

**Sustainable Water Management Initiative
Advisory Committee Meeting Minutes
June 22, 2010**

Attendees

Committee Chairs: Laurie Burt, MADEP; David Cash, EOEEA; Mary Griffin, MADFG; Rick Sullivan, MADCR

Committee Members: Kathy Baskin, EOEEA; Lee Breckenridge, Northeastern Univ.; Jack Buckley, MADFG; Anne Carroll, MADCR; Alan Cathcart, Mass Water Works Assoc.; Jack Clarke, Mass Audubon; Nancy Goodman, Environmental League of Mass.; Phil Guerin, Worcester DPW; Glenn Haas, MADEP; Michael Hanlon, ACEC-MA; Scott Horsley, Horsley & Whitten; Jeff Lafleur, Cape Cod Cranberry Growers Assoc.; Ken Moraff, USEPA; Jennifer Pederson, Mass Water Works Assoc.; Mark Smith, Nature Conservancy; Margaret Van Deusen, Charles River Watershed Assoc.; Tom Walsh, Upper Blackstone WPAD; Peter Weiskel, US Geological Survey

Other Attendees: Ralph Abele, USEPA; Sue Beede, Mass Rivers Alliance; Alison Bowden, Nature Conservancy; Margaret Callanan, EEA; John Clarkeson, EOEEA; Sara Cohen, DCR; Karen Crocker, MADEP; Rebecca Cutting, MADEP; Jeff Davis, Donahue Center; Jen D'Urso, MADEP; Linda Hutchins, MADCR; Steve Kaiser, Assoc. of Cambridge Neighborhoods; Tom Lamonte, MADEP; Duane LeVangie, MADEP; Steve Long, Nature Conservancy; Kerry Mackin, Ipswich River Watershed Assoc.; Elizabeth McCann, MADEP; Dan Nally, Nature Conservancy; Peter Newton, SEA; Steve Pearlman, Watershed Action Alliance; Vandana Rao, EOEEA; Jonathan Yeo, MADCR; Audrey Lamb, EEA; Todd Richards, MADFG; Tim Purinton, MADFG; Richard Friend, MADEP; Mark Tisa, MADFG; Lindsay Leone, EEA; Addie Hill, Ipswich River Watershed Association; Julia Blatt, Mass Rivers Alliance; Tom Philbin, Mass Municipal Association

Meeting Objectives

- Provide a summary update on categorization pilot
- Explore sustainable allocation and safe yield scenarios and identify options for addressing altered areas
- Discuss goal setting within Stream Categories. Provide guidance on which goals could apply to the different categories and how and when they would apply

Welcome and Introductions – All Committee Members and audience participants introduced themselves.

Update on Technical Subcommittee Progress – Todd Richards (MADFG) gave a presentation on the draft stream categorization pilot, conducted for the SuAsCo, Nashua, and Westfield watersheds.

(http://www.env.state.ma.us/eea/swm-resources/2010-0622-adv-comm-mtg/2010_jun_21_adv_richards.pdf)

The categorization of current conditions is based on the findings of the Fish and Habitat study, undertaken through a partnership between DEP, DFW, and the USGS. Using regression analysis, the study seeks to relate fish community composition to physical basin characteristics and human alteration factors using appropriate statistical tools. Fish are seen as good indicators of the condition of the aquatic environment and a surrogate for the overall health of the basin area.

Keeping all other variables static:

- A unit increase in impervious surface is associated with a 5.5 percent decrease in fluvial-fish relative abundance.
- A unit increase in percent alteration of August median streamflow is associated with a 0.4 percent decrease in fluvial-fish relative abundance
- There do not appear to be specific inflection points (a point on a curve at which the curvature changes signs) when plotting Fluvial Relative Abundance against August Percent Alteration.
- A significant and constant variable impacting alteration is impervious cover.

The next step will be for the Technical Subcommittee to review options establishing a baseline for impervious cover, i.e. what percent of impervious cover should serve as a baseline in categorizing sub-basins?

Discussion on the Presentation: (*NOTE: IC stands for impervious cover*)

Question: Why does IC have such an effect?

Answer: Impervious cover is a surrogate for lots of impacts

Question: Why is there no data presented for Cape Cod?

Answer: Although we have fish and IC data, we have no contributing watershed delineations.

Question: Would the IC baseline be the least developed sub-basin for an entire basin?

Answer: That is one option, but we might wish to look at others.

Question: In the SuAsCo pilot, with a baseline of just 6% IC the results still look bad

Answer: Correct, at the basin scale we need a realistic base for analysis and restoration. In some cases site specific figures may be needed.

Question: Are surcharges and withdrawals combined?

Answer: Surcharges and withdrawals are net. The curves are different, their slopes are the same. We looked at absolute value as well as surcharge and withdrawals separately (all three methods of analysis).

Regarding baseline options:

- Discussion needs to continue on this.
- Though we cannot go back to pre-colonial conditions, but stormwater management can also have a positive impact.
- More statistical analysis is needed
- The technical committee will continue reviewing options for setting a baseline of IC.

