



**Safe Drinking Water Act Assessment Program**  
**Annual Report to the Massachusetts Legislature**  
**For January – December 2019**  
**26<sup>th</sup> Year of the Assessment Program**

**Introduction**

Twenty-six years ago, the Massachusetts Legislature established the Safe Drinking Water Act (SDWA) Assessment and a SDWA Assessment Advisory Committee to monitor the Massachusetts Department of Environmental Protection's (MassDEP) 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 2019. The report provides an overview of the Assessment Program and the Advisory Committee and provides highlights of program activities.

**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 1,681 Public Water Systems (PWS) in Massachusetts. The average cost to each customer is about 31 cents per year. For the Fiscal Year (FY) 2020 billing cycle, the Assessment Program is expected to generate revenue of \$1.86 million.

The Assessment provides funds to MassDEP's Drinking Water Program (DWP) 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 DWP, saved 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 Safe Drinking Water Act Assessment Advisory Committee**

In 1993, as part of the Assessment Program, the Legislature formed a SDWA Assessment Advisory Committee to: 1) recommend an annual Assessment rate to MassDEP's Commissioner; 2) monitor the Assessment Program; 3) produce an annual report to the Legislature; and 4) conduct public meetings to discuss their work. The members of the Advisory Committee provide advice and recommendations on the DWP's technical and compliance assistance and outreach programs to PWS and others. A list of Committee members is provided on page four.

## **The Safe Drinking Water Act - 1993 through 2019**

The challenges facing the DWP and PWS 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 DWP is responsible for implementing over 50 SDWA programs.

### **Drinking Water Program - Resource Focus in 2019 and 2020 Emerging Contaminant: Per- and polyfluoroalkyl substances (PFAS)**

Per- and polyfluoroalkyl substances (PFAS) are a family of chemicals used since the 1950s to manufacture stain-resistant, water-resistant and non-stick products. PFAS are widely used in common consumer products as coatings, on food packaging, outdoor clothing, carpets, leather goods, ski and snowboard waxes, and more. PFAS in drinking water is an important emerging issue nationwide. Because PFAS are water soluble, over time PFAS from some firefighting foam, manufacturing sites, landfills, spills, air deposition from factories and other releases can seep into surface soils. From there, PFAS can leach into groundwater or surface water and can contaminate drinking water. PFAS have also been found in rivers, lakes, fish, and wildlife.

MassDEP has drafted new regulations to establish a Drinking Water Maximum Contaminant Level (MCL) for PFAS. When finalized in the summer of 2020, the PFAS Drinking Water Regulations will require all PWS to collect baseline PFAS sampling and take other actions if samples exceed the MCL.

The proposed regulations establish a Total PFAS MCL of 20 parts per trillion (ppt) for the sum of six PFAS contaminants: perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluoroheptanoic acid (PFHpA) and perfluorodecanoic acid (PFDA). Five PFAS presentations/public hearings on the MCL were held in January 2020. For more information about the establishment of an MCL, please see: <https://www.mass.gov/lists/development-of-a-pfas-drinking-water-standard-mcl>.

In December 2019 and March 2020, supplemental budgets were passed providing funding for PFAS testing and treatment, resulting in a total of \$8.4 million in cost savings to PWSs and their customers. Available funding should allow for testing of all PWS in the state.

In January, The Board of Trustees for the Massachusetts Clean Water Trust approved a 0% interest rate loan pilot program for projects that remediate PFAS in public water supplies for the 2020 calendar year. These zero interest loans will help communities that have identified PFAS in their water to expedite and complete the remediation projects.

### **Preview: Fiscal Year 2021 Assessment**

To help MassDEP provide PWS with critical services, and consistent with the recommendation of the Advisory Committee, MassDEP has established the Assessment rates for FY2021, based on water use reported by PWS for calendar year 2018, as follows:

- \$9.50 per million gallons of water used by PWS with meters (this is an increase from \$8.50);
- Minimum bill for metered PWS is \$50 (this is an increase from \$20);
- Flat rate of \$50 for unmetered PWS serving up to 101 (remains the same);
- Flat rate of \$100 for unmetered PWS serving 101 through 200 (remains the same);
- Flat rate of \$250 for unmetered PWS serving 201 through 899 (remains the same); and
- Unmetered PWS serving 900 or more pay a rate based on an average water use (remains the same).

