

NEPONSET RIVER WATERSHED ASSOCIATION

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October 26, 2004

Ms. Madelyn Morris
Bureau of Resource Protection
Department of Environmental Protection
Northeast Regional Office
One Winter Street
Boston, MA 02108

**RE: Draft Modified Water Management Permit, 9P3-3-20-175.02
Town of Medfield, MA**

Dear Madelyn:

Although the referenced Draft Modified Permit purportedly pertains to withdrawal of water from the Charles River Basin for the town of Medfield, it contains new provisions that will have a major adverse impact on Mill/Mine Brook in the Neponset River Basin. The draft modified permit states:

This draft permit will no longer allow shifting between the Boston Harbor basin (Neponset) and the Charles River basin as both basins are under medium stress. As a result, the town (of Medfield) will need to develop a source management plan to describe how the sources will be managed within the withdrawal limits imposed under the registrations and permit for each basin.

While the Charles River watershed and the Neponset River watershed may both be classified as being under medium stress, the portion of the Charles basin from which water is being withdrawn by the town of Medfield is not nearly as stressed as Mill/Mine Brook, where the town also withdraws water. Furthermore, water drawn from Medfield's Charles River basin well is sent to a sewage treatment plant that discharges directly into the Charles River upstream of the well site. Thus virtually all of the Charles basin water withdrawal is recycled back into the basin. Because so little of Medfield is located in the Neponset River basin, however, most of the water withdrawn from the Mill/Mine Brook well is transferred via the town sewer system into the Charles River Basin, exacerbating the existing low flow problems in the Brook described below. Thus the Charles Basin experiences a net gain while the Neponset experiences a net loss of water, even under current circumstances.

The draft modified permit would seriously exacerbate this problem, with no good reason. The town is currently authorized to withdraw 0.92 mgd from the Neponset River watershed and 0.54 from the Charles River watershed for a total of 1.46 mgd. Under the current permit, Medfield is withdrawing over .9 mgd from the Charles and only around .5 mgd from the

Neponset. Because the new draft permit also sets a 1.46 mgd limit on the town water withdrawals, and limits Charles River watershed withdrawals to 0.54 mgd, the town will be forced to increase the Neponset withdrawals from around 0.5 mgd to 0.92 mgd, nearly double. Furthermore, mandatory restrictions on nonessential outside water use in Medfield are only triggered by low streamflows in the Charles River, which are far less likely to occur than extreme low flows in the Mill/Mine Brook. Thus Mill/Mine Brook could run totally dry (not an unusual occurrence even now) without water use restrictions being imposed.

There is nothing DEP regulations or in its recently issued “Water Management Policy for Permit and Permit Amendment Applications and 5-Year Reviews” which requires DEP to stop allowing shifting between two water basins, even when both are under medium stress. In absence of such a requirement, common sense dictates that it not be imposed in situations where it will not help one watershed (the Charles) but will seriously harm the other (the Neponset).

It is DEP itself that identified the serious low flow problem in Mill/Mine Brook and classified Mine Brook in the “Proposed Massachusetts Year 2004 Integrated List of Waters” as “MA Category 5 Waters – Waters requiring a TMDL” due to “flow alteration”. DEP has also highlighted low flow problems the Mill/Mine Brook system in the following documents:

“Boston Harbor Watershed 1999 Biological Assessment”, a Technical Memorandum by John Fiorentino, MA DEP Div. of Watershed Management, 8/25/2000:

Environmental impacts due to reduced flow, and changes in water quality (elevated temperatures) from water supply well withdrawals in a small subwatershed such as Mine/Mill Brook, combined with increases in residential developments, and out-of-basin transfer of the wastewater via the sewer system, may very well be manifested by changes in the aquatic environment. It is strongly recommended that strict water conservation measures be employed by the communities in the Mine/Mill Brook system. [Emphasis Added]

“Neponset River Watershed Basin Wide Action Plan,” March 1997, conducted by NepRWA for MA EOE:

Clean Water Strategy for Mill/Mine Brook Subwatershed

1. promote water conservation
2. review and condition, as necessary, WMA permits
3. implement stricter zoning bylaws, if necessary
4. develop innovative water supply strategies to balance growth/demand/water quality

- 5. *investigate low flow/ water balance issues*
- 6. *develop and conduct flow optimization study*
[Emphasis Added]

“The Neponset River Watershed 1994 Resource Assessment Report”, MA DEP
Office of Watershed Management

Recommendations:

Water withdrawals from the Mine Brook system should be reduced during critical (low-flow) conditions. [Emphasis Added]

Table 9.5 1994 Neponset River Basin Survey. Mine Brook discharge profiles (cfs).

	<u>Average Day Estimated Transfer Out of Subbasin</u> (Summer Months)				
	June	July	Aug	September	October
cfs	2.29	1.95	1.63	1.32	1.56
% of flow	23%	56%	39%	31%	26%

Sincerely yours,

Steven Pearlman
Water Resource Analyst

cc: Richard Tomczyk, DEP Hdq.
Nigel Pickering, CRWA
Ken Feeney, Medfield Water Dept.

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