



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

Meeting Minutes for May 10, 2007

Minutes approved September 20, 2007

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	Department of Environmental Protection
Gerard Kennedy	Designee, Department of Agricultural Resources
Mark Tisa	Designee, Department of Fish and Game
Joseph E. Pelczarski	Designee, Massachusetts Office of Coastal Zone Management
Thomas Cambareri	Public Member
John Lebeaux	Public Member
David Rich	Public Member
Bob Zimmerman	Public Member

Others in Attendance:

Mike Gildesgame	DCR		
Steve Asen	DCR	Joe Duggan	Wellesley Dept. of Public Works
Michele Drury	DCR		
Linda Hutchins	DCR	Philip Guerin	Worcester Dept. of Public Works/MWWA
Bruce Hansen	DCR		
Sara Cohen	DCR	Pam Heidell	MWRA
Erin Graham	DCR	David Kelly	Kelly Engineering Group
Marilyn McCrory	DCR		
Erin Smyth	DCR	Scott Dale	AvalonBay
Vandana Rao	EOEEA	Liz Keohane	AvalonBay
Margaret Callanan	EOEEA	Eileen Simonson	WSCAC
Mark Ryan	Town of Norwood	Paul Lauenstein	WSCAC/Neponset River Watershed Assn.
Rob Antico	Town of Wilmington		
Jon Beekman	SEA Consultants	Peter Weiskel	USGS
Kellie O'Keefe	MassDEP	James Marshall	Town of Plainville Water & Sewer Dept.
Duane LeVangie	DEP		
J. Kevin Reilly	U.S. Environmental Protection Agency	Peter Hechenbleikner	Town of Reading
		Peter Tassi	Town of Reading
Ralph Abele	U.S. Environmental Protection Agency	Ted McIntire	Town of Reading
		Frank Hartig	DCR

Agenda Item #1: Executive Director's Report

Baskin noted a change to the meeting's agenda. The follow-up and vote on the Herb Chambers/Funways-Christina wastewater discharge project has been postponed. She also congratulated Mary Griffin on her appointment as Commissioner of the Department of Fish and Game and noted that Ms. Griffin will be missed as a member of the Water Resources Commission. In addition, she invited those interested to volunteer for "state parks cleanup day" on May 12, sponsored by the Department of Conservation and Recreation.

Hansen provided an update on the hydrologic conditions for April 2007:

- Statewide average precipitation in April was 206% of normal, with all regions of the state well above normal. This is the second month in a row for excessive precipitation.
- Flooding resulted from a 1-inch rainfall event, April 11-12, followed by a record 6.5-inch event April 15-18.
- Groundwater levels were above normal, except for Martha's Vineyard and Nantucket, where groundwater levels were normal. New monthly high water levels were measured in 10 wells.
- Streamflows were generally above normal over most of the state.
- Reservoir levels were normal for this time of year.
- Drought is not forecast through July for Massachusetts or New England.

Agenda Item #2: Vote on staff recommendation on the AvalonBay interbasin transfer application

Drury introduced project proponents and provided background on the project (see WRC meeting minutes of January 11 and April 12, 2007). She noted that the sewer connection will be owned and operated by AvalonBay and limited to this development, and that no additional sewer connections can be made. Public hearings were held, as required, and most oral testimony was in support of the project. One person expressed concern about the impacts of pumping the town of Sharon's wells and urged additional conservation measures, including installation of ultra-low-flow toilets, as required by the town of Sharon for new developments. This requirement was waived by the town for the AvalonBay project, and low-water-use washing machines were required to be installed instead. Drury noted that the conservation measures proposed for this development exceed the performance standards of the Interbasin Transfer Act. The staff recommendation suggests that the developer pilot the use of ultra-low-flow toilets. Staff also has sent comments on impacts from Sharon's existing wells to MassDEP for consideration in Water Management Act permitting.

Drury and Hansen then discussed the evaluation of the project against the five applicable criteria (Criteria 1, 2, 3, 5, and 8) of the Interbasin Transfer Act. As noted in the staff recommendation, staff concluded that the project meets the evaluation criteria. Drury added that staff recommends approval of the project, with the expectation that conditions associated with the MassDEP Water Management Act permit will restrict overall pumping within the town and mitigate the impacts of the additional wastewater transfer associated with the project. MWRA will also require removal of four units of infiltration and inflow for each unit of sanitary wastewater introduced into the system as a result of the sewer connection. Drury then summarized the conditions of the interbasin transfer.