The bills for FY2021 will be mailed to all PWS in December 2020. Revenue for FY2021 is expected to be \$2.1 million, an increase of \$248,000. The Advisory Committee supports the use of Assessment funds by the DWP and recommends higher staffing levels to improve upon programs to protect public health and support PWS with their essential work.

#### MassDEP Areas for Expanded Technical and Compliance Assistance in 2020 include:

- Per-and polyfluoroalkyl (PFAS) substances – including: promulgate new state drinking water regulations
- Lead in Schools Assistance – including: support new sampling program for daycare facilities
- Legionella
- Harmful Algal Blooms (cyanobacteria & cyanotoxins)
- Mosquito Aerial Spraying – including: conduct water sampling program at active public drinking water reservoirs
- Other unregulated contaminants

For more information about the Assessment Program or the Committee's work, contact MassDEP's Drinking Water Program at [program.director-dwp@mass.gov](mailto:program.director-dwp@mass.gov) or 617-292-5770.

## **Members of the Safe Drinking Water Act Assessment Advisory Committee – 2019**

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 (resigned on 3/11/19)
- James Starbard, an *Organization Representing Non-Community Water Suppliers*, Rural Community Assistance Program (appointed 4/12/19)
- 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 Assoc.*, Western Mass. Water Works Assoc., 2016
- Marcis Kempe, *MassDEP Designee*, 2017
- Ariela Lovett, *Massachusetts Municipal Association*, 2019

In addition, non-voting alternates for the Committee include:

Jennifer Pederson, Executive Director, Massachusetts Water Works Association

Kirsten King, Executive Director, New England Water Works Association

**Enclosure:** Summary of Accomplishments Supported by the SDWA Assessment in 2019.

**Massachusetts Department of Environmental Protection**  
**ACCOMPLISHMENTS SUPPORTED BY THE**  
**SAFE DRINKING WATER ACT ASSESSMENT**  
**January 1 through December 31, 2019**



**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 saved 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 incentives for developing local wellhead and surface water protection plans.
- Reviewed compliance status of wellhead protection land use controls for 126 wells in 17 municipalities.
- Registered 17 existing Public Water Systems (PWS) that were previously unregulated.
- Reviewed and/or approved 23 new large capacity public water sources.
- Reviewed and approved Cross Connection Control Plans for 6 non-community PWS.
- Sent 265 Cross Connection Surveyors/Testers Certification reminder letters.
- Issued 119 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 300 sanitary surveys which included technical and compliance assistance.
- Conducted inspections at 6 public surface water systems that have waivers from filtration.
- Held regular coordination meetings with the Massachusetts Water Resources Authority and the EPA - conducted compliance reviews, evaluated water quality reports and trends.
- Conducted regular meetings of the DWP Drinking Water Filtration/Treatment Committee.
- Conducted 21 Capacity Reviews for Drinking Water State Revolving Fund applicants.
- Reviewed 3 Water Supply Business Plans during the New Source Approval process.
- Conducted 6 sanitary surveys for the Mass. Dept. of Public Health at water bottlers and ice makers.



**Save Money for Consumers with Compliance Assistance**

- Supported 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 46 municipalities or PWS with wellhead protection issues.
- Field verified 13 watershed and/or tributary delineations for reservoirs and updated Geographic Information Systems (GIS) maps.

- Continued technical support of the bulk upload tool for laboratories to submit drinking water quality sampling results on-line.
- Provided compliance assistance for Statistical Reporting, Ground Water under the Influence, Consumer Confidence, Cross Connection, Certified Operator and Source Water Protection.
- Captured the 10<sup>th</sup> year of electronic Annual Statistical Reporting (e-ASR).
- Continued improving the e-ASR for the next reporting year.
- Provided over 425 instances of Source Water Protection technical assistance.
- Continued sending biweekly Program Director emails to PWS with regulatory reminders, trainings, etc., and separate emails with timely info about the Lead & Copper Rule, Lead in School Drinking Water, Per- and polyfluoroalkyl substances (PFAS) and grant opportunities.
- 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 2019.
- Reviewed 512 CCRs, provided Technical Assistance Reports and tracked CCR compliance.
- Posted sample schedules and Certificates of Registration for all PWS and CCRs for Transient, Non-Community (TNC) and Non-Transient, Non-Community (NTNC) PWS.
- Provided compliance assistance to PWS for the Unregulated Contaminant Monitoring Rule.
- 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 239 community and non-transient non-community and 157 transient non-community PWS.
- Reviewed Underground Injection Control (UIC) registration application for 1 PWS.
- Responded to requests from PWS regarding the Unregulated Contaminant Monitoring Rule 4 (UCMR4) Program and the Inorganics Program and provided compliance assistance.
- Helped PWS write watershed protection plans & local water supply bylaws.
- Submitted the Annual Operator Certification Report to the U.S. Environmental Protection Agency (EPA).
- Gave 2 Boards of Health one-on-one assistance with well drilling requirements.
- Assisted well drillers at the 2-day New England Water Works Association (NEWWA) Exposition.
- 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 900 technical, financial, and managerial deficiencies during sanitary surveys.



