



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

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**Meeting Minutes for October 11, 2007**

*Minutes approved April 10, 2008*

**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
Glenn Haas	Designee, Department of Environmental Protection
Gerard Kennedy	Designee, Department of Agricultural Resources
Thomas Cambareri	Public Member
John Lebeaux	Public Member
Bob Zimmerman	Public Member

**Others in Attendance:**

Michele Drury	DCR	Jennifer Pederson	Massachusetts Water Works Assn.
Linda Hutchins	DCR	Jon Beekman	SEA Consultants
Bruce Hansen	DCR	Michael Caira	Town of Wilmington
Sara Cohen	DCR	Michael Woods	Town of Wilmington
Erin Graham	DCR	Kerry Mackin	Ipswich River Watershed Assn.
Frank Hartig	DCR	Joanne Carey	DFG, Riverways
Marilyn McCrory	DCR	Robin Johnson	Camp Dresser & McKee
Anne Monnelly	DCR	John Reinhardt	MassDEP
Margaret Callanan	EOEEA	Daniel Kelleher	Attorney
Pam Heidell	MWRA	Eileen Simonson	WSCAC
Vandana Rao	EOEEA	Peter Weiskel	USGS

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**Agenda Item #1: Vote on Amended Wilmington Interbasin Transfer Decision**

Baskin clarified what the commission was being asked to consider in this vote. She noted that one of the changes made was in response to public comment at the June 2007 WRC meeting. She clarified the original intent of the condition under consideration, which was that the WRC be informed if the town changed the sources of water supply on which it is relying. It was felt that the resulting discussion was one that would be better handled at MassDEP regarding the amount of water considered viable. The proposed amendment separates the two issues. Thus it is proposed that Condition No. 2 under Criterion 2 be deleted and replaced by the language in the attachment distributed. She then read the amended language.

Yeo commented that the amended language better reflects the intention that the commission be informed of any future scenarios or changes that have implications for interbasin transfer approval.

Mackin explained that her original question came about because she could not tell which number represented maximum viable capacity of the Ipswich River water supply sources. She believed 2.55 mgd, not 4.22 mgd, represented that number. She added that the Ipswich River Watershed Association did not object to the town's use of wells during high-flow periods, but noted that because Lubber's Brook had been dry adjacent to the town's wells for at least the past month; the association has concerns related to the question of viable sources.

Beekman challenged Mackin's representation of statements made at the June meeting. He added that the town did not support making a change to the original draft.

Simonson expressed concern about potential confusion between the Interbasin Transfer Act and the Water Management Act. She also expressed concern that 4.22 mgd represents a capacity statement, arrived at by subtracting the wells lost to contamination from the original capacity of Wilmington's sources. She noted other capacity statements and asked what number the Water Management Act uses in permitting, and if the WMA accounts for new water transferred from MWRA sources. She requested identification of the number used for the WMA withdrawal permit and of the number representing the Interbasin Transfer Act approval. She said the IBT approval must ensure that there is no increase in total water use based on this capacity statement.

Beekman responded that the issue at hand is not a donor basin issue. Drury clarified that the transfer request was for 1.7 mgd from the donor basin. MassDEP has issued a WMA permit for 3.56 mgd, and this permit is under appeal. The Water Resources Commission, she noted, requires the town to work with MassDEP to condition its WMA permit such that the amount permitted is distributed between its own local sources and MWRA sources. Baskin noted a statement in the WRC decision that defers to MassDEP to make a determination as to the extent to which the local wells can be used. Haas clarified that the Wilmington case represents an additional source, not an increase in water use.

Mackin requested the basis for the number representing the quantity of water Wilmington could provide from its own local sources. Hutchins responded that the number was based on the town's IBT application, which stated that it had reliable local sources of 1.7 mgd. Mackin asked why the condition could not be written to refer to "any increase" from any of its sources.

Baskin clarified that the condition asks the town to inform the WRC about changes in its system so that staff can determine implications for the Interbasin Transfer Act. She added that it is up to MassDEP to determine the exact number. Cairra stated that the town fully supports the motion being put forth at this meeting.

<b>V O T E</b>	<p>A motion was made by Zimmerman with a second by Yeo to accept the proposed amendment to the Water Resources Commission's findings on the June 14, 2007, Wilmington Interbasin Transfer Approval by striking Condition 2 of Criterion 2 and replacing it with</p> <p>"If, in the future, the Maple Meadow Brook Aquifer wells are rehabilitated, or if any additional in-basin sources of water are developed, Wilmington, or the proponent of use of this water supply, must notify the WRC for consideration of the implications of this in-basin water availability on this Interbasin Transfer Act approval."</p> <p>The vote to approve was unanimous of those present.</p>
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In response to a question, Baskin clarified that this decision is closed, as far as the commission's business is concerned.

