



Safe Drinking Water Act Assessment Program
Annual Report to the Massachusetts Legislature
For January – December 2021
28th Year of the Assessment Program



Breeds Pond, Lynn, MA
Photograph by Michael Celona, MassDEP



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Introduction

Twenty-eight 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 Annual Report for calendar year 2021 provides an overview of the Assessment Program and the Advisory Committee and highlights program activities.

The Safe Drinking Water Act Assessment Program

The Safe Drinking Water Act Assessment is paid each year by the 6.5 million consumers of public water and is collected by the 1,657 Public Water Systems (PWS) in Massachusetts. The average cost to each consumer is 34 cents per year. For the Fiscal Year (FY) 2022 billing cycle, the Assessment Program is expected to generate revenue of approximately \$2.15 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. 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.

We are pleased to report that according to EPA statistics compiled for the fourth quarter of 2021, 95.9% of Community PWS met all applicable health-based standards and 89.4% of the population served by Community PWS received drinking water that meets all applicable health based standards.

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 five.

Examples of MassDEP Resources for PWS

Trainings

The DWP produced a new 13-minute video with in-house staff that describes the Program's roles and responsibilities to protect Massachusetts public water supplies. The video is based on a written guide developed for staff. While DWP administers over 50 Safe Drinking Water Act Programs, the video also describes the technical assistance and outreach, trainings, public notice requirements and transparency that are companion programs that increase compliance and reduce enforcement at PWS and protect public health. The video is posted on MassDEP's YouTube page at <https://www.youtube.com/watch?v=kZbKpdjtVTA>.

DWP staff conduct virtual and in-person trainings for PWS on regulations, compliance assistance and emerging topics and award no-cost Training Contact Hours to eligible attendees. Trainings are posted in DWP's bi-weekly e-newsletter *In The Main*. Email program.director-dwp@mass.gov to be added to the *In The Main* interested parties distribution list.

The DWP also maintains a training calendar for PWS to assist certified operators with maintaining their Massachusetts professional licenses. The calendar can be downloaded to a cellphone and is posted at <https://www.mass.gov/service-details/trainings-for-public-water-system-operators>.

Timely Information and Updates

The DWP develops timely updates for posting on their web pages. Examples include: **Per- and Polyfluoroalkyl Substances (PFAS) Program** - <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>.

Lead in Schools Program - <https://www.mass.gov/assistance-program-for-lead-in-school-drinking-water>.

Lead and Copper Rule Revisions - <https://www.mass.gov/service-details/lead-and-copper-rule-revised-requirements>.

Cybersecurity Support

An emerging topic of concern is cyber threats. The DWP continues to conduct trainings, alerts and bi-weekly information for PWS to help prevent cyber attacks that have the capability to disrupt water system operations and interfere with the distribution of public drinking water. DWP staff has also developed six posters, to date, available at <https://www.mass.gov/info-details/public-drinking-water-system-operations#cybersecurity->, on cybersecurity topics that PWS can use to train their staff.



Funding

MassDEP is and will continue to take full advantage of all available federal funds, including the Bipartisan Infrastructure Law (BIL) and the American Rescue Plan Act (ARPA) funding. See information at <https://www.mass.gov/info-details/massdep-covid-19-resources-for-water-suppliers-and-wastewater-operators>. These funds will be distributed through the Clean Water Trust's State Revolving Loan Fund, a competitive program that provides loans and grants to finance water infrastructure projects to help community PWS comply with federal and state drinking water requirements. For more about the SRF program, go to <https://www.mass.gov/service-details/srf-drinking-water-program>.

MassDEP is also taking full advantage of The Water Infrastructure Improvements for the Nation Act (WIIN Act) Grant Programs for small, underserved, and disadvantaged communities, lead testing in school and child care facilities and reducing lead in drinking water.

The Drinking Water Supply Protection Grant Program continues to provide funds to eligible PWS for the purchase of land and conservation restrictions for water supply protection. PWS are encouraged to work with local land trusts and watershed organizations to apply for funding. More information is posted at <https://www.mass.gov/service-details/drinking-water-supply-protection-grant-program>.

Programs to fund energy efficiency at PWS are posted at <https://www.mass.gov/lists/energy-efficiency-at-water-utilities>.

Assessment Program Rate Structure for FY23

The Assessment Program rate structure for FY23 remains the same as for FY22. The bills for FY23 will be mailed to all PWS in December 2022.

- \$9.50 per million gallons of water used by PWS with meters
- Minimum bill for metered PWS is \$50
- Flat rate of \$50 for unmetered PWS serving up to 101
- Flat rate of \$100 for unmetered PWS serving 101 through 200
- Flat rate of \$250 for unmetered PWS serving 201 through 899
- Unmetered PWS serving 900 or more pay a rate based on an average water use

The Advisory Committee supports the use of Assessment funds by the DWP and recommends the Legislature provide additional funding to increase staffing levels to improve upon programs to protect public health and support PWS with their essential work. For more information about the Assessment Program or the Committee's work, contact MassDEP's Drinking Water Program at program.director-dwp@mass.gov.

