



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

Meeting Minutes for April 12, 2007

Minutes approved July 12, 2007

Members in Attendance:

Kathleen Baskin	Designee, Executive Office of 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
Margaret Kearns	Designee, Department of Fish and Game
Thomas Cambareri	Public Member
Scott Horsley	Public Member
David Rich	Public Member
Bob Zimmerman	Public Member

Others in Attendance:

Mike Gildesgame	DCR	Paul Lauenstein	WSCAC/Neponset River Watershed Assn.
Michele Drury	DCR		
Linda Hutchins	DCR	Michael J. Woods	Town of Wilmington
Bruce Hansen	DCR	Peter Weiskel	USGS
Erin Graham	DCR	Kerry Mackin	Ipswich River Watershed Assn.
Frank Hartig	DCR		
Marilyn McCrory	DCR	Margaret Callanan	EOEEA
Anne Monnelly	DCR	Scott Dale	Avalon Bay
Lealdon Langley	DEP	David Kelly	Kelly Engineering
Vandana Rao	EOEEA	Mark Ryan	Town of Norwood
Jon Beekman	SEA Consultants	John Carroll	Town of Norwood
Eric Hooper	Town of Sharon DPW	Ted McIntire	Town of Reading
Dave Polcari	CDM	Mike Cunningham	SEA Consultants
Jennifer Pederson	MA Water Works Assn.	Peter Tassi	Town of Reading
Alan Roscoe	CDM	Madelyn Morris	DEP
Sean Reardon	Tetra Tech Rizzo	Steve McCurdy	DEP
		Pam Heidell	MWRA

Agenda Item #1: Executive Director's Report

Baskin opened the meeting and noted the addition of "Energy" to the newly renamed Executive Office of Energy and Environmental Affairs (EOEEA).

Hansen provided an update on the hydrologic conditions for March 2007.

- Statewide average precipitation for March was about 135% of normal.
- March streamflows were mostly normal.
- March groundwater levels were normal, with a new all-time record high level measured in the Becket 12 well.
- Reservoir levels are normal for this time of year, ranging from 86.6% to 104% of full.
- The National Drought Mitigation Center indicates normal conditions in Massachusetts and the entire northeast, and NOAA's Climate Prediction Center does not show any drought forecast through June 2007 in Massachusetts.

Baskin reviewed the schedule of public hearings and expected Water Resources Commission votes related to Interbasin Transfer Act applications (town of Reading, Avalon Bay, and town of Wilmington) through July. Baskin also advised the commission on the following:

- As instructed by the Secretary in his MEPA Certificate for the Reading Interbasin Transfer application, Baskin, on behalf of the WRC, intends to meet with MWRA, DCR, DFW to discuss next steps on downstream releases from MWRA water supply reservoirs.
- WRC staff will complete a draft of the update of the water needs forecasting policy and methodology for commission review at the May 10 WRC meeting. The draft will be posted on the commission website for public review and comment, and three public information meetings have been scheduled in Boston, Lakeville, and Worcester. Rao requested the assistance of commissioners in seeking public input on this policy and methodology.
- DEP considers the water needs forecasts when developing Water Management Act permits. WRC staff are facing a significant workload to complete the required number of forecasts between 2008 and 2014. WRC staff are looking at a number of options to complete this work.
- DEP has offered to present an update on the Integrated Water Resources Management Planning effort to the Water Resources Commission. No vote by the commission would be required.

Open Forum: Haas informed the commission that the New England states and New York recently published a draft Total Maximum Daily Load (TMDL) for mercury to address elevated levels of mercury in water bodies, which have resulted in warnings about eating fish. The TMDL requires an 80% to 90% reduction in airborne mercury. The TMDL document also outlines progress made since the 1980s in reducing mercury in the environment. The document is available on DEP's website, and public information meetings will be held in Worcester and Boston in April and May.

Agenda Item #2: Vote on the Minutes of March 2007

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

V O T E	A motion was made by Rich with a second by Horsley to approve the meeting minutes for March 2007.
	The vote to approve was unanimous of those present, with two abstentions.

Agenda Item #3: Presentation: Staff Recommendation on the AvalonBay Interbasin Transfer application

Drury reviewed the background on the project (see minutes of January 11, 2007). The proposed project involves an action to increase the present rate of interbasin transfer from the AvalonBay property in Sharon through the town of Norwood's connection to the MWRA sewerage system. WRC staff evaluated the project against five relevant criteria of the Interbasin Transfer Act. Drury, Graham, and Hansen then discussed each of the criteria in detail (see draft staff recommendation distributed at the April 2007 meeting). Drury noted that the proposed water conservation measures meet and, in some cases exceed the performance standards in the Interbasin Transfer Act.