**Agenda Item 2: Executive Director's Report**

Baskin noted that the Drought Management Task Force had met on October 10 and declared a drought advisory in four of the six regions of the state, representing the entire state except for Cape Cod and the Islands and Berkshire County. She explained that an advisory triggers public notification and agency coordination but does not necessarily require conservation actions in accordance with the Drought Management Plan. She added that the task force will also be proposing some updates to the plan. Haas clarified that the drought advisory is based on fire hazard, not water supplies. Baskin added that there are several indices, including crop moisture, groundwater levels, streamflows, and fire, and that three criteria trigger the next level of drought advisory. Haas added that, under the Wetlands Protection Act, MassDEP cannot make a determination of whether a stream is intermittent when a drought advisory is in effect. Baskin added that this level of advisory prompts individual water suppliers to follow their own drought management plans, which may require different responses, depending on the system's size and the type of resource.

Baskin also announced that the stressed basins methodology is being updated, and that USGS has signed an agreement with DCR to provide services to support a future classification of basin stress. Hutchins added that input would be sought from a Task Force of many stakeholders before analysis begins, with the goal of bringing an update to the Water Resources Commission sometime in Spring 2008. Baskin added that the update will be an iterative process, with flows and water quality to be addressed in the next round, and impacts to fish habitats to be addressed in a future update. The intent for this version is to meet the DEP Water Management Act permit renewal schedule. Weiskel clarified that USGS would refer to the project as "Indicators of Flow Alteration," to avoid making policy recommendations, which would be contrary to USGS mandates.

Hansen provided an update on the hydrologic conditions for September 2007. He noted that September added to the deficit in precipitation that had also occurred in August. He also noted that according to the National Drought Monitor, 70% of the state is considered to be in a moderate drought, with the rest of the state considered to be abnormally dry. Hansen provided a map showing municipal water-use restrictions in place as of October 9, 2007, indicating that 78 public water suppliers had instituted voluntary or mandatory restrictions on nonessential outdoor water use. The outlook is for the drought to persist through December 2007, and above-normal temperatures are predicted for the next three months.

Baskin added that Hansen's monthly hydrologic conditions report played a key role in helping the Drought Management Task Force make its determination. One of the requirements of the drought advisory, she noted, is that hydrologic indicators continue to be tracked and reported.

**Agenda Item #3: Vote on the Minutes of June 2007 and March 2006**

Baskin invited motions to approve the meeting minutes for March 2006 and June 2007.

<b>V</b>	A motion was made by Yeo with a second by Haas to approve the meeting minutes for
<b>O</b>	March 9, 2006.
<b>T</b>	
<b>E</b>	The vote to approve was unanimous of those present, with two abstentions.

<b>V</b>	A motion was made by Yeo with a second by Lebeaux to approve the meeting minutes for
<b>O</b>	June 14, 2007
<b>T</b>	
<b>E</b>	The vote to approve was unanimous of those present, with two abstentions.

**Agenda Item #4: Vote on Interbasin Transfer Offset Policy**

Baskin noted that development of an Interbasin Transfer Offset Policy is one of the items in the commission's 2007 Work Plan, and that this is the third meeting at which the policy had been discussed by the commission (see minutes for the August 23, 2007, and September 20, 2007, WRC meetings). Drury and Graham highlighted recent minor changes and clarifications made to the policy, including the addition of a policy statement at the beginning of the document and some additional language that steers proponents to preferable projects. Baskin said she had followed up on a reference to an ongoing EPA-sponsored project that could inform the commission with guidance as it implements this policy.

Haas asked if WRC staff could reexamine the criteria for determination of insignificance and add incentives to encourage applicants to use offsets. Drury responded that legal counsel had been consulted, and the criteria cannot be changed without changing the regulations. However, the intent of the policy is to capture projects that could meet these criteria if they implemented offsets. Baskin added that changing the regulations is a separate issue.

Various language changes were proposed and discussed. Carey expressed concern that the wording "to storm drains" under "removing inflow" may encourage runoff to storm drains, and Zimmerman proposed striking this phrase. Baskin pointed out that the purpose of the policy is to avoid increases in the interbasin transfer of water and that stormwater, even when in a pipe, seldom crosses a basin line. Also, there is a general preference for disposal of wastewater through infiltration; however, the policy cannot require a method of disposal.

<b>V</b>	A motion was made by Haas with a second by Zimmerman to accept the draft Offsets Policy,
<b>O</b>	regarding proposed interbasin transfers, September 27, 2007, as amended.
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<b>E</b>	The vote to approve was unanimous of those present.

