



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

Meeting Minutes for December 12, 2013

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

Minutes approved April 10, 2014

Members in Attendance:

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| Kathleen Baskin | Designee, Executive Office of Energy and Environmental Affairs (EEA) |
| Marilyn Contreas | Designee, Department of Housing and Community Development (DHCD) |
| Anne Carroll | 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) |
| Todd Callaghan | Designee, Massachusetts Office of Coastal Zone Management (CZM) |
| Thomas Cambareri | Public Member |
| Raymond Jack | Public Member |
| John Lebeaux | Public Member |
| Paul Matthews | Public Member |
| Bob Zimmerman | Public Member |

Members Absent

Others in Attendance:

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| Michele Drury | DCR |
| Lee Corte-Real | DAR |
| Richard Bradley | Irrigation Assn. of New England |
| Peter Weiskel | U.S. Geological Service |
| Linda Hutchins | DCR |
| Sara Cohen | DCR |
| Vandana Rao | EEA |
| Tom Philbin | Massachusetts Municipal Assn. |
| Erin Graham | DCR |
| Jennifer Pederson | Massachusetts Water Works Assn |
| Julia Blatt | Massachusetts Rivers Alliance |
| Andreae Downs | Wastewater Advisory Committee |
| Lexi Dewey | Water Supply Citizens Advisory Committee |
| Ann Lowery | MassDEP |
| David Ferris | MassDEP |
| Marilyn McCrory | DCR |

Baskin called the meeting to order at 1:07 p.m.

Agenda Item #1: Executive Director's Report

Baskin provided an update on the revision of the Interbasin Transfer Act regulations. She noted that the regulations were promulgated in 1986, and this would be the first revision. She outlined

four potential topics being considered by an inter-agency working group. These include separating the procedures for requesting a Determination of Applicability from those for requesting a Determination of Insignificance; incorporating a process, similar to that used for the Aquaria desalination project (August 2003), for a consolidated donor basin application, where the receiving basins are unknown; clarifying the requirements for a Determination of Insignificance, where the withdrawals are from a source other than a river; and considering whether to establish a de minimus threshold, below which review under the act would not be required.

Zimmerman requested clarification on the one-million-gallon threshold. Drury explained that any transfer of one million gallons or greater is always significant; the distinction between significance and insignificance only defines the process for approval. She added that currently, there is no de minimis: any amount of transfer between basins is jurisdictional under the act, and even small amounts of transfer can impact the donor basin. She explained that staff will be evaluating whether establishing a de minimis value is appropriate in cases where the transfer involves very small volumes of water, and if so, staff would have to develop criteria for evaluating such cases. Jack requested an example. Drury cited the Research Road project in Hingham, which involved the development and review of offset credits resulting in no net increase in interbasin transfer (*Ed. note: see meeting minutes of June 2011 and August 2012; all interbasin transfer decisions are available at <http://www.mass.gov/eea/agencies/dcr/water-res-protection/interbasin-transfer-act/objectives-and-accomplishments.html>*).

Zimmerman asked about the impetus for revising the regulations. Baskin acknowledged that a legislative provision related to the Interbasin Transfer Act had been proposed and removed in the current session. She added that after twenty-six years, this is a good opportunity to address some housekeeping issues and to consider policies, such as a de minimis value. She noted, as an example, that the regulations do not address wastewater transfers, while the majority of applications have involved wastewater transfers.

Baskin noted other topics being considered, such as having the Interbasin Transfer Act regulations complement the effort currently underway to incorporate the scientific studies developed for the Sustainable Water Management Initiative into the Water Management Act regulations. She also noted that currently there is no recourse in cases where an entity does not meet the conditions attached to an interbasin transfer approval; EEA is seeking legal opinion on post-approval enforcement of conditions of ITA approvals.

Baskin emphasized that staff plan to meet weekly on the ITA regulations revision and, as a standard agenda item, will brief the commission on progress while this effort is ongoing.

Hutchins provided an update on the hydrologic conditions for November 2013. She noted that the state received more precipitation in November than had fallen in the past two months. Statewide average precipitation for November was eighty-eight percent of normal, with some variation among the regions. She noted that one large storm around Thanksgiving allowed streamflows to recover, though streamflows remain below normal in the eastern region. She added that some monitoring stations hit daily record lows for the month. Fire danger has also decreased, with snow on the ground. Groundwater levels remain lower in the eastern half of the state and mostly normal in the western region. Some groundwater monitoring wells were also hitting daily record lows for the month. She explained that groundwater levels that decline in summer are continuing to decline through the fall, rather than recover. Reservoirs levels were near normal, with small reservoirs reporting below-normal levels for this time of year.

