



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

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**Meeting Minutes for March 13, 2014**

100 Cambridge Street, Boston, MA, 1:00 p.m.

*Minutes approved May 8, 2014*

**Members in Attendance:**

Kathleen Baskin	Designee, Executive Office of Energy and Environmental Affairs (EEA)
Marilyn Contreas	Designee, Department of Housing and Community Development (DHCD)
Jonathan Yeo	Designee, Department of Conservation and Recreation (DCR)
Bethany Card	Designee, Department of Environmental Protection (MassDEP)
Catherine deRonde	Designee, Department of Agricultural Resources (DAR)
Laila Parker	Designee, Department of Fish and Game (DFG)
Thomas Cambareri	Public Member
Raymond Jack	Public Member
John Lebeaux	Public Member
Paul Matthews	Public Member
Bob Zimmerman	Public Member

**Members Absent**

Todd Callaghan	Designee, Massachusetts Office of Coastal Zone Management (CZM)
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**Others in Attendance:**

Jen Pederson	Massachusetts Water Works Association
Bruce Hansen	DCR
Michele Drury	DCR
Anne Carroll	DCR
Erin Graham	DCR
Fabiola de Carvalho	Town of Framingham
Andreae Downs	Wastewater Advisory Committee
Duane LeVangie	MassDEP
Linda Hutchins	DCR
Vandana Rao	EEA
Sara Cohen	DCR
David Ferris	MassDEP
Pam Heidell	Massachusetts Water Resources Authority
Jeff Barbaro	U.S. Geological Survey
Peter Weiskel	U.S. Geological Survey
Ann Lowery	MassDEP
Myles Killar	Haley & Ward
Becky Weidman	MassDEP
Greg Eldridge	Haley & Ward
Lexi Dewey	Water Supply Citizens Advisory Committee

Peter Dillon	Tetra Tech
Elizabeth Hanson	EEA
Julia Blatt	Massachusetts Rivers Alliance
Wayne Castonguay	Ipswich River Watershed Association
Margaret Van Deusen	Charles River Watershed Association
Blake Lukis	Aquarion Water Company
Andy Miller	CDM Smith
Marilyn McCrory	DCR

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Baskin called the meeting to order at 1:05 p.m.

**Agenda Item #1: Executive Director's Report**

Baskin announced that March 2014 represents the thirtieth anniversary of the adoption of the Interbasin Transfer Act. Baskin requested that agenda items be reordered to accommodate speakers' schedules. A motion was made by Zimmerman and seconded by Card to reorder the agenda. All voted in favor.

Baskin announced that the verbal report on hydrologic conditions would not be presented due to time constraints. She announced that the Department of Agricultural Resources has published draft nutrient management regulations for public comment and that three public hearings have been scheduled in April (*Ed. note:* see minutes of the December 2013 WRC meeting).

Baskin invited Card to provide an update on revised wastewater regulations. Card announced that review of draft regulations on sewer extension and connection and wastewater operation and maintenance (O&M) programs has been complete, and that MassDEP will request a vote by the commission on these regulations at the April meeting. She distributed a summary of the regulations and a markup highlighting the changes. She highlighted major changes made in response to public comment. MassDEP will retain authority over certain categories of sewer connections and extensions, and changes made to the O&M regulations will shift investment and resources to focus on operation and maintenance. Ferris added that these regulations had received the most significant public comment of the various MassDEP regulatory reform packages. Lowery noted that the draft regulations will be posted on MassDEP's website (at <http://www.mass.gov/eea/agencies/massdep/water/regulations/sewers-and-o-and-m-reg-reform-documents.html>).

**Agenda Item #2: Update: Interbasin Transfer Act Regulations (313 CMR 4.00)**

Baskin noted that the Interbasin Transfer Act regulations were first promulgated in the mid-1980s and have never been updated. She noted that there were a number of items that the environmental agencies have wanted to address over the years. She thanked agency staff for working very hard to meet an aggressive schedule for updating the regulations. She noted that today's discussion would address broad topics that have been identified as areas of focus, with some detail on the topic of insignificance.

