



Safe Drinking Water Act Assessment Program **Annual Report to the Massachusetts Legislature** **For January – December 2018**

25th Year of the Assessment Program

Introduction

Twenty five years ago, in 1993, the Massachusetts Legislature established the Safe Drinking Water Act (SDWA) Assessment and a SDWA Assessment Advisory Committee to monitor MassDEP's Assessment Program. Each year, the Advisory Committee is required to submit an update to the Legislature in the form of an Annual Report. The following is the Annual Report for calendar year 2018, which provides an overview of the Assessment Program and the Advisory Committee, and provides highlights of program activities.



Andover, MA Photograph by Jessica Sibirski

Overview of the Safe Drinking Water Act Assessment Program

The Safe Drinking Water Act Assessment is paid each year by the 6.3 million consumers of public water and is collected by the 1,750 public water systems (PWS) in Massachusetts. The average cost to each customer is about 31 cents per year. The Assessment provides funds to the Massachusetts Department of Environmental Protection's (MassDEP) Drinking Water Program to maintain primacy for the federal SDWA. Primacy means that the 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 at PWS while implementing state-specific programs that save consumers millions of dollars. For example, the Monitoring Waiver Program, which is just one of the many SDWA programs administered by the Drinking Water Program, is saving consumers \$4,712,914 in water quality monitoring costs for the 2017-2019 cycle. 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 PWS.

The current Assessment rate is \$8.50 per million gallons of water used. The original rate of \$8.00 was increased to \$8.50 in 2002 for FY2004. The minimum bill issued to a PWS is \$20.00. The minimum bill was increased once from \$10 to \$20 in 2007 for FY09. Approximately half of the 1,750 PWS in Massachusetts pay the minimum \$20.00 bill. Assessment revenue expected from the 2018 billing cycle is \$2,007,000. A summary of work completed at MassDEP in 2018 with Assessment funds is included at the end of this report.

The Safe Drinking Water Act Assessment Advisory Committee

In 1993, as part of the Assessment Program, the legislature formed a Safe Drinking Water Act Assessment Advisory Committee to: 1) recommend an annual Assessment rate to MassDEP's Commissioner; 2) monitor and audit the Assessment Program; 3) produce an annual report to the legislature; and 4) conduct public meetings. The members of the Advisory Committee also provide advice and recommendations on the Drinking Water Program's technical and compliance assistance and outreach programs to public water suppliers and others.

The Advisory Committee supports the use of Assessment funds by the Drinking Water Program and recommends higher staffing levels, should more funding be available, to improve upon programs to protect public health and support public water systems with their essential work. For more information about the Assessment Program or the Committee's work, contact MassDEP's Drinking Water Program at 617-292-5770, or program.director-dwp@mass.gov.

The Safe Drinking Water Act - 1993 through 2018

The challenges facing MassDEP's Drinking Water Program and public water suppliers have increased over the years. In 1993 when the Assessment Program began, federal SDWA requirements encompassed the Total Coliform Rule, the Surface Water Treatment Rule and monitoring for 93 contaminants. The SDWA has been amended over time to require health-based water quality monitoring for 115 contaminants and a multiple barrier approach to protecting public drinking water from source to tap. Today, the Drinking Water Program is responsible for implementing over 50 SDWA programs. Here are some examples.

Cross Connection Control
Underground Injection Control
Source Water Protection
Sanitary Surveys
Capacity Development
Lead and Copper Rule
Total Coliform Rule
Ground Water Rule
Surface Water Treatment Rules
Filter Backwash Recycling Rule

Unregulated Contaminants Monitoring Rule
Public Notification
Consumer Confidence Reporting
Operator Certification
New System Registration
Secondary Standards
Consecutive Systems
Metering
Point of Use/Point of Entry
Treatment; Distribution Protection

Tools to Support Public Water Supply Operators

Water supply operators are state-licensed professionals who must pass a comprehensive exam, provide evidence of specific education and experience, and maintain their licenses by attending state-approved trainings that award training contact hours. Public water systems are a 24-hour a day operation. Water supply operators protect public health while providing a precious resource to consumers. They also educate the public, conserve water, and manage land they own for water supply protection.

Drinking Water Program staff have developed several tools to assist PWS with operating their water systems; maintaining compliance with SDWA requirements; protecting their drinking water sources, etc. The following examples describe a few of those tools.

- Developing new interactive forms, such as the Monthly Chemical Addition Form. The new form offers three options for reporting: 1) a blank form that can be filled out using MS Word or printed and completed by hand; 2) a blank unlocked Excel version for users interested in Supervisory Control and Data Acquisition (SCADA) systems integration; and 3) a macro-enabled smart Excel version with built-in automated formulas and calculations. The new form will facilitate the submittal of more complete information to MassDEP.

The Drinking Water Program conducted training sessions around the Commonwealth and one-on-one technical assistance for PWS on the new reporting form. A new training video on how to use the form was created and is posted at <https://bit.ly/2G19vvG>.