Zimmerman asked if the proponent considered an off-site system for wastewater discharge and asked where the Zone II around the wells was located. Drury noted that adjacent lots had failing septic systems and showed where the Zone II was located. Horsley asked if the golf course had been considered for wastewater disposal. Dale replied that the golf course had been considered but that the logistics of pumping water to the site, the high levels of treatment required, and cost of land acquisition made this option infeasible. Horsley asked what source the golf course currently uses for irrigation water. Dale replied that he did not know.

Zimmerman noted the project offered an opportunity to restore the hydrology of the area by capturing stormwater from approximately 15 to 18 acres of existing impervious surfaces in Sharon. Using low-impact development techniques, this volume could recharge the wells in quantities equal to or greater than the water supply demand projected for the AvalonBay project.

Baskin acknowledged the value of offsets and noted that WRC technical staff are working on a more general offset policy, for which the details are not yet in place. Zimmerman responded that he is proposing this approach now because removing infiltration and inflow from the MWRA system is, in his opinion, a meaningless effort, and the project will still generate 180 million gallons at the end of the wastewater pipe every day. He noted that the WRC can focus on specific impacts of the withdrawals and require remediation that would begin to restore the historic rainwater-to-land connection of the area. Drury responded that impacts from withdrawals may be better addressed through DEP's Water Management Act permit because the issue currently before the commission concerned a wastewater transfer. Zimmerman suggested that the WRC advise DEP to require recharge as a condition of the WMA permit. He noted that the WRC's enabling legislation requires the WRC to work with and instruct DEP on the use of the water resources of the commonwealth and requested confirmation from legal counsel on whether conditions of WRC approval can be required to be included in DEP permits. Drury responded that staff always works with DEP, as Zimmerman suggests, but that this transfer is a wastewater discharge to Norwood's sewers, rather than a water withdrawal transfer requiring a WMA permit.

Horsley affirmed Zimmerman's calculations and asked if runoff from about 16 acres of rooftops and parking lots could be treated and recharged in order to offset part of the 16,000-gallon per day fresh water demand of the project. He added that it was appropriate for the WRC to look for any and all opportunities to restore natural hydrologic function and that such approaches may actually cost less than the infiltration and inflow (I/I) corrections being proposed.

Further discussion ensued on whether septic recharge in Sharon could be considered an offset and whether I/I offsets properly addressed water demand on the wells and consumptive loss of water discharged through the MWRA sewerage system. Baskin noted that this was beyond the scope of the Interbasin Transfer Act but that staff would seek advice on Zimmerman's question of the WRC's role in the development of WMA permit conditions from general counsel. Haas added that DEP takes comments, direction, and conditions of the WRC seriously in its permit deliberations. Dale noted that to the extent that there is a significant cost associated with such conditions on a permit, they could render the development economically infeasible. Zimmerman responded that it would be less costly to do offsets involving impervious surfaces in Sharon than it would be to remove I/I in the Norwood sewerage system.

Hansen explained the staff evaluation of the project against Criterion 5 (maintain instream flows) and Criterion 8 (cumulative impacts). Drury concluded by summarizing the testimony from two public hearings. She noted that even commenters who supported the project stressed that the development should implement more stringent conservation measures. She added that WRC staff have recommended that the proponent address these comments, even though the project meets, and in some cases, exceeds, the IBT performance standards.

In summary, staff recommend that the WRC approve the interbasin transfer with conditions, and recommend that DEP pay close attention to near-well streamflow issues in the Town's WMA permits. Drury then summarized the proposed conditions of approval of the interbasin transfer, including submittal to the WRC of copies of the proponent's reports to the MWRA, submittal of a maintenance plan for development-owned sewers, and confirmation that the required conservation measures have been implemented. She noted that the project will be scheduled for a vote at the May WRC meeting. Rich asked if the proponent had seen the conditions, and Dale confirmed that the proponent concurred with the conditions.

Commissioners continued to comment on the conditions. Zimmerman suggested that an on-site cistern be used for irrigation instead of an on-site well. Contreas asked how staff would confirm that conservation measures had been implemented. Dale agreed to provide reports to WRC staff. Yeo observed that replacing old cast-iron pipe can save a lot of water.

