Charles River Watershed Association

By Email and Mail

February 19, 2010

Duane LeVangie
MassDEP
1 Winter Street
Boston, MA 02108

Re: Millis, Holliston, Medfield, Medway, and Wrentham Draft Water Management Act Permits, Charles River Watershed

Dear Mr. LeVangie:

The Charles River Watershed Association (CRWA) submits the following comments on MassDEP's draft 20-year Water Management Act permits for the towns of Millis, Holliston, Medfield, Medway, and Wrentham. Although we only received these five draft permits last week, we have made every effort to submit comments immediately because MassDEP plans to issue final permits on or before February 28, 2010. We think our comments (and those we submitted on February 10 and 12, 2010) raise important issues that should be addressed by MassDEP in the final permits, notwithstanding its time constraints.

Holliston, Medfield and Millis are communities for which DCR was unable to perform a water needs forecast due to faulty data and reporting inconsistencies and errors. CRWA has urged MassDEP to issue only five year permits for those communities for which projections cannot be made at this time. In addition, given the inaccuracies in the data/computations, all PWSs for which demand projections could not be made, regardless of whether they report meeting the 65 rgpcd standard, should be required to comply with the Second Tier limits on outdoor water until projections are completed; the permits should be modified to include this.

Millis

Because five-year reviews of Millis' permit were not conducted, the Town went onto its period three and four volumes (0.34 and 0.36 mgd, respectedly) by default. MassDEP is proposing to allocate the full 0.36 mgd in the new permit for periods 2-4, although a water needs forecast could not be prepared for Millis due to the fact that the town's data was not sufficiently accurate. Because a 20-year demand projection cannot be performed at this time Millis should be issued a permit for no more than five years. MassDEP should also authorize only the minimum withdrawal amount that Millis is likely to use in the next five years, factoring in the 65 RGCPD and 10 UAW performance standards.[1] At a minimum, alternatively, the permit should explicitly

[1] Even the Town projects in its permit application that it will use only 0.11 mgd of its existing permitted volume in 2010-2011.

provide that the period 2 volume is not operative unless and until a water needs forecast is performed by DCR.

Special Condition 4 requires that use of the Paine Property wells (#5 and #6) cease when streamflow falls to 0.21 cfsm at the Medway Gage. While the streamflow requiring shut off of pumping in Special Condition 4 was thought 20 years ago to constitute "reasonable instream flow" in the Charles River, it is not in fact protective of aquatic life.[2] This trigger was based on the Department of Environmental Management's (DEM) minimum streamflow value in its *Charles River Basin Plan,* which was adopted by the Water Resources Commission. This minimum streamflow threshold was believed to be the threshold below which any further reduction would have an adverse environmental impact on the water resources of the basin.

There is no biological basis for the 0.21 cfsm streamflow trigger,[3] and based on growing criticism by DFWELE Commissioner Phillips[4] and others, DEM stopped developing minimum streamflows and abandoned the Basin Plans in the early 1990s. MassDEP should include in Millis' permit a streamflow trigger that actually approaches protection of aquatic life. MassDEP should change the streamflow of 0.21 cfsm at the Medway gage in Special Condition 4 to at least the SYE-calculated August ABF or 0.62 cfs, or 0.34 cfsm, **at the Dover** gage.

Since Millis is reporting rgpcd below 65, it is subject to only the first tier limits on outdoor water use. As discussed in CRWA's letter dated February 10, we believe the Tier One restrictions are totally inadequate. If Millis sells water to Franklin, or another town the permit should provide that the town will be subject to the Tier Two restrictions since its overall withdrawals will increase. It should also be subject to the Tier Two limits until DCR is able to conduct a water needs forecast.

Millis' baseline is based on its 2005 use; however, it is notable that its use that year was close to 25% higher than in the years 2006-2008. Based on the "suspected errors in metering and billing" which prevented DCR from preparing a demand forecast, CRWA believes that Millis' baseline should be its registered volume, or 0.63 mgd.

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[2] The August ABF as just calculated by the SYE is 0.34 cfsm at the Dover gage. It is not clear why the cessation of pumping in Millis' previous permit was tied to the Medway gage instead of the Dover gage.

