



BOARD OF DIRECTORS

July 10, 2014

Peter Shanahan
President
Acton

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
Water Management Regulatory Comment Box
One Winter Street, Fifth Floor
Boston, MA 02108

Richard Tardiff
Treasurer
Wayland

Attention: Elizabeth McCann

Dick Lawrence
Clerk
Hudson

Re: Comments on Water Management Act Draft Regulations and Guidance

Don Burn
Westborough

Dear Ms. McCann,

Allan Fierce
Stow

Thank you for the opportunity to comment on the Water Management Act (310 CMR 36.00 of March 26, 2014) Draft Regulations and the *Water Management Act Permit Guidance Document*. OARS is the watershed organization for the Concord basin, comprising the Sudbury, Assabet and Concord Rivers in a 400-square mile area west of Boston. A non-profit organization founded in 1986, OARS works primarily through science-based advocacy and education to develop a scientific understanding of the causes of river degradation and works with communities to seek effective solutions. OARS was involved as a stakeholder in the SWMI Pilot Project in Shrewsbury and has just completed a SWMI grant-funded project with six of our watershed communities. This has given us a deeper insight into the mechanics and promise of the draft Regulations and *Guidance* as we sought to apply them in those communities.

Paul Goldman
Marlborough

Dave Griffin
Maynard

Martin Moran
Hudson

The Sudbury, Assabet and Concord Rivers are federally-designated Wild & Scenic Rivers and abut two national wildlife refuges. These rivers are popular destinations for boaters and anglers, yet suffer from very low seasonal flows. Low base flows also result in inadequate dilution of effluent from wastewater treatment plants and pollution from stormwater; during the summer the Assabet is up to 90% effluent. Several tributaries to these rivers regularly run dry, and the upper Sudbury River itself has run dry in recent years. Despite these challenges, many watershed communities have Coldwater Fish Resources CFRs that they seek to protect. Unfortunately, these are often in the same sub-basins as public water sources.

Pam Rockwell
Concord

Laura Rome
Maynard

David Williams
Marlborough

Significant change in state policy and regulation is needed to ensure the sustainability of the water resources of the Concord basin. We are grateful for the complex multi-stakeholder work done by MassDEP over the last three years to reach this point. Sustainable water use is essential for healthy communities, vibrant local economies, and recreational and wildlife resources. The natural resources supported by rivers provide not only aesthetic beauty and enhance our quality of life, but also provide essential services such as flood control and pollution attenuation. Achieving sustainable water use will require a difficult balancing of interests. It is essential that this is done with the understanding that the condition of our water resources is likely to worsen with the anticipated effects of climate change.

We feel that the SWMI Framework and resulting draft Regulations and *Guidance* are a timely effort to achieve sustainable water use. In working with the draft *Guidance* we found that it is clearly-written, logically organized, and overall was a very useful guide to anyone working with the permitting process. We suggest that more procedure flowcharts or decision tree-type guidelines to navigate the multiple steps and decision-points to determine which provisions apply to which water sources would be helpful. It would help to clarify throughout where provisions apply only to groundwater sources with permits (as opposed to registrations), or to only sub-basins with permitted withdrawals (as opposed to registered). We commend MassDEP staff for the effort that they have invested in writing the *Guidance*. The same applies to the WMA Tool and the SWMI interactive map. While some tweaking will inevitably be needed, these accessible tools are tremendously helpful in interpreting the data upon which the permitting process rests.

We support the state's commitment to the solid science that underlies the new SWMI Framework, in particular the stream flow classification system, based on peer-reviewed studies by the USGS and the Department of Fish and Game. The provision for site-specific studies to ground-truth the state-wide data is sensible. It is our assessment that the revised Regulations will be an effective tool to enable communities to plan incremental and affordable improvements in their water supply system while protecting the multiple and far-reaching benefits of sustainable water resource management.

The draft Regulations and *Guidance* contain several features that we support, and we suggest that some need strengthening. There are also some provision that we feel should be changed. Below are our specific comments:

1. **Streamflow criteria:** OARS strongly supports the use of stream flow criteria, and the principles of improving flow-depleted streams and preventing backsliding. However, we believe the proposed Regulations need to be strengthened in several regards. First, we support setting a goal of GWC 3 for all the GWC 4 and 5 streams so that degraded streams can be improved. Second, the baseline calculations should not include the additional 5% withdrawal to avoid what is in essence grandfathering past water use volumes for permitted sources, undermining restoration of streamflow. A baseline calculated without the additional 5% would be reasonable due to the continuing trend in water use efficiency.
2. **Alternative sources:** We support the requirement that those seeking new or increased withdrawals ensure that there are no less damaging feasible alternatives available. However, we don't agree that this provision should be limited to where the withdrawal would cause a subbasin to fall a category (Tier 3), but should also be applied to Tier 2 review.
3. **Cost feasibility (*Guidance*):** We support the idea of including a cost-feasibility evaluation to prevent imposing a severe economic burden on applicants and to enable MassDEP to work with permittees to seek ways to meet the goals in a less burdensome way. The evaluation must, however, be based on objective and accepted methods or it will result in a tremendous amount of work for DEP staff and inconsistent and unreliable assessments. The five major deficiencies in the evaluation method have been laid out well by Nancy Hammett in her comment letter: the proposed screening threshold (instead, current water bills should be the basis for comparing household water costs with median household income; the value chosen as the threshold is too low); the basis for a finding of infeasibility (not just exceeding the threshold); lack of direction regarding how costs should be projected to ensure consistency and avoid inflated budgets; and the lack of objective criteria for determining when costs are infeasible. It is in everyone's interest that the analysis is done properly and efficiently.