**Agenda Item #5: Vote on Amendments to Sewer System Extension and Connection Permit Regulations (314 CMR 7.00) and Regulations for the Certification of Wastewater Treatment Plant Operators (257 CMR 2.00)**

Reinhardt highlighted the proposed amendments and clarifications to the regulations. There was no discussion.

<b>V O T E</b>	<p>A motion was made by Cambareri with a second by Yeo to approve the amendments to 314 CMR 7.00, the sewer system extensions and connection permit program, and 257 CMR 2.00 (Board of Registration of Operators of Wastewater Treatment Facilities).</p> <p>The vote to approve was unanimous of those present.</p>
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**Agenda Item #6: Presentation: Ipswich Targeted Watershed Grant: Overview of the scientific evaluation of DCR's nine LID and water conservation demonstrations**

Cohen provided background on nine demonstration projects funded by a \$1 million grant to the Department of Conservation and Recreation from the U.S. EPA Targeted Watersheds program. The program is designed to bring holistic watershed approaches to watersheds in need. She acknowledged the grant partners, including the U.S. Geological Survey, Ipswich River Watershed Association, and watershed communities. The restoration efforts funded by the DCR grant address low-flow problems in the Ipswich River by focusing on decreasing water demand through water conservation strategies, and increasing stormwater recharge through low-impact development strategies. She provided an overview of the demonstration projects. The LID demonstrations include an LID subdivision, green roof, installation of porous paving materials and bioretention areas, and use of soil amendments at an athletic field. The water conservation demonstrations include rainwater harvesting systems; a program of water audits, retrofits and rebates in the town of Reading; weather-based irrigation control systems; and a monthly billing program in the town of Topsfield. Cohen described the research questions being addressed through each demonstration. She also provided an update on the status of data collection and analysis to date.

Kennedy asked if the projects were originally conceived as low-impact development projects, or if the grant influenced the type of development that took place. Cohen replied that some of the projects were already underway, while others would not have happened without the grant funding. There were several questions about the parameters monitored at the porous pavement and bioretention demonstration projects at Silver Lake in Wilmington. Cohen noted that there had been no beach closures due to fecal bacteria contamination at Silver Lake since the demonstration projects were constructed, for the first time in six years.

Yeo asked how the weather-based irrigation control systems were working. Cohen replied that the 12 individual residential participants were generally satisfied with their systems, but the response of the municipal athletic field managers had been more varied. McCrory reported observations made by the residential participants, one of whom indicated his previous practice had been to water every other day, resulting in 45 triggers of an irrigation cycle in a 90-day summer period. However, data collection for this resident indicated his system had been triggered only 19 times, as of September, for the 2007 irrigation season.

There was some discussion of the efficacy of the monthly billing demonstration project and the effect of price on water use. Yeo commented that price is one of many factors affecting water use, and monthly billing, especially if tied to increased education on water conservation, may affect people's behavior.

Weiskel described the watershed modeling efforts USGS will be doing and noted that this effort offers the opportunity to use a watershed model that is calibrated to real conditions. He added that the modeling effort will examine how alternative development scenarios affect infiltration and streamflows.

Zimmerman added that recent work by the Charles River Watershed Association indicates that LID is a good first step, but one must understand the predevelopment hydrologic conditions and use LID approaches to approximate how land and water work together.

Weiskel commented that the key question to address is, “What are you developing from?” Developing from forested land can result in very different effects compared to developing from agricultural land. He said the HSPF model to be used breaks subbasins into hydrologic response units, which indicate how infiltration occurs with existing land cover types (e.g., forested or residential) combined with surficial geology. Cohen added that the grant partners will determine which scenarios to model in the fall and winter of 2007; one of these might compare the use of LID approaches on different types of surficial geology.

Zimmerman asked how HSPF handles groundwater pumping. Weiskel replied that, though HSPF has its limitations, it does well at analyzing natural rainfall-runoff infiltration processes.

Cohen concluded by describing the timeframe for analyzing data and disseminating preliminary results. She noted that data from the water conservation projects will be analyzed in the winter of 2007–2008, with results to be published at a later date, while final results of all the projects are expected to be published in June 2009 in a USGS Scientific Information Report and General Information Products, as well as on the Ipswich River restoration project website, which can be accessed through DCR’s main web page, at <http://www.mass.gov/dcr/waterSupply/ipswichRiver/index.htm> .

Meeting adjourned

Attachments distributed:

- Current Water Conditions in Massachusetts, October 11, 2007
- Summary of Water Related Regulations Promulgated under the Emergency Rules Designed Primarily for Fee Regulations Associated with the Revised Industrial Wastewater Sewer Permits and Certifications, 10-11-07.
- Presentation on the Ipswich River restoration project