Project Descriptions for January 6, 2021

Board of Trustees Meeting

Asset Management Program Commitments

Dedham-Westwood Water District DW-20-28
The Dedham-Westwood Water District (the District) will continue its Water Distribution System Asset Management efforts. The District will refine the decision-making process regarding timing and location of asset repairs, replacements and/or rehabilitation, to ensure long term fiscal sustainability.

Great Barrington CW-20-36
The Town of Great Barrington will develop an Asset Management Plan (AMP) to provide the desired level of service at the lowest cost. The goals of the Great Barrington Sewer and Stormwater AMP are to create a risk-based AMP and capital improvement planning methodology, estimate the cost of asset maintenance and renewal in future years, develop a system for generating work orders and having work accomplished and recorded in the data base, and to finance utility construction projects.

Somerville CW-20-41
Somerville will evaluate the combined sewer/stormwater system in a city sector as part of a larger asset management project. The project will complete closed circuit television inspection to identify defects; rate the severity of defects, including likelihood of failure and predicted remaining service life; lightly clean debris to facilitate inspections; conduct flow isolation tests to estimate groundwater intrusion into the system; compile asset data into the City's GIS system; and recommend corrective actions. This work will support implementation of key asset management tasks, prioritize and design repair projects, manage costs and contracts, and integrate maintenance and repairs of Sewer Department operations.

Clean Water Commitments

Barnstable CW-20-18
Barnstable has 27 wastewater pump stations and many of them have equipment that is well over its useful life and requires replacement to prevent anticipated major failures and impacts to public health and the environment. All 27 pump stations were evaluated in advance of the issuance of the 2019 Wastewater Pump Station Asset Management Plan, prepared by Wright-Pierce for the Town of Barnstable. Pump station improvement projects over the next 20 years were identified in the Asset Management Plan. Several factors contributed to the recommendations for improvements in year 1 including the end of service life (useful life) of equipment, coastal resiliency, and energy improvements/electrical upgrades.

Barnstable CW-20-23
The Strawberry Hill Road Sewer Expansion Project will install approximately 19,000 LF of gravity sewer, 9,300 LF of sewer force main and 1 new pump station. The project will provide a significant portion of the sewer infrastructure needed to address the wastewater needs of the Centerville River Watershed. The project is identified in the Town's Wastewater Plan.

The project involves the installation of sewer infrastructure to accommodate future sewer expansion identified in the Town's wastewater plan. The scope of work will include the installation of gravity sewer along Route 28, a sewer force main in Yarmouth Road will connect the future "Old Yarmouth Road" sewer expansion to the existing collection system and multiple force mains within Route 28.

Barnstable has 27 wastewater pump stations and many of them have equipment that is well over its useful life and requires replacement to prevent anticipated major failures and impacts to public health and the environment. Pump station improvement projects over the next 20 years were identified in the Asset Management Plan. Several factors contributed to the recommendations for improvements in year 1 including the end of service life (useful life) of equipment, coastal resiliency, and energy improvements/electrical upgrades.

This project includes upgrades and modifications to the existing WPCF. These improvements include the addition of two gravity belt thickening units as well as the replacement of other aged systems that have exceeded their useful life. The project seeks to replace or rehabilitate sludge pumps, dry polymer system, sludge holding tanks and blowers, odor control system, instrumentation systems, and other architectural and mechanical systems.

Barnstable CW-20-24
The project involves the installation of sewer infrastructure to accommodate future sewer expansion identified in the Town's wastewater plan. MassDOT is planning an intersection improvement project at Route 28 and Yarmouth Road. The Town is partnering with MassDOT to include the installation of sewer infrastructure improvements within the project limits. The Town's scope of work will include the installation of gravity sewer along Route 28 for future sewer expansion, a sewer force main in Yarmouth Road which will connect the future "Old Yarmouth Road" sewer expansion to the existing collection system and multiple force mains within Route 28 that could accommodate a potential future wastewater partnership with the Town of Yarmouth.

