



2020 Loan Forgiveness Project Descriptions

Clean Water Projects

Barnstable

<u>Community</u>	<u>Loan Number</u>	<u>Loan Forgiveness Amount</u>	<u>Total Loan Amount</u>
Barnstable	CWP-20-18	\$40,483	\$1,226,751

Wastewater Pump Station Improvements Project.

Barnstable has 27 wastewater pump stations. Many of them have equipment that has exceeded its useful life. Replacement is needed to prevent major equipment failure and to protect 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 which was prepared by Wright-Pierce for the Town of Barnstable. The plan identified the need for pump station improvements based on there being equipment at the end of its useful life along with the need for coastal resiliency, energy improvements, and electrical upgrades.

<u>Community</u>	<u>Loan Number</u>	<u>Loan Forgiveness Amount</u>	<u>Total Loan Amount</u>
Barnstable	CWP-20-43	\$373,356	\$11,313,805

Solids Handling Upgrade Project.

This project includes upgrades and modifications to the existing water pollution control facility. Two gravity belt thickening units will be added to improve operational efficiency at the facility as well as the replacement of other aged systems that have exceeded their useful life. Sludge pumps, the dry polymer system, the sludge holding tanks and blowers, the odor control system, certain instrumentation systems, and other architectural and mechanical systems will be replaced or rehabilitated.

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Barnstable	CWP-20-24	\$57,140	\$1,731,512

Route 28 and Yarmouth Road Intersection Sewer.

This project involves the installation of sewer infrastructure to accommodate future sewer expansion identified in the Town of Barnstable's wastewater plan. The Massachusetts Department of Transportation (MassDOT) is planning an intersection improvement project at Route 28 and Yarmouth Road. The Town is partnering with MassDOT to include the installation of sewer infrastructure improvements within the project limits. Gravity sewer will be installed along Route 28 for future sewer expansion. A sewer force main in Yarmouth Road will connect the future "Old Yarmouth Road" sewer expansion to the existing collection system. Multiple force mains will be installed within Route 28 that could accommodate a potential future wastewater partnership with the Town of Yarmouth.

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Barnstable	CWP-20-23	\$405,555	\$12,289,531

Strawberry Hill Road Sewer Expansion.

The "Strawberry Hill Road Sewer Expansion" project will install approximately 19,000 LF of gravity sewer along Route 28, 9,300 LF of sewer force main in Yarmouth Road, and one new pump station. 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. This project will provide a significant portion of the sewer infrastructure needed to address the wastewater needs of the Centerville River Watershed. This project is identified in the Town of Barnstable's Wastewater Plan. There will also be upgrades and modifications to the existing water pollution control facility.

Barnstable County

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Barnstable County	CWP-20-44	\$46,280	\$1,402,431

Emergency Site Capping to Mitigate PFAS.

Barnstable County is constructing a capping system and is undergoing stormwater improvements. The improvements will reduce infiltration from stormwater and runoff into PFAS-contaminated soil at the Barnstable County Fire and Rescue Training Academy facility. The capping system and stormwater improvements will mitigate leaching of PFAS from soil to the underlying groundwater of several Hyannis municipal wells.

Brockton

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Brockton	CWP-20-17	\$161,590	\$1,632,227

Sewer Rehabilitation Project.

The Taunton River watershed has water quality impairment. This project includes trenchless rehabilitation and open cut repair of prioritized areas in the City of Brockton's wastewater collection system. Sources of exfiltration, infiltration and inflow, and sections of undersized pipe are being addressed. This rehabilitation will reduce flows at the advanced water reclamation facility (AWRF), to allow more capacity for Brockton residents and surrounding communities. This project is working toward preventing exceedances of the City's National Pollutant Discharge Elimination System permit for the AWRF flows, lowering maintenance costs, and improving water quality of surrounding watersheds.

Chicopee

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Chicopee	CWP-20-31	\$423,874	\$4,281,560

Jones Ferry Wastewater Pump Station Phase II Improvements.

The Jones Ferry Pump Station is considered the most critical pump station in the City of Chicopee because it pumps most of the flow that is conveyed to the water pollution control facility in the Connecticut River interceptor. The Jones Ferry Pump Station has several critical vulnerabilities. One pump is offline due to impeller failure and there are no means to isolate and bypass this pump station. Further, much of the existing equipment has reached the end of its useful life.