Zimmerman commended the proponent for proposing a variety of conservation measures. He noted, however that conserving water only ensures that we run out of water more slowly. He cited the need to fundamentally change the "throw-away" technologies for water that remain in use. He pointed to low-impact development approaches and on-site or off-site wastewater treatment that puts water back in the ground in the local area. Zimmerman also suggested that the commission recommend standards for building on-site systems and that such systems be turned over to municipalities after they are built.

Lauenstein expressed his support for the project, noting that it will add to the stock of affordable housing in Sharon. However, he urged the commission to impose requirements that would maximize the efficiency of water use in the development. He noted that, though 16,000 gallons a day may seem like a small amount of water, the cumulative impact of many such small interbasin transfers can significantly affect streamflows. As with any new development, he said, the AvalonBay project presents an opportunity to set an example of water efficiency. He urged

the commission to require, as a condition of approval of the interbasin transfer, the installation of high-efficiency toilets, which could save 400,000 gallons per year. He noted that there are approximately 100 high-efficiency toilets on the market and that these are widely used in Europe. Lauenstein said he had offered the proponent a demonstration model free of charge, but the proponent had declined. He noted that any new development offers the opportunity to build in water efficiency on the front end and urged the commission to require the use of high-efficiency toilets.

Agenda Item #4: Staff Recommendation on Wilmington's Interbasin Transfer application

Drury reviewed the **history** of the town's application to purchase water from the MWRA to supplement its existing water supply sources. She stated that staff recommends approval of the interbasin transfer, noting that the town complies with all applicable criteria of the ITA. She summarized the town's status in meeting the IBT performance standards and the 2006 water conservation standards for various conservation measures (see Table 2 in the staff recommendation). She noted a deficiency in two performance standards – conservation rate structure and metering of hydrants; conditions of the IBT will be compliance with these standards. She also noted that the town has met the criterion for having a local Water Resources Management Plan and recommended that the commission approve this plan, with the condition that the documents be made available to all town departments.

Hutchins summarized the analysis of **Criterion #2**, use of viable inbasin sources. She reviewed the number, location, and capacity of the town's existing water sources, all of which are in the Ipswich River basin, and summarized existing and projected water demand. She noted that contamination of the Maple Meadow Brook Aquifer eliminated approximately half of the town's local water supply. The town is currently rehabilitating other wells that are operating below capacity, but reliable local sources will not meet projected demand, and other local water supply options are considered not viable. She then summarized Wilmington's proposal to transfer up to 3.25 mgd from the MWRA system, with an average estimated transfer of 1.70 mgd. The Source Management Plan maximizes use of local sources in winter, while relying on MWRA sources in summer to reduce withdrawals from the Ipswich River basin. She provided a brief overview of the MWRA water supply system and current and simulated future demands on the system, including known demand from new communities (including Wilmington). She concluded that the proposal satisfies the requirements for Criterion #2.

Hutchins then reviewed the analyses of **Criterion #5** (maintaining reasonable instream flow) and #8 (cumulative impacts), noting that minimum required releases to the Swift, Ware, and Nashua Rivers from the Quabbin and Wachusett reservoirs have been met and that MWRA is not expected to change its release schedule as a result of the proposed additional demand from Wilmington. Drought analysis showed no impacts on the Quabbin system. Hutchins also noted MWRA's efforts to enhance flows in the Swift and Nashua rivers. She concluded that Wilmington's application meets the criteria for reasonable instream flow and cumulative impacts.

Drury summarized **comments received** at two public hearings (see Appendix B of the staff recommendation). She noted that most comments supported Wilmington's application, though

some questioned the amount of water to be transferred and concern was expressed about the environmental impacts of rehabilitating the local wells. Primary concerns of the comments involved impacts to the receiving basins from continuing operation of local water sources and the need to remediate Maple Meadow Brook aquifer. She noted that the Secretary's certificate on the supplemental FEIR asked the Water Resources Commission to consider the issue of monitoring the Martins Brook aquifer. She noted that, though the Interbasin Transfer Act is not a restoration act, staff did look at this issue. She advised that this issue can be more appropriately addressed through the Water Management Act process because the criteria for approval outlined in the Interbasin Transfer Act and regulations do not address streamflow impacts resulting from use of existing sources in the receiving basin. Drury recommended that the commission support DEP's efforts in addressing Ipswich River Basin issues in Wilmington's Water Management Act permit. The appeal of Wilmington's 2003 permit amendment is pending.

Drury said the recommendation for approval of the application has several **conditions** noted on page 28 of the staff recommendation. These included revision of the town's Water Conservation Plan to comply with the 2006 Water Conservation Standards, adoption of a conservation rate structure, and enforcement of metering of hydrant use by contractors.