Barnstable CW-20-43
This project includes upgrades and modifications to the existing WPCF. These improvements include the addition of two gravity belt thickening units to improve operational efficiency at the facility as well as the replacement of other aged systems that have exceeded their useful life. Specifically, the project seeks to replace or rehabilitate sludge pumps, the dry polymer system, the sludge holding tanks and blowers, the odor control system, the instrumentation systems as appropriate, and other architectural and mechanical systems.

Brockton CW-20-17
The Taunton River watershed has water quality impairment. The Sewer Rehabilitation Project will include trenchless rehabilitation and open cut repair of prioritized areas in the City's wastewater collection system to address sources of exfiltration, infiltration and inflow, and sections of undersized pipe. The objective is to reduce flows at the AWRF, allowing for more capacity for Brockton residents and surrounding communities, prevent exceedances of the City's NPDES permit for the AWRF flows, lower maintenance costs, and improve water quality of surrounding watersheds.

Chicopee CW-20-31
Wastewater Pump Station (PS) Improvements: This project includes: replacement of existing wastewater pumps with new submersible pumps; replacement of the existing entry doors, roof, grating in the wet well, slide gates, fuel storage tank, MCC; upgrades to the ventilation system, oil furnace, unit heaters, and monorail system; and installation of new sewage grinder, VFDs, rock catcher, and magnetic flow meter. The Jones Ferry PS is considered the most critical PS in the City, because it pumps most of the flow that is conveyed to the WPCF in the Connecticut River Interceptor. The PS has several critical vulnerabilities, including one pump offline due to impeller failure, no means to isolate and bypass the PS, and aging infrastructure.

Chicopee CW-20-32
Solids Handling Improvements: This project includes the demolition and replacement of a belt filter press with a centrifuge, installation of a redundant sludge cake pump, and upgrades to primary clarify number 3, including replacement of the mechanisms, cross collector, and scum collector pipe, and associated electrical upgrades. The improvements will replace aged equipment, improve reliability of the solids handling process, and increase solids handling capabilities at the City of Chicopee's Water Pollution Control Facility.

Wastewater Pump Station (PS) Improvements: This project includes: replacement of wastewater pumps with submersible pumps; replacement of entry doors, roof, grating in the wet well, slide gates, fuel storage tank, MCC; upgrades to the ventilation system, oil furnace, unit heaters, and monorail system; and installation of a sewage grinder, VFDs, rock catcher, and magnetic flow meter. The Jones Ferry PS is considered the most critical PS in the City, because it pumps most of the flow that is conveyed to the WPCF in the Connecticut River Interceptor. The PS has several critical vulnerabilities, including one pump offline, no means to isolate and bypass the PS, and aging infrastructure.

Dudley CW-20-14
The Town of Dudley completed an Infiltration/Inflow (I/I) Analysis and is performing a Sewer System Evaluation Survey (SSES). The SSES fieldwork will be the basis of the design of construction projects to remove the identified sources of excessive I/I. These projects could remove as much as 184,400 GPD of infiltration and 169,600 gallons of inflow during the 1-year, 6-hour design storm. These projects will protect public health and the environment by reducing the occurrence of sanitary sewer overflows.

Gloucester CW-20-40
The project includes upgrades to two below-grade wastewater pump stations (Niles Beach Pump Station and Riverside Pump Station).

Lynn Water & Sewer Commission CW-20-50
The Lynn Water and Sewer Commission has entered into a Third Modified Consent Decree with the United States Environmental Protection Agency to implement a long-term control plan to reduce combined sewer overflow discharges to local receiving waters. The West Lynn Sewer Separation project is the first of several projects included in the plan to mitigate CSO discharges into the Lynn Harbor.

The project involves sewer separation of approximately 260 acres within the western portion of Lynn, MA as well as installation of a 114 MGD stormwater pump station with a force main out to a new or reconstructed outfall into the Lynn Harbor. The project will significantly reduce SSOs and CSOs and improve the water quality of nearby water bodies.

