

Project Descriptions for January 15, 2020

Board of Trustees Meeting

Asset Management Program Commitments

Adams Fire District DW-19-21

The District is proposing to work with Stantec to develop an overarching plan that will identify the top water infrastructure improvements. This project will develop a geographical information system (GIS) for the water system assets. The team proposes to complete water system data collection and assessment to accurately develop the District's data. The information will be used to determine capital improvement projects and costs for the water system.

Ashland CW-19-22

This project will allow the Town of Ashland DPW Water and Sewer Department to develop an Asset Management Plan for their water, sewer and stormwater systems. The Asset Management Plan will inventory the drinking water, wastewater, and stormwater systems; evaluate and prioritize assets; outline useful life and criticality values of assets; provide replacement costs for each asset; provide a priority list of assets for a five year period; prepare annual charge system costs for a five year period; update existing asset management software (GIS); provide training on new GIS Software and Field Tablets loaded with GIS programs; perform field assessment for useful life and criticality of assets; outline SWUP

Fall River DW-19-23

The purpose of this Asset Management Project is to implement a consistent asset management program for the city of Fall River's water, wastewater, and stormwater utilities. The work will include development of an asset inventory, condition assessment and risk analysis of assets of the water system facilities, and wastewater pump stations and CSO screening and disinfection facilities; evaluation, purchase and implementation of a computerized maintenance management system for the three utilities; development of a level of service agreement for all three utilities. This work includes preparing a written management plan narrative that describes the operation of the proposed AMP to be utilized by the City's management team moving forward.

Plainville DW-19-22

The Plainville AMP will inventory and assess the current state of the Town's water and wastewater system assets, evaluate the level of service in terms of quality, quantity, reliability and environmental standards; identify assets critical to sustaining system performance; quantify minimum life cycle costs for critical assets, operations and maintenance; and determine a long-term funding strategy to ensure high-level performance and pipe integrity. Assets considered will include pipes, joints, and associated infrastructure essential to the function of the system. In preparing the Plan, the Town and consultant will evaluate the benefit of implementing CUPSS or a similar non-proprietary software program to track assets.

Clean Water Commitments

Barnstable CW-19-36

The project involves replacement of the Town's existing Rendezvous Lane sewer pump station (RLPS). The RLPS is located adjacent to Barnstable Harbor within a flood zone and is routinely inundated with multiple feet of storm surge during coastal storm events, resulting in loss of sewer service to nearby residences. Town staff invests many hours at the station during each coastal storm to prevent failure of the RLPS. Complete failure of this station during a storm event could result in raw sewage entering Barnstable Harbor. The proposed project will replace the station with a more resilient submersible station and provide a permanent backup generator outside (or above) the flood zone which will prevent complete failure of the station.

Brockton CW-19-34

The Taunton River watershed currently has bacteria water quality impairments during both wet and dry weather conditions. The majority of the bacteria sources can be eliminated by implementing an illicit discharge detection elimination (IDDE) program, which finds the sources of bacteria and develops recommendations to remove and eliminate them. The City would like to continue addressing areas identified through recent IDDE detection procedures and Sewer System Evaluation Study (SSES). By implementing these projects, the water quality within the City's receiving waters has improved.

Chatham CW-19-47

This Project includes extending sewers to serve portions of the Taylors Pond/Mill Creek, Pleasant Bay and Stage Harbor watersheds. The project is intended to consist of multiple construction Contracts including: Phase 1D-2: Route 137 - Morton Road Sewer Extension Project; the Phase 1-E: Stage Harbor Sewer Extension Project and the Stony Hill Road and George Ryder South Sewer Extension Projects. These sewer extensions will allow the Town of Chatham to continue implementing their approved Comprehensive Wastewater Management Plan (CWMP) and addressing nitrogen loading from septic systems by extending the wastewater collection system to serve properties within the watersheds impacting the Town's coastal estuaries.

Chicopee CW-19-42

Project includes sewer rehabilitation measures and other corrective action in the Meadowbrook Underdrain area to eliminate contamination of surface waters, reduce infiltration and inflow and improve/renovate conveyance. The Town is under an EPA Administrative Order on Consent to complete the work included in this project.

Fall River CW-19-23

The purpose of this project is to replace the South End sewer pump station. The pump station was constructed in the 1960's and has exceeded its useful life. In addition, The pump station struggles to keep up with wet weather flows due to high inflow and infiltration (I/I) within the sewershed.

