Safe Drinking Water Act Assessment Program
Annual Report to the Massachusetts Legislature
January – December 2014
21st Year of the Assessment Program

Purpose of the Safe Drinking Water Act Assessment Program

The Safe Drinking Water Act Assessment is an important source of funding that is paid each year by all consumers of public water in the Commonwealth. The Assessment is intended to support the Massachusetts Department of Environmental Protection (MassDEP) Drinking Water Program's (DWP) primacy over the Safe Drinking Water Act (SDWA) regulations. Primacy means that the federal SDWA is implemented by MassDEP, including all enforcement responsibilities, instead of by the federal government. By maintaining primacy, MassDEP ensures the safe production of drinking water while implementing state specific programs that save public water systems (PWSs) and their customers millions of dollars. Just one SDWA Program administered by DWP, the Monitoring Waiver Program, saved PWSs and their customers $5,567,872 in water quality monitoring costs between 2014 and 2016. The Assessment is also used as a state match for federal funds for the Drinking Water State Revolving Fund Set Aside Program, which provides significant technical assistance and grants to PWSs.

PWSs currently pay an Assessment of $8.50 per million gallons of water used. The minimum bill issued is set at $20.00. Approximately 50 percent of the 1,735 PWSs in Massachusetts pay the minimum bill. Assessment revenue for fiscal year 2014 was $1,942,183. The legislature appropriated $1,485,185 (76 percent) of this revenue to MassDEP. A summary of work completed in 2014 with Assessment funds is included at the end of this report. A DWP brochure titled *The Safe Drinking Water Act Assessment Program* is attached.

Hot Topic in Public Drinking Water

Many emerging issues presented challenges to PWSs in 2014. One example is cyanobacteria. This type of blue-green algae is normally present in low numbers in most water bodies. When certain conditions are present, such as high air and water temperatures and nutrients entering the water body through stormwater, cyanobacteria may reproduce rapidly, forming blooms that may look like pea soup or like green paint has been spilled.

The presence of high numbers cyanobacteria may lead to taste and odor complaints from drinking water customers. In addition, certain cyanobacteria cells may produce toxins that can be harmful to public health. Sufficient quantities of toxins can cause skin irritations, diarrhea, vomiting, dizziness, and other effects in people and animals. In severe cases, there could be damage to the liver, kidneys, or nervous system. Exposure to toxins occurs when cells are ingested and then destroyed by digestive juices, releasing toxins into the

gastrointestinal tract or when cells in the water die and the toxins they release are ingested. Instances of toxic cyanobacteria blooms are increasing due to climatic changes. In August 2014 a toxic cyanobacteria bloom caused Toledo, Ohio's public water system on Lake Erie to issue a do not drink advisory that affected more than 500,000 people.

To assist Massachusetts PWSs to plan for and prevent toxic blooms, DWP staff has been meeting with PWSs, preparing fact sheets and messaging for the public, and participating on regional and national work groups on this subject. MassDEP is also working on a cyanobacteria guidance document for PWSs focusing on source water protection. This guidance document should be available by early summer. The United States Environmental Protection Agency (U.S. EPA) is scheduled to issue health advisories for some cyanobacteria toxins in 2015.

Status of Massachusetts Drinking Water Program Staff

Just 10 years ago, 104 DWP staff provided support to the Commonwealth's 1,486 PWSs. Today fewer than 54 staff provide support to 1,735 PWSs. Several retirements in 2015 will reduce the number of staff even further.

Massachusetts PWSs continue to value the technical and compliance assistance and training provided by DWP. In spite of the dwindling number of staff, in 2014 DWP increased programs to support PWSs and municipalities. For example, the DWP:

- Increased face-to-face time with PWSs.
- Formed a Communication, Outreach, Training Core Work Group to enhance communication.
- Continued to offer free training, technical assistance, and compliance assistance while issuing Training Contact Hours (TCHs) for PWSs to maintain operator certification.
- Established bi-weekly e-mails from Program Director to public water suppliers on trainings, timely issues, regulatory updates, etc.
- Purchased an auto dialer with funds from the U.S. EPA and delivered telephone messages and updates to PWSs, who registered for the free service, during the 2015 snowstorms. The auto dialer will continue to be used to contact PWSs during emergencies and other time sensitive situations.
- Expanded use of social media to deliver messages to PWSs and the public.
- Received a $25,000 Healthy Communities Grant to improve communication and best management practices among public water suppliers, emergency responders, and owners of above ground storage tanks near drinking water intakes on the Merrimack River.

