

Project Descriptions for December 5, 2018

Board of Trustees Meeting

Clean Water Commitments

Marion CW-18-37

The objective of the Wastewater Treatment and Collection System Improvements Project is to address regulatory required upgrades at the Town's wastewater treatment plant (WWTP) and improve the overall operations of the Town's wastewater collection system by: Reducing the volume of infiltration and inflow (I/I) entering the collection system; Addressing improvements at the WWTP as required by the Town's final National Pollution Discharge Elimination System (NPDES) Permit; and Complete wastewater pumping station improvements to address aging equipment.

MWRA CW-17-35

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 is 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-18-39

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-18-40

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 is 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-18-41

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.

Plymouth CW-18-46**Community Septic Management Program****SWSC CW-18-18**

Consistent with the Commission's Integrated Wastewater Plan, the York Street Pump Station and Connecticut River Crossing Project will increase the wet weather flow to the Springfield Regional Wastewater Treatment Facility (SRWTF), substantially reducing the volume and frequency of combined sewer overflow events from multiple CSO regulators across the Connecticut River CSO system. The Project includes a new 62 MGD wastewater pumping station and screening facility, 3 new pipes crossing under the Connecticut River to the SRWTF, and modification to the SRWTF Influent Structure.

Drinking Water Commitments**Adams Fire District DW-18-04**

Construction project includes installation of sodium hypochlorite chemical feed systems to Wells 4, 2a, and 3 stations including day tanks, chemical metering pumps, chemical feed piping, instrumentation and controls. Project includes integrating the new chemical feed systems with the existing SCADA system by installing a PLC based control system at Wells 2a and 3 sites, adding a communication system to connect the 3 well sites, the Maple Street Storage Tank, provide an alarm dialer and a connection to a human machine interface at the AFD office. This project is in accordance with two ACOs – 1 for unaccounted for water and 1 for coliform hits. The completed project will install disinfection and provide for more accurate supply readings.

MWRA DW-16-06

The Southern Extra High service area 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-18-16

This project is 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.

Clean Water Agreements

MWRA CW-18-39

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-18-40

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 is 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-18-41

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.

Plymouth CWT-18-46

Community Septic Management Program

Drinking Water Agreements

Adams Fire District DWP-18-04

Construction project includes installation of sodium hypochlorite chemical feed systems to Wells 4, 2a, and 3 stations including day tanks, chemical metering pumps, chemical feed piping, instrumentation and controls. Project includes integrating the new chemical feed systems with the existing SCADA system by installing a PLC based control system at Wells 2a and 3 sites, adding a communication system to connect the 3 well sites, the Maple Street Storage Tank, provide an alarm dialer and a connection to a human machine interface at the AFD office. This project is in accordance with two ACOs – 1 for unaccounted for water and 1 for coliform hits. The completed project will install disinfection and provide for more accurate supply readings.

MWRA DW-16-06-A

The Southern Extra High service area 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-18-16

This project is 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.