



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

Meeting Minutes for October 16, 2008

Minutes approved November 13, 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
David Terry	Designee, Department of Environmental Protection
Gerard Kennedy	Designee, Department of Agricultural Resources
Margaret Kearns	Designee, Department of Fish and Game
Thomas Cambareri	Public Member
David Rich	Public Member

Others in Attendance:

Michele Drury	DCR	Carl Gustafson	USDA/NRCS
Linda Hutchins	DCR	Jeff Hanson	Hanson Murray & Assoc./Aquaria
Bruce Hansen	DCR	Ed Lawton	Citizen and Farmer
Sara Cohen	DCR	Jennifer Pederson	Massachusetts Water Works Assn.
Erin Graham	DCR	Neil Fennessey	Univ. of Mass., Dartmouth
Marilyn McCrory	DCR	Javier Gaztelu	Aquaria, Taunton River Desalination Plant
Anne Monnelly	DCR	Priscilla Chapman	Massachusetts Audubon Society
Vandana Rao	EEA	Mike Thoreson	City of Brockton DPW
Duane LeVangie	DEP	Alisa Hambly	City of Brockton DPW
David Ferris	DEP	Brian Creedon	City of Brockton DPW
Steve McCurdy	DEP	Larry Rowley	City of Brockton DPW
Nancy Beaton	CDM	Pine DuBois	Jones River Watershed Assn.
		Brian Wick	Cape Cod Cranberry Growers Assn.

Agenda Item #1: Executive Director's Report

Baskin thanked Gerard Kennedy of the Department of Agricultural Resources and the University of Massachusetts Cranberry Experiment Station for hosting the meeting and lunch and for arranging the scheduled tour of a working cranberry bog. Baskin offered members copies of the DCR report with CD on 2008 Index Streamflows for Massachusetts. She also offered members copies of an accompanying USGS report, *Characteristics and Classification of Least Altered Streamflows in Massachusetts* (Scientific Investigation Report 2007-5291), which documents the 61 index gages on which the index streamflows were based. She acknowledged the work of Linda Hutchins on the Index Streamflows report and noted that the report relates impacted rivers to less impacted rivers and projects a typical flow regime that would have been expected in the

more impacted rivers. She added that the science in these reports is expected to be incorporated into policies and regulations going forward.

Baskin reported that she and WRC staff had met with the Massachusetts Water Resources Authority (MWRA) to discuss proposed expansion of the MWRA water supply to other communities. The discussion addressed ways to potentially consolidate applications under the Interbasin Transfer Act to the Water Resources Commission, potential environmental enhancements such as removal of dams and Smart Growth incentives, and other topics.

Hansen provided an update on the hydrologic conditions for September 2008. He reported that September was the fourth wettest September in 115 years, and that the NOAA Water Year, which ended September 30, was the second wettest in 115 years.

Agenda Item #2: Vote on the Minutes of February and March 2008

Baskin invited motions to approve the meeting minutes for February 2008 and March 2008.

V	A motion was made by Contreas with a second by Terry to approve the meeting minutes for
O	February 2008.
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E	The vote to approve was unanimous of those present.

V	A motion was made by Kennedy with a second by Terry to approve the meeting minutes for
O	March 2008.
T	
E	The vote to approve was unanimous of those present.

Agenda Item #3: Update: Water Needs Forecasts for the Charles River Basin

Baskin provided background on this agenda item, explaining that the Water Resources Commission had delegated responsibility to its staff to develop water needs forecasts in accordance with the Water Needs Forecasting Policy and Methodology adopted by the commission in December 2007. She added that the forecasts are being developed in a timeframe that coincides with renewal of Water Management Act permits by MassDEP. She explained that this is the first time that the revised Water Needs Forecasting Policy and Methodology had been put into practice; therefore, the commission had requested a more detailed presentation on the Charles River basin, one of the first basins for which forecasts had been developed using the updated methodology.

Monnelly then provided an update on changes to the Charles basin forecasts since the initial presentation at the September commission meeting. She explained that final projections for public water suppliers in the Charles basin were still in progress. She noted that the draft projections for five public water suppliers, presented at the September WRC meeting, may be adjusted. She outlined some of the issues to be resolved in the forecasts, including resolving differences in data from different sources, and noted that a meeting had been scheduled for the following week with the Metropolitan Area Planning Council to discuss issues related to employment projections. She added that WRC staff hopes to send final projections to the water suppliers during the last week of October.