Drury thanked members of the interagency work group, which has brought a fresh perspective to the discussion. She explained why changes to the regulations are needed, including having the benefit of thirty years of experience in applying the regulations, the availability of new

science, and the desire to streamline procedures, where possible, and incorporate, where appropriate, what has been learned over the years through policy and guidance rulings.

Drury described efforts to streamline the review of applications for extremely small transfers of water or wastewater, noting that such applications require considerable review time. She also noted that the regulations are tailored to direct streamflow withdrawals, whereas most requests have been related to groundwater, wastewater, or reservoir withdrawals. For reviews under the Insignificance section of the regulations, the aim is to tailor the information required and the review criteria so they are better suited to the different types of transfers typically encountered. She provided an overview of proposed thresholds for review under insignificance and the associated criteria for evaluating different types of transfers. She noted that surface water transfers from reservoirs, lakes, and impoundments present unique challenges and need unique criteria.

Baskin explained that the thresholds are proposed for purposes of discussion and represent a cutoff whereby no further review would be required, unless the commission has a specific interest. Drury provided examples of past projects that would be addressed by the new pathways being proposed, emphasizing that the intent is to develop criteria appropriate to the scale of the transfer and its impact.

Drury explained that the Interbasin Transfer Act does not have a provision for a de minimis level, under which the Act would not apply: any increase over the present rate of transfer requires WRC approval. However, legal counsel has advised that the commission has the authority to establish a separate review process and criteria for determining when very small transfers are considered insignificant. She outlined thresholds and screening criteria for very small transfers being considered by the work group. She emphasized that, under any review for insignificance, the commission always has the option to determine that a project needs a higher level of review.

Zimmerman expressed concern about cumulative impacts of many small transfers. Drury replied that the current regulations require the commission to consider cumulative impacts, and WRC staff keep track of all transfers. If staff conclude that a basin cannot support an additional transfer of water, the applicant for a determination of insignificance would be directed to obtain a higher level of review. Zimmerman asked if the commission could reopen previously approved transfers to require additional offsets or other actions to address cumulative impacts. Drury responded that legal counsel should be consulted on that question. Rao added that the cumulative impact of transfer should be considered for all new applications, not just for applications involving very small transfers.

Drury outlined thresholds for the next level of very small transfers that are greater than 10,000 gallons per day but less than an amount to be determined. She outlined proposed environmental screening criteria that would allow wastewater transfers and groundwater transfers to be considered insignificant. She requested guidance from the commission on both the threshold and the screening criteria.

Van Deusen expressed concern that, if a transfer were allowed as insignificant at one point in time, the unanticipated needs of a community in a donor basin might affect the donor basin in

the future. Drury responded that MassDEP, through Water Management Act reviews, would consider environmental impacts of all withdrawals in that case and require mitigation, where appropriate. Van Deusen countered that mitigation requirements are not triggered that often and clarified her concern that, in the scenario proposed, any transfer that meets the screening criteria for insignificance would not be required to perform offsets.

Matthews arrives.

Baskin responded that, in Van Deusen's scenario, the donor community requesting additional water in the future may cross a threshold that would require mitigation. Using a past wastewater transfer project as an example, Drury explained how the requested transfer would have met the proposed screening criteria for insignificance.

For transfers less than 1 mgd, which would fall under the existing rules governing insignificance, Drury outlined proposed new environmental screening criteria for transfers from different types of sources, including surface water, groundwater, and direct river withdrawals. She explained the rationale for each, and added that staff tested various metrics on past projects.

Drury outlined other changes being considered: developing a streamlined option for large regional suppliers (donor basin) that propose to sell water to more than one purchaser (receiving basins); separating the procedures for determinations of applicability and determinations of insignificance; eliminating the requirement for a local Water Resources Management Plan; and revisiting basin numbering, particularly where subbasins are not contiguous. She explained that the planning requirement was relevant in the 1980s, when many communities were not planning for water supply, but has since become redundant with what communities are already doing.