Zimmerman offered a general comment on MWRA plans to sell water to other communities without full review of the impacts. He noted that safe yields of the Swift, Ware, and Nashua river basins were calculated based on the safe yield of the Quabbin Reservoir and had nothing to do with instream flow in those rivers and the enormous impact on these rivers since the reservoir was constructed in 1938. He suggested the need to revisit the way safe yield is calculated, basing the calculation on what the Swift, Ware, and Nashua rivers need. He added that any "excess water" in the reservoirs is water that rightfully belongs in the Swift, Ware, and Nashua rivers, if the appropriate analyses were to be done. Kearns concurred, noting that the flows set for these rivers do not meet today's scientific standards for flows needed by streams. She added that the cumulative impacts of demand from several new communities seeking water from the MWRA system result in a qualitative change in instream flows in these rivers. Though the proposal involves a small, incremental increase in MWRA demand, impacts still need to be addressed. On behalf of Mark Tisa and DFW, Kearns suggested that the Wilmington application should be deemed incomplete until issues regarding the Swift, Ware, and Nashua Rivers are resolved.

Yeo responded that although he and Tisa have not discussed these issues directly, DCR and MWRA have a good working relationship with fisheries managers in the Swift River basin and are committed to sustaining the cold water fishery. He also noted that, since the Interbasin Transfer Act was passed, 120 mgd more water is flowing down the rivers. He concluded that DCR and MWRA will continue to work with other agencies to analyze the impacts on streamflows and address issues related to habitat.

Zimmerman countered that creation of the reservoirs reduced flows in the rivers by two thirds in the 1930s, and he asked Yeo to do a study that would demonstrate that management of the reservoirs is protecting the rivers and providing what the rivers need. Baskin stated that she will be coordinating with the agencies to address streamflow issues in the donor basins to the MWRA water supply system.

Woods confirmed that the town of Wilmington would meet all conditions and requirements of the interbasin transfer. Woods responded to questions about metering, leak detection, unaccounted-for water, controls on outdoor watering, control of growth through a Smart Growth bylaw, and controls on private wells. He noted that the town is not seeking an increase in its WMA permit and referred to the town's participation in DCR-sponsored and EPA-funded Targeted Watershed demonstration projects.

Baskin noted that further discussion of Wilmington's application would take place at the May WRC meeting, with a vote expected in June.

Agenda Item #5: Presentation and Vote: Completeness of Reading's Interbasin Transfer application

Drury reviewed the background on the project (see staff recommendation) and recommended that the commission accept Reading's application as complete. Zimmerman questioned whether the cost of a new water treatment plant was a legitimate reason for obtaining an interbasin transfer from the MWRA system. Drury responded that economic viability is a justification under the IBT regulations. Baskin added that there are two parts to the definition of viability in the Act, one relating to reasonable cost and the other to preserving reasonable instream flow. Drury clarified that the vote under consideration does not make judgements on the content of the application, but only accepts the application as complete. Kearns rejected the application as incomplete until more analysis is done of downstream flows in the donor basins.

V	A motion was made by Zimmerman with a second by Rich to accept as complete Reading's
O	interbasin transfer application.
T	
E	The vote to approve was nine in favor and one opposed.

Agenda Item #6: Vote on final revisions to the SRF regulations, 310 CMR 44.00

McCurdy referred to previous presentations to the Water Resources Commission on the proposed revisions to the State Revolving Fund regulations (see minutes of February 8, 2007). He reported that public comment on the revisions focused on implementing sustainable development principles. He reviewed the purpose of SRF funding, which is to help communities comply with provisions of the Clean Water Act by eliminating sources of water pollution. He noted that the majority of SRF funding has focused on repair and rehabilitation of existing infrastructure. He reviewed key changes to the regulations (see minutes of February 8, 2007).

In response to a question from Horsley about how the Village Center concept works, McCurdy explained that the SRF program will fund wastewater infrastructure if a community enacts zoning changes that allow for more dense development in established village centers. Kearns asked if more incentives could be added to encourage integrated water resources management planning. McCurdy responded that the type of project would determine the type of plan required. He added that, historically, DEP has tried to have environmental policy and regulation drive land uses and have the funding reinforce the policy, rather than using funding to drive the policy.

V	A motion was made by Zimmerman with a second by Yeo to approve the final revisions to
O	the SRF regulations, 310 CMR 44.00, as presented.
T	
E	The vote to approve was unanimous of those present.

