, Supply & Treatment, authorization for \$1,000,000 (WDS.LA0015.01). Total appropriation for this project will now be \$1,500,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$500,000 is hereby appropriated for identification, negotiation and acquisition of land and/or easements to preserve watershed lands or for water treatment, transmission and distribution facilities including but not limited to treatment plants, pump stations, storage tanks, specialty valves and piping within the District's water service area, and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Land Acquisition for Water Facilities, Supply & Treatment appropriation and bond authorization for \$1,000,000 (WDS.LA0015.01). The total appropriation for this project will now be \$1,500,000.

2016 Capital Improvement Program

Water

Program – Water Supply Improvements – Raw Water Transmission Mains

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
500,000	WDS.TM0016.01	2113

Description

This project will provide improvements and upgrades to raw and filter water pipeline and transmission main infrastructure improvements to manholes, pipes, valves, gates and supporting structures. Installation of conduits and/or duct banks for controls and various other instrumentation. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Purpose

To improve the raw water pipeline and transmission main infrastructure.

Future Appropriations

No additional appropriation requests are anticipated over the next four years.

Bond Language

The sum of \$500,000 is hereby appropriated for improvements and upgrades to raw and filter water pipeline and transmission main infrastructure, including improvements to manholes, pipes, valves, gates and supporting structures, the installation of conduits and/or duct bank for controls, various instrumentation and for legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

2016 Capital Improvement Program

Combined

The following is a list of the recommended combined capital programs and projects to be funded through the MDC's 2016 Capital Improvement Program budget. These capital programs and projects provide for needed equipment replacement, technology improvements. Each is considered to be a separate undertaking in accordance with Section 3-11 of the Charter of the Metropolitan District.

The following positions are included in the combined capital program:

Combined

Construction Services	\$ 3,500,000
Engineering Services	2,500,000
Fleet Replacement	1,300,000
Administrative Facilities Improvement Program	1,000,000
Technical Services	3,400,000
Information Systems /IT Upgrades	5,000,000
Underground Storage Tanks - Removal & Replacement	800,000
Survey & Construction	5,000,000
	\$ 22,500,000
Total Combined	\$ 22,500,000

Authorized Positions

<u>Title</u>	<u>Number</u>
Accounting Administrator-SAP	1
Business Systems Analyst	1
Construction Engineer Support	1
Construction Manager	8
Construction Services Supervisor	8
Design Manager	1
Durational IT Project Manager	1
Durational Project Engineer	1
Engineering Technician 2	3
Engineering Technician 3	12
Facility Engineer 3	1
Manager of Constr. & Engineering Services	1
Manager of Construction Services	1
Manager of Technical Services	1
Principal Engineer	2
Principal Constr. Engineer Tech 1	1
Project Engineer 1	8
Project Engineer 2	5
Project Managers	12
Real Estate Assessment Technician 2	1
Senior Engineer Technician	1
Senior Engineering Drafter	2
Special Services Administrator	1
Survey Chief of Operation	1
Survey Chief of Party	2
Total	<u>77</u>

2016 Capital Improvement Program

Combined

Program - Construction Services

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,500,000	COM.OT0016.01	5802

Description

Staffing costs

Purpose

The Construction Services department holds responsibility for the management of all of the District's capital improvement projects including improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next 4 years.

Bond Language

The sum of \$3,500,000 is hereby appropriated for the costs of the management of District's capital improvement projects including improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Manager of Constr. & Eng. Services	1	7930007
Manager of Construction Services	1	
Construction Manager	7	
Project Engineer 1	5	
Project Engineer 2	2	
Total	16	

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program - Engineering Services

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$2,500,000	COM.OT0016.02	5802

Description

Staffing costs

Purpose

The Engineering Services department holds responsibility for developing and designing the District's capital improvement projects. Projects include improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next 4 years.

Bond Language

The sum of \$2,500,000 is hereby appropriated for developing and designing the District's capital improvement projects, including improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Design Manager	1	7930006
Construction Manager	1	
Principal Engineer	1	
Project Managers	6	
Project Engineer 1	2	
Total	11	

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program – Fleet Replacement

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,300,000	COM.VE0015.01	5613

Description

This program consists of the replacement of transportation and power operated equipment, the purchase of stationary generators, engines and emergency response equipment, and the installation of global positioning systems. Consultants maybe utilized.

Purpose

To maintain the District's fleet.

Prior Appropriation

This appropriation is an increase to the 2015 Fleet Replacement authorization for \$800,000 (COM.VE0015.01). Total appropriation for this project will now be \$2,100,000.

Future Appropriations

Additional appropriation requests are anticipated over the next four years.