Millbury CW-20-16
The project will assist the Town in complying with the requirements of their permit which regulates stormwater discharges from their Small Municipal Separate Storm Sewer System (MS4 Permit). T work focuses on tasks related to improving receiving water quality where the impairment is phosphorus or bacteria and includes development of a Phosphorus Control Plan for Brierly Pond, Dorothy Pond, Howe Reservoir, and Pondville Pond; development of a Phosphorus Source Identification Report for the Blackstone River; Illicit Discharge Detection and Elimination Investigations in high priority areas, and wet weather outfall screening and sampling of outfalls that discharge directly to the Blackstone River.

MWRA CW-20-45
MWRA Contract 7463 Cottage Farm CSO Facility Improvements is one of the critical wastewater system improvements projects that MWRA has identified for 2016. The Cottage Farm CSO Improvements Project addresses critical needs for system rehabilitation, reliability and optimization of the MWRA wastewater collection system.

MWRA CW-20-46
The Nut Island Headworks is a preliminary treatment facility serving 22 communities that provides screening and degritting of wastewater prior to the wastewater receiving primary and secondary treatment and disinfection at MWRA’s Deer Island Treatment Facility. This project replaces the odor control and HVAC systems at the Nut Island Headworks to maintain reliable operation of the systems, to meet requirements of the MADEP Air Quality Permit and to maintain an environment within the facility that is safe for workers and suitable for equipment. The project will also replace other equipment at the headworks that is approaching the end of its lifecycle to ensure reliable operation of this critical wastewater treatment facility.

MWRA CW-20-47
MWRA has three remote headworks - Chelsea Creek, Columbus Park, and Ward Street - which were built and placed into operation in the 1960's. All wastewater flows from the MWRA Northern Service Area are collected at the remote headworks before reaching the Deer Island Treatment Plant. Preliminary treatment and flow control are performed at the remote headworks facilities. This project addresses aging infrastructure and will improve operational reliability by replacing all mechanical, electrical, HVAC, plumbing, and appurtenant equipment at all three facilities.

MWRA CW-20-48
This project involves the design, construction administration, and resident engineering/inspection services for the inspection/evaluation and rehabilitation of approximately 6,500 feet of the Dorchester Interceptor Sewer (DIS), and associated manholes. The DIS (sections 240/241/242) was constructed in 1895 and is an irregular shaped brick sewer. Recent inspections have revealed many structural and non-structural deficiencies in the 120-year old sewer including cracked, broken and deformed pipe, numerous areas of heavy root intrusion and light to heavy infiltration.

MWRA CW-20-49
Contract No. 7110 HVAC Equipment Replacement- Replacement of various Heating, Ventilation and Cooling units through the treatment plant. Replacements include fan coil units, air handling units, chiller systems, the WWTP central HVAC control system, and 29 existing fume hoods in the Laboratory.

Contract Nos. 7059/7420 Switchgear and NMPS MCC Replacements- Replacement of various electrical low voltage distribution equipment that provides power to critical pumping stations and laboratory processes.

Contract No. 7051 Fire Alarm Replacement -Replacement of the central fire detection and alarm system throughout the treatment plant.

This project will ensure that the plant continues to meet its discharge permit requirements by replacing obsolete equipment and systems. Some of the contracts are expected to result in decreased required maintenance and/or lower operating costs. All equipment is at the end of its useful life.

Nahant CW-20-13
The project will involve construction of sewer pipeline repairs and replacements within the Town to improve water tightness eliminate I/I influences and replace broken and collapsed sections of the sewer collection system. Sewer manhole, force main and pump station repairs and upgrades are also included in the town wide improvement program. Phase 1 will address high priority defects identified by a comprehensive town wide assessment and CCTV program.

Nantucket CW-20-42
The Sea Street Pumping Station pumps flow from the Town of Nantucket's collection system to the Surfside Wastewater Treatment Plant through one of two force mains. There is a 20-inch ductile iron force main (constructed in the 1980s) and a cast iron force main rehabilitated with 16-inch polyethylene pipe (PE pipe installed in the 1980s). On January 4, 2018 the rehabilitated pipe suffered a failure leading to an SSO and discharge of at least 2 million gallons of untreated sewage into the Nantucket Harbor. Since the force main break, the Town has determined that due to the age and condition of the existing force mains, a new pipeline should be constructed to mitigate the risk of future SSO's and provide needed system resilience.

