



IPSWICH RIVER
WATERSHED
ASSOCIATION

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November 26, 2007

Laurie Burt, Commissioner
Duane LeVangie, Water Management Program Chief
Department of Environmental Protection
One Winter Street
Boston, MA

Re: Proposed changes to WMA Guidance Document

Dear Commissioner Burt and Mr. LeVangie,

I am writing in response to the Department's recently proposed changes to the Water Management Act (WMA) Guidance Document, which was first issued in April 2004 and subsequently modified in January 2006. I strongly advise DEP not to adopt the proposed revisions, which go too far. Rather than providing "flexibility," these changes are extreme and would formalize ineffective implementation of the WMA for the coming decade. I believe that this approach would leave the Department vulnerable to additional legal challenges, and might engender a public outcry akin to what recently ensued regarding the 10-citizen appeal issue under the Wetlands Protection Act.

In summary, I recommend that the Department should:

- 1) Develop and implement an accurate methodology for determining the safe yield of a water source to ensure that water withdrawals do not cause damage to the environment;
- 2) Implement the existing Guidance Document, which already has been amended significantly to provide flexibility and predictability;
- 3) Ensure that WMA permitting conforms to ***all*** the Massachusetts Water Conservation Standards and the Massachusetts Water Policy, which were both developed through a process that included the water supply constituency;
- 4) Maintain requirements for streamflow-triggered watering restrictions to ensure that regulation of water withdrawals is tied to actual, real-time environmental indicators;
- 5) Allow communities to use alternatives and offsets that they can demonstrate are ***truly*** functionally equivalent, to allow flexibility;
- 6) Abandon the proposal to measure system performance based on achievement of only the 65 rgpcd and 10% UAW performance standards; these are not adequate indicators of impacts of water withdrawals on the environment;
- 7) Exercise enforcement discretion where every effort is being made to meet the requirements; but do not call this "functionally equivalent" if it is not the case.

Finally, if it is not possible for the Department to provide the leadership necessary to reform the WMA Program as it has previously committed to do, then in my opinion it would be better to rescind the Guidance Document than to amend it as proposed.

Comments: I recognize the pressure DEP has been under to abrogate the Policy and Guidance. However, the proposed changes as presented at the WMA Advisory Committee meeting on 11/8/07 do not give adequate recognition to the importance of retaining water in the natural environment to support healthy aquatic and wetland organisms and ecosystems. I therefore recommend that you abandon the current proposal, which fails to protect the natural environment of water in the Commonwealth, prevents the Department from fulfilling its statutory obligations under the WMA and leaves the Department vulnerable to further legal challenges.

An increasing number of Massachusetts rivers are experiencing significant environmental damage due to extreme low-flow and no-flow conditions that have decimated native fisheries, impaired water quality, and negated recreational values. Water withdrawals either cause or play a role in desiccation, impaired water quality, decimation of fisheries and loss of other recreation and ecosystem services provided by rivers such as the Ipswich, Parker, Rowley, Neponset, Charles, Sudbury, Assabet, Eel, Jones, Taunton, Blackstone, Nashua, and/or their tributaries.

Scientific investigations by the U.S. Geological Survey and others have documented the impacts of water withdrawals in altering the natural flow regime of Massachusetts rivers and streams. In the Ipswich, USGS found that water withdrawals are the principal factor reducing low flows by an order of magnitude. It is indisputable that low-flow conditions are more extreme and occur for much longer periods than would occur under natural conditions, and that water withdrawals are the principal factor in causing these unnatural and harmful extremes, which damage the environment. Increased summertime withdrawals are particularly damaging, as they coincide with and exacerbate periods of greatest natural stress. A study of the Parker River found that it has experienced much more severe low-flow and no-flow conditions since around 1990; indeed it was pumped completely dry near the Georgetown Wells for an extended period this summer, yet watering restrictions were not imposed. The Sudbury River is pumped dry more frequently, and so much of the Assabet River's baseflow is captured that wastewater discharges make up virtually the river's entire flow at times. A section of Poor Farm Brook, a cold water fishery and tributary to the Blackstone River, adjacent to Shrewsbury's wells is pumped dry for extended periods. Billings Brook, the Jones River, the Egypt River, Stump Brook and many other rivers and streams are "shut off," sometimes for months, by upstream reservoir operations. The evidence is clear that water withdrawals cause or exacerbate these conditions, preventing these rivers from sustaining fisheries and other important instream functions.

The WMA Policy and Guidance Document grew out of an internal review of the WMA Program, following a lawsuit by IRWA alleging the Department's failure to properly implement the WMA. The Department's self-review concluded that "failure to resolve safe yield has led to a crisis with withdrawal permits and adverse impacts to the environment." The Department admitted in 2003 that "Every Water Management Permit, or modified permit from a 5-Year Review, has the potential to be appealed because: 1) DEP does not comply with our own Water Management regulations and 2) DEP/WMP¹ criteria for evaluating withdrawal impacts are admittedly inadequate." According to this internal review, "Environmental/watershed folks could rightly argue that anything less than fishery streamflow thresholds mean that the water source is not sustainable." DEP has also admitted that the "balance" had tipped in favor of water supply, to the detriment of the environment. To help restore that balance, and fulfill its statutory

¹ Water Management Program

obligations, the April 2004 Policy and Guidance were issued. These specified performance standards, requirements for outdoor watering, a summer cap, offset and monitoring requirements.