Bond Language

An additional sum of \$1,300,000 is hereby appropriated for the replacement of transportation and power operated equipment, the purchase of stationary generators, engines and emergency response equipment, and the installation of global positioning systems and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Fleet Replacement appropriation and bond authorization for \$800,000 (COM.VE0015.01). The total appropriation for this project will now be \$2,100,000.

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program – Administration Facilities Improvement Program

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$1,000,000	COM.BL0015.01	5613

Description

This program consists of the replacement and/or upgrade to the District's deteriorating Administration facilities which include building improvements, site improvements and equipment improvements. The District costs may include salary, benefits and overhead. Project includes staffing.

Purpose

To replace and/or upgrade aging equipment and structures.

Prior Appropriation

This appropriation is an increase to the 2015 Administration Facilities Improvement Program authorization for \$1,000,000 (COM.BL0015.01). Total appropriation for this project will now be \$2,000,000.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

An additional sum of \$1,000,000 is hereby appropriated for the replacement and/or upgrade to the District's deteriorating Administration facilities which include building improvements, site improvements, equipment improvements and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead. This appropriation is an increase to the 2015 Administration Facilities Improvement Program appropriation and bond authorization for \$1,000,000 (COM.BL0015.01). The total appropriation for this project will now be \$2,000,000.

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program - Information Technology

Amount
\$5,000,000

Project #
COM.EQ0016.01

Fund
5613

Description

The project includes but is not limited to the purchase, upgrade and/or replacement of computer related infrastructure and/or software. The District costs may include salary, benefits and overhead. Project may include durational employees.

Purpose

To ensure the continued efficient and effective operation of the District's business applications and enhance the benefits of the system.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next four years.

Bond Language

The sum of \$5,000,000 is hereby appropriated for the purchase, upgrade and/or replacement of computer related infrastructure and/or software and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead

Funding Allocation

Sewer 49%
Water 51%

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Accounting Administrator - SAP	1	7930009
Business Systems Analyst	1	
Durational IT Project Manager	<u>1</u>	
Total	3	

2016 Capital Improvement Program

Combined

Program – Underground Storage Tanks

Amount
\$800,000

Project #
COM.TK0016.01

Fund
5613

Description

The project is to provide for the design, installation, construction and remediation for the removal of two existing 10,000 gallons underground storage bulk fuel tanks. The District costs may include salary, benefits and overhead. Project may include durational employees.

Purpose

To maintain the District's underground fuel storage tanks.

Future Appropriations

No additional appropriation requests are anticipated over the next four years.

Bond Language

The sum of \$800,000 is hereby appropriated for the design, installation, construction and remediation for the removal of two existing 10,000 gallon underground storage bulk fuel tanks and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program - Survey & Construction

<u>Amount</u> \$5,000,000	<u>Project #</u> COM.OT0016.03	<u>Fund</u> 5802
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Description

Staffing costs

Purpose

The Survey & Construction department holds responsibility for the survey and construction inspection of all water and sewer projects within the District's service area, including projects installed under District contract and developer permit agreements.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next 4 years.

Bond Language

The sum of \$5,000,000 is hereby appropriated for the survey and construction inspection of all water and sewer projects within the District's service area, including projects installed under District contract and developer permit agreements and legal, administrative other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Engineering Technician 2	3	7930005
Engineering Technician 3	12	
Construction Engineer Support	1	
Senior Engineer Technician	1	
Survey Chief of Operation	1	
Construction Services Supervisor	8	
Principal Constr. Engineer Tech 1	1	
Survey Chief of Party	<u>2</u>	
Total	29	

Funding Allocation

Sewer 49%
Water 51%

2016 Capital Improvement Program

Combined

Program - Technical Services

<u>Amount</u>	<u>Project #</u>	<u>Fund</u>
\$3,400,000	COM.OT0016.04	5802

Description

Staffing costs

Purpose

The Technical Services department holds responsibility for providing technical support to all of the District's capital improvement projects including improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants.

Future Appropriations

Future appropriation requests for other projects are anticipated over the next 4 years.

Bond Language

The sum of \$3,400,000 is hereby appropriated for technical support to all of the District's capital improvement projects including improvements to and expansion of the District's water distribution and sewer collection systems and related work on water and sewage treatment plants and legal, administrative and other financing costs related thereto. District forces may be utilized for this program. The District costs may include salary, benefits and overhead.

Authorized Positions

<u>Title</u>	<u>Number</u>	<u>Cost Center</u>
Manager of Technical Services	1	<u>7930008</u>
Durational Project Engineer	1	
Facility Engineer 3	1	
Principal Engineer	1	
Project Engineer 2	3	
Senior Engineering Drafter	2	
Project Engineer 1	1	
Project Manager	6	
Real Estate Asses Tech 2	1	
Special Services Administrator	<u>1</u>	
Total	18	

Funding Allocation

Sewer 49%
Water 51%