



The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Deval L. Patrick
GOVERNOR

Timothy P. Murray
LIEUTENANT GOVERNOR

Ian A. Bowles
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
<http://www.mass.gov/envir>

October 25, 2007

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Municipal Supply Well
PROJECT MUNICIPALITY : Kingston
PROJECT WATERSHED : South Coastal
EOEA NUMBER : 14100
PROJECT PROPONENT : Town of Kingston
DATE NOTICED IN MONITOR : September 10, 2007

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

This project consists of the construction of a municipal supply well on a 16-acre site in Kingston, MA. The purpose of the new well is to create flexibility and reliability in Kingston's water distribution system, meet future demand, improve fire protection and reduce environmental impacts associated with the pumping of existing wells. It will be constructed at Test Well Site 1-86. Access to the site is proposed along an existing dirt road, which will be paved. The project will include installation of .2 miles of 12-inch water main, construction of a one-story 800 sf pump station and installation of a propane storage tank. Power to the site will be provided from overhead electric transmission lines that cross the property. The Kingston Water Department is permitted to withdraw .57 million gallons per day (mgd) on average over a calendar year. The permitted volume is in addition to the .99 mgd registered volume. The proponent is not requesting additional permitted withdrawal.

The site was acquired by the Town for water supply protection and is undeveloped.¹ The site is located 900 feet south of the Grassy Hole Well and 4,800 feet north of the Plymouth Well. Smelt Pond is located approximately 2,300 feet to the west and is located within the combined Zone II for Well 1-86 and the Grassy Hole Well. Smelt Brook is located approximately 2,600 feet to the northwest and is not located within the Zone II. In addition, several active cranberry bogs exist within the half mile radius of the proposed well.

The project is undergoing MEPA review pursuant to Section 11.03 (4)(b)(1) because it requires a state permit and consists of a new withdrawal of 100,000 or more gallons per day (gpd) from a water source that requires new construction for the withdrawal. The project requires a New Source Approval and Water Management Act Permit Amendment from the Department of Environmental Protection (MassDEP). Also, it requires an Order of Conditions from the Kingston Conservation Commission.

MassDEP comments indicate that Well Site 1-86 in Kingston was approved through a pumping test and Zone II delineation phase of the New Source Approval Process in January of 1991. Although the ENF indicates that the approved rate for Well 1- 86 is 700 gallons per minute (gpm), the 1991 MassDEP approval identified a rate of 600 gpm for the Grassy Hole well and 562 gpm for Well Site 1-86. Further site development was suspended until 2006, when Kingston requested that the Department resume its review of this site. At that time, MassDEP required that Kingston provide an update on any land use changes in the recharge area for the well, as well as any aquifer water quality changes that may have occurred in the intervening time. MassDEP has reviewed the basis for the 1987 model included in the ENF and confirmed that the original model assumptions and aquifer parameters applied are still valid. Also, MassDEP has accepted the water quality data submitted by the proponent and indicates that the site meets the New Source Approval requirement that the land within a 400 ft. radius of the well be under the ownership or control of the proponent.

As noted previously, the well is located within the recharge area of Smelt Brook. Analysis included in the ENF indicates that the well may intercept groundwater flowing to the stream dependent upon the rate and duration of pumping as well as the existing flow in the brook and identifies a range of potential impact on flows.

The ENF indicates that the Town has entered into a Developers Agreement regarding water use and mitigation with the proponent of the 1021 Kingston Place Project, a project being developed under M.G.L. Chapter 40R Smart Growth Zoning and Housing Production legislation. The project includes 730 residential units and 300,000 sf of office and retail uses. The project is estimated to require approximately 250,000 gallons per day (gpd) of water. The agreement indicates that the Town will supply water to the developer and that the developer will offset potential impacts to Smelt Brook through recharge of treated stormwater. The system will be designed to discharge approximately 100,000 gallons per day (gpd) of stormwater into infiltration beds adjacent to the Brook. The Kingston Place Project is not located within the Zone II for Well 1-86. In addition, the agreement indicates that the developer of Kingston Place will fund consultant services related to the design and construction of a new well. The Kingston Place project has not undergone MEPA review although the proponent has consulted with

¹ The ENF indicates that the land was purchased by the Town. The property was deeded to the Town in 1987 by the developer of the Independence Mall Project (EEA #6600/14024) to satisfy local zoning requirements.