Subsequently, water suppliers and other municipal representatives complained that they had not been consulted and that they found the conditions onerous. Despite substantial support for the original Policy and Guidance from the public and environmental community, including hundreds of letters and emails urging DEP not to weaken the Guidance, the Department attempted to appease the water supply constituency by amending the Guidance Document in January 2006. DEP removed several requirements, delayed others, and incorporated an “enforcement margin” to address the water suppliers’ desire for flexibility and predictability, but to no avail.

The Policy and Guidance Document were vetted extensively in the ensuing “Blue Ribbon Commission” and *neither it, nor Senator Resor and Representative Smizik, recommended making changes as extreme as what is now proposed.*

DEP’s continuing efforts to mollify water suppliers by weakening the Policy and Guidance Document are particularly ironic in light of numerous legal decisions affirming the Department’s authority to implement more stringent requirements. In fact, recent decisions found that DEP had not gone far enough and in fact contravened the WMA by failing to properly implement the safe yield provision. There is no doubt that DEP has the authority – what has been lacking is the conviction and leadership so sorely needed to implement the long-overdue reforms of water management in Massachusetts.

It is also worth noting that in those communities where similar requirements have already been implemented, the sky has not fallen. In fact, there have been relatively few complaints against the stricter requirements in the Ipswich River basin communities, according to reports that we have received from water suppliers.

Against this backdrop, and despite the scientific evidence that water withdrawals cause or contribute to extreme low-flow and no-flow problems of an increasing number of Massachusetts rivers, the proposal to further weaken the Guidance Document to remove the requirement for any outdoor watering restrictions if a community meets the 65 rgpcd/ 10%UAW performance standards, unless a Drought Watch (or Advisory) is declared, is unjustifiable.

I strongly recommend against this proposed changes for the following reasons:

- 1) The proposed changes are contrary to law, because they contravene the WMA requirement to impose conditions that minimize the impacts of water withdrawals on the interests of the Act, provide reasonable protection for fisheries and other instream interests, achieve a balance among competing uses, and preserve the water resource itself. DEP cannot claim that it is minimizing the impacts of water withdrawals, when it allows water withdrawals during extreme low-flow periods, without limiting the water used for “non-essential” purposes, especially lawn irrigation that occurs when water is scarcest. Eliminating the requirement for restrictions on outdoor watering and other non-essential uses will allow watering to take place when a source river is reduced to extremely low levels, or even pumped completely dry. This proposal will disconnect the regulation of water withdrawals from indicators of the environmental impacts that they cause or exacerbate, and will fail to minimize those impacts.

- a. Combined with the failure to determine the safe yield of the water source, elimination of the requirement for streamflow triggered restrictions will decouple implementation of the WMA from any indicators of the condition of the environment, contrary to the requirements of the WMA.
- b. Peak water demand in summer often coincides with periods of greatest stress to rivers, streams, hydric habitats and the organisms dependent on them – the drier the weather, the more lawn watering, at just the time when the river system has the least capacity to give up its water. Control of peak demand, especially for non-essential uses like lawn-watering, has been a cornerstone and commitment of DEP’s WMA program reform.
- c. The scientific information available to DEP indicates that summer withdrawals are particularly damaging to many river systems. Minimizing these withdrawals is essential to meet the requirements of the WMA.
- d. The Towns of Hamilton, Topsfield, Ipswich, Danvers/Middleton, Sharon, and Georgetown (for example) have all reported water use below the 65/10 standards in recent years, at times when streams and habitats affected by their withdrawals have been pumped dry or to extremely low levels. These communities’ summer use is typically 30-40% higher than the winter use – reflecting exactly the type of increased non-essential use that is targeted by outdoor watering restrictions. Under the proposed changes, communities reporting similar statistics would not be required to implement outdoor watering restrictions. This conflicts with the mandatory WMA requirement to minimize the impacts of the withdrawals on the environment.
- e. 65 gpcd is an annual average water statistic that is reported the following year, making its use for real-time management impossible, and failing to account for annual variations in use. This statistic does not adequately reflect or represent summer use or peak demand, which is often the most damaging to a river or stream because it occurs at the same time that the river system is most vulnerable to loss of water. Instead, the focus should be on limiting summer withdrawals during periods of stress to the environment. DEP should not retreat from that reform of its WMA implementation.
- f. The Drought Advisory or Watch declaration is not an adequate indicator of the condition of rivers, especially those whose flows are affected by water withdrawals. For example, since 2000, a Drought Watch applicable to the Ipswich River has only been declared from January-April 2002 – and never during the outdoor watering season. Yet the Ipswich River was pumped to extreme low-levels or dry for 508 days during the May-September “summer” period during those same years. Under the proposed changes, if they were to be applied to the Ipswich, no watering restrictions would have been activated at all since 2000. I use the Ipswich only as an example of what is happening to many Massachusetts rivers and streams.
- g. The Drought Advisory or Watch is also ineffective because it typically lags streamflow indicators by several months, resulting in months of damage to the environment before any action would be triggered. In other words, it closes the door (perhaps) after the horse has left the barn. Even as regards the Advisory level, in 2005 (for example), parts of the Ipswich River and other Massachusetts rivers and streams were literally dry for more than a month, yet a Drought Advisory was not considered until mid-September – and then was not declared.