Drury outlined the timing for changing the regulations, starting with a formal review of the proposed changes in April, along with a vote by the commission; review by the Governor's office in April and May; public comment on the draft regulations in the May-to-July timeframe; a commission vote on the final regulations in the fall; and promulgation. Baskin commented that the schedule is compressed, but offered to schedule additional commission meetings, if necessary, to discuss the proposed changes.

Discussion ensued on the metrics for determining insignificance, with Zimmerman reiterating his concern about cumulative impacts of transfers that meet the criteria for insignificance. Hutchins explained that each transfer would be reviewed against a flow metric that would be fixed in time, not one that would change with each subsequent transfer request. Drury added that there had been some discussion of stating that each transfer will be evaluated cumulatively against the metric. She added that staff will keep track of all transfers and evaluate each against all previous transfers.

Zimmerman stated that the default position has been to allow transfers, and, given this, the regulations should allow the commonwealth to revisit previously approved transfers and require those entities to perform offsets, should cumulative impacts exceed the capacity of the basin. Drury responded that the commission can always request a higher level of review of a project that seeks a small transfer. Baskin added that the commission does not have a lot of

jurisdiction to change a past approval, but reserves the right to reopen discussion for other reasons; as an example, she cited the Foxborough case and the unexpected results of monitoring that warranted a change in approved conditions.

Citing the town of Reading as an example, Zimmerman commented that the Interbasin Transfer Act regulations should allow the commission the opportunity to consider the mix of sources a community is using, whether local or from another basin. Yeo responded that the Water Management Act (WMA) is the appropriate vehicle for addressing this concern. Baskin added that WMA regulations will require permit holders seeking more water to evaluate alternatives.

Zimmerman also expressed concern about eliminating the requirement for a local Water Resources Management Plan. Carroll explained the rationale for eliminating this requirement: most communities already have such plans and requiring a separate plan does not add value.

Pederson stated support for streamlining procedures but expressed concerns about having enough time to deliberate on the proposed changes, noting that changes to two significant regulations are proceeding simultaneously. She also expressed concern about the application of scientific studies from the Sustainable Water Management Initiative (SWMI) to determinations under the Interbasin Transfer Act. There was some discussion of questions related to WMA permitting requirements, with Baskin noting that these were all good questions.

Baskin clarified the basic concepts being discussed in relation to the revision of the ITA regulations: At less than 10,000 gpd, almost no review would be required, unless requested by the commission. Between 10,000 gpd and "XX,XXX" (another small transfer), some review would take place, with additional criteria to evaluate environmental impacts to the donor basin. She noted that these criteria have not been finalized and invited ideas. The next level of review would be similar to current procedures, with a proposed change to one of the criteria. She added that the proposed revisions are a loosening of the requirements for review of transfers classified as insignificant.

Carroll suggested scheduling a special meeting to focus on some of these technical questions. Pederson requested that this session also address how SWMI requirements fit into the ITA regulation revisions. Jack expressed support for the direction in which the proposals are headed. In response to questions from Cambareri, Drury and Baskin explained that the volumes of water being discussed are very small, and clarified that impacts are evaluated at the subbasin level.

Blatt requested clarification on the current requirements for a determination of insignificance. Drury explained that applicants who cannot meet the strict threshold for insignificance can sometimes reduce the amount of transfer below that threshold by voluntarily performing offsets. Drury added that offsets will remain a part of the Interbasin Transfer toolkit, though, at the lowest level of review proposed, such applicants might avoid the need to perform offsets, unless the commission requests a higher level of review.

Heidell noted the threshold of 1 mgd for full review and asked if 1 mgd could be annualized. Drury responded that the full capacity of a transfer of water or wastewater is what is approved, so that amounts are not annualized.

Baskin summarized the intent of the regulation revisions, including addressing issues that have arisen over the years and looking at opportunities to streamline procedures.

**Agenda Item #3: Presentation: Revisions to the Water Management Act Regulations (310 CMR 36.00), incorporating the Sustainable Water Management Initiative**

Baskin introduced Duane LeVangie of MassDEP and Anne Carroll of DCR to discuss proposed revisions to the Water Management Act regulations as a result of the science and policy deliberations of the Sustainable Water Management Initiative, including the SWMI framework and public comment. Baskin noted that draft WMA regulations are in review at the governor's office and will be distributed to the commission and posted on MassDEP's web site; public hearings will also be scheduled. She noted that the intent of today's briefing is to allow commission members to be informed about the proposed changes in advance of receiving the redline/strikeout document for review. She added that the commission will vote on the revised regulations once they have gone through the internal review process and public comment.

