
THE MASSACHUSETTS WATER RESOURCES COMMISSION



ANNUAL REPORT, FISCAL YEAR 2015



Commonwealth of Massachusetts

CHARLES D. BAKER
Governor

MATTHEW A. BEATON
Secretary
Executive Office of Energy and Environmental Affairs

MEET THE WATER RESOURCES COMMISSION

THE COMMISSION'S ROLE AND STRUCTURE

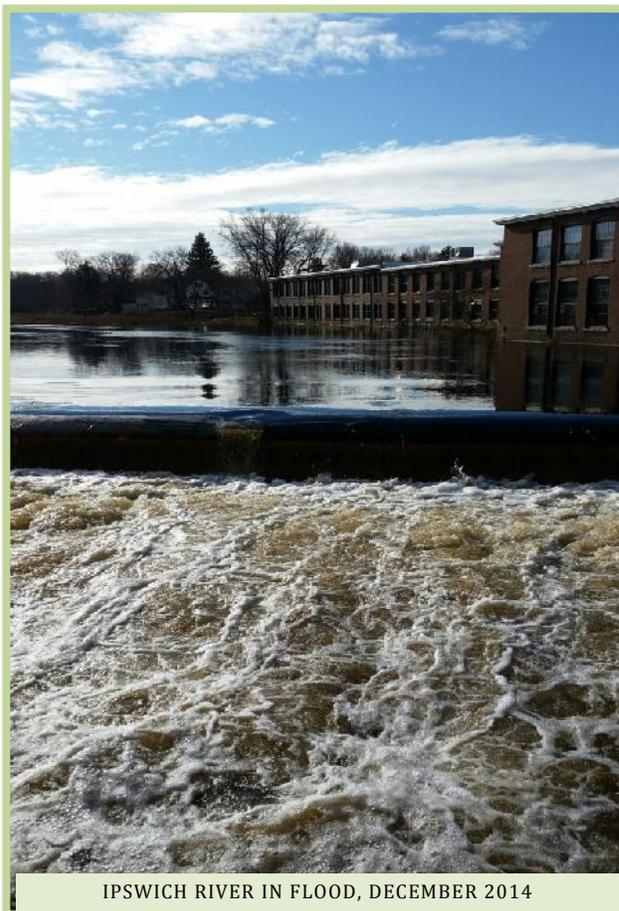
Established in 1956 by the Massachusetts Legislature, the Water Resources Commission (Commission) is responsible for developing, coordinating, and overseeing the Commonwealth's water policy and planning activities to ensure that Massachusetts will have plentiful water to support health, safety, economic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

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

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

- 1) Spearhead **water policy** and **long-range water resources planning** for Massachusetts
- 2) Manage a **statewide precipitation network** for monitoring and critical research
- 3) Cooperate with the USGS to provide timely **scientific research and real-time hydrologic monitoring statewide**
- 4) Administer the **Interbasin Transfer Act** to ensure environmental protection when it is necessary to transfer water or wastewater between the major river basins of the state
- 5) Closely track hydrologic conditions and advise the state **Drought Management Task Force** in response to drought conditions
- 6) Provide **Water Needs Forecasts** for approximately 180 communities for their long-range planning and for use in applying for water withdrawal permits
- 7) Establish statewide **Water Conservation Standards** to encourage efficient use of water
- 8) **Review and approve water regulations** as mandated by statute
- 9) Provide a **forum for public input, coordination, and diverse viewpoints** on current and long-term water policies and issues at monthly meetings