This project includes the replacement of existing wastewater pumps with new submersible pumps. Existing entry doors, roof, grating in the wet well, slide gates, and fuel storage tank and motor control center are being replaced. Upgrades to the ventilation system, oil furnace, unit heaters, and monorail system are being performed. A new sewage grinder, variable frequency drives, a rock catcher, and a magnetic flow meter are being installed.

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Chicopee	CWP-20-32	\$491,352	\$4,963,150

Solids Handling Improvements Project.

This project includes the demolition and replacement of a belt filter press with a centrifuge. A redundant sludge cake pump is being installed and the primary clarifier is being upgraded. These improvements are being done by replacing the mechanisms, cross collector, and scum collector pipe along with 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

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Dudley	CWP-20-14	\$60,990	\$924,097

Infiltration and Inflow Mitigation Construction Project.

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 for designing 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 one-year, six-hour design storm event. These projects will protect public health and the environment by reducing the occurrence of sanitary sewer overflows.

Fitchburg

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Fitchburg	CWP-20-03	\$858,172	\$8,668,408

Combined Sewer Overflow Separation and Rehabilitation.

This nutrient removal project is separating 4,800 LF of combined sewers by installing 4,500 LF of new sewers and 1,600 LF of new drains. Three combined sewer overflow (CSO) regulators are also being closed. Approximately 2,700 LF of sewer is being replaced. Approximately 18,500 LF of trenchless rehabilitation is being conducted to reduce infiltration/inflow upstream of the three regulators. Nutrient loading to the North Nashua River is being reduced by removing untreated CSO discharges from the three CSO regulators.

Gloucester

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Gloucester	CWP-20-40	\$158,446	\$2,400,700

Pump Station Upgrades.

The Niles Beach Pump Station and Riverside Pump Station are being upgraded to meet requirements.

Lynn Water & Sewer Commission

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Lynn Water & Sewer Commission	CWP-20-50	\$1,011,454	\$10,216,710

West Lynn Sewer Separation.

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 (CSO) 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.

This project involves sewer separation of approximately 260 acres within the western portion of the City of Lynn. A 114 MGD stormwater pump station with a force main out to a new or reconstructed outfall into the Lynn Harbor is being installed. Sanitary sewer overflows and CSOs will be significantly reduced to improve the quality of nearby waterbodies.

New Bedford

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
New Bedford	CWP-20-22	\$426,154	\$4,304,590

Wastewater Collection System Improvements.

The “Wastewater Collection System Improvements” project includes several improvements to the City of New Bedford's infrastructure. Improvements include an interceptor and collector sewer rehabilitation program, a sewer system evaluation survey for high priority areas, a lateral sewer rehabilitation program, and a sewer separation. These programs will further the City’s progressive efforts to dramatically lessen or eliminate infiltration and inflow issues, reduce combined sewer overflows, reinforce the critical components of the City's sewer system, and eliminate illicit discharges. These efforts also address capacity, management, operation, and maintenance and regulatory requirements. These programs address needs identified in the City's integrated plan.

Revere

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Revere	CWP-20-27	\$563,712	\$5,694,058

Phase 11 Construction- Infiltration and Inflow, Illicit Discharge Detection & Elimination, Pump Station, & Drainage.

The “Phase 11 Construction” project will include the removal of infiltration and inflow from the City of Revere's sewer system. Construction is redirecting public and private inflow sources discovered during the “Phase 10 Field Investigations” project. Illicit discharge detection and elimination and drainage improvements are also underway. Illicit connections, including sump pumps and roof leaders, are being removed from the City's sewer system in order to remove inflow and increase wastewater capacity. This project will improve stormwater and wastewater pump stations, install cure-in-place-pipe lining, sewer spot repairs and replacements, new sewer line installation, cleaning, and additional wastewater metering is underway.

South Essex Sewerage District

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
South Essex Sewerage District	CWP-20-35	\$408,648	\$12,383,265

Primary Clarifier Concrete Restoration.

South Essex Sewerage District operates a regional wastewater treatment facility (WWTF), constructed in 1972 and upgraded in the 1990s, with average daily flows at of approximately 30 MGD with a peak capacity of 99 MGD. Effluent from the WWTF discharges into the Salem Sound. The primary treatment process consists of the seven underground cast-in-place concrete tanks with precast concrete roofs. The concrete surface in the headspace of the tanks has corroded over the years and reached a point where the issue needed to be addressed. If it were not addressed, there would be risk of the primary clarifiers failing. The goal of this project is to restore the impacted concrete within all seven primary clarifiers to ensure long-term structural reliability of the tanks.

