



THE MASSACHUSETTS WATER RESOURCES COMMISSION

2022 ANNUAL REPORT

The Commonwealth of Massachusetts

Charles D. Baker, Governor | Bethany A. Card, Secretary, Executive Office of Energy and Environmental Affairs

MEET THE WATER RESOURCES COMMISSION

THE COMMISSION'S ROLE AND STRUCTURE

The Water Resources Commission (Commission or WRC) was established in 1956 by the Massachusetts Legislature and is responsible for developing, coordinating, and overseeing the Commonwealth's water policy and planning activities to ensure that Massachusetts will have plentiful water to support health, safety, economic development, and ecological vitality for generations to come.

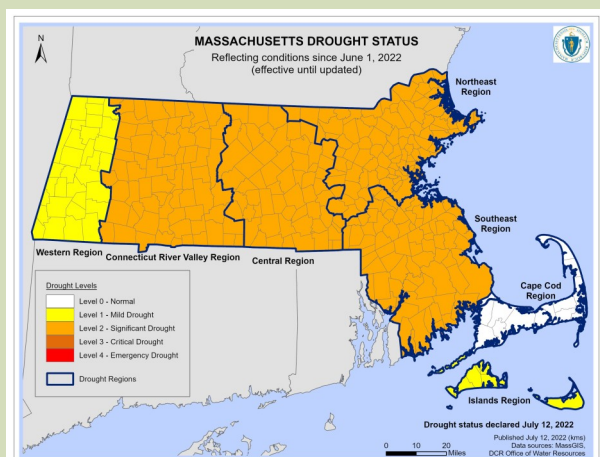
The twelve-seat Commission includes five public members and appointees from seven state agencies or offices.

The Commission's Executive Director, based at the Executive Office of Energy and Environmental Affairs (EEA), and its technical staff, based at the Department of Conservation and Recreation's (DCR) Office of Water Resources, work with state and federal agencies and members of the public to support the Commission's work.

RESPONSIBILITIES OF THE COMMISSION

The responsibilities of the Commission, highlighted below and described in this report, establish the scientific and policy foundation for the sustainability of Massachusetts' water resources.

- Establish statewide Water Conservation Standards and policies to encourage efficient use of water
- Administer the Interbasin Transfer Act
- Cooperate with the United States Geological Survey (USGS) and manage the statewide precipitation network to provide real-time water data for monitoring and research
- Approve the Massachusetts Drought Management Plan, monitor hydrologic conditions, and advise the state Drought Management Task Force during drought
- Provide water needs forecasts for communities' long-range planning and permits
- Develop and provide a forum for public input, coordination, and diverse viewpoints on current and long-term water policies and issues
- Act as the state coordinating agency to assist in the implementation of the National Flood Insurance Program



PROGRAM DESCRIPTIONS AND FY2022 WORK

TRACKING HYDROLOGIC CONDITIONS AND ADVISING ON DROUGHT

WRC staff monitors and analyzes hydrologic conditions monthly and produces a report covering precipitation trends, streamflows, ground-water levels, lakes and impoundments levels, and other hydrologic data. Staff uses these data to monitor for droughts, inform the WRC at its monthly meetings, and, as needed, advise the state's Drought Management Task Force (DMTF).

Of the hydrologic monitoring networks, staff manages the precipitation network, which provides data from 50 active stations in Massachusetts and has been in operation since 1956. Other networks are operated cooperatively with the U.S. Geological Survey (USGS).



Staff gage at A-1 Reservoir in Westborough, July 2021

In FY2022, the DMTF continued to meet in response to the 2021 drought that began in February 2021 and continued through August 2021. Most of the state was in a Mild/Level 1 drought, while the Southeast Region reached a Significant/Level 2 drought. The Islands Region remained Normal. The DMTF began meeting again in May 2022 to address a fast developing drought that reached Significant/Level 2 in four drought regions by the end of the fiscal year.