New Bedford CW-20-20
The project will facilitate progress of the city's illicit discharge detection and elimination (IDDE) program, to meet requirements of the 2017 Massachusetts MS4 Permit and Draft AO that is currently being negotiated. The city has screened 50 percent of stormwater outfalls for signs of illicit discharges. The proposed project will consist of two phases 1) screening the remaining outfalls and 2) performing upstream investigations (dry weather manhole testing, dye testing, CCTV, etc) of systems that indicated potential illicit discharges during screening.

New Bedford CW-20-22
The Wastewater Collection System Improvements project includes several improvements to the City's infrastructure. Projects include an interceptor and collector sewer rehabilitation program, an SSES for high priority areas, a lateral sewer rehabilitation program and a sewer separation project. The progression of these programs will further the City's progressive efforts to dramatically lessen or eliminate I/I issues, reduce CSOs, reinforce the critical components of the city's sewer system, address CMOM and regulatory requirements, and eliminate illicit discharges. These programs will address needs identified in the City's Integrated Plan. Please refer to the narrative for additional information.

Revere CW-20-27
The Phase 11 Construction Project will include the removal of inflow/infiltration (I/I) from the City's sewer system. Construction will include the redirection of public and private inflow sources discovered during Phase 10 Field Investigations., IDDE source removal, and drainage improvements. Illicit connections, including sump pumps, roof leaders, etc. will be removed from the City's sewer system in order to remove inflow and increase wastewater capacity. Construction will also include pump station improvements (both stormwater and wastewater), CIPP lining, sewer spot repairs, replacements, new sewer lines, cleaning, and additional wastewater metering.

Revere CW-20-28
The Phase 12 Field Investigations, Illicit Discharge Detections and Eliminations (IDDE), and Illicit Connections and Sump Pump Investigation Programs are important planning projects for the City of Revere. The investigation programs will include IDDE, CCTV of drains and sewers throughout the City, dye testing, smoke testing, wastewater and storm water pump station inspections, and inspections of private homes and businesses to identify sources of inflow from sump pumps, roof leaders, roof drains, driveway drains, yard drains and other sources of inflow. The findings of these investigations will be incorporated in the City's future construction projects to address the detected deficiencies.

Revere CW-20-29
This planning project will focus on the evaluation of alternative connections to the MWRA's regional system and/or storage requirements to meet the obligations of the consent decree and eliminate SSOs. This planning project will include field investigations, hydraulic modeling, and cost analysis efforts.

Revere CW-20-30
The planning project will provide procure specialized equipment needed as part of the city's ongoing capacity, management, operations and maintenance (CMOM) program, as well as to further develop and implement a fats, oils and grease (FOG) inspectional program throughout the city.

The project will evaluate alternative connections to the MWRA's regional system and/or storage requirements to meet the obligations of the consent decree and eliminate SSOs. The project will include field investigations, hydraulic modeling, and cost analysis efforts.

The investigation programs will include IDDE, CCTV of drains and sewers throughout the City, dye testing, smoke testing, wastewater and storm water pump station inspections, and inspections of private homes and businesses to identify sources of inflow from sump pumps, roof leaders, roof drains, driveways drains, yard drains and other sources of inflow.

The findings of these investigations will be incorporated in the City's future construction projects to address the detected deficiencies.

South Essex Sewerage District CW-20-34
Rehabilitation of the siphons using CIPPL will fully restore the structural integrity of the pipelines, remove the current risk of a pipe failure and potential sewage exfiltration and provide a minimum 50- year extension of the design life. Installation of CIPPL in inverted siphons has a low environmental impact and will not require major construction or disturbance to the adjacent residents and environment. The project will repair/replace impacted concrete within all 7 primary clarifiers to ensure long term structural reliability of the tanks.