Baskin addressed a request from the April WRC meeting for an opinion from EOEEA's general counsel on whether the Water Resources Commission can require MassDEP to place conditions in its permits. Baskin said that it was the opinion of EOEEA's general counsel that the WRC cannot require conditions in MassDEP's permits through the Interbasin Transfer Act process. However, Baskin noted Glenn Haas's observation that MassDEP carefully considers recommendations and policies of the Water Resources Commission and incorporates those policies and recommendations into permits.

Baskin also asked counsel if the WRC can require offsets as mitigation under the Interbasin Transfer Act. It was counsel's opinion that the commission has broad authority to require reasonable mitigation as part of the Interbasin Transfer Act review process. Counsel also recommends that a change be made to regulations or performance standards. Baskin added that this issue fits in with ongoing discussions on development of an offset policy. In response to a question from Zimmerman, Baskin added that development of an offset policy is in the 2007 Work Plan for commission staff. Zimmerman offered assistance from the staff of the Charles River Watershed Association. Yeo inquired about the status of MassDEP's work on an offset policy, and suggested that WRC coordinate with DEP on offset policies. Haas replied that such a policy is still in the formative stages. Simonson communicated concerns from the MWRA Advisory Board about the need to verify infiltration/inflow removal in Norwood as well as a general concern about a "nibbling away" at the capacity of the MWRA sewerage system, which is an old system. Baskin suggested that discussion of an offset policy be an agenda item for a future WRC meeting.

Lauenstein expressed approval for the interbasin transfer, noting that the proposed development will contribute to the town of Sharon's stock of affordable housing. However, he urged AvalonBay to make every reasonable effort to minimize the amount of water the development will use, considering that the development's wastewater will be disposed of outside of the basin in which it originates. Noting that toilets account for about one-quarter of indoor water use, he provided detailed information on the new generation of high-efficiency toilets (HETs) and dual-flush toilets, including their water savings, flushing effectiveness, availability, costs, and payback periods. He noted that toilets have a life expectancy of 50 years and pointed out that replacing inefficient toilets takes a long time to implement. He also pointed to other developments proposed in Sharon and expressed concern that another interbasin transfer involving supplemental water from the MWRA system may be needed in the near future unless serious efforts are made to reduce unnecessary water use now. He therefore requested that the commission condition its approval of the AvalonBay project on the proponent's willingness to install water-saving HETs rather than conventional toilets.

In response to a request from Tisa, Drury re-read the list of water conservation measures proposed by the development. Tisa asked how much of the site would be impervious. Dale responded that about three of twenty-seven acres would be impervious. Tisa observed that the list of conservation measures was comprehensive and wondered why the latest technology related to toilets was omitted. Dale responded that the town granted relief from the requirement for high-efficiency toilets on the condition that a comprehensive package of water conservation measures be implemented. He noted that this package includes high-efficiency washing

machines, which cost more than the HETs, but will save more water. He added that AvalonBay was also concerned about customer satisfaction. They felt the toilets were new and unproven technology. He said AvalonBay would accept the idea of implementing some ultra-low-flow toilets on a trial basis in one or two apartments.

Yeo noted that the AvalonBay proposal meets or exceeds the performance standards of the Interbasin Transfer Act and suggested that, if the commission feels HETs should be a statewide standard, then the commission should start working on implementing that standard. Simonson urged the commission to consider when it was appropriate to implement standards more stringent than the IBT performance standards, and added that an interbasin transfer is a special case of a water withdrawal. She suggested that AvalonBay was such a case and urged the commission to require HETs in this case. Simonson added that the WSCAC office uses a HET and they think it works very well.

Lebeaux questioned the use of the term “native species,” noting that this limits the palette of plants a developer can use. He suggested using language agreed to in the Water Conservation Standards. A motion was made by Lebeaux with a second by Haas to amend the staff recommendation (page 7) by deleting the word “native” and substituting “drought-tolerant, noninvasive” species. The vote to approve the amendment was unanimous of those present, with one abstention.