LeVangie provided background on SWMI and milestones, including U.S. Geological Survey studies and reports; the four-year public process and convening of advisory groups; publication of the SWMI framework; pilot studies; grants to help public water suppliers prepare for minimization and mitigation requirements; and drafting of regulations and guidance. He outlined key SWMI components, including safe yield, streamflow criteria, and permitting considerations.

LeVangie discussed the scientific and technical reports and their conclusions, which informed policy developed through the SWMI process. He noted the key conclusion of these studies, which was that impervious cover and August withdrawals have a significant impact on fluvial fish. He added that these studies helped the advisory and technical committees in defining the boundaries for the five biological and groundwater withdrawal categories, which indicate levels of impact. He discussed maps showing the biological and groundwater withdrawal categories identified for the approximately 1,400 subbasins identified by these studies.

LeVangie outlined lessons learned from the pilot projects completed in cooperation with four public water suppliers, which "road-tested" the policies in the SWMI framework. The pilots indicated that more guidance is needed on minimization and mitigation requirements. He described how safe yield was calculated for purposes of allocating water under the Water Management Act. Safe yield, calculated at the major basin scale, is defined as fifty-five percent of the volume available in the basin during a simulated drought (the drought basin yield) plus the amount in reservoirs with significant volumes of storage. Other considerations in permitting are streamflow criteria, which are applied at the subbasin scale and factor in seasonal flows.

He summarized existing and proposed new conditions to be included in WMA permits. He described the "standard" conditions for most groundwater and surface water withdrawal permits, including requirements for residential per capita daily use and unaccounted-for water, best management practices related to water loss control, pricing, education, and seasonal limits on nonessential outdoor water uses. He noted that, for many permittees, these standard conditions will appear in permits for the first time with the next round of permit renewals.

He highlighted new permit conditions resulting from the SWMI process, including a required consultation where a new or existing withdrawal occurs in a subbasin with cold water fishery resources (CFR); requirements to minimize the impacts of groundwater withdrawals in areas with significant August net groundwater depletion<sup>1</sup>; and mitigation requirements. Also new are changes to the low-flow trigger for restrictions on outdoor water use and an alternative approach for Cape Cod and the Islands; this approach includes groundwater triggers more appropriate for those areas.

Carroll provided more details on these three new requirements. She noted that the intent of the CFR consultation is educational and to identify ways to reduce impacts on CFRs, mainly through optimization. Carroll provided examples of optimization and showed a simple screening tool that can be used to optimize the operation of water supply sources to minimize impacts of withdrawals. For the second requirement, minimization, she described three components: additional reasonable conservation, optimization, and water releases and returns. For additional conservation, she noted that the guidance outlines eighteen measures that go beyond the standard conservation conditions included in permits; for outdoor water use restrictions, conservation requirements are linked to the performance standard for residential water use of 65 gallons per capita per day.

For the third requirement, mitigation commensurate with impact, Carroll described how impact would be measured and how the results would be applied in permitting. She described two factors used to quantify impact: (1) the proposed withdrawal volume exceeds the amount established as the baseline, or (2) the increase triggers a change in either biological or groundwater withdrawal category. These factors are used to determine three tiers for permitting, with Tier 1 being no increase above baseline; Tier 2 representing an increase above baseline, but no change in biological or groundwater withdrawal category; and Tier 3 being an increase above baseline and a change in either category.

Van Deusen requested clarification on the way baseline is calculated. LeVangie explained that the baseline cannot exceed the amount that the water supplier was authorized to withdraw by registration and/or permit during the period 2003 to 2005. Card clarified that the regulations apply to permitted, but not registered, withdrawals.

