



THE COMMONWEALTH OF MASSACHUSETTS
WATER RESOURCES COMMISSION
100 CAMBRIDGE STREET, BOSTON MA 02114

Meeting Minutes for October 13, 2011

100 Cambridge Street, Boston, MA, 1:00 p.m.

Minutes approved November 10, 2011

Members in Attendance:

Kathleen Baskin	Designee, Executive Office of Energy and Environmental Affairs
Marilyn Contreas	Designee, Department of Housing and Community Development
Jonathan Yeo	Designee, Department of Conservation and Recreation
Ann Lowery	Designee, Department of Environmental Protection
Gerard Kennedy	Designee, Department of Agricultural Resources
Tim Purinton	Designee, Department of Fish and Game
Joseph E. Pelczarski	Designee, Massachusetts Office of Coastal Zone Management
John Lebeaux	Public Member

Members Absent

Thomas Cambareri	Public Member
Bob Zimmerman	Public Member

Others in Attendance:

Jennifer Pederson	MA Water Works Assn.
Marilyn McCrory	DCR
Frank Koll	Irrigation Assn. of New England
Kathy Bell	Shanley Fleming Boksanski & Cahill
Pam Heidell	MA Water Resources Authority
Linda Hutchins	DCR
Michele Drury	DCR
Bruce Hansen	DCR
Laila Parker	DFG, Div. of Ecological Restoration
Kimberly Wells	EEA/DCR intern
Peter Weiskel	USGS
Sara Cohen	DCR
Beth McCann	MassDEP
Ted Moriarty	Irrigation Assn. of New England
Steve McCurdy	MassDEP
Vandana Rao	EEA

Baskin called the meeting to order at 1:05 p.m.

Agenda Item #1: Executive Director's Report

Hansen provided an update on the hydrologic conditions for September 2011. Hansen reported that September was another wet month, with 7.45 inches of precipitation statewide, which is almost 200 percent of the long-term average for the month. This made September 2011 the seventeenth wettest September in 117 years. All regions of the state were above normal. The

Water Year, which ended September 30, was also abnormal, with rainfall at 132% of normal; some western regions of the state had record-high water-year totals of 65 inches (compared to normal totals of 46 inches). Groundwater levels were normal on Cape Cod and the Islands and above normal elsewhere. Surface water flows are well above normal, and reservoirs are above normal. There is no indication of drought anywhere in New England, and the Standard Precipitation Index indicates very wet conditions; values calculated for the western regions of Massachusetts are period-of-record highs.

Baskin announced the annual water conference of the New England Water Works Association on October 27, 2011. Hutchins announced that the Southern New England Weather conference will take place on October 22.

Agenda Item #2: Vote on the Minutes of September 2011

Baskin invited motions to approve the meeting minutes for September 8, 2011.

V O T E	A motion was made by Yeo with a second by Kennedy to approve the meeting minutes for September 8, 2011.
	The vote to approve was unanimous of those present for the vote (Baskin, Contreas, Yeo, Kennedy, Purinton).

Agenda Item #3: Vote on Amended Clean Water SRF regulations: Enhanced Subsidy to Certain Nutrient Management Projects

Baskin introduced Steve McCurdy, program manager of Municipal Services at the Massachusetts Department of Environmental Protection. McCurdy noted that, as explained at the September WRC meeting, the proposed amendments to the regulations for the Clean Water State Revolving Fund program will bring the regulations into conformance with a statutory change that modifies the subsidy given for certain nutrient management projects. He invited questions on the amendments. There were no questions or further discussion.

V O T E	A motion was made by Purinton with a second by Yeo to accept changes to the Clean Water State Revolving Fund regulations, as amended by the Massachusetts Department of Environmental Protection.
	The vote to approve was unanimous of those present for the vote (Baskin, Contreas, Yeo, Kennedy, Purinton).

Agenda Item #4: Update: Massachusetts Climate Change Adaptation Report

Baskin provided a presentation on the background, activities, and conclusions and recommendations of the Climate Change Adaptation Advisory Committee, which produced a report released in October 2011.

Baskin explained that the Global Warming Solutions Act of 2008 directed the secretary of the Executive Office of Energy and Environmental Affairs (EEA) to both develop mitigation plans to reduce greenhouse gas emissions and evaluate strategies for adapting to the predicted impacts of climate change. To address the latter, the secretary convened a Climate Change Adaptation Advisory Committee, consisting of thirty-five people. More than 200 people participated as members of five subcommittees in the process of evaluating strategies, including participants from inside and outside of state government. The committee's mandate was to develop a suite of strategies for discussion, rather than a specific plan of action.

The five adaptation subcommittees were focused on issues concerning natural resources and habitat; key infrastructure; human health and welfare; local economy and government (including land use); and the coastal zone and oceans.