Agenda Item #7: Presentation: draft revisions to DEP's section 401 water quality certification regulations

Langley noted that the proposed draft revisions will include stormwater management standards in the water quality certification regulations. Currently, these standards are included in the 1997 Stormwater Policy. Inclusion of these standards in regulation will make them clearer, more enforceable, and easier to administer and also responds to the desire of the regulated community to have requirements incorporated into regulation, with policy serving as guidance about what is contained in the regulations.

He reviewed the schedule for public hearings and the public comment period and said the regulatory revisions are posted on DEP's web site. He added that the Stormwater Handbook is also being revised and that a separate notice on these revisions will be published. Baskin added that the proposed revisions are the result of more than one year of effort by a diverse task force convened by DEP and represent a significant step in implementing the 2004 Water Policy, particularly the goal of facilitating stormwater infiltration. She added that similar regulation revisions, incorporating the same performance standards, are being drafted for the Wetlands Protection Act.

Langley added that the regulation revisions reflect changes in development strategies and best management practices (BMPs) that have evolved since the Stormwater Policy was written in 1996. He summarized four primary purposes of the revisions: (1) to increase the volume of water to be recharged; (2) to promote use of low-impact development techniques for managing stormwater; (3) to require removal of and prohibit illicit connections; and (4) to improve operation and maintenance of stormwater management practices. He explained the circumstances in which the stormwater BMP regulations would apply – that is, where properties are subject to the Wetlands Protection Act, where a Water Quality Certification is issued under Sec. 401 of the Clean Water Act, and where a construction general permit is issued.

Langley explained that, in addition to the incorporation of stormwater management standards into regulations, DEP is also proposing jurisdictional changes under the Wetlands Protection Act that are intended to promote BMPs by not regulating those BMPs as regulatory wetlands after they have been constructed. Depending on the extent of public comment received, Langley estimated a Fall 2007 vote by the Water Resources Commission on the proposed revisions. Horsley commented on the fact that the proposed regulations will apply only to projects under the jurisdiction of the Wetlands Protection Act and those needing a 401 Water Quality Certification. He commended DEP for putting forward stormwater standards that are now among the best in the country but expressed concern that the standards do not apply to most of our watersheds.

Morris replied that stormwater management standards are covered under an approved body of law, the Clean Water Act and the Wetlands Protection Act, and they are enforced through several

mechanisms. The kinds of projects that are required to meet the stormwater standards include projects under the jurisdiction of the Wetlands Protection Act, projects requiring a Water Quality Certification, and projects requiring construction general permits and MS4 permits. In addition, she said, projects that involve discharge of stormwater with a significant level of pollutants may be regulated through the groundwater discharge regulations and surface water discharge regulations. Therefore, she said it is not the case that the stormwater management standards are irrelevant outside the Wetlands Protection Act.

Horsley replied that a lot of development nevertheless occurs outside the jurisdiction of the Wetlands Protection Act and does not trigger the other permits mentioned by Morris. He suggested that the stormwater standards should apply statewide.

Kearns asked how municipalities will keep up with the cost of maintaining additional BMP infrastructure. Langley replied that the goal of the standards is to reduce the use of, and need for, hard structures, such as detention basins, which are more costly to maintain. Morris added that some communities have implemented stormwater utilities to provide a dedicated funding source. Haas clarified that one goal of the revisions was to remove disincentives to communities for assuming operation and maintenance responsibilities for stormwater management BMPs. He added that the regulations require a continuing condition, in the Order of Conditions attached to the deed, that these BMPs be maintained.

Meeting adjourned

Attachments distributed:

- Current Water Conditions in Massachusetts, April 12, 2007
- Draft for Water Resources Commission Discussion, WRC Staff Recommendation: Interbasin Transfer Application. Avalon Bay Sharon Connection to the MWRA Sewerage System via Norwood. April 12, 2007.
- Draft for Water Resources Commission Discussion, WRC Staff Recommendation: Interbasin Transfer Application. Admission to the MWRA Water Works System, Town of Wilmington. April 12, 2007.
- Handout of Powerpoint presentation: Wilmington IBT. Admission to the MWRA Water Works System.
- Handout from Steve McCurdy on Clean Water SRF regulation revisions.
- Letter to the Water Resources Commission dated April 2, 2007, from Joseph E. Delaney of DEP. Revisions to 310 CMR 44 – Clean Water SRF Regulations.
- Handout summarizing amendment to 314 CMR 9.06(6).