The Committee's Message to the Legislature

PWSs in Massachusetts protect public health 24 hours a day, providing clean drinking water to 6.3 million people in Massachusetts and safeguarding the quality and quantity of drinking water for the future. MassDEP recognizes the best of the best among PWSs by presenting awards during Drinking Water Day in May. The award winners for 2014 are listed on page four.

The Committee asks the Legislature to:

- Fully appropriate into MassDEP line item 2250-2000 all Assessment revenue to maintain primacy and increase staffing in the Drinking Water Program. M.G.L. 21A, Section 18A states that Assessment receipts shall be used solely for administering said Act and furthering its purposes. The Committee is in unanimous agreement that there must be a dedicated fund re-established for the Assessment Program.

- Support public drinking water in Massachusetts. Please see the attached DWP brochure titled *The Value of Public Drinking Water*.

Assessment Contact Information

For more information about the Assessment Program or the Committee's work, please contact the MassDEP's Drinking Water Program at 617-292-5770 or program.director-dwp@state.ma.us.

Safe Drinking Water Act Advisory Committee Members - 2014

Name, Organization Represented, Affiliation, and Year of Appointment

Konstantin Eliadi, Chair, *Massachusetts Water Works Association*, Director of Water & Sewer Operations, Worcester, 2005
Elizabeth Ainsley Campbell, Vice Chair, *Environmental Agency*, Exec. Director, Nashua River Watershed Association, 2002
Wayne Southworth, *MassDEP Designee*, 1993
Thomas Philbin, *Massachusetts Municipal Association*, 2013
Thomas Holder, *New England Water Works Association*, Director, Medway DPW, 2013
Thomas Newton, *Western Mass. Water Works Association*, Superintendent, Easthampton Water Dept., 2001
David Masciarelli, *Environmental Agency*, Canoe River Aquifer Advisory Committee & Sharon Water Dept., 2013
Richard Maccagnano, *Non-Community Systems*, Holliston Board of Health, 2007
Neal Merritt, *Rural Water Systems*, Plymouth County Water Works Association & Hanover Water Department, 2008
Norman (Ned) Bartlett, *Organization Representing Industry*, Bowditch & Dewey, LLP, 2011 to January 30, 2015
David Condrey, *Non-profit Association Representing Investor-owned Water Companies*, Member, National Association of Water Companies, Manager, Milford Water Co., 2011

Drinking Water Awards to Massachusetts Public Water Systems - May 6, 2014

Non-transient, Non-Community Public Water Systems
2037035 Bright Horizons Daycare - Boxborough
2037025 Cosgrove Realty – Boxborough
2147009 Prime Toyota Rt2 - Lancaster
3051019 Wee Forest Folk - Carlisle

Small Community Public Water Systems
2054003 Overlook Life Care Community - Charlton

Consecutive Public Water Systems
3030000 Beverly Water Department
3035000 Boston Water and Sewer Commission (MWRA)
3168000 Marblehead Water Department (MWRA)
4173001 Mattapoisett River Valley W.D.
3243000 Quincy Water Department (MWRA)
4244000 Randolph Water Department

Medium and Large Community Public Water Systems
4131000 Aquarion Water Company Hingham/Hull
2186000 Aquarion Water Company Millbury
2019001 Devens Mass Development - Ayer
4088000 Easton Water Division
3163000 Lynn Water and Sewer Commission
1214000 Northampton Water Department
4224000 Orleans Water Department
4336000 Weymouth Water Department

Source Water Protection Awards:
3049000 Cambridge Water Department
1217001 East Northfield Water Company
2212000 North Brookfield Water Department
4266000 Sharon Water Department

Water Conservation Awards:
3071000 Danvers Water Department
2101000 Franklin Water Department
2115001 West Groton Water Supply District

Energy Conservation Awards:
3149000 Lawrence Water Works
1150000 Lee Water Department
4201000 New Bedford Dept. of Public Infrastructure
2348000 Worcester DPW, Water Supply Division

Regional Recognition Awards:
2017001 Elm Hill Water District - Auburn
1111002 Granby Housing Authority
2153000 Leominster Water Division
3165000 Malden Water Division (MWRA)
4293000 Taunton Water Division

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS DIRECTLY SUPPORTED BY THE
SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2014

The Assessment has enabled the Massachusetts Drinking Water Program to implement state programs that save Massachusetts PWSs and their customers millions of dollars. These programs are described below.