- Partnering with experts at organizations such as the New England Water Works Association to offer MassDEP-sponsored trainings to PWS to meet continuing education requirements. MassDEP also contracts with third party individuals to conduct trainings. These trainings are offered at no cost to the PWS. Below are a few examples of the trainings conducted in 2018:
 - Putting the CONTROL Back into Process Control;
 - Evaluating Chemical Treatment Options for Drinking Water;
 - Water System Hydraulic Overview;
 - Water Main Disinfection Hands-On;
 - Disinfection with Chlorine;
 - Enhancing Resilience & Emergency Preparedness; and
 - Chemical Addition Reporting.
- Creating and maintaining on-line training videos for PWS that are posted at <https://goo.gl/Xhw4br>. Drinking Water Program staff consult with PWS about training topics that are the most useful to address their greatest challenges. So far, the videos have been accessed over 7,700 times.
- Sending bi-weekly emails from the Drinking Water Program's Director to public water systems, Boards of Health and other water supply partners to deliver updates on regulations and new trainings, reminders about reporting, emergency alerts, and articles of interest. Any

interested party may sign up to receive these messages by emailing program.director-dwp@mass.gov and typing *sign up for emails* in the subject line.

- Participating in the Massachusetts Executive Office of Energy and Environmental Affairs' Drinking Water Supply Protection Grant Program. This grant program provides financial assistance to eligible public water systems for the purchase of land or interests in land for the protection of existing or planned future public drinking water supplies. Information about this program is posted at <https://www.mass.gov/service-details/drinking-water-supply-protection-grant-program>.

The Drinking Water Program will continue to work with PWS, water works associations, and other partners to administer and support the federal Safe Drinking Water Act in Massachusetts.

Members of the Safe Drinking Water Act Assessment Advisory Committee – 2018

The following list provides the name, organization represented, affiliation, and year of appointment for the members of the Safe Drinking Water Act Assessment Advisory Committee.

- Neal Merritt, Chair, *Rural Water Systems*, Plymouth County Water Works Association, 2008
- Elizabeth Ainsley Campbell, Vice Chair, an *Environmental Agency*, Nashua River Watershed Association, 2002
- David Condrey, a *Non-profit Association Representing Investor-owned Water Companies*, National Association of Water Companies, 2011
- Thomas Holder, a *New England Regional Water Works Association*, New England Water Works Association, 2013
- David Masciarelli, an *Environmental Agency*, Canoe River Aquifer Advisory Committee, 2013
- Paul McGovern, an *Organization Representing Non-Community Water Suppliers*, Small System Contract Operator, 2014
- Blake Lukis, a *Massachusetts Statewide Water Works Non-Profit Association*, Massachusetts Water Works Association, 2015
- Sean Osborne, an *Organization Representing Industry*, OSD Environmental Services LLC, 2015
- Rebekah McDermott, a *Regional Water Works Association*, Western Mass. Water Works Assoc., 2016
- Victoria Sclafani, *Massachusetts Municipal Association*, 2016 (resigned in 2018-appt. pending)
- Marcis Kempe, *MassDEP Designee*, 2017

Enclosure: Summary of Accomplishments Supported by the SDWA Assessment in 2018.

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS DIRECTLY SUPPORTED BY THE
SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2018



Protect Public Health through Compliance Reviews

- Reviewed 339 water quality monitoring waiver applications for 822 drinking water sources and issued 211 volatile organic compound waivers; 552 synthetic organic compound waivers; 495 inorganic compound waivers; and 487 perchlorate waivers. This program will save consumers \$4,712,914 in water quality monitoring costs for the cycle 2017-2019.
- Approved watershed protection programs for 29 reservoirs with disinfection log credit.
- Approved watershed protection programs for 6 reservoirs with filtration waivers.
- Maintained an incentive program for developing local watershed protection plans & bylaws.
- Reviewed compliance status of wellhead protection land use controls for 193 wells in 17 municipalities.
- Registered 3 existing public water systems (PWS) that were previously unregulated.
- Reviewed and/or approved 30 new large capacity public water sources.
- Reviewed and approved Cross Connection Control Plans for 9 non-community PWS.
- Sent 291 Cross Connection Surveyors/Testers Certification reminder letters.
- Issued 284 Cross Connection Surveyors/Testers Certificates.
- Reviewed and approved 8 new technologies for use with drinking water.
- Entered 29 permit applications into MassDEP's permit management system.
- Conducted 403 sanitary surveys which included technical and compliance assistance.



Save Money for Consumers with Compliance Assistance

- Provided technical assistance to K-12 schools, early education and care facilities, Boards of Health, Plumbing Inspectors, PWS and the public on lead and copper in drinking water.
- Continued to implement the Wellhead Protection Program to provide compliance and technical assistance. Assisted 47 municipalities or PWS with wellhead protection issues.
- Field verified 5 watershed and/or tributary 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, Certified Operator and Source Water Protection programs.
- Captured the 9th year of electronic Annual Statistical Reporting (eASR).
- Continued improving the eASR for the next reporting year.
- Provided over 430 instances of Source Water Protection technical assistance at reservoirs and river sources.