WRC staff completed work with the Northeast Regional Climate Center at Cornell University to develop a Drought Dashboard – a web-based tool to provide data and maps of drought indices, hydrologic conditions, and drought monitoring. This tool enhances data processing capabilities and analyses for Drought Management Task Force meetings. The Dashboard was also released for public use and is available at www.mass.gov/massddd.

THE USGS COOPERATIVE PROGRAM

The U.S. Geological Survey and the state have had a cooperative, hydrologic monitoring partnership since 1904. The program currently maintains and provides data from the following stations: 59 real-time streamflow, 64 manual and 59 automated groundwater, 6 precipitation, and 4 tidal. State staff from MassDEP and DCR and Steve Mabey, the state geologist, and his students from UMass Amherst perform the monthly manual measurements at groundwater wells.

In FY2022, staff applied for and again was awarded a National Groundwater Monitoring Network (NGWMN) grant. This one is to replace equipment on existing real-time wells in the Climate Response Network. This will ensure reliable real-time measurement and data provision.



Joy Duperault, Director of the FHMP, received the Louthain Award for Distinguished Service to The Association of State Flood Plain Managers in August 2021.

FLOOD HAZARD MANAGEMENT PROGRAM

Executive Order 149 (1978) designated the Commission as the state coordinating agency to implement the National Flood Insurance Program (NFIP) and implement the flood plain management criteria for state-owned properties in special hazard areas. Through the Commission's Flood Hazard Management Program (FHMP), staff provides technical assistance to NFIP communities on a wide range of matters, including floodplain management best practices, flood-resistant standards for construction, floodplain mapping issues, flood insurance questions, and mitigation options to reduce flood losses.

Highlights of the FHMP in FY2022 include:

- Nearly 600 general technical assistance contacts to help local government or individuals in 259 MA communities
- Working with the MA Environmental Policy Act (MEPA) Office to review 87 projects in 62 communities
- 27 community outreach and training events
- Engagement in the state effort to update the State Hazard Mitigation & Climate Adaptation Plan for 2023 approval
- Coordination with state, national, federal and local partners to monitor and review floodplain development, mitigation projects, and local and regional resiliency efforts
- Coordination with other DCR leaders on agency-wide climate adaptation measures.

PL566 Small Watershed Protection Program

This program continues to oversee the operation, maintenance, and repair of state-owned PL566 flood control lands across the Commonwealth.

THE INTERBASIN TRANSFER ACT (ITA)

The ITA protects Massachusetts' vital water resources and the communities that rely on them by requiring WRC review of proposals to transfer water or wastewater between river basins. It ensures:

- Hydrology and environmental resources in the donor basin are protected
- The receiving basin is using water as efficiently as possible
- The process is transparent and promotes robust public input

In FY2022, the Commission voted to approve the following project:

- The Auburn Water District's Application to Increase the Present Rate of Interbasin Transfer of Water from the City of Worcester

Additionally in FY2022, staff:

- Continued a comprehensive review of the ITA Performance Standards with proposed revisions to be brought before the WRC in FY2023
- Monitored continued compliance with conditions for previously approved ITA projects
- Provided consultations to communities with potential new interbasin transfers



In September 2021, WRC staff members Anne Carroll and Viki Zoltay were each honored by the Massachusetts River Alliance with the River Advocate award for their commitment to science in decision making. Pictured, left to right, are Viki Zoltay, Anne Carroll, Mass Rivers Executive Director Julia Blatt, State Representative Linda Dean Campbell, and former State Representative Denise Provost.

WATER NEEDS FORECASTS

Commission staff works with public water suppliers to develop 15- to 20-year water needs forecasts, using a methodology approved by the Commission. The forecasts are used by suppliers in applying for Water Management Act (WMA) permits and in long-range planning.

In FY2022, WRC staff consulted with MassDEP and three public water suppliers in three river basins (Concord, Ipswich, and Westfield basins) to review, revise, or prepare new water needs forecasts.