A new submersible pump station will be constructed to replace the outdated pumps, piping, and equipment. The pump station will be constructed with additional capacity (in order to handle wet weather flows), a standby power generator, motor controls, and a SCADA system.

Gloucester CW-19-37

Various improvements are necessary at the Gloucester's Water Pollution Control Facility (WPCF or wastewater treatment plant) include the following: Replacement of the Sodium Hypochlorite Disinfection System: The original system in place since 1985 is operational; however, one of the two 4,000 gallon storage tanks leaks and has been taken out of operation. Some of the improvements include: Gravity thickener flow meters (2): New flow meters are to be added to aid in plant operation by quantifying sludge removal efficiencies and plant loadings; New SCADA node industrial computer & rotary press software: Sludge piping replacement; Bathroom vent line replacement; and Chlorine contact chamber drain line valve (2) replacement.

Gloucester CW-19-44

The project includes work at five wastewater pump stations. The Beacon Marine and Parker Street stations will undergo required architectural and structural rehabilitation to the roof, façade, doors and concrete wet wells (H₂S corrosion). Rehabilitation of these facilities is essential to maintaining a high level of service and reliability in the wastewater collection system.

The City of Gloucester has an aggressive Fats, Oils and Grease (FOG) program for industrial and commercial users, as well as, a comprehensive education program for residential users. Despite these efforts, FOG mitigation systems must be installed at the Corliss Ave, Finch Lane and Thurston Point stations, all of which service residential neighborhoods.

Great Barrington CW-19-43

The project is part of a 20-year Capital Improvement Plan (CIP) to upgrade and modernize the Great Barrington Wastewater Collection System. The Town recently completed a long-term planning study (CWMP) that recommended improvements to its pump stations to extend their lifespan and ensure long-term functionality and permit compliance (federal and state). The key components of the project include upgrades to pump stations at the following locations:

1. Cone Avenue
2. Risingdale
3. South Main Street
4. Fairgrounds

Kingston CW-19-46

The proposed infrastructure project involves expansion of the Kingston Wastewater Treatment Plant (WWTP) to create capacity for flows from multiple proposed private housing and economic development projects. Though there are a number of these project within the Town which are limited by the capacity of the current plant, the largest of these is the redevelopment of the Kingston Collections Mall to support a mixed-use development to include hotel, residential and commercial space. The project will also provide a private, over 55 residential park, the opportunity to connect to municipal sewer. Their private Wastewater Treatment Plant is over thirty years old, evaluated as being in fair condition.

Lawrence CW-19-21

This project consists of Phases VI through VIII of the annual SSES activities. Phases I through IV were completed in 2014 through 2017, respectively. Phase V is underway. Phases VI through VIII include flow isolation, manhole inspections, cleaning and television inspections, smoke testing and dye testing in a project area that consists of 355,000 linear feet of sanitary sewer ranging from 8-inches to 54-inches in diameter and of approximately 120 manholes. The City has periodically experienced surcharging and SSOs into the storm drain system and CSOs to the Merrimack River. This work is recommended in the 2017 SSES Summary Report and will assist in complying with the federal Consent Decree.

Lynn Water & Sewer Commission CW-19-27

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.

MWRA CW-19-45

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-19-49

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-19-50

This project includes upgrades to the Deer Island Wastewater Treatment Plant automation and central control systems as well as improvements and upgrades to several existing interceptors and pump stations that are in need of replacement and/or modernization. The project is intended to extend current asset life and improve system operability.

MWRA CW-19-51

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-19-52

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.

Nantucket CW-19-32

This project involves the upgrade of the Surfside Road Pump Station and the replacement of approximately 5,400 linear feet of existing gravity sewers tributary to the Surfside Road Pump Station. The purpose of the collection system improvements project is to provide adequate downstream capacity for the sewer expansions needs areas identification in the approved 2014 CWMP Update.

New Bedford CW-19-48

The purpose of this PEF is to help the City of New Bedford finance the construction programs that are recommended from previous planning studies. The City of New Bedford is submitting this Clean Water SRF Project Evaluation Form Calendar Year 2019 Intended Use Plan for implementation of a Wastewater Collection System Improvements Program. The projects involved include the following:

1. Interceptor and Collector Sewer Rehabilitation Program
2. Lateral Sewer Rehabilitation Program

Northampton CW-19-38

The project is the first phase of a plan to upgrade and modernize the Northampton Wastewater Treatment Plant (WWTP). The City recently completed a long-term wastewater planning study, entitled the Comprehensive Wastewater Management Plan (CWMP), that included recommended improvements to the WWTP to extend its lifespan and ensure long-term functionality and permit compliance (federal and state).

