

Department of Environmental Protection

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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. A 20 percent funding match is required. Cooperative proposals are encouraged. Particular consideration is given to proposed projects in highly impacted basins or subbasins.

The funds allocated for grants are distributed under a competitive procurement process. Approximately \$2.0 million dollars was available to distribute.

MassDEP received 8 proposals for this grant year totaling just under \$1 million dollars. A summary of the review and ranking process for the 8 proposals MassDEP received is provided below. The proposal review (listed below) committee recommends funding 7 proposals this year. This total grant dollar amount of the recommended projects is \$632,917 which will also leverage an additional \$204,357 in project work, for a total of \$837,274.

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

|         |                                      |               |  | Grant<br>Money   |                 |
|---------|--------------------------------------|---------------|--|------------------|-----------------|
|         |                                      |               | Project                                      | from             |                 |
| Project | Title                                | Applicant     | Total  | State            | Match           |
|         |                                      | Westford and  |  |                  |                 |
| 1       | Stony Brook Flow Restoration Project | Littleton     | \$127,026                                    | \$101,611        | \$25,415        |
|         |                                      | Dedham        |  |                  |                 |
|         |                                      | Westwood      |  |                  |                 |
|         |                                      | Water         |  |                  |                 |
| 3       | Dropcounter Expansion                | District      | \$37,950                                     | \$30,350         | \$7,600         |
|         |                                      |               |  |                  |                 |
| 4       | Data Collection and Planning         | Danvers       | \$200,988*                                   | \$160,790        | \$40,198        |
|         |                                      |               |  |                  |                 |
| 5       | Water Rate Studies                   | Groton        | \$150,330                                    | \$108,650        | \$41,680        |
| 6       | Adams Brook Watershed                | Amherst       | \$83 520*                                    | \$66.816         | \$16 704        |
|         |                                      | Auburn        | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | <i>\\</i> 00,010 | <i>Q</i> 10,701 |
|         | Design and Permitting -              | Water         |  |                  |                 |
| 7       | Interconnection with Worcester       | District      | \$137.300                                    | \$105,900        | \$31,400        |
|         |                                      | Wareham       |  | ,                | , _ , 00        |
| 8       | Billing Changes and AMR              | Fire District | \$100,160                                    | \$58,800         | \$41,360        |

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

## FY 2018 WMA GRANT PROGRAM FUNDING RECOMMENDATIONS

|        |           | PROJECT |       |
|--------|-----------|---------|-------|
| NUMBER | TITLE     | TOTAL   | MATCH |
|        | APPLICANT |         |       |
|        |           |         |       |

# 01 Stony Brook Flow Restoration Project Towns of Westford and Littleton

\$127,026 \$25,415

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The primary goal of this 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. This project will expand the existing monitoring network to two (2) more locations while supporting development of a calibrated decision support model to objectively evaluate optimization strategies for coordinated management of shared water resources within Westford and Littleton. This project involves developing a SRP that will evaluate alternative dam operational strategies at source basins in Stony Brook to improve streamflow, while balancing and optimizing objectives of stakeholders. 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), the Stony Brook Dam, the Depot Dam, and the Commodore Foods Dam. The SRP will be developed in accordance with WMA Technical Guidance and will include an evaluation and supporting calculations to determine if releases can be made to improve the timing, magnitude, and duration of downstream flows to mimic natural conditions without compromising other in-lake uses.

# 03 Dropcountr Expansion

## **Dedham Westwood Water District**

DWWD launched the Dropcountr Pilot in March 2017. Dropcountr had proven beneficial to both DWWD's operations and customers by uses existing technology to put information about water usage directly and immediately into consumer hands. As part of the proposed project, DWWD will continue their relationship with Dropcountr to utilize both utility-side and customer-side facing data portals. DWWD plans to expand their use of the utility portal by providing additional staff trainings, focusing on searching and sorting data, and identifying inefficient users, suspected leaks, and regional pockets of high water use. As part of the proposed project, DWWD and CRWA, with the support of NepRWA, will work collaboratively to increase customer enrollment to >25% via an outreach campaign targeted to the communities of Dedham and Westwood.

# 04 Data Collection and Planning in the Ipswich Town of Danvers

This project seeks to continue the Ipswich planning started in last year's WMA grant project by implementing recommendations of the FY17 study. The proposed effort will quantitatively evaluate both in-basin and out of basin long-term alternatives. One of the key deliverables, which has regional value extending beyond the current grant partners, will be a Basin-wide comparative decision model to holistically evaluate the costs, benefits, impacts, and feasibility of in-basin management versus, a regional trading system, storage expansion of Middleton Pond, and the importation of MWRA water supply.

## \$200,98 \$40,198

\$37.950

\$7.600

## FY 2018 WMA GRANT PROGRAM FUNDING RECOMMENDATIONS

### PROJECT NUMBER TITLE TOTAL MATCH APPLICANT

#### 05 Water Rate Studies

# **Town of Groton**

This WMA grant is a cooperative effort of the Groton Water Department, Lincoln Water Department, Kingston Water Department, North Sagamore Water District and Holden Water Department. This WMA grant will help each of the participating PWS's to determine if rate adjustment will be needed to maintain revenues in response to new WMA permit requirements. The project report will include summaries of each water system, overview of individual WMA permits and special conditions, historical water pumpage and restrictions implemented, evaluation of triggers (stream flows or groundwater levels) and potential frequency of implementing water restrictions, impact of restrictions on usage and revenues based on existing rates, needed rate adjustments to meet target revenues, evaluation of seasonal rates and fee for mitigation fund, and a summary of findings.

### 06 Adams Brook Watershed Sediment Evaluation **Town of Amherst**

This project proposes to focus on the Atkins Reservoir (Atkins) to provide planning information for the Town's WMA permit requirements. Included in the study would be observation and analysis of sediment transport in the Nurse and Dean Brooks prior to entering the Atkins Reservoir, along with sediment removal in the three sedimentation ponds located before the Atkins inlet. The study will evaluate the fate of sediment in the Atkins watershed and whether or not the sediment loads entering into the settling ponds will substantially be removed from the flow entering Atkins during peak flow events. This study will determine whether greater stream flow in the Adams Brook and associated watershed can be maintained during low stream flow periods. By allowing the peak flows from the Nurse and Dean Brooks to enter the reservoir, the system can be rapidly filled and will not need to divert as much flow from Adams (a Massachusetts Coldwater Fishery) during low flow periods.

### 07 **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. The preliminary designs identified the rough facility dimensions and interior/exterior layout. This project will develop biddable contract documents and prepare/submit applications for any required permits.

### 08 **Billing Changes and Automatic Meter Reading** Wareham Fire District

This project builds on the District's previous WMA grant that included a comprehensive rate study. This project will evaluate how District consumers values their water as well as how they would receive the change from semi-annual billing to either quarterly or monthly billing. This project will also determine the needed infrastructure, person power, and estimated costs to the District for quarterly and monthly billing. In addition, this project will include an evaluation of AMI and AMR

#### \$100,160 \$41,360

#### \$137.300 \$31.400

#### \$150.330 \$41.680

\$83.520 \$16,704

technologies and a cost/benefit analysis for the District that will assist in making procurement decisions for the customer's meters. Part of the District's match is to purchase a select number of meters for commercial accounts (up to 35) equipped with AMI/AMR equipment. This task will include installation of these meters with AMI/AMR equipment and vendor costs associated with data collection and processing.