



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

Meeting Minutes for June 12, 2008

Minutes approved April 16, 2009

Members in Attendance:

Kathleen Baskin	Designee, Executive Office of Energy and Environmental Affairs
Marilyn Contreas	Designee, Department of Housing and Community Development
Anne K. Monnelly	Designee, Department of Conservation and Recreation
Duane Levangie	Designee, Department of Environmental Protection
Joan Kimball	Designee, Department of Fish and Game
David Rich	Public Member
Joe Pelczarski	Designee, Coastal Zone Management

Others in Attendance:

Vandana Rao	EEA	Eileen Simonson	WSCAC
Linda Hutchins	DCR	David Lutes	citizen
Bruce Hansen	DCR	Paul Lauenstein	WSCAC/NepRWA
Sara Cohen	DCR	Jennifer Pederson	MA Water Works Assn.
Erin Graham	DCR	Eric Hooper	Town of Sharon
Marilyn McCrory	DCR	Cary Parsons	MWWA/Woodard & Curran
Russ Cohen	DFG/Riverways	Jennifer Apell	CDM
Alex Hackman	DFG/Riverways	Ralph Abele	EPA
Joanna Carey	DFG/Riverways	Peter Weiskel	USGS
Margaret Callanan	EEA		

Agenda Item #1: Executive Director's Report

Baskin noted that an LID conference would be held on June 23 at the Burlington Marriott.

Hansen provided an update on the hydrologic conditions:

- Statewide average precipitation in May was 61% of normal. This was the second month in a row with below normal precipitation.
- Ground water levels were normal statewide.
- Streamflows were normal in most of the State, with the exception of a few areas that were below normal. Streamflow generally declined over the month of May.
- Fire Danger is low to moderate.
- Reservoir levels were normal to above normal for this time of year.
- The National Drought Mitigation Center shows that the eastern half of Massachusetts is abnormally dry but the outlook is for normal conditions through August.

Agenda Item #2: Presentation: Stressed Basins in Massachusetts—USGS Indicators Project

Baskin noted that discussion of stressed basins will be coming back before the Water Resources Commission in the future. Hutchins stated that a task force of stakeholders has been meeting since November 2007 to discuss flow alteration indicators, water quality indicators, and indicators of aquatic habitat alteration. USGS will produce the science, and it will be up to the state to develop policy based on the science.

Weiskel gave a presentation on the “Massachusetts Water Indicators” project that USGS is undertaking as a cooperative effort with DCR and the Water Resources Commission. The project was initiated to update the 2001 Stressed Basins report, which was limited to assessing three low-flow statistics at gaged sites. The current phase of the project will address some of the limitations of the 2001 work and involves delineating sub-basins within the state for analysis; calculating potential flow alteration indicators; mapping water quality threats; and mapping and analyzing the potential effects of dams and impoundments on habitat fragmentation. The project uses the USGS Sustainable Yield Estimator (SYE) technology; any limitation of the SYE will apply to the analysis. For example, the application does not evaluate the effects of land use on flow or the effects of reservoir storage on river flow. The addition of septic system recharge was an improvement on the original SYE methodology. USGS plans to publish the report, “Indicators of Flow Alteration and Water Quality for Massachusetts Stream Basins” in 2009. Phase 2 of the project is proposed to relate flow alteration, water quality, and the presence of dams to alterations in fish populations.

Following Weiskel’s presentation, there were several questions and answers. One question pertained to the use of total impervious land cover as an indicator for water quality threats, versus effective impervious land cover. It was also noted that it would be beneficial for the SYE data base of withdrawals and return flows to be updated regularly.

Agenda Item #3: Presentation: Managing Flow Releases from Recreational Impoundments

Kimball introduced Joanna Carey of the Riverways program. She noted that Riverways received a Massachusetts Environmental Trust grant to work with the Housatonic Valley Association on the project described in Carey’s presentation.

Carey first discussed the background of the Riverways program’s River Instream Flow Stewards (RIFLS) program, which began in 2002. Volunteers collect streamflow data where USGS does not have data, typically on small streams. Riverways staff install and calibrate staff gages in locations where there are concerns regarding low flows. Local volunteers read the gages and report data, which Riverways staff analyze.

The Housatonic Valley Association had concerns about recreational lakes affecting flows downstream of the dams that impound them. Typically, recreational lakes have a fall drawdown and then refill over the subsequent winter and spring. This can result in unnaturally high flows in the fall, followed by low flows and a lack of variability in flows while the reservoir refills. Local Conservation Commissions issue Orders of Conditions for lake management, generally using U.S. Fish and Wildlife Service’s high springtime Aquatic Base Flow (ABF) standard for the fall drawdown, and the low summer ABF for the refill period. The Massachusetts Environmental Trust provided a grant to develop Dam Management Plans that would result in a more natural hydrograph downstream of these recreational impoundments. Riverways used the

Massachusetts Index Streamflows to identify appropriate annual target hydrographs downstream of the reservoirs, and compared these to the flows that RIFLS volunteers measured and reported. For example, the flows measured at Peck's Brook were too low (outside of the interquartile range) in March, and too high in November. More variability in summer releases and slower drawdowns in the fall might be advisable. Riverways is working with area stakeholders to develop Dam Management Plan guidance that could be used by Conservation Commissions. The plan will include a drought management provision, to indicate how reservoirs should be managed during drought conditions. Riverways is working with DFW and DEP to monitor conditions before and after implementation of the Dam Management Plans to see if there is an improvement in downstream condition, as expected. This pilot project will allow an adaptive management approach to be taken. Riverways is looking for feedback and input on this project.

Questions and comments were taken from the WRC and public. Pelczarski noted that Riverways should make sure that the Dam Management Plans do not conflict with public safety concerns and flood management plans. Monnelly mentioned that the Lakes and Ponds GEIR uses drawdown dates based on the needs of in-lake invertebrates and not downstream flow needs (this should be addressed in a GEIR revision). In response to a question about impacts of lake levels from making the recommended releases, Carey indicated that Riverways has not analyzed the effects, and that bathymetry data are lacking in some cases. Hooper cited a concern about using the median monthly flows as a minimum release. Abele suggested Riverways look at Connecticut's work on reservoir management. They have been testing release rules on simulated reservoirs and using the WEAP model, evaluating the concept of releases as a percentage of inflow. Carey responded that some dam managers find meeting monthly target flows a difficult concept. They are trying to make the plans workable.

Agenda Item #4: Eileen Simonson Farewell

Baskin noted the occasion of Eileen Simonson's retirement from the Water Supply Citizen's Advisory Committee (WSCAC). Simonson has been the co-director since 1982. The WRC wishes her farewell. Baskin presented a Governor's proclamation to Simonson for her years of service. Hutchins presented a gift from the WRC staff.

Simonson thanked the WRC for its forbearance and offered her thoughts on her many years of work with the WRC. She noted that the WRC is a gatekeeper and the state has been a leader in water resources management. She urged the state to continue advocating strongly for staffing and financial commitments to continue this important work. Mary Booth will be the next WSCAC director.

Refreshments were served as attendees wished Simonson farewell.

Meeting adjourned

Attachments distributed:

- Current Water Conditions in Massachusetts, June 12, 2008
- Presentation handouts (on file): Managing flow downstream of impoundments: A case study using volunteer streamflow monitoring data.