Protecting Public Health through Compliance Reviews

- MassDEP reviewed 402 water quality monitoring waiver applications and issued 280 volatile organic compound waivers, 671 synthetic organic compound waivers; 572 inorganic compound waivers; and 730 perchlorate waivers. This program saved PWSs $5,567,872 in water quality monitoring costs during the 2014-2016 waiver period.
- Approved watershed protection programs for 29 reservoirs with disinfection log credit.
- Approved watershed protection programs for nine reservoirs with filtration waivers.
- Maintained an incentive program for developing local watershed protection plans & bylaws.
- Approved wellhead protection controls for 38 groundwater sources in eight communities.
- Registered 22 new PWSs that were previously unregulated.
- Reviewed and approved 13 new large capacity public water sources.
- Performed eight Cross Connection Control Program (CCCP) audits across MassDEP regions.
- Reviewed and approved CCCP Plans for 11 non-community PWSs.
- Issued 280 Cross Connection Surveyors/Testers Certificates.
- Sent 282 Cross Connection Certification reminder letters.
- Approved one new water treatment technology for vending machines.
- Reviewed and approved 13 new technologies for use with drinking water.
- Entered 344 permit applications into permit the permit management system.
- Conducted 399 sanitary surveys which included technical and compliance assistance and three Comprehensive Compliance Evaluations.

Saving Money for PWSs and Rate Payers with Compliance Assistance

- Continued to implement the Wellhead Protection Program which provides compliance and technical assistance. Assisted 37 communities or public water systems with wellhead protection issues.
- Field verified 6 watershed delineations for reservoirs and updated Geographic Information System (GIS) maps.
- Continued technical support of the bulk upload tool for laboratories to submit drinking water quality sampling results on-line.
- Continued with compliance assistance for Statistical Reporting, Ground Water under the Influence, Consumer Confidence, Cross Connection, and Certified Operator programs.
- Captured fifth year of electronic Annual Statistical Reporting (eASR) within eDEP.
- Continued improving the electronic eASR within eDEP for the next reporting year.

- Provided 456 instances of Source Water Protection technical assistance at reservoirs and river sources.
- Maintained electronic publishing and access for the quarterly *In the Main* newsletter. Articles included: New Guidance for Manganese in Drinking Water, Guilty Pleas to 2 Fed Counts, Value of Water Ads, Update on Milford Water Case, Chemical Spills, EPA Grant to Study Chemical Tanks on Merrimack River, System Capacity, Understanding New Chemical Label, Public Water Systems Awards, An Edible Water Bottle, Board Update on Exam Passing Rates, New Regulations for Emergency Generators, Summer/Fall Reservoir Reminders, Emergency Response Tips for Summer, New Approach to Notices of Noncompliance, Swansea in the News, What's New on the MassDEP web pages, SRF Corner, DWP Continues to Go Electronic, What Does the SDWA Assessment Advisory Committee Do?, Are Hackers in Your Plant's Control System?, Help for Small Systems, Microsoft Ends Support for XP & Office 2003, Warm Weather and Water Use, Integrating Climate Change into the Drinking Water Program, and Dogs and Drinking Water.
- Started biweekly Program Director emails to notify PWSs of new educational materials, new rules, trainings, etc.
- The first edition of a new Well Driller newsletter was distributed in December.
- Maintained on-line template for PWSs to use to comply with Consumer Confidence Reporting (CCR).
- Provided a new template on MassDEP's web site for Transient Non-Community CCRs.
- Notified new community water systems of CCR requirements for 2014.
- Mailed out CCR reminder e-postcards.
- Reviewed 521 CCRs, provided Technical Assistance Reports and tracked CCR compliance.
- Provided CCCP technical assistance to 143 individuals, cities, and towns.
- Provided technical assistance to K-12 schools, early education and care facilities, Boards of Health and PWSs on lead in drinking water.

Support for Public Water Suppliers through Technical Assistance and Training

- Distributed fact sheets, guidance documents, and other technical assistance materials.
- Continued to improve web pages for access by PWSs, town officials, the public, and others.
- Provided materials for statewide Board of Health workshops as requested.
- Sent annual mailing to all Boards of Health and Building Inspectors to support their role in protecting drinking water and to update them on drinking water issues.
- Worked with the Office of the State Geologist and United States Geological Survey on topics of mutual interest.
- Presented 35 awards to PWSs during Drinking Water Day in May 2014.
- The Board of Certification of Operators of Drinking Water Supply Facilities approved 215 new training courses.
- Provided instructors for 11 New England Water Works Association (NEWWA) Backflow Tester and Cross Connection Survey classes.
- Offered on-line training on Guideline Changes; The Ground Water Rule; Emergency Response; Operator Certification Requirements; Lead and Copper Rule Revisions; and CCRs.