Hutchins noted that the northeast and southeast regions of the state are starting to trigger drought advisory levels, and there is reason for concern if this trend continues. The Drought Monitor shows moderate drought conditions in the eastern half of the state, while the Standardized Precipitation Index has normal values for all regions. The three-month Drought Outlook indicates persistent drought through February. Baskin noted that the Drought Management Task Force had scheduled but then cancelled a meeting after just enough rainfall occurred in November. She added that three of seven parameters remain low, and staff will continue to monitor the need to convene the task force in the next few months.

Agenda Item #2: Vote on Revisions to MassDEP Regulations: Title 5 (310 CMR 15.000) and Permit Procedures (314 CMR 2.00)

Baskin introduced Ann Lowery and David Ferris of MassDEP.

Lowery introduced the two revised regulations to be considered for a vote at today's meeting: Title 5 (310 CMR 15.000) and Permit Procedures (314 CMR 2.00), which covers permits issued by MassDEP under the Clean Waters Act, including groundwater, surface water, sewer, and reuse permits.

Lowery briefly summarized the changes to these regulations. Changes to the Permit Procedures regulations are intended to align MassDEP's public notice procedures with the procedures used by the U.S. Environmental Protection Agency for issuing National Pollutant Discharge Elimination System (NPDES) permits. The change will eliminate costly legal notices in newspapers for minor permittees. The changes to Title 5 will eliminate duplicative approvals by MassDEP and will also allow MassDEP to contract with third parties to review innovative and alternative on-site wastewater treatment technologies. Lowery reviewed the timeline for public comment and revision of the rules over the past year.

Ferris provided additional detail on the changes made to the regulations, particularly those made in response to public comment. He added that very little public comment was received on either of these regulations. In addition to the changes highlighted by Lowery, he noted that in the Title 5 regulations, design flows from small senior housing units were modified, some definitions were clarified, and a provision was added that allows holding tanks for seasonal use in new construction for municipal properties only. In relation to the permitting procedures regulations, he explained that the changes also eliminate notices in newspapers for MassDEP-issued permits, which will instead be published in the *MEPA Monitor* and listed on MassDEP's web page. In addition, NPDES permits that are open for public comment will be listed on MassDEP's web page, along with a link to EPA's web page for those permits. In response to comments, the permit procedures rules were modified to clarify that a fact sheet or statement of basis is not required for sewer connection permits.

Baskin invited motions to approve the final Title 5 and Permit Procedures regulations.

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| V | A motion was made by Carroll with a second by Card to approve revisions to Title 5 of the |
| O | State Environmental Code at 310 CMR 15.000. |
| T | |
| E | The vote to approve was unanimous of those present. |

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| V | A motion was made by Carroll with a second by Parker to approve revisions to Permit |
| O | Procedures regulations at 314 CMR 2.00. |
| T | The vote to approve was unanimous of those present. |
| E | |

Ferris noted that a commission vote to approve proposed changes to sewer connection regulations (314 CMR 7.00) and operation and maintenance regulations (314 CMR 12.00) will be requested in early 2014. He added that a significant amount of public comment was received on both of these regulations.

Agenda Item #3: Presentation: Department of Agricultural Resources Nutrient Regulations

Baskin introduced Lee Corte-Real of the Massachusetts Department of Agricultural Resources (MDAR) to discuss new nutrient management regulations.

Corte-Real explained that the proposed regulations cover nutrient management for plants in both agricultural and nonagricultural applications, including turf. He thanked MassDEP for its assistance in drafting the regulations, and he distributed a summary of the proposed regulations (see Information Sheet in the Exhibits below).

He explained that the proposed regulations require best management practices based on recommendations provided by the University of Massachusetts Extension Service (UMass). He added that the regulations cover any land application of plant nutrients – including phosphorus, agricultural byproducts, and nontraditional fertilizers – and they apply to homeowners as well as large land owners.

Corte-Real described the requirements, restrictions, and exemptions in more detail. Phosphorus-containing fertilizer cannot be applied to lawns or turf unless there is a demonstrated need, determined by a soil test, and amounts applied cannot exceed the amounts recommended by UMass. There are exemptions for establishing new turf. He described timing and other restrictions, such as no application to frozen or saturated soils, impervious surfaces, or buffer zones around water resources. He described requirements for retailers. The regulations prohibit the sale of phosphorus-containing fertilizers, and require that starter fertilizers be kept in a separate location. He also described record-keeping requirements for lawn-care professionals.