Carroll provided additional details on mitigation requirements. She noted that as the permitting tiers increase, so do mitigation requirements. She distinguished between direct and indirect mitigation. Direct mitigation activities involve quantifiable credits, while indirect mitigation activities involve a qualitative credit system. Carroll provided examples of each. Blatt asked if recharge from decentralized wastewater treatment is eligible as direct mitigation. LeVangie described cases where this might be quantifiable. Zimmerman asked if wastewater discharges and returns would be calculated by subwatershed. LeVangie responded that, in the hierarchy of mitigation activities, the preferred option is to recharge in the same subbasins as withdrawals.

LeVangie outlined requirements for a mitigation plan and the hierarchy by which mitigation actions and withdrawal locations should be selected. He noted that the first priority is demand

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<sup>1</sup> *Ed. note:* "August net groundwater depletion" is defined as the estimated streamflow level in an unimpacted subbasin, minus groundwater withdrawals, plus returns to groundwater via septic systems and/or groundwater discharges, for the month of August.

management activities that maintain withdrawals below baseline or that delay or reduce volumes above baseline. He noted that the plan may indicate that mitigation actions would not be required until the later years of the twenty-year permit period. He described guidance on assessing the cost feasibility of mitigation activities. Card emphasized that mitigation requirements are triggered only when a withdrawal volume, during the twenty-year permit period, exceeds baseline.

LeVangie described grants available to assist with SWMI minimization and mitigation requirements, and he described recent grant-funded projects. The grants are available to public water suppliers who have WMA permits. He also described a permitting tool and interactive map that has been developed to assist permit holders in making decisions about withdrawal requests.

LeVangie outlined the permit renewal process and timeline, starting with basin planning and development of draft water needs forecasts twenty months before permit expiration. He outlined the next steps and schedule for revising the Water Management Act regulations, including public hearings and comment, with promulgation expected in summer 2014. He outlined the schedule for permit renewal by river basin, with the South Coastal Basin being the first with permitting subject to the revised regulations. He noted six basins where permit applications are pending, adding that one-year interim permits are likely to be issued for these while the regulations are being finalized. He also noted the schedule for five-year permit reviews for basins previously permitted (the Hudson, Blackstone, Charles, and North Coastal).

Van Deusen asked how MassDEP would avoid constructive approval in the six basins where permit applications are on file. LeVangie replied that legal counsel is considering that question, and explained that constructive approval means that a permit is automatically approved, as applied, should the agency fail to act within a certain timeframe. Card added that it would be confusing to both the regulated community and agency staff to issue permits before final regulations have been promulgated.

There were several questions seeking clarification of permit renewal dates and outreach meeting dates by basin. Pederson expressed interest in seeing draft regulations on CFRs, which are being drafted by the Department of Fish and Game, at the same time that the WMA regulations become available for review. Baskin explained that these regulations will describe a methodology for defining CFRs. She added that EEA is reviewing these and expects to send them to the governor's office for review.

Pederson expressed concern that stakeholders will have a considerable amount of new information to understand and comment on in a very short time period. Card offered to provide additional briefings to groups that request them, and said written comments will also be accepted after public hearings.

Van Deusen asked how much the agencies will embrace "minimization to the maximum extent feasible," adding that minimization has the potential to improve conditions in category 4 and 5 subbasins. Card confirmed that minimization is important, and for the permittees to whom minimization applies, staff will apply the standard "to the maximum extent feasible." Van Deusen asked how MassDEP will make determinations on minimization, since there is no



numerical definition. LeVangie responded that decisions will be made on a case-by-case basis depending on cost and feasibility. Card added that these determinations will be part of the consultation process, and the guidance will be very specific about options to be considered.

Cambareri noted some stormwater management measures that provide an opportunity to address impairments resulting from impervious cover. LeVangie acknowledged that communities who have to implement measures for another program will receive credit if they also serve to minimize or mitigate the impacts of withdrawals. Eldridge asked if a permittee can bank minimization. LeVangie explained that permittees can receive credit for minimization activities performed since 2005.