South Essex Sewerage District CW-20-35
SESD operates a regional WWTF that was originally constructed in 1972 and upgraded in the 1990s. Average daily flows at the WWTF are approximately 30 MGD, with a peak capacity of 99 MGD. The WWTF discharges effluent to Salem Sound. The primary treatment process consists of 7 underground cast-in-place concrete tanks with precast concrete roofs. The concrete surface in the headspace of the tanks has corroded over the years and has reached a point where the issue needs to be addressed. If this issue is not addressed, there is a risk that the primary clarifiers could structurally fail. The goal of this project is to restore the impacted concrete within all 7 primary clarifiers to ensure long term structural reliability of the tanks.

Taunton CW-20-19
This project is part of a complete upgrade of the Taunton Wastewater Treatment Facility (WWTF). Improvements to the WWTF are required to meet the requirements of the new NPDES discharge permit. In addition, the facility is being expanded hydraulically to accept higher flows from the new Main Lift Pumping Station, which will reduce the size and frequency of combined sewer overflows (CSOs). This application encompasses Solids Handling improvements, for inclusion on the 2020 IUP. Phase 1 upgrades are being submitted concurrent with this submittal. Phase 2 will be submitted the following year, with the intent of being included on the 2021 IUP.

Taunton CW-20-21
This project is part of a complete upgrade of the Taunton Wastewater Treatment Facility (WWTF) that are necessary to meet the requirements of the new NPDES discharge permit. The facility will expand hydraulically to will reduce combined sewer overflows. This project encompasses Solids Handling improvements.

Tyngsborough CW-20-11
The project addresses pipeline and manhole rehabilitations in areas identified as contributing significant infiltration and inflow (I/I). As a Regional partner to the Lowell Regional Wastewater Utility, I/I in Tyngsborough has a direct impact to its IMA partners.

Wareham CW-20-09
This project will construct denitrifying filters, lined equalization lagoon and lined and covered raw wastewater lagoon. The lagoons will provide equalization during wet weather events. The new filters will provide filter redundancy and the covered lagoon will reduce odors at the WPCF.

Drinking Water Commitments

Barnstable DW-20-16
Airport, Mary Dunn, Hyannis Port, Simmons Pond & Straightway wells, pilot study, conceptual layouts and planning: This project is a continuation of a previously approved project handling chemical contamination at the wells; includes pilot testing of recommended treatment options; develop conceptual layouts, planning schedules for design, construction and capital and operational costs and recommendations on how to proceed. Attached is the Hyannis Water System map, information on contamination of drinking water wells, Production Plan for PFAS ORSG standard of 0.02, and newspaper reports.

Barnstable Fire District DW-20-30
As a temporary solution, BFDWD is currently blending water sources to maintain PFAS concentrations below 20 ppt in the water supply. In addition, to meet seasonal water demands and to aid in maintaining PFAS levels below 20 ppt in the blended water, BFDWD is proposing the interim rehabilitation of Well Pump Station 1, which is currently offline and does not contain PFAS compounds. This work is expected to be completed in one year at an estimated cost of approximately $1.5 million.

Blackstone DW-20-20
The Town of Blackstone will construct a new water treatment facility and water mains to connect to the existing distribution system. The new water treatment plant will include a Green sand Plus TM filtration system to improve the drinking water quality by reducing high manganese concentrations.

Brockton DW-20-24
This project will work on twin 24-inch transmission mains and 36-inch transmission main from Brown's Crossing to the City limits. The work will include replacement of crossover piping and valves, replacement of transmission main gate valves and installation of hydrants.

Dracut Water Supply District DW-20-18
This project is intended to reduce iron and manganese levels in the Dracut Water Supply District's Tyngsborough wells to below the SMCL and ORSG limits. The project also includes a new sole transmission main and a water storage tank to increase capacity to meet current demands and create redundancy.

Dudley DW-20-25
This project will allow Dudley to meet maximum-day demands and provide redundancy by connecting a replacement well at pump station 1. This project also includes replacement of approximately 8,600 linear feet of asbestos concrete water mains and the rehabilitation of 2 water storage tanks per MassDEP's recommendations noted in the 2017 sanitary survey.

East Brookfield DW-20-22
This project consists of the replacement of an old and severely tuberculated water main which resulted in high head loss and discolored water. There will be several small upgrades to the sole water supply including a VFD, flow meter, and back-up generator to ensure safe and reliable water supply.