Members of the Safe Drinking Water Act Assessment Advisory Committee – 2021

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
- David Condrey, Vice Chair, *Non-profit Association Representing Investor-owned Water Companies*, National Association of Water Companies, 2011
- Elizabeth Ainsley Campbell, an *Environmental Agency*, Nashua River Watershed Association, 2002
- 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
- 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
- James Starbard, an *Organization Representing Non-Community Water Suppliers*, Rural Community Assistance Program, 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

Massachusetts Department of Environmental Protection
ACCOMPLISHMENTS SUPPORTED BY THE
SAFE DRINKING WATER ACT ASSESSMENT
January 1 through December 31, 2021



Protect Public Health through Compliance Reviews

- Reviewing a new three-year (2020-2023) cycle of the Water Quality Monitoring Waiver Program.
 - Public Water Systems (PWS) submitting a waiver application: 334 at 868 sources of drinking water. Monitoring waiver applications submitted by compound: Inorganics 787; Perchlorate 789; Synthetic organics 755; Volatile organics 677.
- 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.
- Issued 23 wellhead protection reviews and compliance updates.
- Reviewed 3 proposed easements and MOUs for compliance with Zone I regulations.
- Reviewed 3 proposed conservation restrictions to protect hundreds of acres of land for drinking water supplies.
- Reviewed and ranked 7 Drinking Water Supply Protection Grant Program applications.
- Reviewed and ranked 30 grant applications for the Design and Planning of PFAS Treatment and 18 grant applications for Interim Measures to address PFAS contamination from PWS.
- Registered 10 new Public Water Systems (PWS).
- Registered 19 existing Public Water Systems (PWS) that were previously unregulated.
- Reviewed and/or approved several new large capacity public water sources.
- Reviewed and approved Cross Connection Control Plans for 10 non-community PWS.
- Issued 101 Cross Connection Surveyors/Testers Certificates.
- Reviewed and approved 9 new technologies for use with drinking water.
- Entered 3 permit applications into MassDEP's permit management system.
- Conducted 335 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 23 Capacity Reviews for Drinking Water State Revolving Fund applicants
- Reviewed 4 Water Supply Business Plans during the New Source Approval process.
- Assisted the Mass. Dept. of Public Health at water bottlers and ice makers' facilities.



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 15 municipalities or PWS with wellhead protection issues.
- Field verified 16 watershed and/or tributary delineations for reservoirs and updated Geographic Information Systems (GIS) maps.
- Completed 74 hydrogeologic reviews for the MassDEP.
- Continued technical support of the bulk upload tool for laboratories to submit drinking water quality sampling results on-line.
- Completed an enhancement of the bulk upload tool for laboratories that includes PFAS reporting, released in September 2021.
- Provided compliance assistance for Statistical Reporting, Ground Water under the Influence, Consumer Confidence, Cross Connection, Certified Operator and Source Water Protection.
- Captured the 11th year of electronic Annual Statistical Reporting (e-ASR).
- Continued improving the e-ASR for the next reporting year.
- Provided over 300 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 2021.
- Reviewed 520 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 167 community and non-transient non-community and 82 transient non-community PWS.
- Reviewed 3 Underground Injection Control (UIC) registration applications.
- Assisted Boards of Health on private well matters.
- Helped PWS write watershed protection plans and local water supply bylaws.
- Submitted the Annual Operator Certification Report to the U.S. Environmental Protection Agency (EPA).
- Gave three Boards of Health one-on-one assistance with well drilling requirements.
- Met with Boards of Health to educate them about PFAS contamination of groundwater and solicit private well owners to sample their wells for free through UMass program.
- Assisted well drillers at the 2-day New England Water Works Association (NEWWA) Exposition.

- The implementation work for 90 PWS under the Long Term 2 (LT2) Enhanced Surface Water Treatment Rule has been completed for all schedules (1-4).
- Identified 628 technical, financial, and managerial deficiencies during sanitary surveys.



Support Public Water Suppliers with Technical Assistance and Training

- Provided weekly, biweekly and monthly COVID-19 virtual meetings with Commissioner Suuberg.
- Provided virtual training on the new MA PFAS regulation.
- 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.
- Sent annual package to 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 110 excellence in compliance awards, 53 Honorable Mentions, seven nominated awards and one award to an individual Board member during 2021 for calendar year 2020.
- The Board of Certification of Operators of Drinking Water Supply Facilities approved 75 training courses. It should be noted that due to COVID-19 the Board of Certification has approved on-line training. This is a short list of new topics.
 - Water Supply - COVID19
 - Water Resources Sustainability
 - Regulatory Update and Risk & Resiliency Assessment
 - Iron & Manganese, Treatment Facilities O&M, ERP Updates
 - PFAS in Drinking Water and the New Regulations
 - Information Technology & Asset Management
 - Pandemic Table Top - Virtual
- Provided instructors for 7 NEWWA Backflow Tester and Cross Connection Survey classes.
- Provided 1 instructor for 2 NEWWA Hydrogeology/Source Approval classes.
- Provided 2 instructors for the Mass. Health Officers' Association regional conferences.
- Provided technical assistance on CCCP to PWSs, 336 by e-mails and 53 by phone.
- Maintained online training videos for PWS at <https://goo.gl/Xhw4br>.
- 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 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.
- Continued to provide 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 the following committees and organizations: 495/MetroWest Partnership, NEIWPC Emerging Contaminants Workgroup, NEIWPC Chloride Contamination Joint Workgroup, New England WARN, Massachusetts Water Works Association, Massachusetts Municipal Association, Conservation Law Foundation, 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 and Cross Connection Control, Management and 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 Management/SDWIS Modernization, DWINSA, DWSRF, National Drinking Water Advisory Council, Consumer Confidence Report Working Group, Lead and Copper Rule, PFAS, 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.