Streamflow Criteria Policy: David Cash initiated a discussion on streamflow based on the handout (See: http://www.mass.gov/?pageID=eoeaterminal&L=5&L0=Home&L1=Air%2c+Water+%26+Climate+Change&L2=Preserving+Water+Resources&L3=Sustainable+Water+Management&L4=Sustainable+Water+Management+Advisory+Committee&sid=Eoeea&b=terminalcontent&f=eea_swm_adv_comm_resources&csid=Eoeea Streamflow Criteria and Classification Policy Discussion document.

Two over-arching questions:

1. Protection: What protection goals should be applied to each class?
2. Restoration: How should mitigation, improvement, or restoration goals be applied to the classes?

Discussion:

- Groundwater has been kept as Class 1 with very few exceptions. We should do the same with surface water – protect everything to the highest level as a long term goal.
- Anti-degradation should be a goal. Urban areas will be in a 4 or 5 category and there may be environmental justice issues.
- The level of protection is too broad. We will want to do different things in different places. Coordination with other programs might mean tailoring what we do.
- Endangered species seeks the most viable population to protect. That concept could be used here.
- There are sub-basins we want to keep pristine. As well, there are working rivers we may want to develop. Most sub-basins will fall in between those two parameters. Like the Clean Water Act, we

would want to establish a floor, comparable to fishable/swimmable. The Clean Water Act also allows for a petition to change classification. We should include that as an option as well.

- Any activity can be allowed anywhere, but the level of mitigation could vary according to the categorization. For example, water supply should not be in certain areas. There needs to be recognition that some alteration is possible without changing class.
- Be careful of stranded investment by communities for lofty goals
- Is IC the crucial variable? There are basins with so much IC that improvement cannot happen.
- Site specific analysis would be needed for many things, water supply impacts in a category 5, for example.
- Would movement down in category be possible? Perhaps based on other factors such as climate change. If this were found additional protection might be needed.
- Factors such as IC will change. Therefore, any categorization must be iterative.

Summary of discussion:

Do we want an underlying goal of improvement?

- Applying such a goal across the board does not make sense. Some sub-basins are pristine; others are in an “unimprovable” condition with very limited resources to effect improvement.

So the overall choice for a goal falls between “Every sub-basin to Category 1 OR Every sub-basins should be improved.”

Safe Yield and Allocation: Refer to the generic scenarios outlined in the discussion document, http://www.env.state.ma.us/eea/swm-resources/2010-0622-adv-comm-mtg/2010_jun_22_adv_allocation_scenarios.pdf

Discussion:

- How much of this demand is consumptive?
- This is a classic permitting case. If safe yield is exceeded, the permit will be denied without any mitigation or trading put into a schedule.
- The Water Management Act is clear about denying permits that exceed safe yield. We need to either expand safe yield or reduce water demand.
- Also consider storage or importing water to augment the safe yield.
- Are there ways out of the box when safe yield is exceeded?
- Safe yield is a static number that represents a fluid situation. For example, the Upper Charles study showed there was enough water IF systems were optimized.
- I am worried that all the burden of mitigation is put onto the backs of the water suppliers.
- Safe yield also includes health and safety. How can we craft a system to protect health and safety, and set aside an environmental reserve, in the face of a legal requirement to deny permits?
- How can we talk about supplementing safe yield? That will fall upon reservoirs and/or importing of water.
- Is the safe yield computed on a daily basis? If we look at annual safe yield perhaps we can look at the storage of water.
- Don't forget that registrations cannot be reduced
- Water about purchasing excess registrations to transfer those rights to another use?
- Transfer of registered use could provide greater flexibility. This is the type of creativity we need to address the hurdles presented by the law.

Summary of discussion:

Two common ideas have emerged: Increasing safe yield and optimization of existing supplies.

Implementation Tools Subcommittee Progress: Kathy Baskin summarized the progress to date – The subcommittee has met once. A number of options are available to consider including some regulatory tools such as the Clean Water Act, Wetlands Protection Act, zoning, MEPA, stormwater regulations, plumbing code, wastewater reuse, incentives to communities, State Revolving Fund loans, rebates, and a market for water rights for registrations. The subcommittee will keep moving forward.

Finalization of Goal Setting: Staff has completed compiling comments and organizing the goals discussion of previous meetings can be found at: http://www.env.state.ma.us/eea/swm-resources/2010-0622-adv-comm-mtg/2010_jun_22_adv_swm_goals_rvsd.pdf . There was no time for discussion. Please send comments to Kathy Baskin at kathy.baskin@state.ma.us .

Closing Comments:

- We should overlay the goals to evaluate the concepts the tools committee have identified.
- Do not do anything to give up on Class 5 rivers.
- How is safe yield measured during a drought? Is it the lowest day or average annual drought year?
- Are safe yield and sustainable yield now the same? We are focusing on safe yield, it is a legal requirement.

Next Meeting: July 27, 100 Cambridge Street – 2nd Floor. 1 – 3:30 PM.