Project Descriptions for September 1, 2021

Board of Trustees Meeting

Asset Management Planning Commitment

Greater Lawrence Sanitary District CW-21-12
The Greater Lawrence Sanitary District (GLSD) is assessing progress in implementing its Long-Term Control Plan to determine the remaining priority projects to continue to effectively manage CSOs. This project will also assist the District to plan for regulatory changes in relation to nutrient removal (i.e., nitrogen and phosphorous). Finally, the funding will support the District's review of potential vulnerabilities due to increased flood risk and weather-related high flows at its wastewater treatment facility and influent pumping station. The District will assess the financial impacts of these potential changes to create a fiscally sustainable plan moving forward.

Community Septic Management Program Commitment

Westport CW-21-13
Community Septic Management Program

Clean Water Commitments

Abington CW-21-01
The Town of Abington's New Sewer Force Main project consists of constructing a new ~11,000 linear foot sewer force main for providing system redundancy as well as accommodating future average daily flow demands. The existing 30- year-old 16-inch ductile iron force main, which transports all wastewater from the Town to Brockton for treatment, has experienced two breaks due to corrosion. The most recent failure, near a wetland area, was caused by corrosive soils destroying the pipe from the outside. The previous break was at a high point in the pipeline where hydrogen sulfide caused the pipe failure. This project will protect the environment and public health as it will safely convey wastewater flows in a new corrosion resistant pipeline.

Pittsfield CW-18-12
This project is to upgrade the WWTP to achieve compliance with NPDES permit limits and an AO (CWA-01-15-014) issued by the EPA. The project will optimize the nitrogen removal process and result in reductions of phosphorus and aluminum discharges to the Upper Housatonic River Area of Critical Environmental Concern and remediate documented nutrient enrichment in the downstream Wood's Pond impoundment. Four major component projects are necessary to achieve compliance: Tertiary Treatment Upgrade, Sludge Dewatering Upgrade, Nitrogen Removal Upgrade (Phase I) and Secondary Clarifiers Upgrade. The project components are consistent with the plant needs and energy efficiency improvements identified in the recently updated WWTP Facilities Plan.

Springfield Water & Sewer Commission CW-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 Commitment

Westfield DW-21-06
The City of Westfield's Dry Bridge Road PFAS Water Treatment Plant project includes construction of a new treatment plant with four GAC contactors and three chemical storage and feed systems, upgrades to Well 1 and 2, interconnecting raw water pipelines from Wells 1 and 2, and installation of a new treated water main from the treatment plant to the distribution system. The City anticipates bidding and constructing the water treatment plant and the water mains as two separate contracts. This project will allow Westfield to reduce PFAS found within its drinking water sources below levels of concern. PFASs have been detected in the City of Westfield's production Wells 1, 2, 7, and 8. Westfield has recently constructed a treatment facility at Wells 7 and 8, and now plans to construct a new water treatment facility to treat Wells 1 and 2.

Asset Management Planning Grant Agreement

Greater Lawrence Sanitary District CWA-21-12
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Community Septic Management Program Agreement

Westport CWT-21-13
Community Septic Management Program

Clean Water Agreements

Abington CWP-21-01
The Town of Abington's New Sewer Force Main project consists of constructing a new ~11,000 linear foot sewer force main for providing system redundancy as well as accommodating future average daily flow demands. The existing 30- year-old 16-inch ductile iron force main, which transports all wastewater from the Town to Brockton for treatment, has experienced two breaks due to corrosion. The most recent failure, near a wetland area, was caused by corrosive soils destroying the pipe from the outside. The previous break was at a high point in the pipeline where hydrogen sulfide caused the pipe failure. This project will protect the environment and public health as it will safely convey wastewater flows in a new corrosion resistant pipeline.

Barnstable CWP-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 CWP-20-23-A
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Pittsfield CWP-18-12-B
This project is to upgrade the WWTP to achieve compliance with NPDES permit limits and an AO (CWA-01-15-014) issued by the EPA. The project will optimize the nitrogen removal process and result in reductions of phosphorus and aluminum discharges to the Upper Housatonic River Area of Critical Environmental Concern and remediate documented nutrient enrichment in the downstream Wood's Pond impoundment. Four major component projects are necessary to achieve compliance: Tertiary Treatment Upgrade, Sludge Dewatering Upgrade, Nitrogen Removal Upgrade (Phase I) and Secondary Clarifiers Upgrade. The project components are consistent with the plant needs and energy efficiency improvements identified in the recently updated WWTP Facilities Plan.

Pittsfield CWP-18-12-C
This project is to upgrade the WWTP to achieve compliance with NPDES permit limits and an AO (CWA-01-15-014) issued by the EPA. The project will optimize the nitrogen removal process and result in reductions of phosphorus and aluminum discharges to the Upper Housatonic River Area of Critical Environmental Concern and remediate documented nutrient enrichment in the downstream Wood's Pond impoundment. Four major component projects are necessary to achieve compliance: Tertiary Treatment Upgrade, Sludge Dewatering Upgrade, Nitrogen Removal Upgrade (Phase I) and Secondary Clarifiers Upgrade. The project components are consistent with the plant needs and energy efficiency improvements identified in the recently updated WWTP Facilities Plan.

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.