Baskin described the observed climate impacts in the Northeast, based on a literature review, including warmer annual temperatures, warmer winters, decreasing winter snowpack, earlier flowering of plants, and more frequent extreme summer heat. She also discussed the trend in and projections for sea-level rise, and the predicted range of changes in the other parameters, such as temperature, precipitation, peak spring streamflow, droughts, snow days, and length of the growing season. The predictions, based on peer-reviewed scientific information, indicate that the observed trend will continue. Many of the changes relate to water issues, such as floods, droughts, and sea level rise.

Baskin pointed out that Massachusetts has almost 200 years of data on precipitation. A review of the data showed that though there are up-and-down cycles, there has been an upward trend in precipitation in the last 50 years. She noted that infrastructure has been designed, over the last 50 to 100 years, based on a relatively recent period of record. She also presented projections from the literature on the number of extreme heat days and the diminishment of snow cover.

Baskin then outlined potential vulnerabilities that could result from temperature increases, changes in precipitation, sea level rise and coastal surge, and extreme weather events. Examples of particular interest to the commission include increased loads to wastewater and stormwater systems, localized flooding, decreased water supply in summer months, and damage to key infrastructure, such as water and wastewater facilities. She noted that record high stream flows in New England rivers were recorded by several USGS gages in 2010.

The five subcommittees identified common principles to guide climate-change adaptation. These included broad-based participation, use of the best available science and technology, the need for strong leadership, coordination of efforts, the importance of assisting vulnerable populations, and using cost-effective and risk-based approaches. The committees developed more than 200 recommended strategies. Baskin discussed examples of cross-cutting strategies – such as land-use practices that take into account potential migration of wetlands (affecting development regulations and the insurance industry).

Baskin reviewed the guiding principles and strategies of the five sector-specific subcommittees. Lowery discussed some of the strategies of the Human Health and Welfare subcommittee, noting that many of the recommendations have overlapping benefits to several sectors. Baskin provided examples of ongoing activities of EEA agencies to adapt to climate change, and she invited commission members to report on the activities and priorities of their agencies.

Kennedy highlighted two key action items of the Department of Agricultural Resources: farmland preservation and funding and technical assistance to support environmentally sustainable management practices for farms, such as water and energy conservation.

Purinton discussed activities of the Department of Fish and Game, including assessing the vulnerability of habitat types to change under various emission scenarios; such assessments are included in the State Wildlife Action Plan, which guides management and land protection strategies. He also highlighted projects of the Division of Ecological Restoration to build

resiliency to climate change impacts, and the Division of Marine Fisheries, which is assessing the effect of ocean temperature changes on fisheries and the fishing industry.

Yeo highlighted activities of the Department of Conservation and Recreation, including modeling to assess vulnerabilities of DCR properties and infrastructure, such as dams and water-retention structures; land acquisition for water supply protection, recreation, and habitat preservation; a watershed forestry program designed to build diversity and resiliency into forests; and collaborative efforts to monitor and control terrestrial and aquatic invasive species.

Lowery highlighted work of the Department of Environmental Protection in promoting green infrastructure; assisting some of the biggest users of electricity (e.g., water and wastewater facilities) in using more renewable sources of energy and undertaking efficiency measures that reduce energy use; and developing a screening tool to assess vulnerabilities of coastal water and wastewater treatment facilities to storm surge and flooding.

Pelczarski highlighted activities of the Office of Coastal Zone Management, including monitoring invasive species, monitoring species abundance and the health of salt marshes, and application of regulatory language about sea level rise in reviewing projects. He noted that the Office of Coastal Zone Management has been assessing coastal hazards since its inception in 1977. CZM also developed the Storm Smart Coasts tool, which is being adopted nationwide and provides a menu of tools to address climate change impacts.

Baskin outlined immediate next steps, including a consideration of a change to the Massachusetts Environmental Policy Act regulations requiring assessment of climate change impacts during MEPA project reviews. She thanked the many people who contributed time and effort to the subcommittees.

Pelczarski acknowledged Hansen's monthly reports to the commission on precipitation data and asked if EEA plans to evaluate these data. Baskin acknowledged the comment and the need for trend analysis. She noted that an analysis of precipitation trends over time was reported to the commission in 2008 (*Ed. note*: see minutes of February 14, 2008, Update on Precipitation Normals in Massachusetts). Pelczarski asked how progress against goals will be monitored if there is nothing to measure against. For example, who is monitoring parameters such as storm frequencies to see if the models are accurate? Some discussion ensued about what Massachusetts is measuring and who is collecting and using the data. There was general agreement on the need for a clearinghouse for data and the need to maintain and analyze the data. Weiskel noted that the National Oceanic and Atmospheric Administration recently designated the University of Massachusetts at Amherst, in cooperation with USGS, as a center for climate research and coordination with other entities.

Baskin concluded by reiterating the mandate from the legislature, which was to look at the range of predicted climate change and develop a list of potential strategies. She noted that, regardless of the underlying cause of climate change, changes have occurred. She added that our period of record on climate is short, and our systems may not have been designed with the flexibility needed to accommodate fluctuations, whether naturally occurring or exacerbated by human activities. Therefore, it is useful to develop responses to the "what if?" scenarios.