Eastham DW-20-23
The project will construct a municipal water system for Eastham. The Town has relied on individual private or community wells for water supply and onsite systems for wastewater disposal. Long-term monitoring of private wells has confirmed that the water quality of these wells is deteriorating. This project will construct the remainder of the water system that will serve all of the properties in the Town (6,600 parcels).

Fall River DW-20-13
This project is part of the annual cast iron water main and lead service replacement program. Phase 20 water main improvements include the rehabilitation or replacement of approximately 11,495 linear feet of cast iron water mains and 19 lead services.

Holyoke DW-20-11
This project includes replacement of approximately 6,000 feet of cast iron, undersized (4-inch and 6- inch) and aging (100+ years old) water main in downtown Holyoke. This work is Phase 2A of Holyoke Water Works Capital Improvement Plan to address high priority water main replacements. The work is also in coordination with the City's CSO Abatement Project happening in the same area. The proposed replacement will improve redundancy and reliability of the water distribution system.

Kingston DW-19-20
The project involves construction of a new water treatment facility for the removal of iron and manganese from two of the Town's wells. The water treatment facility will include pressure filtration with anthracite and GreensandPlus media, chemical feed systems for sodium hypochlorite (oxidation and disinfection) and potassium hydroxide (corrosion control), SCADA system controls, emergency back-power, water main piping to re-route the wells through the new facility prior to the distribution system. The completed project will improve drinking water quality by removing high levels of iron and manganese, increase public health protection and improve customer confidence and satisfaction.

Leominster DW-20-26
The City of Leominster has changing raw water quality that has resulted in elevated levels of disinfection by-products (DBPs). This project incorporates activated carbon at the Notown WTP and the replacement of the existing GAC at the Fallbrook WTP to reduce DBPs.

Lowell DW-20-19
The project involves installation of approximately 4,000 linear feet of transmission main as an extension to a previously installed water main needed to provide redundancy from the Water Treatment Facility.

MWRA DW-20-31
This project includes the Southern Extra High service area that has been identified as being deficient in distribution storage and lacking redundant distribution pipelines. Correction of these deficiencies has been assigned a Priority One under MWRA's 2006 and 2013 Water System Master Plans due to the potential critical threat to public health that could result from a failure in this single transmission main.

MWRA DW-20-32
Construction of low service suction and pumps for the Commonwealth Avenue Pump Station (CAPS) in Newton. The project includes 24-inch diameter low service connections to the Weston Aqueduct Supply Mains 1 & 2 (W2 & W6) in the Carriage Lane of Commonwealth Avenue, a 325-lf 24-inch diameter low service suction main from the WASM 1 & 2 connections to the existing Shaft 6 Line suction main and the capability to pump using low service suction into the Newton Southern Pressure District with one new pump and one replacement pump in the East Building. The new low service suction and pumps provide redundancy to the CAPS if there is an interruption in the high service water supplied to the pump station from Shaft 6 of the City Tunnel.

MWRA DW-20-33
This construction project will replace approximately 10,500 feet of 48-inch PCCP water main, Section 89, in Stoneham, Winchester, and Woburn, the abandonment of Section 29 in Stoneham, and the replacement of valves and appurtenances for approximately 9000 feet of 36-inch Ductile Iron water main in Woburn. Replacement of the older PCCP pipeline in Section 89 (identified as having a significant risk of catastrophic failure) will ensure that this service area has a redundant means of water supply.

Springfield Water & Sewer Commission DW-20-01
A new 1 million-gallon clearwell and associated backwash pump station will replace old, failing facilities that are needed to maintain reliable operation of the 60 MGD water production. The failing facilities are adversely impacting water quality being produced, contributing to MCL exceedances of haloacetic acids that has resulted in non-compliance with the Stage 2 Disinfection By-Products Rule.

West Boylston Water District DW-20-17
The project is crucial for protecting public health in the Town of West Boylston. The project consists of a new water treatment facility to reduce manganese concentrations to acceptable levels from the Oakdale Well. The new treatment will lower manganese levels (presently above the MassDEP Health Advisory Level of 0.3 mg/L which is the level associated with potential health implications) to below the SMCL of 0.5 mg/L. The treatment facility will consist of a pressure filtration system (GreensandPlus media) with sodium hypochlorite feed system to oxidize the manganese.