Orleans CW-19-33

The construction Project includes a new collection system, PS, WWTF and effluent disposal for the Downtown Area consisting of about 1,087 users to address water quality in the various estuaries. In general, the project includes a WWTF (influent screening and flow measurement; flow equalization; biological process (SBR); effluent filters; post equalization; effluent pumps; UV disinfection; odor control; septage receiving and processing; solids storage and thickening); effluent disposal (wicks); about 30,800 lf of 8" to 12" GS and appurtenances, about 2,000 lf of 1-1/2" to 2-1/2" LPS and appurtenances, about 9,200 lf of 8" effluent FM, 3 PS, and about 9,200 lf of 6" and 8" FM main and appurtenances for the estimated flow of 250,000 gpd.

Quincy CW-19-28

The Pump Station was built late 1990's and reached its design life. Recent coastal storms and power outages have caused pump station failure and inundation has led to flooded neighborhoods. SSOs and water quality concerns from the events are further detailed in this application. Quincy DPW has also addressed a sewer force main break which indicated the 20-year-old DI sewer force main is corroding and pitting

Project Focus

- 1.Replacing the standby generator with a more modern, efficient generator;
- 2.Modifying the electrical system to reduce the frequency and duration power outages;
- 3.Expanding the sewer pumping capacity;
- 4.Replacing the sewer force main with HDPE; and
5. Elevation increase to be above future forecasted BFE

Quincy CW-19-29

The City of Quincy has ongoing infrastructure improvements including rehabilitation, repair and replacement of coastal manholes and sewer piping. The City is proactively implementing Phase IV for the rehabilitation of existing sewer pipe and manholes to remove infiltration and inflow of seawater in areas of the City. The City conducted multiple investigations (SSES) to identify specific problem areas, which are addressed in this PEF. To date the City completed multiple phases including Phase I - manhole rehabilitation, repair, replacements, Phase II - coastal manhole and piping and Phase III - Illicit Discharge and Elimination.

Revere CW-19-39

The Phase 10 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-19-40

The Phase 11 Field Investigations, Illicit Discharge Detections and Elimination (IDDE), and Illicit Connection 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 stormwater 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.

Saugus CW-19-30

This project includes sewer system rehabilitation in Subsystem 1C in Saugus. Construction will include the rehabilitation of pipelines, manholes, and the removal of private inflow sources as necessary to eliminate I/I from the system. Approximately 13,400 feet of 8-inch and 2,000 feet of 10-inch pipe have been identified as being in need of CIPP in subsystem 1C to eliminate I/I. Also included in this project will be the installation of a lining system to improve the quality of the service to mainline connection. There are approximately 280 of this type of connection in Subsystem 1C. Approximately 72 manholes have also been identified and are in need of rehabilitation. Each manhole will be lined using the latest standards.

Saugus CW-19-31

The Lincoln Avenue Wastewater Pumping Station is located at 24 Lincoln Ave in Saugus, MA and serves as the main pumping station for the Town to convey wastewater to the Lynn Regional Wastewater Treatment Facility. The station was built in 1982, has a significant amount of deficiencies, and has experienced a number of failures. Equipment failures have occurred on multiple occasions, seriously affecting the pumping stations reliability. Some improvements were made in 2018, but additional upgrades are necessary at the station. VFD replacement, new motors, power cables, control wiring, station controls, PLC, alarms, and upgrades to the 42" influent slide gate to the station are amongst the additional improvements.

Taunton CW-19-53

The Taunton WWTF receives all of its flow from the Main Lift Pump Station, and improvements to the station are required to provide reliable operation. This project, will replace the existing station and include new pumps, force main, electrical equipment and controls. The primary goals of the project are to provide more reliable pumping service, increase capacity, and reduce CSOs to the Taunton River. Currently, when flows exceed the capacity of the existing Main Lift station, the system surcharges and excess flow overflows into the river untreated. Pumps frequently clog with debris, which would be reduced with the installation of non-clog pumps. This project is being done in conjunction with future upgrades to the WWTF.

West Springfield CW-19-41

The proposed project involves the installation of approximately 17,000 linear feet (LF) of gravity sewer line, 1,100 LF of forcemain and three (3) lift stations. Each lift station will be designed to include energy efficient measures such as premium efficiency motors for the lift pumps. The Town is working to protect and enhance the quality of its water resources, improve wastewater service and eliminate potential environmental health problems. The goal of the project is to assist nearly 170 homeowners in the ability to decommission their septic systems, especially the 26 systems that have previously failed and others that are aging, by providing a means to which they can dispose of their sewage via the proposed sanitary sewer pipeline.

