



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

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Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

October 22, 2009

Ian Bowles, Secretary
Executive Office of Environmental Affairs
Attention: Anne Canaday
EEA #14197
100 Cambridge Street
Boston, MA 02114

Dear Secretary Bowles:

MassDEP has reviewed the Final Environmental Impact Report (FEIR) and Notice of Project Change (NPC) for the Framingham Birch Road Well Site Reactivation and Water Treatment Plant Project. The Birch Road wellfield is located in the Sudbury River subbasin of the Concord River Basin.

The September 15, 2009 NPC noted a proposed reduction in average daily withdrawal volume from the well. Average daily withdrawal projections were reduced from 4.3 million gallons per day (MGD) to 3.17 MGD. For the full project change description, the NPC refers the reader to the FEIR, also dated September 15, 2009.

Groundwater Analysis

After reviewing the FEIR, MassDEP does not believe that the FEIR complies with the Secretary's Certificate on the Draft Environmental Impact Report (DEIR) requiring Framingham to conduct further impact analysis, to revise the groundwater model, and to analyze the potential impacts to surface water resources, notably, Lake Cochituate and the Sudbury River along with its tributaries. The Secretary's Certificate also required that the revised groundwater model was to evaluate the time delay between pumping alterations at the Birch Road wellfield and impacts on water resources. The FEIR does not include a revised groundwater model and misrepresents the value of the unrevised groundwater model findings on impact analysis.

Withdrawal Rates

According to the FEIR, the proposed withdrawal is based on a total annual withdrawal of 1,157 million gallons (MG), which would be *equivalent to* a daily withdrawal of 3.17 million gallons per day (MGD). The MassDEP Water Management Program's permits authorize groundwater

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withdrawals by both annual daily average and maximum daily withdrawal rates based on the best available environmental analysis. In the case of the Birch Road wellfield, the MassDEP Drinking Water Program, in its preliminary review of the Source Final Report, has identified a calculated approvable maximum daily yield of 3.96 MG based on the pumping test. However, if MassDEP approves the Water Management Permit for the 3.17 MGD that is currently proposed, any subsequent proposal to increase the annual average daily withdrawal rate above 3.17 MGD would require either a new Water Management Permit application, the amending of any existing permit, and the necessary MEPA filing. Also should it be determined that withdrawals exceeding 3.17 mgd on a maximum daily basis require an IBT Approval the Department cannot revise the permit until the approval is granted and will incorporate any conditions of the IBT approval into the WMA permit revision.

Mitigation Plans

The FEIR states that the Mitigation Plan, described in Section 2, represents a conservative approach to the re-activation and operation of Framingham's Birch Road wells and would protect the interests identified by the Secretary. While the proponent has developed an approach that conceptually MassDEP supports, it is unclear that the FEIR fully supports this statement particularly during low flow periods.

The Secretary's Certificate directed the FEIR to assess the time delay between changes in the pumping rate at the Birch Road wellfield and impacts on streamflow in order to design an appropriate mitigation plan that would avoid streamflow impacts from July through October, which are typically the driest months. As stated in the FEIR, a significant feature of the Mitigation Plan is the Well Operating Plan. The Well Operating Plan employs a potentially useful framework that combines calendar-based and streamflow-based concepts for restricting pumping and avoiding impacts to low streamflows. MassDEP conceptually supports this type of operating plan that uses streamflow triggers and environmental considerations to develop environmentally sound pumping regimes in areas with sensitive environmental resources. According to the step-down withdrawal scenario outlined in the Well Operating Plan, Framingham proposes a pumping schedule based on Q25, Q75 and Q90 streamflow values. The Q75 and Q90 flow thresholds are well below the widely recognized aquatic base flow (ABF), a flow threshold alternative suggested by EOEEA agencies in meetings prior to the FEIR, but ABF is absent from the mitigation plan. The Plan should examine using ABF streamflows as the trigger for reducing pumping, particular from July through October, as a more environmentally protective alternative to the Q25, Q75 and Q90 flows in the current plan.

Surface Water Impacts

The Secretary's Certificate for the DEIR required additional impact analysis for Lake Cochituate, where sufficient lake levels are essential for Cochituate State Park with its extensive recreational use. The groundwater model was not revised to analyze the potential impacts on Lake Cochituate as the Secretary directed. Additional impact analysis of Cochituate Lake under the MEPA process could provide the data necessary to develop a plan that considers surface water thresholds in Lake Cochituate and management of Cochituate State Park for the Secretary's review.

Financial Analysis

An analysis of the financial feasibility of the project at reduced pumping rates has not been performed under the FEIR/NPC volume. The DEIR stated that a plan to withdraw less than an average of 4.3 MGD would be considerably more costly for the Town. The FEIR now proposes to reduce the 4.3 MGD withdrawal to 3.17 MGD. The 3.17 MGD limit when combined with the pumping reductions outlined by your Well Operating Plan will result in a much different cost comparison to those identified in the DEIR and the Alternatives Analysis included therein. The DEIR stated that “a substantial reduction in the annual MGD from the wellfield would make the proposed plant uneconomic and would send the Town back to the drawing board to potentially conceive of an entirely different facility.” The fact that state and federal funds are earmarked for this project further emphasizes the need to re-evaluate the project’s financial feasibility with respect to all alternatives in light of reduced pumping.

In conclusion, MassDEP recommends that a Supplemental FEIR be performed to provide the additional information required in the Secretary’s DEIR Certificate and to provide additional information necessary for reviewers to adequately evaluate the pumping regime planned for the wellfield, the environmental mitigation plan, the potential impacts to environmental resources along the river and at Lake Cochituate, and the financial feasibility of operating the project in light of the reduced pumping needed to protect local resources.

Sincerely,



Glenn Haas
Acting Assistant Commissioner
Bureau of Resource Protection

Cc: Water Resources Commission
David Cash, EEA
Ken Kimmel, EEA
Kathleen Baskin, EEA
Jonathan Yeo, DCR
Margaret Callanan, EEA
Pamela Heidell, MWRA

Michele Drury, DCR
Linda Hutchins, DCR
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