WATER CONSERVATION STANDARDS

The Commission established the Massachusetts Water Conservation Standards (WCS) in 1992, setting statewide goals for water-use efficiency and providing guidance for effective conservation.

In FY2022, staff reviewed and improved the functionality of the Conserve MA Water online toolkit (www.mass.gov/conservemawater). The website targets a wide range of water users and features Massachusetts-specific guidance on actions users can take to reduce their water use and tools and outreach material that can be easily downloaded and shared.

Additionally, staff partnered with the Massachusetts Water Works Association, Raftelis, and Tighe and Bond to conduct a workshop for 40 MA water suppliers on best practices for water data management and analysis. The training drew heavily on the guide: *Collecting, Managing, and Analyzing Water Use Data*, which was developed by WRC staff, Tighe and Bond, and Amy Vickers and Associates, with funding and technical assistance from the Division of Ecological Restoration, in FY2019-20, to support the Water Conservation Standards.



OVERSIGHT OF STATE WATER PROGRAMS

By statute, the Commission reviews certain water regulations promulgated by the Department of Environmental Protection (DEP), and other water resource-related programs, providing a forum for public comment.

In FY2022, the Commission heard a presentation and discussion on proposed revisions to the Water Management Act Regulations (310 CMR 36.00), and voted to approve revisions to the Amalgam Wastewater and Recycling Regulations for Dental Facilities (310 CMR 73.00) and to the Massachusetts Surface Water Quality Standards (314 CMR 4.00). The Commission also heard and voted to approve new regulations at 314 CMR 16.00: Notification Requirements to Promote Public Awareness of Sewage Pollution.

WEBLINKS

Interbasin Transfer Act: www.mass.gov/interbasin-transfer-act

Water Data Tracking: www.mass.gov/info-details/water-data-tracking

Drought: <https://www.mass.gov/drought-management>

Flood Hazard Management Program: www.mass.gov/guides/floodplain-management

Water Needs Forecasts: www.mass.gov/doc/water-needs-forecast-policy-and-methodology/download

Water Conservation Standards: www.mass.gov/service-details/details-on-the-2018-massachusetts-water-conservation-standards

Massachusetts Water Conservation Toolkit: mass.gov/conservemawater

USGS: www.mass.gov/cooperative-water-resource-planning-program

KEY CONTACTS

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Eric Carlson, Environmental Engineer

Sara Cohen, Water Resources Specialist

Joy Duperrault, Director, Flood Hazard Management Program

Erin Graham, Environmental Engineer

Marilyn McCrory (retired June 2022)
Water Resources Planner

Kara Sliwoski, Water Resources Scientist

Viki Zoltay, Hydrologist

CURRENT COMMISSION MEMBERS AND DESIGNEES

AGENCY MEMBERS:

Executive Office of Energy and Environmental Affairs

Chair & Member - Bethany A. Card, Secretary
Designee - Vandana Rao,
Commission Executive Director

Department of Housing and Community Development

Member - Jennifer Maddox, Undersecretary
Designee - Linda Balzotti

Department of Conservation and Recreation

Member - Doug Rice, Commissioner
Designee - Anne Carroll

Department of Environmental Protection

Member - Martin Suuberg, Commissioner
Designee - Kathleen Baskin

Department of Agricultural Resources

Member - John Lebeaux, Commissioner
Designee - Hotze Wijnja

Department of Fish and Game

Member - Ronald Amidon, Commissioner
Designee - Todd Richards

Office of Coastal Zone Management (non-voting member)

Member - Lisa Berry Engler, Director
Designee - Todd Callaghan

PUBLIC MEMBERS:

Thomas Cambareri, Centerville, MA

Marcela Molina, Boston, MA (resigned October 2021)

Vincent J. Ragucci III, North Reading, MA

Kenneth Weismantel, Hopkinton, MA

Samantha Woods, Norwell, MA