Drinking Water Commitments

Andover DW-19-13

As indicated in the Town Manager's Recommended Capital Improvement Program FY2020-2024, a significant portion of the Town's water distribution system consists of unlined cast iron water mains that have reduced hydraulic capacity (pressure), and water quality issues due to mineral deposits. To ensure reliability and sufficient capacity within the water distribution system, a study and analysis has identified areas of the Town with deficient water mains. The Town currently conducts annual infrastructure improvements aimed at properly maintaining and upgrading the Town's aging water distribution system to help prevent catastrophic failures, improve capacity, prevent water loss, provide adequate fire protection and improve overall water quality. Despite the Town's efforts, 154 water line leaks/breaks were reported between January 2013 and January 2019, and 542 discolored water complaints were reported between April 2015 and January 2019.

Bridgewater DW-19-17

This project includes the construction of a 1.62 MGD manganese greensand water treatment plant to treat elevate iron and manganese from the Town of Bridgewater's High Street Wells. The Town is concerned about the provided high levels of manganese to their customers based on the USEPS's health advisory for manganese. Currently, blended phosphates are added to sequester iron. This practice is not sufficient and therefore the Town is seeking to improve this water quality by constructing a new treatment facility. This project will also include an upgrade to the Town's existing water system SCADA network with a master terminal unit located at the new plant.

Eastham DW-19-06

The subject of this PEF is construction of a municipal water system for Eastham, which until this time has relied on private wells 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. In May 2014 the Town authorized \$45.8 Million for the first phase of this water system, and at their May 2015 Annual Town Meeting the Town authorized an additional \$85 Million to construct the remainder of the system such that it will serve all of the properties in the Town (6,660 parcels). This 2019 PEF requests funding support for Phase 2B of the water system program.

Fall River DW-19-14

This project includes the City of Fall River's cast iron water main and lead service replacement program. The Phase 19 water main improvements include the rehabilitation or replacement of approximately 11,390 linear feet of cast iron water mains and lead services. To provide safe and reliable drinking water to customers of the City of Fall River.

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.

Lawrence DW-19-12

This project involves replacement of the Marston Street Pump Station

MWRA DW-19-25

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-19-26

This project includes the construction of an emergency pump station to pump water from the Wachusett Aqueduct to the Carroll Water Treatment Plant (CWTP). The pump station will provide redundancy in the event of failure at the Cosgrove Tunnel or Intake and for the inspection/rehabilitation of the Cosgrove Tunnel. The pump station will be able to deliver 240 million gallons per day of raw water to the CWTP during a planned or emergency shutdown of the Cosgrove Tunnel. This flow rate represents the full water demand from CWTP during the fall, winter, and spring low-flow seasons and mitigates potential disruption of service to Northborough, Southborough, Marlborough, and Westborough State Hospital.

New Bedford DW-19-24

The Highway Bridge Crossing Replacement Project will continue to remedy system deficiencies and prevent serious threats to New Bedford's water system by replacing four watermains that cross under three separate bridges that cross two major highways – Interstate 195 and Route 140. Three of the four watermains are currently shut down due to leaks. The project will replace the watermains and pipe supports/hangers. This project is of utmost importance to the City to maintain safe and reliable delivery of water to its customers and protect public health.

Peabody DW-19-11

The proposed project addresses the lack of redundant water supply to the West Peabody High Service System, presently served by the Winona Water Treatment Plant. It will provide water supply to about 1/3 of the City of Peabody if the treatment plant is out of service, either due to failure or during proposed future renovations. It includes the installation of 24,400 feet (4.6 miles) of 20-, 16-, and 12-inch water main on various streets from Lynn Street near the Coolidge Avenue Water Treatment Plant to Route 1 in West Peabody, and the construction of a drinking water pump station near the High School. All lead services (approximately 50) encountered along the proposed pipeline path will be removed and replaced to the meter or building.

Peabody DW-19-15

This project will include a full rehabilitation of the City's Winona WTP and additional treatment improvements at the Coolidge WTP for lowering the manganese and TTHM levels. The Winona WTP will be fully renovated with dissolved air flotation, backwash holding tanks with recycle and residuals handling improvements. The City will install aeration systems in Winona Pond and Suntaug Lake for the control of manganese in the raw water and will perform improvements to the Cedar Grove Clearwell at the Coolidge WTP including installation of aeration for the purposes of stripping TTHMs from the finished water.