[3] Fisheries' data and sampling by MA Division of Fisheries and Wildlife and CRWA in the mainstem and tributaries show that Charles River fish populations have suffered in terms of species population and diversity. A recent study by DFW documents that 99 percent of the fish species found in the Charles are macrohabitat generalists, or warm pond-type fish, compared to river-type fish, or fluvial species, which need flowing water for at least a portion of their life cycle. Kashiwagi and Richards, *Development of Target Fish Community Models for Massachusetts Mainstem Rivers, Technical Report* (2009). In comparison, the target fish community for the Charles is predicted to contain 19 percent fluvial specialist species, 48 percent fluvial dependent species and 33 percent microhabitat generalists. *Id.* at 16. Similarity scores for species, habitat use categories and tolerance categories " were among the lowest calculated in Massachusetts." Kashiwagi and Richards, *supra* at 16.

[4] DFWELE Commissioner Phillips in September, 1991, recommended the use of a much higher streamflow value for protection of fisheries in a memorandum to the Chairperson of the WRC. Commissioner Phillip's recommended a summer flow of 0.5 cfsm for heavily regulated basins, which the Charles is.

CRWA questions whether Millis' 2008 reported 55 rgpcd use is truly accurate. It is the second lowest reported rgpcd in the watershed and even Franklin, which limits watering to one day per week reports about 63 rcgpcd.

Holliston

Holliston is another community for which it was not possible for DCR to do a water needs forecast. While Holliston reports 49 rgpcd, this seems extraordinarily low,[5] and given its high UAW (21%), until DCR can prepare an accurate demand forecast, Holliston should at least be required to implement the Tier Two limits on outdoor watering.[6] MassDEP should ensure that Holliston's registered sources do not exceed the average annual withdrawal volume from the registration statement. Until well #7 is operational, it is not possible to assess the impacts to wetlands and Dopping Brook. CRWA believes that conditions will likely be necessary on this well to protect these water resources.

Medfield

Permitting for Medfield has been torturous: it was issued draft permits in 2004, 2005 and 2006—none of which were issued by MassDEP as final permits. Because the town has been on notice since 2004 that it would need to meet the 65/10 performance standards, it should not be given until end of 2011 to meet the standards. Nor should it have until 2014 to comply with the water conservation measures in Special Condition 9.

Although Medfield is only registered to withdraw 0.11 from the Charles basin, the draft permit provides that the town can shift its registered withdrawal volume from its Boston Harbor sources to the Charles River basin. There is no legal basis for authorizing a registered withdrawal volume in one basin to be withdrawn from another basin.[7] Additionally, Table 3, which authorizes a combined, system-wide withdrawal of 1.50 mgd, this appears to conflict with the maximum authorized withdrawal volumes from the Charles basin in Table 2.

Because DCR was unable to prepare a 20-year water needs forecast for Medfield, only a five-year permit only should be issued, after which time a full forecast can be prepared and a new permit issued.

Medfield's baseline is 1.42 mgd, or the average of its system-wide withdrawals 2003-2005. As CRWA has said before,

> Because Medfield is one of the highest residential water users in the watershed, its baseline, based on its three-year average use, is inflated. It is unfair to treat Medfield the same as other Charles towns that do not

[5] Holliston's 2002 cover letter and permit adding well #7 instructed the town to maintain detailed information on service connections added, new residents served, etc. CRWA does not know if this in fact was done and asks that MassDEP look into this.

[6] The same should be true of Natick, for which a demand forecast was not possible, and which reports 63 rgpcd in 2008.

[7] The draft permit cover letter states that "[t]he registered sources were not included in the permit application; therefore they are limited to the average annual withdrawal volume from the Registration Statement."

have an additional allocation of water [from another basin] and are effectively conserving water.

CRWA believes Medfield's withdrawals from the Charles basin should not be combined with its withdrawals from the Boston Harbor watershed for determining the baseline. Offsets (and baselines) should be specific to a particular basin. It would make no (environmental) sense to allow Medfield to perform offsets in the Boston Harbor basin to mitigate the impacts of its withdrawals the Charles; therefore, Medfield's permit should have a separate baseline for the Charles basin.