Massachusetts Department of Environmental Protection
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Protecting Public Health through Compliance Reviews

- Conducted inspections at six public surface water systems that have waivers from filtration.
- Conducted regular meetings with the Massachusetts Water Resources Authority including compliance reviews of monthly reports.
- Conducted one Comprehensive Performance Evaluation.
- Conduct regular meetings of the Drinking Water Filtration/Treatment Committee.
- Conducted 19 Capacity Reviews for Drinking Water State Revolving Fund applicants.
- Reviewed three Water Supply Business Plans during New Source Approval Process.

Saving Money for PWSs and Rate Payers with Compliance Assistance

- Continued to offer free training programs for small system operators through an EPA grant.
- Continued the implementation of the Capacity Development Program which provides financial, managerial, and technical assistance to small water suppliers.
- Reviewed the technical, financial, and managerial operations of 253 community and non-transient non-community and 195 transient non-community PWSs.
- Reviewed Underground Injection Control (UIC) registration applications for 13 PWSs.
- Responded to requests from PWS regarding the Unregulated Contaminant Monitoring Rule 3 (UCMR3) Program or Inorganics.
- Helped water suppliers write watershed protection plans & local water supply bylaws.
- Submitted the Annual Operator Certification Report to EPA.
- Sent mailing to all Boards of Health about state well drilling requirements.
- Gave eight Boards of Health one-on-one assistance with well drilling requirements.
- Continued to refine private well locations for inclusion in MassGIS data layer.
- Continued implementation work for 90 PWS under the Long Term 2 (LT2) Enhanced Surface Water Treatment Rule. Prepared LT2 PWSs for second round of source water monitoring.
- Identified 2,353 technical, financial, and managerial deficiencies during sanitary surveys.

Supporting PWSs through Technical Assistance and Training

- Provided recommended guidance on siting burial plots in water supply protection areas to the Franklin Regional Council of Governments Cooperative Public Health Service and to the Town of Shutesbury about Family Burial Plots and Green Burials.
- Provided comments on MassDEP Bureau of Waste Site Cleanup, Title 5, Stormwater Policy and Groundwater Discharge Program regulations & policy development for consistency with the Drinking Water Program.
- Continue to conduct water resources investigations of communities dependent on bedrock wells in Route 495 belt.

- Collaborated with the United States Geological Survey to help measure monthly water level readings throughout the State.
- Provided speakers on water supply topics to local and regional events and for operator training courses through NEWWA.
- Continue to collaborate with the Mass. Department of Public Health (DPH) on the Lead Control Contamination Act and fluoridation. Attended Centers for Disease Control seminars on water fluoridation and assisted the Mass. DPH with PWS training.
- Began revising MassDEP Private Well Guidelines with the assistance of technical committee consisting of Board of Health agents and well drillers.
- Provided help with writing capital improvement plans to 280 PWSs during sanitary surveys.
- Updated the Well Driller Database with 16,200 Well Completion Reports.
- Provided technical assistance to the New England Interstate Water Pollution Control Commission's Soil Evaluator Course.
- Provided PWSs with information on 148 training opportunities.
- Participated in the Water Systems Council of Washington DC's Children's Water Festival.

Committee Participation Brings Massachusetts Interests to the National Level

- State Vegetation Management Panel; State Pesticide Board; Office of the State Geologist State Map Advisory Committee; NEWWA Source Water Advisory Group, Groundwater Advisory Committee, Groundwater Resource Initiative, Drinking Water Operators Certification Committee, and Board of Certification of Backflow Prevention & Cross Connection Control, Management & Finance; Multi-Agency Task Force on Schools; National Drinking Water Advisory Council Small Systems Implementation Work Group; MassDEP Laboratory Advisory Committee; Mass. Water Works Association (MWWA) Technical Advisory Committee; New England Interstate Water Pollution Control (NEIWPCC) Commission Source Water Protection Work Group; NEIWPCC Harmful Algal Blooms Work Group; Association of State Drinking Water Administrators/Ground Water Protection Council Harmful Algal Blooms Work Group; Ground Water Protection Council's Source Water Protection Work Group; Well Driller Certification Program Technical Advisory Committee; AWWA Fluoride Standards Committee. Participated on EPA work groups for Emergency Preparedness, Data Sharing, Lead and Copper Rule, Perchlorate, and the Ground Water Rule.