Cambareri asked for clarification on the employment data issues. Monnelly responded with an example and explained that staff flagged discrepancies and were discussing the best way to handle them with the water suppliers and the regional planning agency (Metropolitan Area Planning Council). McCrory added that in some cases, the discrepancies may be related to different assumptions or ways of counting employment used by the two different data sources. As an example, she explained that the Department of Labor and Workforce Development, in some cases, will count headquarters employees in a community, even if these employees work elsewhere, whereas the regional planning agency may make adjustments after closer examination of the data. Baskin added that staff is seeking expert advice on these issues from the regional planning agency.

Agenda Item #4: Vote on Revisions to Clean Water State Revolving Fund Program Regulations (310 CMR 44 and 310 CMR 41)

McCurdy explained that the State Revolving Fund is a low-interest loan program that funds community-sponsored wastewater and water quality improvement projects. He noted that minor revisions to 310 CMR 44, the regulation governing the Clean Water program, are being proposed, while 310 CMR 41 is being rescinded because it was replaced by Section 44 in 1997. He noted that changes to both regulations were subject to public comment and a public hearing. He said two letters were received on Section 44, both of which commended the state for encouraging sustainable development, but requested a more formalized process for commenting on financing decisions.

He explained that the proposed changes would provide more flexibility to fund sewer work in designated growth districts, such as 40R districts. Addressing the comments about public involvement, he explained that the SRF program already has a 30-day public comment period on funding decisions. He recommended approval of the regulations as revised.

Cambareri requested clarification on the threshold for SRF funding. McCurdy responded that the regulations are intended to provide disincentives for growth in green-space areas. Kearns asked, if a town were proposing an increase in sewer capacity, at what point in the review process would the town would be asked consider where the additional water would come from. McCurdy responded that the town would still have to adhere to its Water Management Act withdrawal registration or permit. He added that every SRF project has a planning component, and this is where the applicant would demonstrate that it has the drinking water capacity that would become the increased wastewater flow.

V	A motion was made by Cambareri with a second by Contreas to approve the revisions to the
O	Clean Water State Revolving Fund program regulations, 310 CMR 44 and 310 CMR 41.
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E	The vote to approve was unanimous of those present.

Agenda Item #5: Discussion: Revisions and Additions to Regulations in 314 CMR sections 2.00, 5.00, 6.00, 12.00, and 20.00

Ferris noted that revisions and additions to the regulations under consideration had been presented in draft form to the Water Resources Commission in April 2008. He said the regulations govern discharge of wastewater to the ground in excess of 10,000 gallons per day and any industrial discharge to the ground. The regulations also incorporate a policy governing reuse

of wastewater and the discharge of wastewater in Zone IIs. He said that public hearings had been held and comments reviewed.

He pointed out that all changes related to stormwater in the draft regulations had been removed because MassDEP is working on regulations that govern stormwater discharges, including discharges to both surface water and the ground. MassDEP hopes to have the stormwater regulations available for public comment later this year. He also pointed out that a major change to the regulations involved dividing the permitting process into two phases, a geohydrological study phase and a permitting phase.

Ferris then reviewed comments received and how they were addressed. He highlighted changes in how public notice will be provided, including a requirement that anyone proposing to reuse wastewater in or discharge wastewater into a Zone II of a water supply must notify the water supplier. Other changes conform the groundwater discharge regulations to the water supply regulations for source water protection. Ferris also highlighted changes to the standard of treatment if a discharge occurs in a Zone II.

There followed discussion of the time-of-travel calculation, who would review this, and how water suppliers would be notified. Terry and Ferris confirmed that state scientists would be involved in the determination of whether an applicant's time-of-travel calculation makes sense. Rich asked if monitoring wells would be required at the edge of a Zone I. Ferris explained the monitoring requirements and effluent limits and added that MassDEP does not have the authority to require an applicant to place monitoring wells off site; thus, monitoring wells placed at the downgradient boundary would pick up the groundwater only from the property being permitted. This would avoid the difficulty of tracing the source of contamination at the edge of a Zone I back to a particular source. Ferris further added that the water supplier would have an opportunity to comment during both the geohydrological study phase and the permitting phase. He explained it would be difficult to differentiate between influences from groundwater leaving a site and other influences, such as septic systems, in the area of the Zone II.