Taunton

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Taunton	CWP-20-21	\$2,968,376	\$29,983,598

Wastewater Treatment Facility Upgrade- Phase 1.

This project encompasses solids handling improvements and is part of a complete upgrade of the Taunton Wastewater Treatment Facility (WWTF) that is necessary to meet the requirements of the new National Pollutant Discharge Elimination System permit. The facility will expand hydraulically to reduce combined sewer overflows.

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Taunton	CWP-20-19	\$594,000	\$6,000,000

Wastewater Treatment Facility- Solids Handling Improvements.

This project encompasses solids handling improvements and is part of a complete upgrade of the Taunton Wastewater Treatment Facility (WWTF). Improvements to the WWTF are required to meet the requirements of the new National Pollutant Discharge Elimination System (NPDES) permit. The facility is being expanded hydraulically to accept higher flows from the new Main Lift Pumping Station. Expansion will reduce the size and frequency of combined sewer overflows. A second phase is scheduled to take place next year.

Tyngsborough

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Tyngsborough	CWP-20-11	\$15,380	\$466,057

Infiltration and Inflow Rehabilitation.

This project addresses pipeline and manhole rehabilitations contributing to significant infiltration and inflow (I/I). As a regional partner to the Lowell Regional Wastewater Utility, I/I in Tyngsborough has a direct impact on its intermunicipal agreement partners.

Wareham

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Wareham	CWP-20-09	\$9,000,000	\$891,000

Upgrades at the Water Pollution Control Facility.

This project is for constructing denitrifying filters, lined equalization lagoon, and lined and covered raw wastewater lagoon. The lagoons will provide equalization during wet weather events. The new filters will provide filter redundancy and the covered lagoon will reduce odors at the water pollution control facility.



Drinking Water Projects

Ayer

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Ayer	DWP-20-04	\$798,994	\$6,052,983

Spectacle Pond Wellfield PFAS Treatment.

This project is for constructing a PFAS treatment process for the Spectacle Pond Water Treatment Plant. This is the second PFAS treatment project implemented in the Town of Ayer. Wells 1A and 2A exceed the Massachusetts Department of Environmental Protection’s Health Advisory Level (HAL) of 20 ppt. The new PFAS treatment process being confirmed by bench-scale testing, is conceptually designed with anion exchange for its demonstrated effectiveness at the Grove Pond Water Treatment Plant as well as treatment and operational consistency across both water treatment plants. This treatment addition will lower the total concentration of the five different PFAS below the HAL.

Barnstable Fire District

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Barnstable Fire District	DWP-20-30	\$96,257	\$1,458,444

PFAS Interim Rehabilitation of Well Pump Station 1.

As a temporary solution, Barnstable Fire District is blending water sources to maintain PFAS concentrations below 20 ppt in the water supply. To meet seasonal water demands and to aid in maintaining PFAS levels below 20 ppt in the blended water, the District is working to have interim rehabilitation of Well Pump Station 1, which was offline and does not contain PFAS compounds.

Blackstone

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Blackstone	DWP-20-20	\$819,720	\$6,210,000

Blackstone Groundwater Treatment.

The Town of Blackstone is constructing a new water treatment facility and water mains to connect to the existing distribution system. The new water treatment plant will include a GreensandPlus filtration system to improve the drinking water quality by reducing high manganese concentrations.

Brockton

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Brockton	DWP-20-24	\$291,310	\$1,471,261

Transmission Main Valve Replacement Project Phase 2.

This project is addressing twin 24-inch transmission mains and a 36-inch transmission main from Brown's Crossing to the city limits. The work includes replacing crossover piping and valves and replacing transmission main gate valves. Hydrants are also being installed.

Deerfield Fire District

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Deerfield Fire District	DWP-20-09	\$48,637	\$736,928

Greenfield Road Water Main Replacement Project.

This project is replacing approximately 3,800 LF of existing water main on Greenfield Road. It is addressing water quality complaints from aged, heavily tuberculated water mains. 25 existing lead goose necks on service lines are being replaced.

Dracut Water Supply District

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Dracut Water Supply District	DWP-20-18	\$1,268,764	\$19,223,697

Water System Improvements.