MEPA regarding a future filing. It is anticipated that the project will be subject to a mandatory EIR.

The Town's WMA Permit will expire in 2010. The Town is not requesting an increase in authorized withdrawal at this time; however, it appears that the Town may request an increase in withdrawal when it renews its permit in 2010. Comments from the Kingston Board of Water Commissioners on the Independence Mall Theatery project (EEA#14024) and on other projects under MEPA review indicate that the Town is approaching its permitted WMA capacity. The 1021 Kingston Place project will create significant new demand.

Comments from the Jones River Watershed Association indicate concern that, particularly during low flow conditions, impacts could be significant. They recommend that the Kingston Water Department develop a conservation program to lower per capita water use to 65 residential gallons per capita per day (rgpcd). In addition, the comments suggest the Town develop a monitoring program for Smelt Brook and adopt an aquatic habitat plan to recover and sustain native fish species.

Other commentors indicate that additional information regarding the Kingston Place project and its impacts should be disclosed and that there is insufficient data relative to the impact, including potential drawdown, on Smelt Pond. The homes on Smelt Pond rely on private wells and do not have an alternative for connecting to the municipal water supply. The Conservation Commission notes that, given the extent of development proposed in close proximity to the Zone II, it may be wise to protect beyond the 400-foot radius to the southwest and west of the site.

MassDEP indicates that the impacts to the Grassy Pond Well, private wells, surface water features, and other sensitive receptors will be further evaluated during the review of the WMA permit amendment and may result in a permit conditions to monitor and/or mitigate potential impacts. In addition, MassDEP notes that Kingston's WMA permit will require that Kingston meet or exceed the 15% Unaccounted for Water (UAW) and require that Kingston achieve a rate of 80 rgpcd. (Kingston reported UAW in 2004, 2005 and 2006 as 18%, 16%, and 17 % respectively.) The ENF indicate that the Kingston Water Department is conducting a leak detection survey to identify and prioritize problem areas.

The approval of this well raises significant issues that should be addressed in additional detail; however, these issues can be addressed through the state permitting process (for the WMA Amendment and eventually through renewal of the WMA permit) and through MEPA review of the Kingston Place Project.


The proponent indicates that its intention is to use the ENF review to solicit comments regarding additional data and analysis required for the permit review process. Comments on the ENF will be forwarded to the proponent and to MassDEP for review during permitting. To facilitate permit review, the proponent should present, and I expect that MassDEP will require, an updated model that reflects the current USGS regional model and incorporates water withdrawal associated with private wells, cranberry bogs and other uses. MassDEP has indicated it will assess environmental impacts associated with the project and require mitigation for impacts. The proponent should provide a detailed mitigation plan identifying the design and maintenance of the stormwater infiltration and demonstrate that the proposed stormwater

infiltration constitutes adequate mitigation. The proponent should identify alternative mitigation in the event that the Kingston Place project, and associated water supply mitigation, is not completed within the expected timeframe. Finally, MassDEP should consider requiring a monitoring program for Smelt Brook to identify any impact associated with operation of the well.

When the Kingston Place project undergoes MEPA review, it will need to identify how it will meet water demand, provide an accurate estimate of water demand, identify proposed mitigation and design of the mitigation and identify measures to conserve water and minimize overall water demand. In addition, water demand forecasts for the entire Town will be identified as part of the WMA permit renewal process.

The review of the ENF has served to adequately disclose the potential impacts associated with this project. Based on the information in the ENF and after consultation with relevant public agencies, I find that no further MEPA review is required.

October 25, 2007
Date


Ian A. Bowles

Comments Received:

- 10/1/07 Department of Environmental Protection /Southeast Regional Office (MassDEP/ SERO)
- 10/12/07 Division of Marine Fisheries
- 10/15/07 Town of Kingston/Conservation Commission
- 10/1/07 Jones River Watershed Association
- 10/15/07 Smelt Pond Association
- 10/12/07 Helen K. Gavin

IAB/CDB/cdb