Project Descriptions for June 2, 2021

Board of Trustees Meeting

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.

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 Commitment

Mansfield DW-21-02
The Town of Mansfield's Cate Springs Well PFAS Treatment System project involves constructing a PFAS removal treatment system including granular activated carbon (GAC) pressure vessels at the Cate Springs Well site. The proposed treatment system will include 4-6 GAC pressure vessels and all appurtenant piping and valves. The treatment process will include piping modifications, upgrades to the existing building at the site (currently utilized for hydrant, valve, and other parts inventory storage) including associated electrical, lighting and HVAC systems necessary for the new treatment system. Instrumentation and controls system upgrades will be included to ensure the new system is fully integrated into the existing treatment process which currently includes only chemical addition treatment.

Clean Water Agreements

Barnstable CWP-20-18
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Brockton CWP-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.

Brockton CWP-20-17-A
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Chicopee CWP-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 CWP-20-31-A
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Chicopee CWP-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.

Dudley CWP-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.

Saugus CWP-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.

West Springfield CWP-19-41
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Drinking Water Agreements

Littleton DW-21-01
The Town of Littleton's Fe, Mn, and PFAS Water Treatment Plant project includes installation of piping water from Spectacle Pond to Whitcomb Ave and a new combined Water Treatment Plant (WTP), rather than two separate WTPs at Spectacle Pond and Whitcomb Ave. The WTP will include biological filtration for Fe and Mn removal and GAC filters for PFAS removal. The two largest source waters operated by the Littleton Water Department are currently limited by pumping capacity and water quality. The Spectacle Pond well has elevated levels of Fe, Mn, and PFAS above the regulatory limits. This is the LWD's largest source water and can only currently be operated through blending. The existing Spectacle Pond WTP is outdated and in need of repair. The Whitcomb Avenue wells also have elevated levels of Fe and Mn and detectable levels of PFAS.

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.

West Boylston Water District of West Boylston DWP-19-27-A
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.