the SUDBURY ASSABET & CONCORD WILD & SCENIC RIVER STEWARDSHIP COUNCIL

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Ian Bowles, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Attn: Anne Canaday, MEPA

Re: EOEEA No. 14197, Birch Road Well Field Redevelopment and Water Treatment Plant

Dear Secretary Bowles:

Thank you for the opportunity to comment on the Final Environmental Impact Report for the Birch Road Wells Redevelopment Project in Framingham, EOEEA # 14197. As you know, the River Stewardship Council (RSC) is interested in this project because of the potential impacts to the Wild and Scenic Sudbury River and the resource values for which the River was nationally designated.

The RSC is comprised of state and federal governments, the Towns of Billerica, Bedford, Concord, Carlisle, Lincoln, Sudbury, Wayland and Framingham, as well as Sudbury Valley Trustees, Organization for the Assabet River and the SUASCO Watershed Community Council. It was created by Congress to work with and advise the National Park Service (NPS) on issues related to the Wild and Scenic River. The RSC concerns itself with issues related to the 'outstandingly remarkable' resource values identified in the SUASCO Wild and Scenic River Act, including ecology, recreation, scenery, history and literature. It is in this context that we offer the following comments.

The Certificate issued in response to the DEIR reflects many of the areas of concern which we raised in our earlier comments. Most importantly, it requires the applicant to provide more modeling and analysis of mitigation measures to allow for a clearer understanding of the impacts to the river and other resources. This has not been accomplished in the FEIR. In fact, there has been no attempt to increase the level of understanding of the geology or hydrology of the site and no better estimate of the 'lag time' between pumping wells and responses in the river. While this information is not easy to obtain, and will take both time and money, we believe that this information is critical to being able to

determine the impact of the wells on the river. Without this data, the RSC believes that the Secretary cannot approve the FEIR.

Without evidence to the contrary, the RSC must assume the most conservative scenario; i.e., that the well withdrawals will directly subtract from the base flow of the river. Since the river flow has historically dipped under the well withdrawal rate, this suggests a complete dewatering of the river. This certainly would be a direct and adverse impact and if no other data is available, the RSC will urge the NPS to make such a 'direct and adverse impact' determination under Section 7 of the Wild and Scenic Rivers Act.

Specifically, the Certificate required the applicant to respond to the following issues which, with the exception of #1 below, have not been addressed in the FEIR.

1. Regarding applicability of the Interbasin Transfer Act, the applicant has reduced its withdrawal rate so that an ITA permit will not be required at this time. The applicant may return to the Water Resources Commission in the future to request a variance from the proposed 3.17 MGD withdrawal rate. Nevertheless, it should be noted that this is still an interbasin transfer, removing 3.17 MGD of groundwater from a basin that serves many towns, and discharging into Boston Harbor. It should be noted that many other towns do not have access to the MWRA system and are dependent on groundwater for their water supplies.
2. The FEIR fails to re-run the water budget model using Birch Road wells pump test data.
3. The FEIR fails to use revised groundwater modeling without the complication of recirculation of pump test water.
4. The FEIR fails to use a groundwater model to assess impacts on Lake Cochituate and the Sudbury River while also evaluating time delays of pumping alterations.
5. The FEIR fails to discuss how impacts will be monitored and mitigated.
6. The FEIR fails to discuss mitigation alternatives related to drawdown in Lake Cochituate.
7. The FEIR fails to include details, including numbers and locations of targeted catch basins as well as a plan for O&M including a schedule for improvements
8. The FEIR fails to identify where runoff from the building site would be directed.
9. The FEIR fails to explain how the facility would be heated.
10. The FEIR fails to provide more information on the wastewater that would be generated by the project.
11. A separate chapter on Sec. 61 mitigation, including updates and summaries of proposed mitigation, is included, but the FEIR fails to include costs of mitigation alternatives with a schedule for implementation.

In conclusion, the FEIR does not include the information and analyses required by the Secretary's Certificate that would enable the RSC, the NPS, the Secretary or permitting agencies to evaluate the impact of the project on the river and its resources.

