



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

Meeting Minutes for May 13, 2010

Members in Attendance:

Kathleen Baskin	Designee, Executive Office of Energy and Environmental Affairs
Marilyn Contreas	Designee, Department of Housing and Community Development
Anne Carroll	Designee, Department of Conservation and Recreation
David Terry	Designee, Department of Environmental Protection
Gerard Kennedy	Designee, Department of Agricultural Resources
Joseph E. Pelczarski	Designee, Massachusetts Office of Coastal Zone Management
Thomas Cambareri	Public Member
John Lebeaux	Public Member

Others in Attendance:

Bruce Hansen	DCR
Duane LeVangie	DEP
Sara Cohen	DCR
Michele Drury	DCR
Jennifer Pederson	Massachusetts Water Works Assn.
Marilyn McCrory	DCR

Agenda Item #1: Executive Director's Report

Baskin announced a conference on sustainable water resources on June 2, 2010, in Waltham. More information can be found on the web site of the New England Water Works Association. She also provided an update on the May 1, 2010, rupture of Shaft 5A of the Massachusetts Water Resources Authority's water supply system. MWRA is trying to identify the causes of the rupture and is evaluating whether other areas of its system might be vulnerable.

Hansen provided an update on the hydrologic conditions for April 2010. Following record high precipitation in March, statewide average precipitation was near record low levels for the month of April. The long-term drought outlook shows no tendency for drought conditions to develop in Massachusetts through July 2010. Cambareri commented that measurements by the Cape Cod Commission of groundwater levels at USGS wells on Cape Cod showed record high levels.

Agenda Item #2: Vote on the Minutes of March 2010 and April 2010

Baskin invited motions to approve the meeting minutes for March 11, 2010.

V	A motion was made by Lebeaux with a second by Kennedy to approve the meeting minutes
O	for March 11, 2010.
T	
E	The vote to approve was unanimous of those present with one abstention (Cambareri).

Baskin invited motions to approve the meeting minutes for April 8, 2010.

V	A motion was made by Contreas with a second by Lebeaux to approve the meeting minutes
O	for April 8, 2010.
T	
E	The vote to approve was unanimous of those present, with one abstention (Cambareri).

Agenda Item #3: Update: Draft Method for Estimating Seasonal and Total Population for Cape Cod Communities for Use in Water Needs Forecasting

Cohen noted that determining the population served is a necessary element in the Water Needs Forecasting methodology. Historically, determining an annualized population for seasonal communities has been difficult for regulators and communities. Cohen said Water Resources Commission staff met with the Cape Cod Commission, which provided a report on results of a 2008 survey of second-home owners on Cape Cod conducted by the University of Massachusetts Donahue Institute. Using data from the survey results, WRC staff developed a method for estimating the seasonal residential population in Cape Cod communities. She distinguished between seasonal resident population and transient visitors, and said the goal of the method is to characterize the seasonal resident population whose water use is reflected in the metered residential water volume.

The Donahue Institute survey results were grouped into four distinct regions of the Cape, which proved to have statistically significant differences in some response categories. Average responses from two survey questions were used in the analysis: average number of people who use the second home, by month (including renters), and average number of days the second home is in use, by month. By multiplying these numbers together for each month and dividing by the days in the month, staff derived an average daily population associated with second homes, for each month, for each region on the Cape. These per-home monthly populations are multiplied by the number of vacant homes for each town, as reported on the U.S. census, to arrive at the town-wide seasonal population for each month. The result is a bell curve that reflects a large influx of people in the peak months of the summer, and this curve is similar to the curve in water use. An annualized seasonal population is calculated as the average of the 12 months.

Cohen added that no data are available for estimating how the number of vacant homes will change in the future. After some discussion internally and with the Cape Cod Commission, staff concluded that in the absence of data showing that the number of second homes will either increase or decrease, staff will hold the number of second homes (and therefore the seasonal population) constant over the 20-year demand forecast period.

Cambareri confirmed that the Cape Cod Commission agreed that the Donahue Institute survey represented the best information available for estimating seasonal population.

Cohen noted that this methodology was also presented to the Barnstable County Water Utilities Association on May 12. Cohen reported that, though this group of water suppliers expressed concern about the water needs forecast in general, it was her sense that there was general acknowledgement that the approach to seasonal population in second homes was satisfactory. Water suppliers were concerned, however, that this methodology does not capture seasonal visitors to year-round residents. She acknowledged this gap, but said no source of data on this

phenomenon has been identified. She added that staff are working with MassDEP to address this concern.

Pederson stated it is overly optimistic to characterize the attendees at the May 12 meeting as having bought into the approach to estimating seasonal population. Though the water suppliers themselves acknowledge the difficulty of estimating seasonal population, she noted that many concerns were expressed. She requested that more clarity be provided, at the Cape Cod Basin meeting scheduled for May 27, on how these numbers apply in water needs forecasting and Water Management Act permits.