V O T E	<p>A motion was made by Yeo with a second by Zimmerman to accept the May 10, 2007, staff recommendation, as amended, to approve AvalonBay’s request under the Interbasin Transfer Act to connect its development in Sharon to the MWRA sewerage system through the town of Norwood.</p> <p>The vote to approve was unanimous of those present, with one abstention. Commissioner Contreas recused herself.</p>
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Agenda Item #3: Presentation on draft revised Water Needs Forecasting Policy and Methodology for Implementation

Gildesgame noted that the proposed policy and methodology are revisions of an existing policy and methodology currently being used by DCR staff to develop water needs forecasts for communities to use in the MassDEP Water Management Act permitting process. He described the process for obtaining public comment on the policy and methodology, including a notice in the Environmental Monitor and three public meetings. Simonson noted that no hearing was scheduled for a location west of Worcester. Gildesgame emphasized that the document is a draft and invited interested parties to submit comments by May 21.

Gildesgame explained that the policy and methodology document provides guidance on how public water suppliers can obtain a water needs forecast and how the methodology is used to develop a water needs forecast. He defined a water needs forecast as the estimated volume of water a public water supplier will need to provide in order to meet community needs at a given time in the future. He pointed out that the policy and methodology assume that water suppliers and communities will develop plans and programs to comply with the 2006 water conservation standards. He then outlined the minimum data requirements for obtaining a forecast, described

the steps in obtaining an approved water needs forecast, and briefly reviewed the methodology. He also pointed out the schedule of expiring Water Management Act permits, by watershed, beginning in 2008, and said that WRC staff would be developing many water needs forecasts for these water suppliers. He noted that, for water suppliers who are approaching their registered and permitted water withdrawal amounts, the first step is to contact the Office of Water Resources to discuss the need for a new water needs forecast.

Zimmerman asked if MassDEP will ensure more uniformity in the way water suppliers report the data on the Annual Statistical Reports. LeVangie responded that MassDEP intends to reconvene a working group with the Massachusetts Water Works Association, DCR, and others to look at the ASRs.

Gildesgame pointed out that DCR's Office of Water Resources serves as technical staff to the Water Resources Commission, and has been doing river basin planning for two decades. The OWR staff is responsible for developing water needs forecasts and routinely works with MassDEP staff. He also pointed out that the proposed methodology is general in the sense that individual circumstances may require some variation in how the methodology is applied.

Simonson said that three to five years of data may be too short a time period to account for dry- and wet-weather periods along with climate change. She suggested looking at data over a longer time period and doing a statistical analysis. Gildesgame encouraged Simonson and others to provide comments and suggestions on the methodology and responded that limits on staff time and resources may preclude detailed statistical analysis. LeVangie added that he had less certainty about the uniformity of data reported on ASRs from ten years ago.

Beekman asked what the basis was for assuming that industrial, commercial, and institutional (ICI) users would be able to reduce consumption by ten percent. Baskin responded that the ten percent reduction was based on case studies by the Massachusetts Office of Technical Assistance, a nonregulatory organization within EOEEA that provides anonymous consulting to industries on ways to reduce toxic discharges, energy consumption, and water consumption. Based on their experience working with industries, OTA has concluded that a ten percent reduction overall is quite achievable, and assisted WRC staff in writing the ICI section of the Water Conservation Standards. She added that such reductions would be considered on a case-by-case basis. Gildesgame added that the methodology includes an allowance for known new industrial users whose water use may be not reflected in current pumping volumes.

Haas expressed concern about the time demands on the Water Resources Commission for considering individual forecasts. He suggested that the staff move forward with the forecasts without WRC deliberation unless there is a deviation that the commission should consider. Haas noted that interim water needs projections do not come before the WRC at present. Baskin responded by asking the commission to consider an approach where the commission would discuss and individually approve only forecasts that involved some amount of variation from the approved methodology.

Heidell expressed concern that the methodology for projecting ICI water use would reflect the current mix of ICI employment but, over the long term, would not reflect changes that may occur

in the mix of employment. Baskin acknowledged that it is difficult to forecast the distribution of industries in the Commonwealth in 20 years. She noted that communities can request revised projections if a significant change in circumstances occurs. Gildesgame asked for alternative recommendations for handling ICI estimates.

Beekman suggested that commission staff work with the Associated Industries of Massachusetts. He commented that, because water is expensive, many industries have already implemented conservation measures, and it would be difficult to know if further reductions are feasible. Gildesgame acknowledged that forecasting water use is difficult and again invited comments and suggestions.