Scituate DW-19-18

The goal of the project is to treat raw water from Well 17A for elevated iron and manganese. Treating the Well 17A raw water on site will allow for the Well to pump directly to the distribution system instead of being diverted into a nearby reservoir and treated at the Old Oaken Bucket Pond WTF.

Well 17A will be conveyed to the treatment plant via an existing 10-inch diameter transmission water main and transition to a 6-inch water main before entering the WTP. Raw water will be treated with chemical addition, filtered, and conveyed to a filtered water storage tank, where it will be metered and receive additional chemical treatment before entering the distribution system.

Water Supply District of Acton DW-19-16

The project includes the construction of a new water treatment facility and water mains for the Conant No. 1 and No. 2 Wells in accordance with MassDEP requirements. The new water treatment facility will include media filtration, aeration tower, chemical feed, and a clearwell. The completed project will improve drinking water quality by reducing high manganese (above the ORSGL of 0.30 mg/L) and iron concentrations.

West Boylston Water District DW-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.

Asset Management Program Grant Agreements

Adams Fire District DWA-19-21

The District is proposing to work with Stantec to develop an overarching plan that will identify the top water infrastructure improvements. This project will develop a geographical information system (GIS) for the water system assets. The team proposes to complete water system data collection and assessment to accurately develop the District's data. The information will be used to determine capital improvement projects and costs for the water system.

East Longmeadow CWA-19-20

This project will allow the East Longmeadow DPW to develop an asset management plan for their water, sewer and stormwater systems. The asset management plan will inventory the drinking water, wastewater, and stormwater systems; evaluate and prioritize assets; outline useful life and criticality value of assets; provide replacement costs for each asset; provide a priority list of assets for a five year period; prepare annual charge system costs for a five year period; update their asset management software; perform field assessment for useful life and criticality of assets; assure utilization by East Longmeadow.

Clean Water Agreements

Hull CWP-18-29

Hull is completing a CMOM, under AOC (Docket CWA-01-AO-16-09), which identified a number of upgrades that are in order. In addition, the Town completed a Fiscal Sustainability Plan (FSP) in June 2017, which prioritized facility/wastewater system upgrades. This project addresses the Year One Upgrades that includes three construction contracts. These Year One contracts were deemed an extreme risk to the system and a priority for immediate attention due to age, historic failure histories, impacts to the wastewater operations and cost benefit analyses of repair/replacement. The construction project includes Contract No. 1 Sewer Interceptor Pipeline Renewal, Contract No. 2 Atlantic Avenue/Gunrock Area Sewer Infrastructure Renewal, and Contract No. 3 Critical Replacements at POTW contracts.

MWRA CW-19-45

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.

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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.

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This project includes upgrades to the Deer Island Wastewater Treatment Plant automation and central control systems as well as improvements and upgrades to several existing interceptors and pump stations that are in need of replacement and/or modernization. The project is intended to extend current asset life and improve system operability.

MWRA CW-19-51

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MWRA CW-19-52

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.

Drinking Water Agreements

Billerica DWP-19-04

The project includes upgrades to the existing Water Treatment Plant, related to the 20-year old ozone generation equipment. The proposed improvements are to the treatment process, electrical system, SCADA system, structural and the HVAC system.

MWRA DW-19-25

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-19-26

This project includes the construction of an emergency pump station to pump water from the Wachusett Aqueduct to the Carroll Water Treatment Plant (CWTP). The pump station will provide redundancy in the event of failure at the Cosgrove Tunnel or Intake and for the inspection/rehabilitation of the Cosgrove Tunnel. The pump station will be able to deliver 240 million gallons per day of raw water to the CWTP during a planned or emergency shutdown of the Cosgrove Tunnel. This flow rate represents the full water demand from CWTP during the fall, winter, and spring low-flow seasons and mitigates potential disruption of service to Northborough, Southborough, Marlborough, and Westborough State Hospital.

West Springfield DWP-17-13-A

The project includes a new 300,000 gallon elevated water storage tank, a transmission main from the existing high pressure service area to supply the new pressure zone, and improvements to the existing pumping station serving the high pressure zone to meet increased demand. Work also involves replacing approximately 2,200 existing meters and a Town wide leakage testing plan and implementation. This will enable the Town to recover costs of under-registering meters and significantly reduce the amount of unaccounted for water. It will also ensure adequate water supply for drinking and fire protection.