This project is reducing iron and manganese levels in the Dracut Water Supply District's Tyngsborough wells to below the Massachusetts Department of Environmental Protection's Secondary Maximum Contaminant Levels and Office of Research and Standards Guidelines limits. A new sole transmission main and a water storage tank are being installed to increase capacity to meet current demands and create redundancy.

Dudley

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Dudley	DWP-20-25	\$540,246	\$4,092,776

Drinking Water System Improvements Project.

This project will allow Dudley to meet a maximum day's demand and provide redundancy by connecting a replacement well to a pump station. This project also includes the replacement of approximately 8,600 LF of asbestos concrete water mains and the rehabilitation of two water storage tanks per the Massachusetts Department of Environmental Protection's recommendations noted in a 2017 sanitary survey.

East Brookfield

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
East Brookfield	DWP-20-22	\$528,000	\$4,000,000

Water Main Replacement and Wellhouse Upgrades.

This project consists of the replacement of an old and severely tuberculated water main which resulted in high head loss and discolored water. There will be several small upgrades to the sole water supply including a variable frequency drive, flow meter, and back-up generator to ensure a safe and reliable water supply.

Eastham

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Eastham	DWP-20-23	\$1,622,512	\$12,291,758

Water System - Phase 2C.

This project is for constructing a municipal water system for the Town of Eastham. The Town has relied on individual private or community wells for its water supply. Onsite systems have been used for wastewater disposal. Long-term monitoring of private wells has confirmed that the water quality of these wells is deteriorating. The water system is being constructed to serve all 6,600 parcels in the Town.

Fall River

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Fall River	DWP-20-13	\$463,033	\$2,338,551

Water Main Rehabilitation - Phase 20.

This project is part of the annual cast iron water main and lead service replacement program. Phase 20 of the program includes the rehabilitation or replacement of approximately 11,495 LF of cast iron water mains and 19 lead service lines.

Holyoke

Community	Loan Number	Loan Forgiveness Amount	Total Loan Amount
Holyoke	DWP-20-11	\$519,537	\$2,623,924

Phase 2A Water Main Replacement Project.

This project is replacing approximately 6,000 feet of cast iron along with watermain that is undersized at four and six inches and is over 100 years old in downtown Holyoke. This work is phase 2A of the “Holyoke Water Works Capital Improvement Plan” to address high priority water main replacements. The work is also in coordination with the City of Holyoke’s combined sewer overflow abatement project happening in the same area. This replacement will improve redundancy and reliability of the water distribution system.

Leominster

<u>Community</u>	<u>Loan Number</u>	<u>Loan Forgiveness Amount</u>	<u>Total Loan Amount</u>
Leominster	DWP-20-26	\$865,603	\$6,557,600

Notown and Fallbrook Water Treatment Plant Upgrades.

The City of Leominster has changing raw water quality that has resulted in elevated levels of disinfection byproducts (DBPs). This project is incorporating activated carbon at the Notown Water Treatment Plant. The existing granular activated carbon at the Fallbrook Water Treatment Plant is being replaced to reduce DBPs.

Springfield Water & Sewer Commission

<u>Community</u>	<u>Loan Numbers</u>	<u>Loan Forgiveness Amount</u>	<u>Total Loan Amount</u>
Springfield Water & Sewer Commission	DWP-20-01 and DWP-21-03	\$4,967,622	\$25,089,000

Clearwell and Backwash Pump Station Replacement.

The new one MGD clearwell and associated backwash pump station are replacing old, failing facilities that have been needed to maintain the reliable operation of the 60 MGD water production. The failing facilities are adversely impacting the water quality being produced. The failing is contributing to maximum contamination level exceedances of halo acetic acids that resulted in non-compliance with the Stage 2 Disinfection By-Products Rule.

West Boylston Water District of West Boylston

<u>Community</u>	<u>Loan Number</u>	<u>Loan Forgiveness Amount</u>	<u>Total Loan Amount</u>
West Boylston Water District of West Boylston	DWP-20-17	\$1,156,320	\$8,760,000

Manganese Removal Treatment at Oakdale Well.

This project is crucial for protecting public health in the Town of West Boylston. The project consists of a new water treatment facility to reduce manganese concentrations to acceptable levels from the Oakdale Well. The new treatment facility will lower manganese levels, presently above the Massachusetts Department of Environmental Protection's Health Advisory Level of 0.3 mg/L, to below the Secondary Maximum Contamination Level of 0.5 mg/L. This new treatment facility will consist of a GreensandPlus pressure filtration system with a sodium hypochlorite feed system to oxidize the manganese.