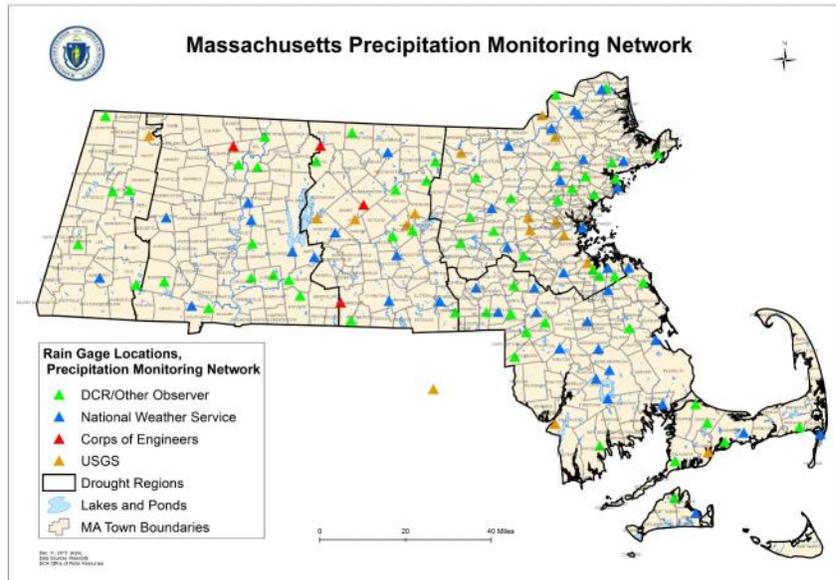
These responsibilities establish the scientific and policy foundation for the sustainability of Massachusetts' water resources.

COMMISSION PROGRAMS

MASSACHUSETTS PRECIPITATION MONITORING NETWORK

The Commission has managed a precipitation monitoring network since 1956. The data—from more than 200 active and historical monitoring stations in Massachusetts—are used to:

- monitor for drought
- support critical research
- help plan for future water conditions
- update infrastructure design standards.



The Precipitation Monitoring Network and USGS Cooperative Program produce data used by communities, scientists, and emergency responders to protect lives, property, and the environment and to plan for future water conditions, such as droughts, floods, and climate change.

In FY 2015, Commission staff began modernizing the precipitation database to enable **more sophisticated analyses, more seamless reporting, and greater collaboration.**

THE USGS COOPERATIVE PROGRAM

The U.S. Geological Survey and the Commonwealth of Massachusetts have had a water resources partnership since 1904, when the state's first modern stream gage was installed in the Connecticut River. The Cooperative program currently maintains:

- 57 real-time streamflow gages and
- 91 groundwater observation wells.



FLOOD IN SCITUATE, JAN 27, 2015 (AP Photo/Michael Dwyer)

The Cooperative Program also coordinates interpretive studies that advance the state of knowledge on critical and emerging water resource questions. Recent studies have quantified a variety of water quality, flow, and habitat alterations across the state and established relationships between some of these alterations and river fish community characteristics.

In FY 2015, Commission staff members reported to the Massachusetts Emergency Management Agency Command Center during some of the severe winter storms, where they **used real-time data from the gages to advise communities around-the-clock about when, where and how much peak flooding would occur.**

COMMISSION PROGRAMS

PROTECTING OUR RIVERS THROUGH THE INTERBASIN TRANSFER ACT

River Basins for Water Resources Planning and Interbasin Transfer Determinations



The Interbasin Transfer Act (ITA)

protects Massachusetts' vital water resources and the communities that rely on them. It ensures:

- Communities transferring drinking or wastewater between basins practice water conservation
- Hydrology in the donor basin is protected
- The process is transparent and promotes public input.

In FY 2015, the Commission reviewed draft revisions to the ITA regulations informed by an interagency work group and stakeholder group feedback. **The revisions improve clarity and flexibility, while maintaining the same high level of environmental protection.**

The ITA protects and ensures wise use of Massachusetts' finite water resources.