Cambareri expressed a preference for information on the occurrence of various compounds rather than using surrogates, such as total organic carbon, in developing a management plan. He discussed the situation on Cape Cod, which is 85% served by septic systems and obtains all of its water supply from groundwater. He noted that many municipalities are considering converting from septic systems to sewerage in order to protect coastal embayments, and would like to identify groundwater discharge locations. He added that wastewater disposal to the bay would be detrimental. He concluded by saying that many questions and concerns remain and expressed a hesitation about voting on the regulations in their current form.

Ferris acknowledged that more municipalities are considering groundwater discharge of sewage. He added that the regulations give MassDEP the authority to address emerging science, such as concerns about personal care products and pharmaceuticals in drinking water, without having to change the regulations. He discussed guidance documents on geothermal wells that MassDEP is working on. Baskin asked when the guidance would be available. Terry responded that, for purposes of the discussion of groundwater discharge regulations, he suggested keeping the issue of geothermal wells separate. He pointed out that the current regulations allow wastewater discharges in Zone IIs. He asserted that the amended regulations increase the ability to protect source water while capturing water and keeping it in the aquifer.

Cambareri expressed concerns, on behalf of the Groundwater Association, about the guidelines on geothermal wells.

Ferris then explained changes to the financial assurance mechanisms that would be required and said that there were few public comments on those. He also said the revised regulations include provisions for three types of general permits for small wastewater treatment facilities outside of defined sensitive areas and for car washing facilities.

He then reviewed the comments on and resulting changes to the reclaimed water regulations (314 CMR 20), including public notification, and explained minor modifications to the Operations and Maintenance regulations (314 CMR 12), which involve requiring more information on contract operators of treatment facilities.

Ferris noted that there were still some outstanding issues related to the designation of discharges from farms as industrial wastewater requiring a groundwater discharge permit, and that MassDEP had been working with the Department of Agricultural Resources on a Memorandum of Understanding (MOU) to address these issues. Kennedy replied that the groundwater discharge permit program regulations (314 CMR 5), as they apply to farms, are problematic. He said the proposed regulations would severely impact dairy, cheese-making, and vegetable processing operations. He added that a wastewater treatment system developed by the USDA Natural Resource Conservation Service (NRCS) and in use in many other parts of the country does not comply with the revised regulations, leaving farmers in rural areas with only one option for disposal – an industrial tight tank – since they generally do not have access to sewer infrastructure. He stated the regulations were not appropriate for agriculture, and that until an understanding can be worked out with MassDEP, the Department of Agricultural Resources could not support the proposed changes to 314 CMR 5.

Discussion of this issue followed. Ferris expressed the hope that an MOU could be in place by the end of the year and advised against a delay in approving the revised regulations. He pointed out that farmers currently need a permit, though MassDEP has chosen to exercise its enforcement discretion while the department tries to gather the data needed to make a decision on how to move forward. He stated the revised regulations provide the flexibility to develop a general permit, in lieu of individual permits, as well as guidance on compliance. Kennedy proposed tabling the vote on the changes to 314 CMR 5.0 until the MOU is in place. Cambareri and Rich agreed. Rich asked if there was some reason a vote needed to be taken today. Baskin explained that MassDEP needs to have the groundwater discharge regulations in place before it can promulgate stormwater regulations.

Discussion continued on how long it would take for agricultural operations to comply with the regulations. Lawton described how the NRCS wastewater system works and stated that agricultural operations appreciate the public benefit of clean water. He urged the state agencies to expedite the MOU leading to a general permit and to consult with the experts at NRCS on treatment methods. Gustafson expressed support for tabling the vote until the MOU can be agreed upon. He stated that he did not think farm waste is in the same category as industrial waste. He added that NRCS is engaged in studies with Smith College on sampling washwater at dairy farms to develop alternative treatment methods and offered data to MassDEP.

Pederson thanked MassDEP staff for taking the time to meet over the past year with the Massachusetts Water Works Association, but she said her organization still had some concerns about both the groundwater regulations and the new wastewater reuse regulations that had not been addressed. She outlined several concerns and requested that MassDEP consider these in any additional revisions. She pointed out that water suppliers are obligated to notify their customers through consumer confidence reports of the presence of any compound in the drinking water that exceeds the maximum contaminant level for that compound.

