Sustainable Water Management Initiative Grant Program

September 11, 2014
Water Resources Commission
Boston, MA
SWMI Assistance: Grants

- Money (state capital fund) available for 5 years (2012-2016)
- Designed to assist WMA PERMIT HOLDERS with proposed SWMI minimization and mitigation requirements.
- Particular consideration is given to projects in impacted basins or subbasins, areas with coldwater fish resources, or basins about to go thru the permitting process.
- Requirements:
  - Applicants must have a valid WMA permit
  - 20% financial match for all projects
2013 Grant Summary

- MassDEP received 26 proposals for FFY13 totaling $2.3 million dollars. (2012 received 27 proposals totaling $2.62 million dollars)

- 17 projects were funded, worth a total of $1.08 million dollars. (2012- 10 projects were funded, totaling $858,250)
2013 Summary, cont.

- Projects in CE, NE, and SE regions of the state.
- One-third of the projects are for implementation work; the rest are planning projects.
- Projects include:
  - Fishway improvements (*Scituate, part 2 of 2012 grant*)
  - Optimization (*Franklin, Hudson, Littleton, Kingston, part 2 of 2012 grant*)
  - Developing supply management protocol/system analysis (*Groton, Holden*)
  - Stormwater/wastewater/recharge analysis (*Ashland, Hanover, Auburn*)
  - Dam removal feasibility (*Worcester*)
  - Water conservation/demand management (*Sharon, Kingston, Canton*)
  - Water Audits (*Acton, Medway, Foxboro*)
SWMI Grant Recipients
2012 & 2013

2012 TOWNS
Amherst
Dedham-Westwood Water District
  Franklin
  Halifax
  Hopkinton
  Kingston
  Medway
  Pembroke
  Scituate
  Worcester

2013 TOWNS
Acton
Ashland
Auburn
Canton
Foxborough
Franklin
Groton
Hanover
Holden
Hudson
Kingston - 2
Littleton
Medway
Scituate
Sharon
Worcester
Sharon - Regional Water Conservation Pilot ($90,770)

- Neponset River Valley (Canton, Stoughton, Sharon, Foxborough, Dedham-Westwood)
- Integrated rebate and outreach program and evaluation of a long-term collaboration
- Replacement of:
  - 480 toilets
  - 319 clothes washers
  - 1,000 showerheads and aerators
Sharon –con’t.

- Estimated savings: 11.4 mgy, 167.4 mg over life of fixtures (toilets – 79.5 mg, washers – 40.5 mg).
- Cost of 167.4 mg from MWRA at current rates is $501,000.
- Project partners would like to work together again.
- Lessons learned:
  - Distribute devices at public libraries – more foot traffic than the water department.
  - Allow multi-family properties to participate in rebate program.
  - Towns with a program saw a more rapid uptake of rebates/devices.
  - Direct mail was the most effective component of the outreach program.
Scituate – First Herring Brook 2012 ($60,180)

- Assessment for improving seasonal herring passage at Reservoir Dam Pond.

- Five options with various combinations of normal Reservoir Dam pond levels and fishway exit channel configurations were evaluated. A stage-storage curve was created for Reservoir Dam Pond and a stage-discharge curve was created for its spillway.

- A Hydraulic Analysis, an Ecological Assessment, and an Impact Assessment were also completed.

- Selected Option: fish exit channel lowered to El. 35.4 ft and one foot high flashboards creating a normal pond at El. 41.0 ft.
Scituate – First Herring Brook 2013 ($54,500)

- Preliminary design for spillway and fishway modification.
- Includes spillway modifications, stormwater system upgrades, roadway improvements, and erosion protection ($866k).
  - Ogee Crest
    - Spillway extension, abutment wall extension, walkway bridge installation, weir removal.
  - Bottom Hinged Gate
    - Installation with electric motor and handwheel, part of SCADA system
Franklin - Regional Evaluation of Water Management Alternatives to Reduce Streamflow Impacts ($119,460)

- Bellingham, Franklin, Medway, Milford, & Norfolk
- Approximately 6.2 MGD would be needed to get to a GW3.
- 15 water management scenarios run.

Findings:
- None of the scenarios lowered the August impacts from a GW4 to a GW3.
- Optimizing pumping had the least cost with the biggest improvement in August median flows.
- I/I reductions had the next largest improvement, but the largest estimated cost.
Acton - Water Audit Evaluation ($82,187)

- Created case studies to document level of effort for water audits using AWWA Manual 36 procedure and the ASR UAW procedure.
- Findings:
  - M36 process can generate useful results when applied to medium and small suppliers.
  - Water audits based on the M36 process showed real losses to be significantly less than the UAW process.
  - M36 provides specific recommendations based on an evaluation of the certainty of the data and the value of the real and apparent losses.
  - Accuracy of data is very important.
  - M36 process costs approximately double that of an ASR audit ($7,000 vs. $15,000).
Lessons Learned

- WMA permit holders are anticipating and planning for increased future water needs.
- Mitigation and minimization options are available to most if not all WMA permit holders.
- WMA permit holders will need considerable lead time to plan for and implement mitigation and minimization options.
- Significant water savings are available thru demand management practices.
Get Informed

- All SWMI Grants RFRs are posted on COMMBUYYS, the state’s procurement site. [http://www.commbuys.com/](http://www.commbuys.com/)
- Sign up for alerts on COMMBUYYS.
- Search under News and Views on DEP’s website: [http://www.mass.gov/eea/agencies/massdep](http://www.mass.gov/eea/agencies/massdep)
2014 SWMI Grant season is underway.

Approximately $1 million dollars in funding is available.

The schedule is as follows:

- August 14 - RFR posted
- September 15 - RFR informational meeting
- October 9 - grant application period is closed
- End of November - grants are awarded
- End of December – contracts begin