Asset Management Program Agreements

Dedham-Westwood Water District DWA-20-28
The Dedham-Westwood Water District (the District) will continue its Water Distribution System Asset Management efforts. The District will refine the decision-making process regarding timing and location of asset repairs, replacements and/or rehabilitation, to ensure long term fiscal sustainability.

Great Barrington CWA-20-36
The Town of Great Barrington will develop an Asset Management Plan (AMP) to provide the desired level of service at the lowest cost. The goals of the Great Barrington Sewer and Stormwater AMP are to create a risk-based AMP and capital improvement planning methodology, estimate the cost of asset maintenance and renewal in future years, develop a system for generating work orders and having work accomplished and recorded in the data base, and to finance utility construction projects.

Clean Water Agreements

Millbury CW-20-16
The project will assist the Town in complying with the requirements of their permit which regulates stormwater discharges from their Small Municipal Separate Storm Sewer System (MS4 Permit). T work focuses on tasks related to improving receiving water quality where the impairment is phosphorus or bacteria and includes development of a Phosphorus Control Plan for Brierly Pond, Dorothy Pond, Howe Reservoir, and Pondville Pond; development of a Phosphorus Source Identification Report for the Blackstone River; Illicit Discharge Detection and Elimination Investigations in high priority areas, and wet weather outfall screening and sampling of outfalls that discharge directly to the Blackstone River.

MWRA CW-20-45
MWRA Contract 7463 Cottage Farm CSO Facility Improvements is one of the critical wastewater system improvements projects that MWRA has identified for 2016. The Cottage Farm CSO Improvements Project addresses critical needs for system rehabilitation, reliability and optimization of the MWRA wastewater collection system.

MWRA CW-20-46
The Nut Island Headworks is a preliminary treatment facility serving 22 communities that provides screening and degritting of wastewater prior to the wastewater receiving primary and secondary treatment and disinfection at MWRA's Deer Island Treatment Facility. This project replaces the odor control and HVAC systems at the Nut Island Headworks to maintain reliable operation of the systems, to meet requirements of the MADEP Air Quality Permit and to maintain an environment within the facility that is safe for workers and suitable for equipment. The project will also replace other equipment at the headworks that is approaching the end of its lifecycle to ensure reliable operation of this critical wastewater treatment facility.

MWRA CW-20-47
MWRA has three remote headworks - Chelsea Creek, Columbus Park, and Ward Street - which were built and placed into operation in the 1960's. All wastewater flows from the MWRA Northern Service Area are collected at the remote headworks before reaching the Deer Island Treatment Plant. Preliminary treatment and flow control are performed at the remote headworks facilities. This project addresses aging infrastructure and will improve operational reliability by replacing all mechanical, electrical, HVAC, plumbing, and appurtenant equipment at all three facilities.

MWRA CW-20-48
This project involves the design, construction administration, and resident engineering/inspection services for the inspection/evaluation and rehabilitation of approximately 6,500 feet of the Dorchester Interceptor Sewer (DIS), and associated manholes. The DIS (sections 240/241/242) was constructed in 1895 and is an irregular shaped brick sewer. Recent inspections have revealed many structural and non-structural deficiencies in the 120-year old sewer including cracked, broken and deformed pipe, numerous areas of heavy root intrusion and light to heavy infiltration.

MWRA CW-20-49
Contract No. 7110 HVAC Equipment Replacement- Replacement of various Heating, Ventilation and Cooling units through the treatment plant. Replacements include fan coil units, air handling units, chiller systems, the WWTP central HVAC control system, and 29 existing fume hoods in the Laboratory.

Contract Nos. 7059/7420 Switchgear and NMPS MCC Replacements- Replacement of various electrical low voltage distribution equipment that provides power to critical pumping stations and laboratory processes.

Contract No. 7051 Fire Alarm Replacement -Replacement of the central fire detection and alarm system throughout the treatment plant.