DuBois expressed concerns related to surface water quality impacts resulting from the groundwater discharge of treated wastewater effluent. Kearns expressed support for the regulations but expressed concern that there is no mechanism for looking at the impacts on surface waters, pointing out that there are no nutrient criteria in the surface water regulations. She suggested a mechanism such as requiring a hydrogeological study that would evaluate time of travel and degradation of nutrients. Ferris responded that the guidance document allows for a site-specific geohydrological study.

Terry asked the commission members if they would be willing to entertain a vote on these regulations at the November WRC meeting if progress can be demonstrated on the MOU on agricultural wastes and if MassDEP can provide technical studies to the Massachusetts Water Works Association to address their concerns. Rich stated his support provided that all the parties involved, other than commission members, are close to agreement on the MOU.

Baskin stated it would be prudent to delay the vote on the regulations and outlined the issues to be addressed before the vote is taken, including making progress on the MOU on agricultural waste, understanding what data are needed to develop a general permit for farm waste, and providing information to the Massachusetts Water Works Association so they can understand the implications of the permits. She requested a report back to the commission at the November meeting.

V	A motion was made by Rich with a second by Cambareri to table until the November Water
O	Resources Commission meeting the vote on revisions and additions to the regulations in 314
T	CMR sections 2.00, 5.00, 6.00, 12.00, and 20.00.
E	The vote on the motion was unanimous of those present.

Agenda Item #6: Vote on City of Brockton's Plan for Unaccounted-For Water Reduction

Drury explained that in March 2004, the city of Brockton received approval, under the Interbasin Transfer Act, to receive water from the Aquaria desalinization plant. She outlined the three conditions of this approval and the city's progress in meeting these conditions. She noted that one of the conditions requires development of a plan to control unaccounted-for water and approval of this plan by the Water Resources Commission. She described steps the city has taken to reduce UAW.

DuBois requested that the commission require a review of the way in which Brockton is managing its various water resources in order to stop degradation of these resources. She urged regulators to require cities like Brockton to develop a comprehensive water management plan so

that water resources like the Jones River will move beyond impairment. She also asked MassDEP to indicate when the Administrative Consent Order that allows Brockton to withdraw 110% of its safe yield would expire.

Baskin clarified that the vote before the commission was whether to accept the city of Brockton's plan for reduction of unaccounted-for water. She acknowledged the concerns expressed by DuBois, but explained that the commission could not reopen the decision on the Interbasin Transfer Act approval to require additional conditions. However, she suggested the commission could request, at a future meeting, an update on some of these issues.

Chapman stated that the Massachusetts Audubon Society supports Brockton's application to obtain water from the Aquaria desalinization plant, provided that use of this water alleviates the low-flow conditions and degradation of water resources. She supported Baskin's suggestion for continued review of issues related to Brockton's water supply. LeVangie responded that MassDEP is reviewing Brockton's comprehensive water management plan. Baskin suggested that the commission could request a briefing once this plan has been accepted.

V O T E	A motion was made by Yeo with a second by Terry to approve the city of Brockton's plan to reduce unaccounted-for water and find that Brockton has met all preconditions for use of Aquaria water and should be allowed to proceed with the water purchase. The vote to approve was eight in favor and none opposed.
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A representative of the project invited the commission to tour the Aquaria desalinization plant at its convenience.

Agenda Item #7: Presentation: Water Management and Cranberries

Wick provided a presentation on water use and management by cranberry growers. He described the types of cranberry bogs and explained why water is critical to cranberry growing operations. He described the challenges that growers face, including protecting the plants from frost, heat stress, and pests. He reviewed the volumes of water typically used by cranberry growers and then described several grant-funded studies of ways to increase efficiency of water use by bogs.

Formal meeting adjourned. Members proceeded to a tour of the Slocum-Gibbs Cranberry Company operations in West Wareham.

Attachments distributed:

- Current Water Conditions in Massachusetts, October 16, 2008
- Additional comment letters on revisions and additions to regulations in 314 CMR:
 - Letter to MassDEP dated June 5, 2008, from Carl Gustafson, Natural Resources Conservation Service, on Proposed Revisions to Ground Water Discharge Permitting Program Regulations (314 CMR 5.00)
 - Letter to MassDEP dated June 11, 2008, from Jennifer Pederson, Massachusetts Water Works Association, on Comments on 314 CMR 5.0 and 314 CMR 20.00