Pederson asked what the plan is to measure environmental improvements resulting from program activities over time. She urged that quantitative measures of improvement in fisheries or streamflow be built into the program. Baskin outlined ways that progress could be measured qualitatively and quantitatively, such as tracking whether the resources needed for consultations and five-year reviews are available; tracking whether basins improve or decline in category; analyzing results from the ongoing fish monitoring program; or updating models. She acknowledged that the first few years would be a learning period, with many opportunities for feedback.

Blatt requested that agencies reconsider the idea of giving retroactive credit for minimization activities, adding that this does not make sense for the types of activities being considered.

**Agenda Item #4: Vote: Revised Foxborough Monitoring Plan**

Drury noted the staff recommendation on Foxborough's amended monitoring plan for the Witch Pond wells. She provided background on the project, explaining that monitoring of environmental conditions was required as a condition of the original 2001 approval of an interbasin transfer (*Ed. note: see minutes of WRC meetings in March, April, May, June, and July 2013*). The approval required that operational changes be made should monitoring show unexpected results compared to results anticipated in a model submitted with the original application. The WRC established new thresholds in the deep peat adjacent to Witch Pond; when these thresholds are reached, the wells must be shut off. Foxborough was required to adjust its monitoring plan to reflect the new thresholds. Baskin added that Foxborough has modified its monitoring plan to accommodate the new conditions of the WRC approval and also added more robust biological monitoring.

Cambareri stated concurrence with the staff recommendation and, noting previous extensive discussions of the project, made a motion to approve the amended monitoring plan.

V O T E	<p>A motion was made by Cambareri with a second by Zimmerman to approve Foxborough's March 2014 Monitoring Plan for the Witch Pond Wells, with conditions as outlined in the staff recommendation dated March 13, 2014.</p> <p>The vote to approve was unanimous of those present (with the exception of Matthews, who had previously departed the meeting; Carroll voted on behalf of DCR, as Yeo had previously departed the meeting).</p>
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**Agenda Item #5: The Interbasin Transfer Act at 30**

Drury noted that March marks the thirtieth anniversary of the Interbasin Transfer Act, which went into effect on March 8, 1984. She highlighted major decisions, noting that twenty-one interbasin transfers have been approved; three have been denied (with two of those being applications from the same proponent for the same source); thirteen transfers have been found to be insignificant; and offsets have been approved in five cases.

**Agenda Item #6: Vote on the Minutes of December 2013 and January 2014**

Card made a motion to table a vote on meeting minutes until the next meeting.

Meeting adjourned, 3:35 p.m.

**Documents or Exhibits Used at Meeting:**

1. WRC Meeting Minutes:
  - a. December 12, 2013
  - b. January 9, 2014
2. Interbasin Transfer Act discussion document dated March 13, 2014: Draft Special Procedure for Determining Insignificance for Very Small Transfers
  - a. Water Resources Commission. Offsets Policy Regarding Proposed Interbasin Transfers, effective October 11, 2007
3. Interbasin Transfer Act discussion document dated March 13, 2014: Interbasin Transfer Act Regulations (313 CMR 4.00) Proposed Areas for Revision
4. Interbasin Transfer Act project status report, February 28, 2014
5. Current Water Conditions in Massachusetts, March 13, 2014
6. Revisions to MassDEP regulations:
  - a. 314 CMR 12.00: Operation, Maintenance, and Pretreatment Standards for Wastewater Treatment Works and Indirect Discharges: redline/strikeout version
  - b. 314 CMR 7.00: Sewer System Extension and Connection Permit Program: redline/strikeout version
7. Presentation by Michele Drury. Interbasin transfer Act Proposed Revisions to Regulations
8. Presentation by Duane LeVangie and Anne Carroll. Water Management Act and the Sustainable Water Management Initiative Regulation Revisions
9. Staff Recommendation to Water Resources Commission dated March 13, 2014, Concerning the Monitoring Plans as part of Foxborough's Compliance with the Conditions of the WRC's July 11, 2013, Amended Approval of the Witch Pond Wells Interbasin Transfer

Agendas, minutes, and meeting documents are available of the web site of the Water Resources Commission at <http://www.mass.gov/eea/air-water-climate-change/preserving-water-resources/partners-and-agencies/water-resources-commission/ma-water-resources-commission-meetings.html>.