



# Department of Environmental Protection

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## Comprehensive Review of Revised Water Management Act Permit Requirements, July 1, 2017

### Description of Acton, Foxboro, Medway, Rutland and Wareham WMA Grant Projects Referenced in Table 9.2 – Demand Management, Water Audit

#### **2014-10 Water Audit Evaluation**

##### **Town of Acton**

The standard setting body for public water suppliers, American Water Works Association (AWWA), has released new guidance (M36) for water systems to evaluate water loss, but the methodology is not widely understood or utilized, especially by small and medium water systems. This project proposes to create case studies to document the level of effort to undertake the M36 audit. These studies would demonstrate the efficacy of the AWWA methodology and would be coupled with appropriate training so as to encourage appropriate use of the most meaningful water audit methodology given the nature, the size, the customer base and condition of each system.

#### **2014-21 Water Audits**

##### **Town of Medway**

This project seeks funding for a Demand Management Implementation Project that will conduct audits of both the Town's water system and the ten largest water users served by the Town. Under the first round of the SWMI grant program, Medway completed a study that analyzed the feasibility, costs, and benefits of implementing minimization, mitigation and offset options relating to its sources and within the Town's boundaries. That study resulted in a specific set of prioritized recommendations, which the Town seeks to begin implementing this year with the assistance of SWMI grant funding. The demand management project that Medway proposes will address the two most highly ranked recommendations from its prior study and could result in measurable water savings benefits to the Charles River Basin.

#### **2014-26 Water Audits to Reduce UAW**

##### **Town of Foxboro**

This project involves the completion of a Water Audit including implementation of master/production meter improvements for the Town of Foxboro. The Town's Unaccounted for Water (UAW) in 2011 was 18% and rose to 20% during 2012. The Town's residential demands were 62 and 59 residential gallons per capita day (RGPCD) for the years 2011 and 2012 respectively. The current goals set by the State to improve water conservation efforts are 65 RGPCD residential water usage along with 10% UAW. While the Town's residential water usage is below the goal, the UAW exceeds the goal by 100%. This indicates that the Town has excellent residential water conservation efforts in place, but excessive water losses are a problem. This water audit will

provide the Town with a greatly needed tool to help reduce water losses and improve water resource efficiency.

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**2016-12    Water Loss Control Program**

**Town of Rutland**

Rutland has had a UAW of greater than 25% since 2010. This project would utilize the latest AWWA water loss control software to evaluate the Rutland water supply system, and apply results from the water audit to the latest Water Research Foundation real loss control software. Based on the results of loss analysis, the system would perform system analysis which may include nighttime system loss survey, meter calibration/registration checks, and acoustical leak detection on elements of the system not surveyed in the past two years.

**2016-16    UAW Reduction**

**Wareham Fire District**

This project would focus on reducing UAW below 10% in the District; for the last two years it has been at 14% or greater. Components of the project include: conducting a water audit; developing a UAW Compliance Plan; conducting a leak detection survey; performing a billing data review and a leakage component analysis; providing low-flow plumbing fixture to residents; conducting a water rate survey; and providing outreach to the District on current conservation measures.