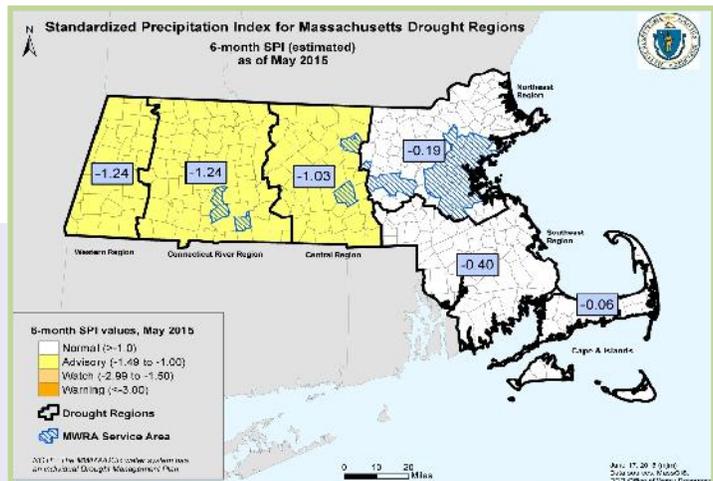
Pending promulgation of the revised regulations, the Commission incorporated into policy one proposed revision, which establishes criteria to evaluate small transfers impacting lakes or impoundments. In July 2015, The Commission approved a Request for a Determination of Insignificance from the Cherry Valley and Rochdale Water District, based on this policy.

TRACKING HYDROLOGIC CONDITIONS AND ADVISING ON DROUGHT

Using data from the Massachusetts Precipitation Monitoring Network and the USGS Cooperative Program (see Page 2) and some data from external sources, Commission staff track water conditions in the state, including precipitation trends, rainfall deficits, high or low river conditions, groundwater levels, and drought status. These conditions are reported to the Commission monthly. A wealth of information on climate and hydrologic conditions is curated by Commission staff and is available at: <http://www.mass.gov/eea/agencies/dcr/water-res-protection/water-data-tracking/>.

The Commission staff also play a key role in advising and coordinating the state Drought Management Task Force.

In FY2015, despite record-breaking winter snowfall, parts of the state had reached advisory level precipitation deficits by May. Due to the balance of all drought indices, however (precipitation is only one of seven indices), no drought was declared in FY2015.



COMMISSION PROGRAMS

WATER NEEDS FORECASTS

Commission staff work with public water suppliers to develop 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.

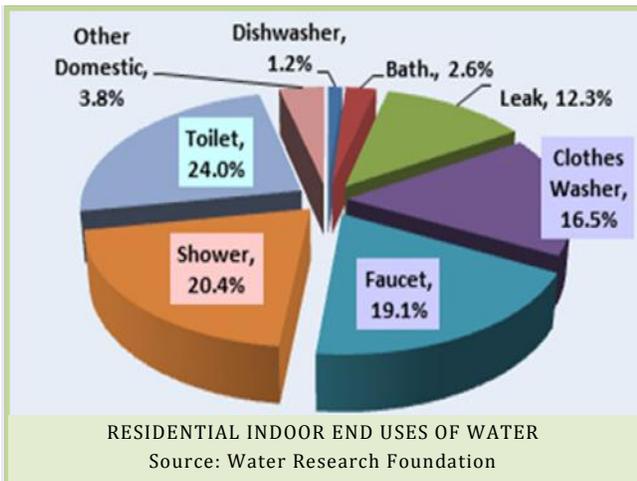
In FY 2015, staff worked with 35 public water suppliers in ten river basins to develop forecasts. Staff also participated in outreach workshops in eleven basins, helping to explain the forecast process and the WMA permit renewal process.



BASIN OUTREACH MEETING

WATER CONSERVATION STANDARDS

The Commission establishes the Massachusetts Water Conservation Standards, which **set statewide goals for water-use efficiency and provide guidance for effective conservation.**



In FY2015 (continuing work begun in FY2014), Commission staff led a work group of water suppliers, environmental advocates, consultants, and subject matter experts through **in-depth reviews of six topic areas under the Standards:**

- water audits and water loss control,
- metering,
- pricing,
- residential water use,
- agriculture, and
- outdoor water use.

Based on the work group's deliberations, staff presented proposed revisions to the Commission. Work on the revised Standards will continue in FY2016.