Rich expressed concern that disaggregating water use into residential, nonresidential, and unaccounted-for categories could inadvertently discourage water suppliers from performing operations necessary to maintain a well-functioning system. Baskin responded that the proposed ten percent reduction in ICI use is intended as a place for the methodology to work from and that WRC staff, in developing a forecast, would not expect water suppliers to compromise their systems. Haas suggested separating residential from nonresidential forecasts to address this issue. Gildesgame indicated that the methodology disaggregates residential and nonresidential uses.

Guerin commented that there seemed to be a disconnect between DCR staff and MassDEP WMA permitting staff on how MassDEP uses forecasts in permitting and asked that the two agencies coordinate. Gildesgame responded that the two agencies have and will continue to work together on the policy and methodology. Guerin asked if scenarios analyzing the impact of the policy could be run. LeVangie responded that some communities are likely not to need their permits in the future, given the 65 gpcd and 10% value for unaccounted for water. Guerin then asked if there were any records comparing past forecasts to actual water use. Asen responded that, in general, actual results had aligned well with past forecasts since the late 1980s. He added that the methodology has changed twice, and Gildesgame noted that the original methodology forecast a ten percent increase per decade. Baskin clarified that the methodology was refined in 1991 and the policy adopted in 2001. Haas noted that a forecast is for planning purposes, that forecasting is an inexact science, and that permits are reviewed every five years. LeVangie added that MassDEP has been comparing registered amounts against current demands.

Camberari suggested a way of “backing into” per capita estimates by looking at the number of residential connections, census data on household occupancy, and water supplier records on total flows. Gildesgame acknowledged this as a possible approach but noted the difficulty of estimating seasonal population. Baskin asked if Camberari could suggest a method of quantifying seasonal population for Cape Cod. Drury noted that WRC staff had previously worked closely with Cape Cod Commission staff on this issue as well as town clerks and town planners. She added that collecting such data is very labor intensive. Camberari suggested that a statistician could help.

Gildesgame invited anyone who was interested to review the example attached to the methodology and to discuss any questions with WRC staff. He then outlined the schedule for receiving public comments and returning to the Water Resources Commission for approval of

the methodology. Lebeaux commented that, with spring town meeting schedules, more time should be allowed for public comment. Some suggestions on places to post notices were made. Baskin acknowledged the comments and suggested extending the comment period to early June. She also highlighted the need to have a methodology in place so that WRC staff can start working on water needs forecasts for the communities with expiring Water Management Act permits. Yeo added that, at this time, the Office of Water Resources does not have the staff needed to complete forecasts in accordance with the schedule of expiring permits.

Agenda Item #4: Discussion: Staff recommendation on Wilmington's Interbasin Transfer Act application

Drury summarized the staff recommendation, which recommends approval of Wilmington's request for an interbasin transfer, noting that the request meets all applicable criteria of the Interbasin Transfer Act and regulations. She provided an update on activities since the last commission meeting, including public hearings and written comments received. Drury and Hutchins summarized the project's compliance with the six applicable evaluation criteria of the Interbasin Transfer Act regulations (see staff recommendation). Drury said there were no substantial changes to the staff recommendation reviewed by the commission in April 2007 and highlighted some outstanding issues that are reflected in the conditions of the staff recommendation. Hutchins summarized the town's sources, its proposal to meet some of its water needs by connecting to the MWRA water system, and impacts on stream flows in the donor basin. She also discussed flow enhancements in the Swift River and Nashua River. Drury concluded by reviewing the conditions for approval of the transfer (see page 29 of the staff recommendation). Baskin noted that one condition concerning Wilmington's current wells had inadvertently been omitted and will be incorporated into the final draft. Haas noted that there are conditions that are subject to Water Management Act permit appeals. Drury clarified that the intent was for the permit, once resolved, to supersede the WRC interbasin transfer approval regarding outdoor water conservation. Drury requested comments before the June 14 commission meeting, at which a vote on Wilmington's application must take place.

Simonson commented that WSCAC supports Wilmington's request for an interbasin transfer but expressed several concerns. She agreed with the Ipswich River Watershed Association that the language should clearly specify that the commission is requesting a limit on local water use pending a determination related to redevelopment of the local wells. She expressed concern that the rehabilitation of the local wells not result in damage to the Ipswich River tributaries as a result of increased withdrawals. She suggested that Wilmington may need additional MWRA water. She also agreed with the request by the Nashua River Watershed Association that the commission continue to condition approval of such transfers by supporting funding of studies, of both the Nashua River and Swift River, to improve releases from MWRA reservoirs. Baskin responded that she is in the process of coordinating a meeting among state agencies on the fisheries issues. Tisa expressed hope that the donor basin flow issues can be resolved.