Condition 2 in Exhibit C to the 50-year lease from the Department of Environmental Management, requires the Town to reduce withdrawals from well # 6 when flow falls below 30 cfs (0.21 cfsm) at the Rte 27 bridge, until such time as the Department modifies the permit "with conditions to provide additional protection to streamflow commensurate with the use of Commonwealth property for public water supply. MassDEP has failed to provide the requisite "additional protection to streamflow" in the new permit to ensure that DCR's public trust obligations, and the lease terms, are met and, as far as we know, has never required the town to reduce its withdrawals from well #6.[8]

Medway

CRWA is struck by the differences among Medway's 2004 permit, 2006 amended permit and the 2010 draft permit that MassDEP proposes to issue. There has been a steady weakening of the Town's outdoor watering limits since the 2004 permit was issued: the overall seasonal cap on nonessential water use has been eliminated, and calendar or streamflow-triggered limits in the past were not contingent on whether the Town met the 65 rgpcd standard the previous year.[9] Medway was allowed in its 2006 permit to implement its own nonessential outdoor use restrictions because MassDEP believed the town's restrictions (which limited watering to several hours at night) were comparable to the agency's limits. Rather than backslide from the 2006 permit, MassDEP should require Medway to continue its previously approved restrictions in place of the Tier One limits,.

Medway's offset provision has also been steadily weakened—MassDEP eliminated a 2004 requirement that the town perform an offset feasibility study implementation plan within one year, set a baseline from 0.93 mgd in 2006, and now is changing the baseline to 0.99 mgd. Medway is not projected to trip this baseline during the 20-year term of the permit. CRWA believes MassDEP should at least be using 0.93 mgd as the baseline.[10]

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[8] In fact, Medfield violated the maximum daily withdrawal volume for well #6 in 2003-2005 and in 2007.

[9] Medway was also required to elect either a streamflow trigger of 0.50 cfsm for hand-held watering only, or the calendar option of watering 2 days per week in its previous permit.

[10] As CRWA said in a previous letter, "Medway's wastewater is treated at Charles River Pollution Control District (CRPCD) at the downstream end of the town. Public water supply areas that are also sewered lose the supplied water via wastewater transport to CRPCD. About half of the area supplied with public water is also sewered. Additionally, about one-third of the total wastewater sent to CRPCD results from infiltration/inflow (I/I) resulting in a ratio of total wastewater to water supplied of about 1.5."

Medway should not have until 2014 to meet the Conservation Requirements in Special Condition 8 because most of these requirements were included in the town's 2006 modified permit.

Wrentham

As we have said about other permits (see comments above on Medfield's permit), Wrentham's offset provision should be based on its 2005 water withdrawals from the Charles basin alone (0.74 mgd), rather than combined with its 2005 Taunton River basin withdrawals.[11] This also accords with MassDEP's offset rationale in the cover letter to the draft permit at p. 5, "[t]he requirement is intended to minimize the impact of increased water withdrawals by requiring permit holders to use the most cost effective and locally appropriate method for 'keeping water local.'"

Because of concerns about withdrawal impacts on wetlands and Lake Pearl, Special Condition 11 requires Wrentham to monitor lake levels and to propose an operational plan that will trigger the use of other sources in town as the level of Lake Pearl approaches elevation 196.0 feet NGVD. A date (by end of calendar year 2010) for submittal of the operational plan should be included in Special Condition 11. Also, because annual wetland hydrology reports for 2006-2008 did not contain statistical analysis of all data (according to MassDEP's Order to Complete), this should be and explicit permit requirement as should the requirement that reports be consistent with the approved monitoring plan.

Please feel free to call me if you have any questions.

Sincerely,

Margaret Van Deusen

Margaret Van Deusen

cc: (via email)
Laurie Burt
Lucy Edmondson
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Barbara Kickham
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Beth McCann
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[11] And in fact Wrentham's 2006 draft modified permit established a baseline for offsets of 0.74 mgd for the Charles River basin.