### **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.
- Added a web page with information on PFAS and resources for PWS.
- 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.
- Delivered Drinking Water Program presentations to regional water works organizations.

- Worked with the Office of the State Geologist and United States Geological Survey (USGS) on geological studies relative to ground water.
- Presented 48 compliance awards, 12 nominated awards and five awards to individual operators during Drinking Water Day in May 2019.
- The Board of Certification of Operators of Drinking Water Supply Facilities approved 64 training courses. This is a short list of new topics.
  - Innovation in Drinking Water Industry
  - Aging Infrastructure
  - PFAS PFOA Issues
  - Water, Public Health and Healthcare Coordination
  - HazWoper – Emergency Responder
  - Management/Finance
- Provided instructors for 10 NEWWA Backflow Tester and Cross Connection Survey classes.
- Provided 1 instructor for 2 NEWWA Hydrogeology/Source Approval classes.
- Provided instruction and outreach at the NEWWA Spring Joint Exhibit and Conference.
- Provided Cross Connection Program technical assistance to 179 individuals and municipalities.
- Maintained online training videos for PWS at <https://goo.gl/Xhw4br>.
- Developed a new PFAS sampling video for PWS at <https://youtu.be/zrwhwSI-R9M>
- Maintained a Drinking Water Program Training Calendar with information on courses and conferences from MassDEP and other sources. PWS and others can download the calendar and receive automatic updates.
- Provided expertise to MassDEP’s Bureau of Waste Site Cleanup and Title 5 and Groundwater Discharge programs for consistency with Drinking Water Program regulations.
- Provided expertise to the USGS Climate Response Network.
- Collaborated with the USGS to measure monthly water level readings throughout the state.
- Provided speakers and operator training on Mass. drinking water topics at local and regional water works events and for the Massachusetts Rural Water Association.
- Continued to collaborate with the Mass. Department of Public Health (DPH) on the Lead Contamination Control Act, fluoridation and other topics.
- Provided technical training to PWS on the new Chemical Addition Form.
- Provided help with writing capital improvement plans to 125 PWS during sanitary surveys.
- Updated records and added new wells totaling 3,500 entries in the Well Driller database.
- Provided technical assistance and instructors to the New England Interstate Water Pollution Control Commission’s (NEIWPC) Soil Evaluator Course.
- Provided expertise to the National Science Foundation Drinking Water Technology Review Section.



**Participate on Committees that Bring Massachusetts Interests to 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; NEIWPC Source Water Protection Work Group; Ground Water Protection Council's Source Water Protection Work Group; Well Driller Certification Program Technical Advisory Committee; American Water Works Association Fluoride Standards Committee. Participated on EPA work groups for Emergency Preparedness, Data Sharing, Lead and Copper Rule, Perchlorate, and the Ground Water Rule.



### **Provide support to Safe Drinking Water Act Advisory Committees**

MassDEP staff schedule, support and participate in meetings of the Safe Drinking Water Act Advisory Committee (SDWAAC) and the Safe Drinking Water Act Assessment (Section 70) Advisory Committee.

The SDWAAC meets quarterly and provides knowledge and advice to the DWP about Safe Drinking Water Act topics and priorities. Members include PWS, water works associations, laboratories and public health agencies and organizations.

The Section 70 Committee holds quarterly public meetings per MGL Chapter 21A, section 18A to monitor and provide advice to DWP on the Massachusetts Safe Drinking Water Act Assessment Program and to submit an Annual Report to the Massachusetts legislature. See <https://www.mass.gov/service-details/safe-drinking-water-act-assessment-advisory-committee-section-70-committee> for public meeting dates and agendas, Annual Report to the Legislature and a list of Committee members.