- 2) DEP has clearly articulated, including in sworn testimony, the position that protecting fisheries and other instream uses “trumps” lawn watering and other non-essential uses. The proposal to eliminate the outdoor watering restrictions does exactly the opposite, and is contrary to the Department’s obligations to provide reasonable protection to fisheries and other instream interests, and to achieve a balance among competing withdrawals and uses, as well as protection of the water resource itself.
- 3) If the proposed changes are implemented, I believe they will invite additional appeals of WMA permits, even in communities where appeals cases have been decided or settled. Communities are likely to challenge any requirements that are more stringent than the Guidance Document requirements.
- 4) The proposed changes will make the Department vulnerable to lawsuits alleging that it is not meeting the requirements of the Act. Setting forth a Guidance Document that implicitly states that DEP will not impose conditions necessary to minimize impacts is contrary to the WMA and the opposite of good public policy. The Department would be wiser to abandon the Guidance Document than to so weaken it that it precludes fulfillment of DEP’s statutory obligations.
- 5) The 2006 amendments to the Guidance Document already provide the flexibility and predictability that the water suppliers have requested.
- 6) The proposed changes fail to implement the “Stress Framework” of the Massachusetts Water Policy (2004; see Recommendation #1) and the Water Conservation Standards calling for an environmental trigger like streamflow for outdoor watering restrictions (2006; See section 9.0).
- 7) The proposed chart indicates that DEP would allow 80 rgpcd and 15% UAW for “low” and “unassessed” basins until 2018. This conflicts with Mr. LeVangie’s statement at the November WMA Advisory Committee meeting, at which he stated that the Department would only use 65 rgpcd and 10% UAW, in accordance with the Water Conservation Standards. In addition, unassessed basins should not be treated as “low-stress” but should be evaluated on a case-by-case basis. The WMA regulations require that a project proponent provide all the information required for the Department to assess the impacts of the withdrawal on protected interests; DEP should require that that information is in fact provided and statutory requirements can be met before permitting water withdrawals.

I would like to briefly comment on the proposed conditioning of registrations, as follows:

- DEP has in fact increased registrations after the fact, in some cases based on questionable data, and should certainly decrease registrations where the facts show that the registration statement does not accurately reflect the actual water use by a water supply, or the data upon which the registration is based is not verifiable and subsequent use is below the registered volume. The Town of Hamilton and Town of Reading cases are perfect examples. The public should have the opportunity to review changes to registrations, which heretofore have occurred without any opportunity for public review or comment.
- The WMA requires conditions on registrations. Then-Commissioner Golledge committed to conditioning registrations, and indeed where there is evidence that the safe yield of a water source is exceeded, the Department must do so to meet the Act’s requirements.
- The proposal to impose performance standards of 65 rgpcd and 10% UAW are reasonable, but the timeframe for compliance is unduly long, severely compromising the effectiveness of these standards in addressing the current unacceptably low flow conditions in many rivers and streams in Massachusetts.

Finally, I would like to address several comments made during and after the November meeting that seemed to imply that water suppliers are being held accountable for solving all low-flow problems, even ones that are caused by other factors. This is certainly not our intent, nor is it the case in the Ipswich basin, where there is a multi-faceted restoration strategy that includes stormwater, wastewater and instream restoration opportunities, as well as water conservation, water reuse and alternative water sources. Demonstration projects focusing on stormwater recharge and water reuse have already been implemented and are being evaluated currently. There is clearly a need to take a multi-faceted approach. It is my recommendation that the offset provision be used to encourage and facilitate just such multiple strategies. In particular, return of treated wastewater and recharge of treated stormwater have significant potential to “balance the water budget” and I would be the first to support efforts to do so.

However, it is worth remembering that the law being implemented here is the WMA, which regulates water withdrawals; and the facts are conclusive that water withdrawals cause or exacerbate many of the state’s low-flow problems. Where this is true, the law requires conditions to minimize these impacts; this is not optional or discretionary on DEP’s part.

Thank you for the opportunity to provide this advice. I would be happy to discuss these comments further or answer any questions that you may have.

Sincerely,

A handwritten signature in cursive script that reads "Kerry Mackin".

Kerry Mackin
Executive Director