



Charles River Watershed Association

By Fax and Mail

July 31, 2009

Ian A. Bowles, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, 9th floor
Boston, MA 02114

Attn: Anne Canaday

Re: Birch Street Wells, Framingham, MA, DEIR EOEEA # 14197

Dear Secretary Bowles:

Charles River Watershed Association (CRWA) submits the following comments on the draft Environmental Impact Report for the proposed reactivation of the Birch Street wells for public water supply. CRWA is requesting that you require a Final Environmental Impact Report for this project for the reasons discussed below. As presented in the DEIR, it cannot be said that the project has avoided, or minimized and mitigated damage to the environment to the maximum extent practicable.

CRWA has been very involved in Water Management Act (WMA) issues, both in the Charles and statewide, for many years. I sit on DEP's Water Resource Management Advisory Committee, the purpose of which is to advise DEP on its implementation of the WMA, and also on the Water Supply Citizens Advisory Committee of the MWRA. I was also a member of the Task Force that developed the state's 2004 Water Policy. Bob Zimmerman, CRWA's Executive Director, is a longstanding member of the Water Resources Commission.

There is no question that Framingham's withdrawal of up to 4.3 mgd¹ from the Sudbury River watershed will impact fisheries, aquatic habitat, recreation and water quality. The withdrawal will take place in the headwaters region and when combined with Natick's withdrawals from its Evergreen and Springvale wells in the same subbasin (in 2007, Natick's withdrew 2.7 mgd from these wells²) equal 10.8 cubic feet per second (cfs) and constitute 36% of the August median

¹ This is an annual daily average. Depending on the maximum day withdrawal set by DEP, Framingham could withdraw much more than this in the summer. In 2006, the Town's maximum day demand totaled 10.57 mgd or ___% higher than the 7 mgd annual average. It would be useful in the FEIR for the Town to provide calculations of the ratios of 1) its highest to lowest water use months and 2) the three highest to lowest water use months, which will give a true picture of summertime water demand, which occurs when there is almost no recharge occurring and rivers are most stressed. We assume that almost 100% of the summertime flow in the Sudbury's baseflow, provided from groundwater.

² However, Natick it is authorized to up to 4.1 mgd from this sub-basin.

flow and 151% of the 7Q10 in the Sudbury River. The same statistics for Cochituate Brook would be even worse since it has a much smaller watershed. According to the DEIR 30 percent of the water pumped is supplied through induced infiltration from the lake.

Throughout the DEIR, the proponent makes it clear that its intent is that MWRA water supplement the Birch Road well withdrawals, rather than the other way around. Because Framingham exports its wastewater to the Deer Island WWTP, use of the Birch Road wells will result in a large water deficit for the town. Municipal storm sewers and impervious surfaces compound the water loss. If this project goes forward, DEP should require, and the Town should commit to, optimization of its withdrawals, by pumping its local sources in the winter and high flow months when there is less of an impact on water resources and relying on MWRA water entirely in the summer and fall low flow months.

The cumulative impacts of withdrawals from the Sudbury River watershed are not discussed in the DEIR although the Town recognizes that the Birch Road wells will intercept water that would otherwise provide flow to the Sudbury River as well as induce infiltration from Lake Cochituate.³ Under the Water Management Act, DEP may not issue a withdrawal permit if the withdrawal alone, or in combination with other authorized withdrawals, exceeds the safe yield of the water source. G.L. c. 21G, § 11; 310 CMR 36.30(2)(a). A water source is defined to include a river basin. 310 CMR 36.03. No “safe yield,” has been calculated for the Sudbury River basin (or the Concord or Assabet River watersheds). Without this determination, it is impossible to know whether the proposed withdrawal is even permissible in the first instance.⁴ The river is already depleted by upstream withdrawals.

We also note that climate change impacts—in New England, longer hotter summers, less snow pack in the winter, increased drought and more intense rain events, will have profound impacts on our water resources. A new U.S. Geological Survey report estimates that summer stream flows in the Seacoast region of New Hampshire could be 10 percent less by 2025 than today. At the same time warmer temperatures could increase evaporation and lengthen the growing season, when plants need more water. Permitting will need to factor in climate change (including increased evaporative losses) and this should be discussed in the FEIR. The energy use and costs of the wells and treatment plant (including personnel) should be analyzed in the FEIR. The feasibility and cost of only running the treatment plant for six months of the year (November-April) should also be discussed.

No mitigation is proposed in the DEIR for the withdrawal itself. Instead, the proponent states only that a “withdrawal management plan will be developed in the Water Management Act permit process . . .” DEIR at 10-6. The MEPA process, however, is precisely where mitigation should initially at least be proposed and the public have an opportunity to comment on it.