Agenda Item #5: Presentation on Reading's interbasin transfer application

Drury summarized the staff recommendation, which recommends approval of Reading's request for an interbasin transfer, noting that the request meets all applicable criteria of the Interbasin Transfer Act and regulations. She reviewed the facts pertaining to the application and the history of Reading's request for an interbasin transfer for use of MWRA water year-round. This request

is based primarily on the fact that a new water treatment plant for Reading was found to be not economically viable. Drury and Hutchins summarized the project's compliance with the six applicable evaluation criteria of the Interbasin Transfer Act regulations (see draft staff recommendation). Hutchins summarized the location and capacity of Reading's existing sources, its current water use and compliance with water conservation performance standards, the Administrative Consent Order with MassDEP, and the key points of Reading's proposal. She also highlighted some key points in the Secretary's MEPA certificates.

Drury concluded by summarizing the conditions for approval of the transfer. She noted that conditions 1 through 5 of the June 2005 decision will be rescinded if the current application is approved, since they no longer apply. However, other conditions of that decision will still apply and have been incorporated into the latest staff recommendation. In addition, new conditions related to reactivation of local sources have been added. She noted the public hearing, scheduled for May 24, on the staff recommendation and invited public comments until May 31.

Simonson asked how the town will manage outdoor water restrictions and its water conservation efforts once purchases of MWRA water begin. Hechenbleikner responded that the town is piloting weather-based irrigation systems, and that it may change its restrictions and its by-law based on the results of the pilot study. He added that the town would change its current schedule of restrictions (alternate-day restrictions) in response to either a drought declaration by MWRA or changes in its WMA withdrawal permit. Simonson objected to alternate day watering and suggested that a higher level of scrutiny of water use be used when an interbasin transfer is involved. She added that receiving MWRA water should not be a license to water lawns. Drury noted that condition #2 of the staff recommendation requires Reading to adhere to a standard of outdoor water use not less stringent than the bylaw currently in effect (as of June 2005). Simonson expressed concern that the bylaw restricting outdoor water use will be on the books for emergencies but not for the MassDEP standard of "state of water conservation," and that the town will have no reason to implement the bylaw unless MWRA declares a drought emergency.

Simonson continued by saying that approval of the transfer will result in giving water, through the Interbasin Transfer Act, that will not be regulated during the summer and expressed concern that streamflow thresholds would no longer be used to trigger conservation. Yeo responded that Reading is meeting the WRC-approved performance standards for water conservation. Simonson countered that these standards do not address specific thresholds for summer water use. Yeo responded that there is no streamflow issue involved anymore. Simonson noted that new communities applying for water from the MWRA must meet a standard that is consistent with state policy and statewide requirements under the Water Management Act. Gildesgame asked Simonson to clarify what she wanted the town to do. Simonson urged the commission to explicitly require – as a condition of approval for any town that wishes to receive water through an interbasin transfer – a public education component and other actions to carefully regulate summer water use.

Meeting adjourned

Attachments distributed:

- Current Water Conditions in Massachusetts, May 10, 2007
- Draft Water Resources Commission Decision for WRC Vote: Interbasin Transfer Application, AvalonBay Sharon Connection to the MWRA Sewerage System via Norwood, May 10, 2007
- Copies of comment letters and response to comments on the AvalonBay Sharon project
- Draft Water Needs Forecasting Policy and Methodology for Implementation
- Presentation handout, Policy for Developing Water Needs Forecasts for Public Water Suppliers and Methodology for Implementation
- Draft for Water Resources Commission Discussion, WRC Staff Recommendation, Interbasin Transfer Application: Admission to the MWRA Water Works System, Town of Wilmington, May 10, 2007
- Presentation handout, Wilmington IBT, Admission to the MWRA Water Works System. Staff Recommendation to Water Resources Commission
- Draft for Water Resources Commission Discussion, WRC Staff Recommendation, Interbasin Transfer Application: Request for Additional Water Supply from the MWRA Water Works System, Town of Reading, May 10, 2007
- Presentation handout, Reading IBT, Full Membership in the MWRA Water Works System. Staff Recommendation to Water Resources Commission