4. **Mitigation:** The concept of mitigation commensurate with impact using volumetrically quantifiable measures is a great step forward and should continue to be refined and operationalized.
5. **Coldwater Fish Resources:** We strongly support the extra protection afforded to coldwater streams (CFRs) through required optimization review and inclusion in mitigation plans and consultation with Department of Fish and Game. Additional clarity as to which streams are so designated would be helpful.
6. **Demand management:** Demand management is central to the revised permitting process, and DEP should provide more specific guidance in terms of suitable rate structures to ensure that communities are actually covering the full costs of their water supply.
7. **Surcharged reaches:** We are keenly aware that water quality impairments in the Assabet River resulting from wastewater discharges to the river are exacerbated by loss of base flow. This combination has resulted in a severely effluent-dominated river with accompanying eutrophication and other water quality problems. During the summer low-flow periods the Assabet Rivers can be nearly or completely stagnant, resulting in fish kills and severe aquatic habitat degradation. We strongly object to applicants being eligible for a surcharge offset adjustment when “withdrawals above baseline will come from wells that are hydrologically connected to surcharged stream reaches.” (*Guidance* p. 26) Counting large treated wastewater discharges to surface waters—which despite their treatment carry loads of thousands of regulated and unregulated pollutants—as if they were clean baseflow is counterintuitive and certainly should not count as mitigation. Reducing baseflow in this way is also a detriment to the NPDES permitting of treatment plants as it reduces dilution which is a critical factor in load calculations. Conversely, we support the recharge of treated wastewater to the ground, where appropriate, where it is polished and does add to the clean and cool base flow. Mitigation credits are appropriate for such returns to the groundwater.
8. **Safe Yield:** We are greatly concerned that the Safe Yield section of the Framework fails to follow a science-based approach and needs to be significantly revised to provide for sustainable water management. While many sub-basins in the upper Concord basin are severely depleted, the current methodology provides no reasonable ceiling on withdrawals that impact these headwaters. This is a major problem. Safe yield should be calculated on a sub-basin basis (or reasonable collective unit that is far smaller than the entire basin) in order to protect headwaters and sensitive resources.
9. **Backsliding in GWC/BC 5s:** We are very concerned that the Category 5 sub-basins (both GWC and BC) cannot “backslide” since there is no higher category. This allows already degraded or depleted sub-basins to be completely drained without Tier 3 review being triggered. In our watershed there are many sub-basins rated GWC 5 and/or BC 5 which still contain valuable water resources and habitat that would clearly be inadequately protected by Tier 2 permitting standards. We highly recommend that where an increased withdrawal from a GWC 5 or BC 5 exceeds a threshold percent of its remaining depletion or alteration range that it be classified as “backsliding” and go into a Tier 3 review.
10. **Private wells:** Increasingly strict outdoor water use restrictions by water suppliers, including prohibition of the use of public water for non-essential irrigation, have prompted an increase in the number and use of private wells for lawn irrigation. While this has apparently reduced stress on municipal systems, it has resulted in more unregulated irrigation and consumptive water withdrawals from the watershed. While this may have the advantage of dispersing withdrawals

both in depth and geographical extent, the overall impact may be to undermine efforts to protect depleted sub-basins, conserve water, educate the public about the value of water conservation, and improve irrigation efficiency. To address this, the permitting process should include requirements, or at least incentives, for municipalities to bring private wells into conformity with municipal irrigation rules. At a minimum, private well registration and water use reporting should be required. If this cannot be done at the municipal level, state-level regulation should be considered.

11. **Nonessential Outdoor Watering.** Guidance Tables 7 and 8 use the term “Nonessential Outdoor Watering” in the title and “Outdoor Water Use” as table headings. We recommend that the term “Nonessential Outdoor Water Use” be used in both applications. These tables should also include additional action requirements when stream flow is significantly below ABF that could include the prohibition of all nonessential outdoor water use and other conservation measures to reduce water withdrawal.
12. **Registered sources:** The proposed regulations only cover sources with permits, although the state has the ability to include some provisions affecting those with registrations. Many of the most depleted sub-basins in the Concord basin have only registered sources. As a result, these sub-basins will not be protected at all by the SWMI approach except indirectly by measures that are town-wide. MassDEP should include the highly depleted (NGD $\geq 25\%$) sub-basins with registered sources in the minimization requirement.
13. **Participation:** It is important that key stakeholders, including watershed organizations and other environmental advocates, be invited to participate in the Basin Outreach Meetings at the start of the permitting process so that they can make informed and timely input in the process.
14. **Appeals:** It is critical that environmental groups and 10-person groups retain the right to appeal Water Management Act permits. Citizens have a strong interest in protecting their public waterways, and we object to any change in the regulations that would weaken this.

Healthy streams and reliable water supplies are essential for our quality of life and economy, and to provide resiliency in the face of climate change. In our view, it is critical that the Patrick Administration move forward without delay with the new regulations to move all the communities in the Commonwealth toward water sustainability.

Yours sincerely,



Alison Field-Juma
Executive Director