- Continued biweekly Program Director emails to notify PWS of new educational materials, regulatory rules, trainings, etc.
- Maintained an on-line template for PWS to use for Consumer Confidence Report (CCR) compliance, updated support materials and emailed CCR reminder e-postcards.
- Notified new community water systems of CCR requirements for 2018.
- Reviewed 513 CCRs, provided Technical Assistance Reports and tracked CCR compliance.
- Posted sample schedules and Certificates of Registration for all PWS and CCRs for TNC and NTNC PWS.
- Provided compliance assistance to PWS for the Unregulated Contaminant Monitoring Rule.



Support Public Water Suppliers with Technical Assistance and Training

- Distributed fact sheets, guidance documents, and other technical assistance materials.
- Continued to improve web pages for access by PWS, town officials, the public and others.
- Provided materials for statewide Board of Health workshops as requested.
- Prepared biennial mailing to all Boards of Health to support their role in protecting drinking water and to update them on drinking water issues.
- Conducted Source Water Protection presentations to regional water works organizations.
- Worked with the Office of the State Geologist and United States Geological Survey on geological studies relative to ground water.
- Presented 75 awards to PWS and two awards to individual operators during Drinking Water Day in May 2018.
- The Board of Certification of Operators of Drinking Water Supply Facilities approved 67 training courses. This is a short list of new topics.
 - Water Treatment and Distribution, 1 & 2
 - Water, Public Health and Healthcare Coordination
 - GIS/Asset Management/SCADA
 - PFOA and PFAS Contamination in New England
 - Enhancing Resilience & Emergency Preparedness
 - Dam Inspections from Start to Finish
 - Chemical Addition Reporting
 - Management/Finance
- Provided instructors for 9 New England Water Works Association (NEWWA) Backflow Tester and Cross Connection Survey classes.
- Provided instruction, technical assistance and outreach to PWS at the NEWWA Spring Joint Exhibit and Conference.
- Provided Cross Connection Program technical assistance to 191 individuals and municipalities.
- Created new online training videos for PWS at <https://goo.gl/Xhw4br>.
- Maintained a Drinking Water Program Training Calendar which provides information on courses, workshops and conferences from MassDEP and other sources. PWS and others can download the calendar and receive automatic updates.

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS PARTLY/INDIRECTLY SUPPORTED BY THE
SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2018



Protect Public Health through Compliance Reviews

- Conducted inspections at 6 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 regular meetings of the Drinking Water Filtration/Treatment Committee.
- Conducted 16 Capacity Reviews for Drinking Water State Revolving Fund applicants.
- Reviewed 2 Water Supply Business Plans during the New Source Approval Process.



Save Money for Consumers 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 PWS.
- Reviewed the technical, financial, and managerial operations of 259 community and non-transient non-community and 185 transient non-community PWS.
- Reviewed Underground Injection Control (UIC) registration applications for 1 PWS.
- Responded to requests from PWS regarding the Unregulated Contaminant Monitoring Rule 4 (UCMR4) Program and the Inorganics Program.
- Helped PWS write watershed protection plans & local water supply bylaws.
- Submitted the Annual Operator Certification Report to EPA.
- Gave 2 Boards of Health one-on-one assistance with well drilling requirements.
- Continued implementation work for 90 PWS under the Long Term 2 (LT2) Enhanced Surface Water Treatment Rule. Preparing LT2 PWS for schedule 4 sampling.
- Identified 1,885 technical, financial, and managerial deficiencies during sanitary surveys.



Support PWSs with Technical Assistance and Training

- Provided comments on MassDEP Bureau of Waste Site Cleanup, Title 5, and Groundwater Discharge Program regulations & policy development for consistency with the Drinking Water Program.
- Provided technical expertise to the United States Geological Survey on their Climate Response Network.
- Collaborated with the USGS to measure monthly water level readings throughout the state.
- Provided speakers on water supply topics for local and regional events and for operator training courses through NEWWA and the Massachusetts Rural Water Association.
- Continued to collaborate with the Mass. Department of Public Health (DPH) on the Lead Contamination Control Act and fluoridation.

- Provided classroom training on fluoride to PWS.
- Provided technical training to PWS on the new Chemical Addition Form.
- Provided assistance on writing capital improvement plans to 125 PWS during sanitary surveys.
- Updated records and added new wells totaling 5,000 entries in the Well Driller database.
- Provided technical assistance and instructors to the New England Interstate Water Pollution Control Commission's Soil Evaluator Course.
- Provided technical assistance to the National Science Foundation (NSF) Drinking Water Technology Review Section.



Participate on Committees that Bring Massachusetts Interests to the State, Regional and National Levels

- MassDEP staff participated in meetings and events of the following committees, organizations, and other state, regional and national entities: New England Communications Collaborative; Association of State Drinking Water Administrators; 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, 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; New England Interstate Water Pollution Control Commission Source Water Protection 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.