The proposed regulations include similar requirements for and restrictions on the application and management of other plant nutrient materials, including animal and agricultural byproducts, such as manure and milkhouse wastes. In addition, any agricultural operation greater than ten acres must develop a nutrient management plan, which must be revised every three years, and must test soils to confirm that nutrients are being applied in the appropriate quantity. There are some exemptions for small livestock operations. Corte-Real also outlined record-keeping requirements, enforcement authority, and penalties for agricultural operations.

Callaghan asked who is required to keep records on application of nutrients and how others may view these records. Corte-Real responded that those covered by the regulations are responsible for record-keeping, while MDAR is responsible for enforcement. He acknowledged that MDAR lacks the resources for active monitoring, but noted that MDAR would respond to reports on the misuse of fertilizers.

Downs asked how the regulations would affect the market for organic pellets, a byproduct of wastewater treatment. Corte-Real responded that the regulations would apply, but the phosphorus content of this product is generally below the threshold of 0.67 percent. Card and Ferris clarified that the regulations, in effect, exempt such products, though management procedures still apply.

Blatt asked how MDAR plans to inform the public about the new requirements. Corte-Real responded that MDAR plans to work through professional organizations and requested ideas on outreach. Card added that municipalities will be able to obtain additional credit towards their requirements for Municipal Separate Storm Sewer System (MS4) permits and Total Maximum Daily Load (TMDL) limits. Targeted outreach will be done through the Massachusetts Municipal Association.

In response to several questions from Bradley, Corte-Real confirmed that the regulations will apply to golf courses. He clarified that a “professional applicator” is someone who applies nutrients for hire. He also confirmed that there will be a public comment period on the regulations. Bradley noted problems with unlicensed applicators of pesticides and expressed concern about uneven enforcement. Corte-Real encouraged reporting of violations to MDAR, and Baskin added that violations can also be reported directly to the office of the Secretary of Energy and Environmental Affairs.

Jack commented that the proposed regulations can be superseded by local bylaws. He also commented that the required setback from a surface water supply is too small and should include requirements related to slope, vegetation, and other factors that affect runoff and its cumulative effects. Carroll agreed and asked how the effectiveness of the required buffers would be determined.

Matthews complimented MDAR on its efforts to develop the proposed regulations. He noted that a broad coalition supported the legislation and suggested working through the organizations involved to assist with outreach once the regulations are adopted. He asked about the timeline for release of the regulations. Card noted that an internal review of the draft regulations must be completed, and the agencies would inform Baskin when the regulations are ready for public comment. Baskin clarified that the Water Resources Commission will not be asked to vote on these regulations.

Pederson asked if the setbacks and buffers in the proposed regulations are consistent with NPDES permit requirements for pesticides. Card offered to look into this matter. Philbin commended MDAR, MassDEP, and EPA for working together on drafting the regulations, and noted that the Massachusetts Municipal Association (MMA), along with a broad coalition, advocated for the legislation. He noted that EPA estimated the regulations would help communities avoid \$180 million per year in costs to remove excess phosphorus. He commented that it will be important for retailers, at the point of sale, to educate residential customers on the new regulations. He offered MMA’s assistance with outreach and education efforts.

Cambareri noted that the law allows communities to adopt local nutrient management regulations to protect surface and coastal waters, and that several communities on Cape Cod have done this, with an emphasis on nitrogen management. Jack commented that the proposed regulations are a step in the right direction.

Agenda Item #4: Discussion: Water Resources Commission Annual Report Draft

Baskin called attention to copies of the draft annual report of the Water Resources Commission that had been distributed to commission members. She noted that, in previous meetings, the commission had discussed development of an annual report as part of an improved communications strategy (*Ed. note: see minutes of July, September, and October 2013*). She noted that the commission's enabling legislation requires an annual report for the fiscal year. Regarding the commission's annual work plan, she added that, in the past, the commission has approved a calendar year work plan. She proposed continuing the commission's calendar year 2013 work plan through June 2014, the end of the fiscal year, with the addition of new items, including revision of the Interbasin Transfer Act regulations.

Cohen reviewed the previous commission meeting discussions that led to the development of a draft annual report. She reviewed the purpose of and audiences for the annual report. She invited thoughts on the draft annual report in general and on its effectiveness in increasing awareness of what the commission does, its purpose, and impact.

Questions and comments first addressed whether the report should be distributed in paper copies or electronically. Matthews and Zimmerman urged distribution of paper copies to legislators, and Downs suggested placing copies on the resource tables at major public libraries to reach those who do not have internet access.