Some discussion followed on how to estimate the “ghost” population of visitors to year-round residents. Cohen noted that staff has discussed relying more heavily on the “Current Trends” scenario of the water needs forecasting methodology for the Cape Cod Basin, since this scenario captures current water-use patterns and thus would capture water use by the visitors to year-round residents. She invited Levangie to comment further on this approach.

Levangie commented that MassDEP intends to obtain input from the Water Management Act Advisory Committee on using the Current Trends scenario of the water needs forecasts in permitting for water suppliers on Cape Cod. He reminded the commission that in the water needs forecasts for the Charles River and Blackstone River basins, DCR provided two scenarios: the Current Trends scenario and the “65/10” scenario (which assumes the water conservation standards of 65 rgpcd and 10% unaccounted-for water are met in five years). In these basins, Levangie explained that MassDEP used the Current Trends forecast in the first five-year block of the WMA permit, for those who were above the standards, and used the 65/10 forecast in the remaining five-year blocks of the permit. Levangie added that MassDEP is considering relying on the inclusion of best management practices in the permits for Cape Cod water suppliers.

Kennedy asked what process is being used to develop the seasonal methodology. Cohen responded that this methodology was developed through discussions with the Cape Cod Commission and through an internal work group at DCR. Input and comment was obtained through an additional meeting with the Cape Cod Commission, and at public meetings with the Barnstable County Water Utilities Association and the Water Resources Commission. She added that this methodology is not a deviation from the water needs forecasting methodology, since the latter does not specify how seasonal population should be estimated.

Cambareri asked for clarification on whether the 65/10 forecast or the Current Trends forecast will be used in the permits for Cape Cod. Levangie responded that MassDEP has not yet made a decision.

Discussion continued on anecdotal accounts of how both year-round home owners and second-home owners use their homes. Various suggestions were made about how data from the Donahue Institute survey could inform an estimate of the seasonal influx to year-round homes. Cohen commented that staff tries to be careful that there are data to support any assumptions made in the forecasts. She noted that summer visitors to year-round home owners may be partially offset by the departure of some portion of year-round residents for several weeks or months in the winter.

Pederson requested data on how the 20-year water-needs forecasts completed in the early 1990s compare to actual water use after 20 years. Drury responded that a preliminary analysis indicated that, on average, the 1990s forecasts overestimated water needs. In three communities, water use

has been slightly above the forecast, but remains within MassDEP's enforcement discretion. For the remaining communities, the forecasts far exceeded actual water use, with the forecasts being 125% higher, on average, than actual use.

Agenda Item #4: Update: Sustainable Water Management Initiative

Baskin reported that the Advisory Committee engaged in a discussion of the broad, overarching goals of sustainable water management. Suggestions ranged from specific outcomes (such as "protect aquatic habitat" or "ensure that water supply is available") to process-oriented goals (such as "make sure this process reaches out to all stakeholders"). Not all goals will be applicable to all watersheds, and different watersheds may have different priorities. The committee is organizing the goals into categories. The Advisory Committee is also organizing a work group to examine regulatory and nonregulatory mechanisms for implementing sustainable water management.

Baskin reported that the Technical Subcommittee discussed a range of scenarios on safe yield, including ways of incorporating an environmental protection factor in the determination of safe yield. When a methodology is developed, it will be presented to the Water Resources Commission.

She said that Todd Richards of the Division of Fisheries and Wildlife also presented an update on efforts toward streamflow criteria and classification. He discussed results from an interim report (USGS and others) correlating fish survival with various environmental conditions, including stressors, and presented concepts for using this information to establish streamflow criteria and classifications. These concepts will be piloted in the Nashua and Sudbury-Assabet-Concord watersheds.

Cambareri commented that the methodology presented to the Technical Subcommittee seemed to make sense. He expressed interest in how the results of the committees' work will be applied in permitting of water withdrawals. Baskin responded that MassDEP Commissioner Burt would like to see a sample permit developed.

Pederson requested clarification on the timeline for a decision on safe yield. Baskin clarified that Water Management Act permits must be issued for the Ipswich River Basin by August 31, 2010, which is also the date by which a safe yield for the Ipswich is to be determined. The June 30, 2010, deadline that had been discussed was to allow time, before August 31, for a comment period on the draft permits and time to incorporate or respond to those comments. Baskin added that the time constraints are difficult, and EEA is evaluating how best to proceed.

Meeting adjourned

Attachments distributed or presented at meeting:

- Current Water Conditions in Massachusetts, May 13, 2010
- Spreadsheet illustrating calculation of monthly seasonal population in Cape Cod communities