

Project Descriptions for June 1, 2022

Board of Trustees Meeting

Asset Management Planning Commitments

Avon DW-22-10

The Town of Avon aims to improve the cybersecurity resilience and continuity of operations of the drinking water system's digital and physical assets. Though a small system, the complexity makes it very difficult and labor intensive to operate if the 1999 SCADA system is compromised. Using the NIST-Cyber Security Framework (CSF) the DPW is seeking to advance their cybersecurity maturity, create a water Industrial Control System/Operations Technology (ICS/OT) asset inventory, perform a cybersecurity risk assessment, develop a cybersecurity program, and support staff engagement and adoption of cybersecurity best practices. Lessons learned will be disseminated to other water systems, engineers, and regulators.

Montague CW-22-04

The Town of Montague seeks to develop an Asset Manage Plan that includes an asset inventory of the Town's stormwater and sewer system. This Plan will expand the Town's ability to access and organize asset information via GIS, and create a funding analysis to pay for capital improvement projects, including a rate structure review. The project includes hydraulic modeling to identify critical combined sewers nearing capacity and evaluate CSO reduction solutions as part of the Town's LTCP for CSO mitigation. Field investigations in combined sewer system areas will be conducted to evaluate CSO reduction solutions as part of the LTCP. Field investigations will be performed in the Village of Millers Falls, which has known inflow and infiltration (I/I), to identify I/I sources and to recommend approaches to reduce I/I.

Clean Water Commitments

Barnstable CW-21-42

The purpose of this project is to upgrade three (3) of the Town of Barnstable's existing wastewater pumping stations to be more resilient, reliable, energy efficient, and cost-efficient. The three proposed projects are consistent with the long-term rehabilitation plan prepared in 2019 for the Town's 27 existing pump stations.

MWRA CW-22-09

The Massachusetts Water Resources (MWRA) seeks the replacement of the existing 30-inch ductile iron cement lined pipe, approximately thirty feet in length, connecting the City of Chelsea's CHE008 regulator (RE-081) to the MWRA's Chelsea Branch Sewer at Structure C (Structure C) with a new 48-inch pipe. The work includes modifications to RE-081 and Structure C to accommodate for the pipe increase, installation of a steel baffle and the demolition of an existing weir wall in Structure C. The pipe size increase is predicted by MWRA's calibrated hydraulic model to result in CHE008 with one discharge at 0.07 MG, coming very close to meeting the CSO Long-Term Control Plan (LTCP) goal of zero discharge.

Drinking Water Commitments

Mansfield DW-22-02

The Town of Mansfield seeks the installation of new gravel pack wells to replace the existing wellfield to reduce maintenance requirements, and construction of a new GAC-based PFAS treatment system to allow the source to distribute water meeting all regulatory criteria. The project will involve installation and testing of new groundwater wells, construction of a new water filtration facility, upgrades to existing electrical and controls systems to replace aging infrastructure and accommodate the new wells and treatment building, and associated site improvements.

Orange DW-22-04

The Work consists of replacement of approximately 2,300 linear feet of existing water mains with new ductile iron pipe along North Main Street. Included with this Work is replacement of water services, valves, hydrants and similar appurtenances associated with the project.

Sudbury Water District DW-22-05

The Town of Sudbury seeks the construction of a permanent treatment system consisting of four 12-foot diameter pressure vessels containing granular activated carbon (GAC). The vessels will be housed in a building adjacent to the exiting Raymond Road Water Treatment Plant (Raymond Road WTP). The proposed treatment system is to remove PFAS from the water, therefore providing the public with safe drinking water.

Asset Management Planning Agreements

Avon DWA-22-10

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Montague CWA-22-04

The Town of Montague seeks to develop an Asset Manage Plan that includes an asset inventory of the Town's stormwater and sewer system. This Plan will expand the Town's ability to access and organize asset information via GIS, and create a funding analysis to pay for capital improvement projects, including a rate structure review. The project includes hydraulic modeling to identify critical combined sewers nearing capacity and evaluate CSO reduction solutions as part of the Town's LTCP for CSO mitigation. Field investigations in combined sewer system areas will be conducted to evaluate CSO reduction solutions as part of the LTCP. Field investigations will be performed in the Village of Millers Falls, which has known inflow and infiltration (I/I), to identify I/I sources and to recommend approaches to reduce I/I.

Wellesley CWA-21-29

The Town of Wellesley will continue its asset management efforts in water, wastewater, and stormwater. The Department of Public Works is dedicated to providing the essential, emergency, and maintenance services, together with information and planning support, to protect, maintain, and improve the Town's assets and infrastructure for the safety and well-being of the community.

Clean Water Agreements**Barnstable CWP-21-42**

The purpose of this project is to upgrade three (3) of the Town of Barnstable's existing wastewater pumping stations to be more resilient, reliable, energy efficient, and cost-efficient. The three proposed projects are consistent with the long-term rehabilitation plan prepared in 2019 for the Town's 27 existing pump stations.

Lawrence CWP-21-25

The City of Lawrence's project will rehabilitate and replace sewer system defects, and operational and maintenance issues identified in the 2019 SSES report. The sewer and drainage system improvements will address structural pipe failures, reduce infiltration and inflow sources, and abate illicit cross-connections to the MS4 areas.

Revere CW-21-34

The City of Revere's Phase 13 Field Investigations, Illicit Discharge Detection and Eliminations (IDDE), and Illicit Connections and Sump Pump Investigation Programs will include common investigative elements such as: 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 future construction projects to address the identified deficiencies.

Springfield Water & Sewer Commission CWP-21-11

The Springfield Water and Sewer Commission's project includes an upgrade to the Biological Nutrient Removal (BNR) process – Hybrid BNR Mixed Liquor Recycle Pumping, replacing the Diffused Aeration Distribution System, upgrades to the Plant Electrical System and rehabilitation of the Ventilation System in the Grit and Screenings Building. The objective of these improvements is to increase the effectiveness of the SRWTF to continue meeting its current and anticipated future NPDES permit limits, and to replace and increase the reliability of critical infrastructure onsite.

Drinking Water Agreement**Mansfield DWP-22-02**

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