OVERSIGHT OF STATE WATER PROGRAMS

By statute, the Commission reviews certain water regulations promulgated by the Department of Environmental Protection (DEP), providing an additional public forum for comment.

In FY2015, the Commission reviewed and approved:

- Final Revisions to the 401 Water Quality Certification Regulations (314 CMR 9.00); and
- Final Revisions to the Water Management Act (WMA) Regulations (310 CMR 36.00)

COMMISSION MEMBERS AND KEY CONTACTS

AGENCY MEMBERS:

Exec. Office of Energy and Environmental Affairs
Chair & Member – **Matthew A. Beaton**, Secretary
Designee - **Kathleen Baskin**,
Commission Executive Director

Dept. of Housing and Community Development
Member - **Chrystal Kornegay**, Undersecretary
Designee - **Linda Balzotti**

Department of Conservation and Recreation
Member – **Leo Roy**, Commissioner
Designee - **Jonathan Yeo**

Department of Environmental Protection
Member - **Martin Suuberg**, Commissioner
Designee - **Douglas Fine**

Department of Agricultural Resources
Member - **John LeBeaux**, Commissioner
Designee – **Catherine de Ronde**

Department of Fish and Game
Member - **George Peterson, Jr.**, Commissioner
Designee - **Todd Richards**

Office of Coastal Zone Management
(non-voting member)
Member - **Bruce Carlisle**, Director
Designee - **Todd Callaghan**

PUBLIC MEMBERS:

Robert Zimmerman, Charles River Watershed
Association

Thomas Cambareri, Cape Cod Commission

Kenneth Weismantel, Hopkinton, MA

Raymond Jack, Department of Public Works, Town of
Falmouth

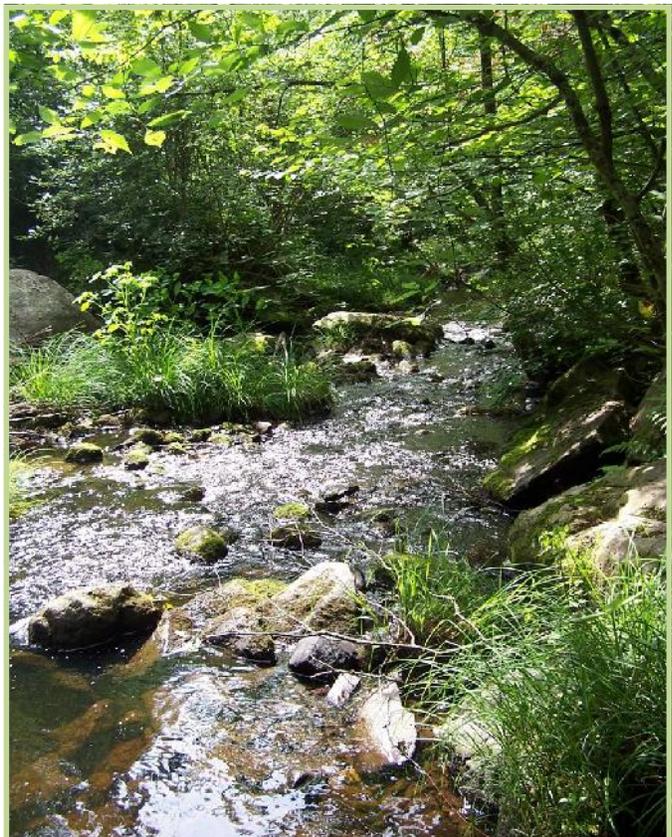
Paul Matthews, 495/MetroWest Partnership

KEY CONTACTS:

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Michele Drury, Water Resources Planner
Sara Cohen, Water Resources Specialist
Erin Graham, Environmental Engineer
Bruce Hansen, Geologist (Retired June 2015)
Linda Hutchins, Hydrologist
Marilyn McCrory, Regional Planner



Boston Brook, Boxford MA — Photo: Beth Lambert