

Department of Environmental Protection

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2020 WMA Grant Project Summary

The Water Management Act Grant Program is designed to assist eligible public water suppliers and municipalities with Water Management Act permits by providing funds for planning assistance, demand management, and withdrawal impact mitigation projects in local communities. The focus of these grants is: 1) planning projects for specific watersheds or subwatersheds to identify implementation projects to improve ecological conditions; 2) demand management projects aimed to improve the efficiency of water use within a municipality or a watershed; and 3) mitigation projects in the following categories: improve or increase instream flow, wastewater projects that keep water local including reductions in inflow and infiltration, stormwater management projects that improve recharge, reduce impervious cover and/or improve water quality, water supply operational improvements, habitat improvement, and other projects that could mitigate the impacts of water withdrawals.

Eligible grant applicants are Massachusetts public water suppliers or municipalities with a valid Water Management Act permit or registration. A 20 percent funding match is required. Cooperative proposals are encouraged. Particular consideration is given to proposed projects in highly impacted basins or subbasins and those undergoing permit renewals. The funds allocated for grants are distributed under a competitive procurement process. Approximately \$1.0 million was available to distribute.

MassDEP received 9 proposals for this grant year totaling just under \$622,000. The proposal review committee recommends funding 6 proposals this year. This total grant dollar amount of the recommended projects is \$452,311 which will also leverage an additional \$153,157 in project work, for a total of \$605,468. Please see below for a brief summary of the recommended projects.

The proposals recommended for funding by the review committee are below. Brief summaries for these projects are attached.

			Project	Grant Money	
Project	Title	Applicant	Total	from State	Match
	Continuation of Design and				
	Permitting - Interconnection with	Auburn Water			
1	Worcester	District	\$101,969	\$81,349	\$20,620
2	Interconnections*	Avon	\$130,000	\$95,000	\$35,000
		Dedham			
	Regional Water Conservation	Westwood			
3	Project*	Water District	\$95,816	\$70,816	\$25,000
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6	Infiltration Feasibility Assessment*	Medway	\$38,134	\$30,500	\$7,634
		Wareham Fire			
8	Drought Management Plan*	District	\$151,783	\$104,483	\$47,300
	Continuation of Stony Brook Flow	Westford and			
9	Restoration Project	Littleton	\$87,766	\$70,163	\$17,603

 Table 1: 2020 WMA Recommended Grant Proposals

* Contingent on changes being made to the scope of work in the application.

FY 2020 WMA GRANT PROGRAM FUNDING RECOMMENDATIONS

PROJECT NUMBER TITLE TOTAL MATCH APPLICANT

01 **Continuation of Design and Permitting - Interconnection with Worcester Auburn Water District**

This proposed project would continue the implementation of the proposed interconnection(s) between the Auburn Water District (District) and the City of Worcester, which supports the District's ongoing efforts to improve the system's supply resiliency (accounting for existing stressed and vulnerable water supplies) while minimizing environmental impacts through regional cooperation. The purchase of water from the City of Worcester has been identified as a potential alternative to the District's local groundwater withdrawal sources;. In prior WMA grant projects, three potential interconnection locations were determined to only require the installation of a facility with pressure reducing valve (PRV) and water meter. Preliminary designs were identified and biddable contract documents and permits were developed This year's proposal continues this work thru continued permitting efforts, design borings under Kettle Brook, and any design modifications that are required as a result of the borings and comments from the permitting process.

02 **Interconnections and Optimization**

Town of Avon

Avon's current system is limited and susceptible to contamination. This proposed project would conduct hydraulic modeling of the four potential interconnections of Avon with other systems. Conceptual layouts will be developed, and cost estimated for each interconnection. The project would also look at the efficiency of each of Avon's systems, and develop recommendations to optimize sources with a long-term maintenance and redevelopment program.

03 **Regional Water Conservation Project Dedham Westwood Water District**

Six of the eight communities in the Neponset Valley have come together to propose a Regional Water Conservation Pilot Project. The goal of the project is to reduce water demand in each participating community through implementation of an integrated outreach and rebate program while also evaluating the potential for creating a longer-term collaboration on water conservation across the region. The participating communities will include: Canton, Foxborough, Sharon, Stoughton and the Dedham-Westwood Water District. The goal will be to replace 300 toilets, 300 clothes washers and 625 showerheads and faucet aerators, as well as renovating 250 automated irrigation systems with rain senor override devices.

06 Infiltration Feasibility Assessment Town of Medway

The Town will partner with Charles River Watershed Association to conduct a feasibility study of infiltration opportunities across all town-owned properties. The goal of the proposed planning effort is to improve ecological conditions by infiltrating groundwater on town-owned sites to both recharge local groundwater supplies and reduce stormwater runoff. The team will identify possible infiltration areas through desktop GIS analysis, site visits, and soil assessments. For up to six priority infiltration sites, the team will develop conceptual level design recommendations for infiltration systems. Based on conceptual designs, the team will also calculate annual recharge volume at each site.

\$130,000 \$35,000

\$95,816 \$25,000

\$38.134 \$7,634

\$20,620

\$101,969

08 Drought Management Plan Wareham Fire District

The objective of this project is to develop a drought management plan for a sub-watershed within the Plymouth-Carver aquifer that contains all of the District's water supply wells. The project will leverage the existing USGS Plymouth-Carver MODFLOW model to link rainfall, groundwater levels, and pumping of the District's wells. Once calibrated, several model scenarios will be run to simulate drought and non-drought conditions as well as water use scenarios which will be used for the development of local drought triggers and responses. The District also proposes to develop the initial framework for a bylaw regulating private wells.

09 Continuation of Stony Brook Flow Restoration Project Towns of Westford and Littleton

The primary goal of this proposed project is to improve streamflow in Stony Brook through operation of the existing impoundments in a coordinated manner based on actual streamflow data and model results to inform operational decisions. The study area source basins are controlled by a series of six control structures located in Littleton and Westford including the Spectacle Pond Outlet, the Mill Pond Dam, the Forge Pond Dam (or Abbot Mill Dam), and the Stony Brook Dam. This project will expand on previous projects by evaluating the inclusion of two additional dam structures in Chelmsford (Depot and Brookside Mill Dams) in the project, evaluating automation controls, and establishing a framework for future release protocols, including notification that is agreed to by stakeholders.

\$151,783 \$47,300

\$87,766 \$17,603