Agenda Item #5: Discussion: Follow-up on Water Supply Policy Statement, Demand Management Discussion, and Update of the Water Conservation Standards

Baskin introduced the agenda item by acknowledging that the process of updating the documents under discussion will be a long-term effort, and the commission can expect to revisit these topics frequently over the next year.

Drury recapped the discussion at the September meeting of the Water Resources Commission on the update of the 1978 Water Supply Policy Statement and the chapters on Demand Management Policies and Programs. She acknowledged those who participated in the discussion and provided feedback. She highlighted some of the feedback received and ideas on how to address those ideas. She noted that the original document has been scanned and will be posted, as requested, on the commission's web site (*Ed. note: the document is available at http://www.mass.gov/Eoeea/docs/eea/wrc/watersupply_policy.pdf*).

Drury summarized the ideas raised during the brainstorming session on water resources priorities for today (see Discussion Notes in the list of Exhibits at the end of these minutes). She noted that staff will review the ideas to flag activities that can be accomplished in the near term, those that should be included on the commission's 2012 Work Plan, and those that may require outside expertise. The intent is to develop a revised Water Supply Policy Statement that will serve as a blueprint for commission policies and programs in the next several years.

Pederson asked how the 1996 update of the Water Supply Policy Statement relates to the 1978 document and the current effort. Baskin asked why the 1996 update is not the point of departure if that document represents the latest thinking. Drury responded that there was an additional update in 1984, and that the three documents represent a continuum, with the current review encompassing all of these documents. She added that many of the recommendations in the 1978 document and the 1984 and 1996 updates have been accomplished, though some work remains. The intent of the current effort is to look at where we are now and develop a policy statement that reflects the commonwealth's current concerns and priorities and provides direction for the twenty-first century.

Pederson asked if the intent is to create a new Water Policy Statement rather than continue to update a previous document. Drury responded that it is likely that a new Water Supply Policy Statement will be developed. She added that the commission's enabling act calls for an update every five years. She explained that commission staff will continue to present for discussion the major recommendations in the 1978 document, asking, "what has been accomplished?" and "where do we want to go in the future?" She noted that some issues that were not even being considered in 1978 have emerged as important issues today.

Pelczarski asked whether the 1978 document discussed river basins, adding that any new policies should consider how we are looking at basins, subbasins, stressed basins, and the coastal basin. Drury responded that the 1978 document led to the river basin planning program. She invited commission members and the public to continue to submit ideas for discussion, including ideas on the structure of the document and the process for updating it.

McCrary provided an update on staff review of the Water Conservation Standards, which were last updated in 2006. She provided an overview of the presentation at the September commission meeting, noting that staff had identified three categories of changes that could be made. The first category includes: "housekeeping" or nonsubstantive edits, which will be completed in the near

term, resulting in publication of an interim update to the Water Conservation Standards. The second category includes format changes to make the document more user-friendly; these will be folded into the substantive update of the standards. The third category includes focus areas for further study and potential substantive edits. She acknowledged feedback received at and after the September commission meeting. She highlighted key issues and priorities, including suggestions for more information on wastewater reuse and recycling, case studies on best management practices, incentives for compliance by private well owners, the linkage between energy efficiency and water conservation, and financial assistance and incentives. Staff are also continuing to review the plumbing fixture and appliance standards.

She noted that research on the focus areas will overlap with the work being done on the update of the Water Supply Policy Statement. Staff will continue researching the issues and identifying questions that potential work groups could address. She added that a comment letter is being drafted to the U.S. Department of Energy, in response to a request for information published in the Federal Register, expressing Massachusetts' interest in supporting more stringent standards for water-using fixtures.

Baskin noted that the updates to the Water Supply Policy Statement and the Water Conservation Standards will continue to be topics of discussion at commission meetings over the next year. She called attention to the 2012 meeting schedule, noting that all meetings are scheduled for the second Thursday of the month in 2012.

Meeting adjourned, 2:45 p.m.

Documents or Exhibits Used at Meeting:

- Meeting Minutes for September 8, 2011
- Proposed revisions to 310 CMR 44.00: DEP Selection, Approval and Regulation of Water Pollution Abatement Projects Receiving Financial Assistance from the State Revolving Fund (available at <http://www.mass.gov/dep/service/regulations/newregs.htm#proposed>)
- Discussion Notes: 1978 Water Supply Policy Update: Water Demand Section, Water Resources Commission Meeting, Sept. 8, 2011
- Interbasin Transfer Act project status report, 28 September 2011
- 2012 Meeting Schedule, Water Resources Commission
- Executive Office of Energy and Environmental Affairs. September 2011. *Massachusetts Climate Change Adaptation Report*. Available at <http://www.mass.gov/environment/cca>.
- Current Water Conditions in Massachusetts, October 13, 2011
- Presentation on the *Massachusetts Climate Change Adaptation Report*. Available on WRC website at <http://www.mass.gov/Eoeea/docs/eea/wrc/ccaac-presentation-oct13-2011.pdf>.