Downs and Zimmerman suggested giving more prominence to the "Why It Matters" section, and Carroll suggested placing this in the Secretary's cover letter, while others suggested highlighting this section in other ways. Pederson suggested clearer demarcation of headings and subheadings, and others agreed.

Parker noted that some of the key accomplishments cited for 2013 are long-term efforts, while Cambareri commented that highlighting long-term efforts as key accomplishments is appropriate, especially when related to specific events of the fiscal year, such as the occurrence of Hurricane Sandy. Callaghan suggested using graphics to depict long-term data trends collected under the Commission's cooperative monitoring networks, but highlighting the most recent data representing the year of the annual report. Baskin suggested using this approach with a few key hydrological metrics from the year.

There was some discussion of the section "Who We Worked with in 2013" and how broad this discussion should be. Zimmerman suggested adding a reference to the overall number of communities with which the commission worked on various programs. It was agreed that the report should clarify that the examples cited are communities where technical assistance related to the Interbasin Transfer Act was provided. Callaghan noted that significant effort was also expended on the Aquaria Interbasin Transfer project. Contreas and Pederson suggested giving careful thought to how the interaction with communities is characterized, as being regulated is not equivalent to collaboration.

Regarding illustrations, Contreas suggested that photos would have more immediacy in an annual report if captions indicated location and date.

There was some discussion of how to frame the report's content, with an emphasis on safe, sustainable water resources in the natural environment or on ensuring the long-term availability of water for community health, safety, and economic development. Baskin suggested wording that reflects the commission's mission to balance both approaches. Contreas suggested a broader

policy statement as the framework, with examples of where and how the commission's deliberations and decisions achieved those goals.

Blatt expressed concern that the title "annual report" may not draw the attention desired from the intended audiences. Baskin and Cohen reviewed the reasons for the decision to produce an annual report as part of a broader educational effort, as well as addressing a statutory requirement, and Matthews agreed that recent attention to the Interbasin Transfer Act in the legislature makes communication through such a report timely.

There was some discussion of when the report would be published. Commission members agreed that the report is very nearly complete, and review by the Commission of a final draft is not needed before the report is distributed. Baskin thanked members for their comments and stated that comments would be incorporated and the report published as soon as possible.

Agenda Item #5: Discussion: USGS Cooperative Program Budget

Baskin introduced Linda Hutchins of DCR and Peter Weiskel of the U.S. Geological Survey (USGS) to provide a status report on the USGS Cooperative Program budget. She noted that commission member Zimmerman had requested a review of the program's annual budget to highlight the program's priorities and needs.

Hutchins called attention to a memo discussing the cooperative program's budget (see Exhibit 5). She noted that, in general, costs to continue to rise, while the program's budget has been held constant or has declined.

She discussed the hydrologic monitoring network, noting that the costs to operate the system have increased over time, reflecting upgrades in equipment and technology. She noted that the overall budget has declined as federal funding has decreased. She discussed decisions that have been made in recent years to eliminate certain gages while maintaining the best network possible, given funding limitations.

She noted that the current annual budget for the monitoring network is about one million dollars, with the state contributing about sixty-six percent. She added that each year, WRC staff must justify the need for the monitoring network budget. Weiskel noted that the state Environmental Bond fund, which is currently due for renewal, has authorized funding for the monitoring network, but the legislature must appropriate this funding. He added that USGS's top priority is securing a stable source of funding for the groundwater and surface water gaging network.

Zimmerman expressed interest in recommendations for a statewide system of operating gages that will allow forensic analyses of conditions in rivers and streams over time. He added that this is a good opportunity to appeal to the legislature regarding a stable source of funding, as a significant number of legislators are now knowledgeable about water infrastructure and its importance.

Card asked what can be done to conduct outreach regarding the need to increase the federal share of funding, noting that USGS's contributions to the Cooperative Program budget have declined. She asked if the commission could work with other organizations to submit a comment letter or education piece on the importance of the gage network. Suggestions by others included the Interstate Council on Water Policy and Association of State Flood Plain Managers.

Baskin explained that the Division of Administration and Finance produces a five-year plan for capital spending, and there is no funding projected for the kinds of studies the USGS Cooperative Program has conducted for EEA and its agencies in the past decade.

Philbin asked about the source of funding for keeping studies on TMDLs up to date. Card responded that MassDEP's primary source for TMDL funding is the Clean Water Act, section 106, not the USGS Cooperative Program.