This project will ensure that the plant continues to meet its discharge permit requirements by replacing obsolete equipment and systems. Some of the contracts are expected to result in decreased required maintenance and/or lower operating costs. All equipment is at the end of its useful life.

New Bedford CW-18-31
The Wastewater Treatment Plant Facilities Plan will provide a road map for what improvements need to be made in each of the different process areas as well as those required to meet more stringent treatment limits expected within the NPDES permit.

New Bedford CW-20-20
The project will facilitate progress of the city's illicit discharge detection and elimination (IDDE) program, to meet requirements of the 2017 Massachusetts MS4 Permit and Draft AO that is currently being negotiated. The city has screened 50 percent of stormwater outfalls for signs of illicit discharges. The proposed project will consist of two phases 1) screening the remaining outfalls and 2) performing upstream investigations (dry weather manhole testing, dye testing, CCTV, etc) of systems that indicated potential illicit discharges during screening.

Revere CW-20-29
This planning project will focus on the evaluation of alternative connections to the MWRA's regional system and/or storage requirements to meet the obligations of the consent decree and eliminate SSOs. This planning project will include field investigations, hydraulic modeling, and cost analysis efforts.

Revere CW-20-30
The planning project will provide procure specialized equipment needed as part of the city's ongoing capacity, management, operations and maintenance (CMOM) program, as well as to further develop and implement a fats, oils and grease (FOG) inspectional program throughout the city.

The project will evaluate alternative connections to the MWRA's regional system and/or storage requirements to meet the obligations of the consent decree and eliminate SSOs. The project will include field investigations, hydraulic modeling, and cost analysis efforts.

The investigation programs will include IDDE, CCTV of drains and sewers throughout the City, dye testing, smoke testing, wastewater and storm water pump station inspections, and inspections of private homes and businesses to identify sources of inflow from sump pumps, roof leaders, roof drains, driveways drains, yard drains and other sources of inflow.

The findings of these investigations will be incorporated in the City's future construction projects to address the detected deficiencies.

Drinking Water Agreements

Kingston DWP-19-20
The project involves construction of a new water treatment facility for the removal of iron and manganese from two of the Town's wells. The water treatment facility will include pressure filtration with anthracite and GreensandPlus media, chemical feed systems for sodium hypochlorite (oxidation and disinfection) and potassium hydroxide (corrosion control), SCADA system controls, emergency back-power, water main piping to re-route the wells through the new facility prior to the distribution system. The completed project will improve drinking water quality by removing high levels of iron and manganese, increase public health protection and improve customer confidence and satisfaction.

MWRA DW-20-31
This project includes the Southern Extra High service area that has been identified as being deficient in distribution storage and lacking redundant distribution pipelines. Correction of these deficiencies has been assigned a Priority One under MWRA's 2006 and 2013 Water System Master Plans due to the potential critical threat to public health that could result from a failure in this single transmission main.

MWRA DW-20-32
Construction of low service suction and pumps for the Commonwealth Avenue Pump Station (CAPS) in Newton. The project includes 24-inch diameter low service connections to the Weston Aqueduct Supply Mains 1 & 2 (W2 & W6) in the Carriage Lane of Commonwealth Avenue, a 325-lf 24-inch diameter low service suction main from the WASM 1 & 2 connections to the existing Shaft 6 Line suction main and the capability to pump using low service suction into the Newton Southern Pressure District with one new pump and one replacement pump in the East Building. The new low service suction and pumps provide redundancy to the CAPS if there is an interruption in the high service water supplied to the pump station from Shaft 6 of the City Tunnel.

West Boylston Water District DWP-19-27
This project involves replacement of aging infrastructure to protect public health. The water main on North Main St, Laurel St, Waushacum St and Reed St is deteriorating AC main, that has reached the end of its useful life and suffering from repeat breaks, most recently on 8/18/18. During the repair it was noted that the water main had lost thickness in the area of the break. The concern is that more of the main is also deteriorating and will continue to suffer from breaks until it is replaced with new ductile iron main. Additionally, this area of the District's water distribution system has numerous lead goosenecks on customer service lines. These lead goosenecks will be completely eliminated through this water main replacement project.