³ The DEIR did not appear to contain lag time estimates for withdrawal impacts to the lake, brook and river, which could assist DEP in prescribing permit conditions.

⁴ Additionally, DEP is required to condition all permits on 1) implementation of conditions that minimize the impacts of the withdrawal on factors listed in 310 CMR 36.26, including water quality, navigation, water-based recreation, wetland habitat, and fish and wildlife, 2) conditions necessary to further the purposes of, or ensure compliance with, the WMA, and 3) that the withdrawal, in combination with other authorized withdrawals, not exceed the safe yield of the water source. See 310 CMR 36.28 (1)(f), (h) and (j), 36.30(1)(d).

Given that the Sudbury basin is already stressed, it is critical that Framingham commit to measures that will mitigate withdrawal impacts. These include optimization as discussed above, streamflow and/or lake level-based triggers for ceasing withdrawals,⁵ a strong drought management plan based on environmental factors and recreational needs for Lake Cochituate, an effective seasonal demand plan to limit nonessential outdoor water use from May through September, and offsets that will help to mitigate the impacts of withdrawals.⁶ It should also agree to a seasonal cap on its overall summer water use as is required of towns withdrawing from the Ipswich River basin by DEP in permits.

Framingham should also agree to develop a water banking program in which requires that for every gallon of new or increased use resulting from development or redevelopment that *at least* two gallons of water be saved or kept within the basin. See, the 2006 Massachusetts Water Conservation Standards at Appendix A, Water Bank Guidance at p. 33-34, which discusses Weymouth's experience with water banking.⁷

The alternatives analysis fails to analyze a reduced withdrawal scenario, stating that the "minimal impacts" can be handled by DEP in the permitting process and that it is "not productive to model a reduced withdrawal." DEIR at 9-7; Your comment in your certificate at p. 2 that the EENF doesn't demonstrate that the preferred alternative minimizes environmental impacts, is still true. The alternatives analysis on a reduced build, or alternatives with less impact is woefully inadequate. CRWA request that you require the Town in the FEIR to analyze all aspects of a reduced withdrawal scenario.

The proponent says that the cost-savings from the use of the Birch Road wells (i.e., \$1 million in 2014 which is premised on future cost of MWRA water) will be used for much-needed infrastructure repairs. The DEIR does not discuss how the Town will ensure that this cost savings actually goes to infrastructure repair and replacement given the competing demands facing the Town. We think that an enterprise-type fund should be established and the Town commit to funding it annually based on the projected cost savings of reactivating the Birch Road wells. In the FEIR, the proponent should clarify its conflicting statements that unaccounted for water is less than 15% and several pages later that it is "at or near" 10%. DEIR at 9-8 and 9-9. The Town should also discuss nonresidential use and the measures, including water audits that it can take to reduce industrial, commercial, institutional and municipal use.

⁵ Framingham has committed to installation of a gage at the Lake Cochituate spillway; however, it should also commit to installation and maintenance of a streamflow gage on the mainstem of the Sudbury River.

⁶ Although DEP has an offset policy, it has to date only been used as a deterrent to keep a community's withdrawals below a prescribed "baseline." Offset measures in DEP's 2004 Water Management Act Policy for Permitting include stormwater and wastewater recharge, water reuse, and I/I removal among other things.

⁷ Danvers instituted a form of water banking, in which it collects a fee from new development projects to mitigate their water use in the highly-stressed Ipswich River basin. The fee is deposited in a dedicated fund which can only be used for conserving water resources, reducing demand, and water use mitigation. At the end of 2008, program fees totaled \$270,000 and the town has been able to implement a robust residential rebate program for low water use washing machines and plumbing fixtures. This successful program also boosted sales at a local appliance store, which offered 0% financing in conjunction with the Town's rebate.

Lastly, after reviewing Appendix B to the DEIR -- the town's legal analysis that the withdrawal is grandfathered under the Interbasin Transfer Act and that the ITA is inapplicable -- and WSCAC's comment letter, we believe the applicability of the ITA presents complex factual and legal issues. A request for a determination of applicability from the Water Resources Commission should certainly be sought to resolve this especially given its potential to establish precedence and expand the universe of grandfathered transfers.

Please feel free to call me if you have any questions at 781-788-0007, ext. 234.

Sincerely,



Margaret Van Deusen
Deputy Director and General Counsel

cc: Alicia McDevitt
Lucy Edmondson, DEP
Duane LeVangie, DEP