Weiskel commented that interpretive studies performed by USGS for the state are also important, but the top priority is long-term stable funding for the gage network. Hutchins commented that WRC staff are exploring potential opportunities for other sources of funding, including private partners. Zimmerman suggested approaching water-dependent private entities, which have an interest in the availability of ongoing reliable data on water supply. He commented that securing a permanent income source for the gage network, independent of political influence, is critical. He added that the scientific data and ongoing analyses provided by the network are also critical for informing decisions about climate-change adaptation. Weiskel agreed that restoring gages at reference sites would be extremely valuable. He added that the water data infrastructure is just as important as physical water infrastructure. He noted that Massachusetts has the largest number of gages with more than one hundred years of record of any state.

Pederson noted that it may be worth asking communities for support, particularly if support can be tied to a mitigation credit. Parker noted the benefit to communities of having a more local gage, rather than a remote gage, providing data. Jack suggested funding baseline needs through the operating budget and funding other needs through the capital budget, and tying those needs to other infrastructure, such as transportation, which is often affected by flood hazards.

Hutchins described the recent history of funding for the Cooperative Program interpretive studies, with the state funding the majority of these costs in recent years. She highlighted key projects, such as streamflow-aquatic-habitat relationship studies that informed the Sustainable Water Management Initiative (SWMI); the Hydrologic Atlas program, whose mapped aquifers are now available online through the Massachusetts Geographic Information System, and which are an invaluable water supply planning tool. She noted that such studies have not been funded in recent years as funds have been diverted to keep the gage network in place.

Hutchins called attention to priorities discussed in the memo, including continuing ongoing studies and maintaining the existing gage network. She noted that staff are assessing the need for each gage in order to develop a plan for an optimal gage network statewide; this assessment may result in the elimination of some gages. She added that to preserve funding for the stream gage network, state agencies are also contributing staff time to conduct monthly groundwater level measurements and hope to add bedrock wells to the network.

Zimmerman asked what the cost would be for the least expensive, most optimized gage system statewide, and how many new gages would be needed. Weiskel responded that USGS could revisit a previous network analysis. He added that additional funding would be needed to restore reference gage sites that were previously cut. Zimmerman suggested an in-depth newspaper article focused on the importance and role of the water data network. Weiskel noted that gages provide critical data for flood forecasting and warnings, which will be a prominent news item in the coming months.

Card leaves.

Hutchins described the goals and priorities for future Cooperative Program efforts. These include updating the StreamStats program for Massachusetts so that it can take advantage of the updated Sustainable Yield Estimator (SYE) tool, which has a wider range of streamflow statistics. She explained the limitations of the current StreamStats program. She also described the need to resume hydrologic assessments of river basins, which would be useful to implement Water Management Act permit requirements, including optimization studies. Weiskel added that USGS has developed regional models for one-third of the basins. The estimated annual cost for completing studies of two major basins per year would be about \$600,000.

Cohen asked if there are plans to make the SYE tool compatible with the latest version of the Geographic Information System mapping tool. Weiskel explained that this would be the result of the proposed StreamStats updates (the SYE streamflow equations could be maintained on the national on-line platform). Pederson commented that the Secretary of Energy and Environmental Affairs identified capital funds to help communities comply with SWMI requirements, and suggested a case could be made for identifying similar funding sources for the Cooperative Program. Baskin responded that SWMI was a priority of the governor and the Secretary, and staff will try to make the link between SWMI and the Cooperative Program studies.

Meeting adjourned, 3:30 p.m.

Documents or Exhibits Used at Meeting:

1. Revisions to MassDEP Regulations: 310 CMR 15.000 (Title 5)
 - a. EOEEA Regulation Summary: 310 CMR 15.000 (Title 5)
 - b. 310 CMR 15.000 public hearing draft – red line
 - c. 310 CMR 15.000 final redline (changes after public comment)
 - d. 310 CMR 15.000 final version
2. Revisions to MassDEP Regulations: Permit Procedures (314 CMR 2.00)
 - a. Regulation Summary: 314 CMR 2.00
 - b. 314 CMR 2.00 public hearing red line
 - c. 314 CMR 2.00 final redline (changes after public comment)
 - d. 314 CMR 2.00 final version
3. Information Sheet on Proposed Plant Nutrient Regulations, Nov. 2013
4. Draft WRC Annual Report, Fiscal Year 2013
5. Memo dated December 10, 2013, from Linda Hutchins to Water Resources Commission regarding USGS Cooperative Program Budget.
6. Interbasin Transfer Act project status report, November 25, 2013
7. 2014 Meeting Schedule, Water Resources Commission
8. Current Water Conditions in Massachusetts, December 12, 2013

Agendas, minutes, and meeting documents are available on 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>.