The applicants have proposed an operating plan that they believe negates the need for additional data at this time. It is their assertion that the operating scheme, based on flow data and calendar dates, will protect the river resources, especially during periods of critical low flow, regardless of lag times, geology etc. We believe that this assertion is faulty for the following reasons:

1. First and foremost, the operating plan is not based on an analysis of the aquifer conditions. The proposed trigger dates and pumping reductions do not reflect adequate knowledge of the actual site conditions but instead are based on unrealistic assumptions and faulty data. While certain river flows will trigger a reduction in pumping, the amount of reduction does not have a technical basis. The applicant has not identified a target flow that is protective of resources, whether that is the aquatic base flow (ABF), 7Q10 or another flow. The Q25, Q75 and Q90 flows are not based on the protection of any resource values. In fact, except for one graphic, there is no discussion of what the actual flows are at these various percentiles. Nor is there any discussion of a floor for a low flow. The pumping scheme does not guarantee a level of flow that would be protective of river resources.

2. The proposed pumping scheme is not conservative enough to guarantee that it will not impact the river. The scheme specifies only one situation requiring the pumps to be turned off: when the river flow is below Q90 between August 24 and October 13. Knowing that low flows occur most often from June to October, the applicant must demonstrate how the pumping scheme can guarantee the protection of low flows throughout the year.

3. It appears that the membrane technology, which is required to be kept wet at all times, is inappropriately driving the pumping scheme. A minimum withdrawal of 0.7 CFS or 0.45 MGD is still significant at times of low flow and should not be allowed to compromise the resource needs of the river. Other technologies should be considered to allow the pumps to turn off completely when necessary, or other management strategies should be evaluated.

4. The pumping scheme does not accommodate a time lag between pumping groundwater and a response in the river. As discussed by many of the commenters to the DEIR, the pump test of the wells was flawed, in part because it rained during the test and also because the pumped water was recirculated into the Lake. Another pump test should be done, of sufficient duration and rate to create a cone of depression that approximates real conditions, and the wells should be monitored until they are fully recovered in order to understand the time lag. However, even if the time lag were as little as two weeks for a 90% recovery, as suggested by the proponent, when actual streamflow data is considered, it is clear that the streamflow can fluctuate a lot in a two week period. For example, on July 27, 2005, streamflow at Saxonville was 138 CFS, while the next day it dropped more than 50% to 62 CFS. Within four days it was at 17 CFS and within 12 days it was at 10 CFS. According to the proposed pumping scheme, pumping would have been reduced on July 27, the results of that reduction might not have been felt for two weeks, still having an impact on the river as 'natural' flows continued to decline dramatically.

5. Hydrogeologic data that explains the relationship between Lake Cochituate, the wells and the Sudbury River is not adequate to explain the source of water to the pumping wells. Without this information it is impossible to realistically determine the impacts on these resources.

6. In order to protect water quality of the Wild and Scenic River, the NPS closely reviews NPDES permits for wastewater treatment discharges. The effluent limits in these permits, designed to protect water quality, are based on the 7Q10 flows of the river at the point of discharge. If these wells affect the 7Q10 flow upstream of these plants, then the integrity of the effluent limits would be challenged and water quality would be compromised. Without knowing the 'lag time' there is no data available to suggest how these low flows will be protected.

7. The applicant has committed to gathering data during the first three years of the project to be used to develop a groundwater model that will provide the data needed to refine a pumping scheme while still protecting the river resources. In reality, after building the facility, gathering data, developing a groundwater model, analyzing results and applying for new permits, it would be many more years before a pumping scenario based on good field data could be in place. The proposed operating scheme then is not a quick fix, but one that will be in use for a good number of years. It therefore needs to be guaranteed to be protective.

8. A new analysis of financial viability of the revised project should be undertaken. Because of the changes to the original proposal, financing of the project has changed. It is important to ensure the viability of the project as proposed. There is no economic analysis provided that shows that the project would still be viable if the withdrawal volumes had to be further reduced due to impacts on the Sudbury River.

For all of the above reasons the RSC feels that the pumping scheme as presented in the FEIR fails to protect the river resources. Significant additional information and analyses will be required to effectively evaluate the project impacts before the proposal adequately complies with MEPA requirements.

Thank you for the opportunity to comment.

Sincerely,

Susan J. Crane

Susan J. Crane, Chair
Sudbury, Assabet and Concord Wild and Scenic River Stewardship Council

CC:

Peter Sellers, Framingham Department of Public Works

Sen. Edward Kennedy, US Congress

Sen. John Kerry, US Congress

Rep. Edward Markey, US Congress

Rep. Niki Tsongas, US Congress

Sen. Karen E. Spilka, MA Legislature

Rep. Pam Richardson, MA Legislature

Rep. Tom Sannicandro, MA Legislature

Jackie LeClair, Drinking Water Programs, EPA Region 1