

By Fax and Mail

July 25, 2005

Secretary Stephen Pritchard
Executive Office of Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: Anne Canaday, MEPA Unit

***Re: Environmental Notification Form, Schoolmaster Lane Residential
Subdivision, EOE # 1035***

Dear Secretary Pritchard:

The Charles River Watershed Association (CRWA) submits the following comments on the Environmental Notification Form (ENF) for the above-referenced project. This project requires a sewer connection permit and an order of conditions. A fifteen lot subdivision is proposed on this 63 acres site and the project is projected to generate 7,700 gpd of wastewater, and will use in excess of this amount of water. For the reasons discussed below, CRWA believes that a single environmental impact report should be required for this project.

Dedham is a net exporter of water. Its water supply comes from local sources, while its wastewater is discharged to the MWRA sewer system and thus leaves the basin en route Deer Island. This results in a large water deficit. In addition to the water pumped out of local aquifers and discharged into Massachusetts Bay every day, millions more gallons of water seep into these same sewers through inflow and infiltration (I/I), causing an even greater loss to both the Charles and the Neponset basins. Dedham has one of the highest I/I levels of any community in the MWRA system, with an average of under 30% of the flow in its sewer pipes being actual sanitary waste. Dedham's infiltration rates (water leaking out of groundwater and into sewer pipes) have been the highest in the MWRA system in past years. The Charles is a medium stressed basin under the Water Resources Commission's stressed basin classification.

Water conservation will reduce wastewater flows from the project. Reducing runoff and promoting recharge should be goals for this project. Best management practices, such as rooftop gardens, techniques for infiltrating roof top runoff, manufactured drywells that can be installed under impervious surfaces to enhance recharge, and the use of structures for collecting and reusing rainwater should be discussed in the DEIR.

From a water budget perspective, the Town of Dedham is in a large water deficit and its infrastructure is causing massive dewatering of the area. This is because it exports its wastewater out of basin to the MWRA Deer Island plant, 75% of this “wastewater” is inflow and infiltration (I/I), or stormwater and clean groundwater that enters the pipes locally, and its municipal stormdrain system carries off stormwater before it can infiltrate into the ground. Dedham also has a high degree of imperviousness that impairs aquifer recharge. This engineered water cycle results in water shortages and not surprisingly, the Dedham Westwood Water District (DWWD), which withdraws water from both the Charles and Neponset basins pursuant to a registration and permit from the Department of Environmental Protection (DEP), is experiencing difficulty in meeting peak summer demand. DWWD’s proposal to import MWRA water is currently undergoing MEPA review.

The ENF does not discuss the DWWD’s capacity to provide potable water for the project, particularly in the summer months. We note that there are a number of projects in various stages of planning in Dedham that will require significant volumes of potable water. The EIR should focus on summertime potable water demand and the DWWD’s ability to meet this demand during peak use without the use of MWRA water. DWWD is developing a conservation fee program for new development to offset the increased demand on the public water supply system. This fee, which is separate from the access fee required for new water users, will as we understand it be used to reduce water demand by financing water conservation measures, such as the installation of low flow toilets in older homes and subsidizing front loading washing machines and other state-of-the-art low flow devices. We think the fee could also be used to enhance off-site stormwater infiltration and aquifer recharge. The proponent should report on its discussions with DWWD and commit to participation in the water conservation fee program in the EIR. It should also commit to developing a water conservation program for residents, as well installation of low water use dishwashers and washing machines.

Because it has difficulty meeting seasonal demand, DWWD has not allowed projects to use the public water supply for irrigation. The EIR should discuss the irrigation needs of the project and how it plans to meet it. The project should commit to the collection of roof top rainwater in cisterns for storage and use to meet its outdoor irrigation needs. Xeriscaping and drought tolerant grasses should be used throughout the project to reduce, or even eliminate, the need for irrigation water.

Given Dedham’s high I/I rate, the EIR should also discuss the proponent’s participation in the town’s I/I removal program.

The use of low impact development technologies, *e.g.*, raingardens, grass swales and bioretention basins, for integrating stormwater management into the project’s design should be explored in the EIR. The proponent states in the ENF that it will comply with DEP Stormwater Policy. We believe that the project should adopt BMPs that will promote stormwater recharge and/or reduce runoff.

Because Dedham is a net exporter of water out of basin, the water demands for this project are large, and the project will create 22 acres of impervious surface, CRWA believes that the proponents should agree to mitigate the increased water demand pursuant to an agreement with the DWWD. The concept of “water banking” is similar to I/I removal mitigation. CRWA recommends that for every gallon of additional demand that the project will need that the proponent find or keep at least two gallons of water within the basin. There are a number of ways in which this can be accomplished, either by the developer directly or through payment into a dedicated fund for the work to be performed by the DWWD. It could be accomplished, for example, through residential retrofits with water saving devices, DWWD system leak detection and repair, and stormwater recharge on or off-site. The proponent should be required to explore the feasibility of implementing water banking in the FEIR and discussions with DWWD about it. We note that the Town of Weymouth’s water banking program has been successful in keeping the town’s withdrawals below its WMA registered volume. Previously, Weymouth was exceeding its authorized withdrawal volume.

The project should comment to using low impact development (LID) techniques. Proper site design in combination with many landscaping and infiltration techniques distributed throughout the project can cumulatively improve stormwater management cost-effectively. A suite of tools should be evaluated including: preservation of the site’s natural features to the greatest extent possible; planting native vegetation in buffer strips and rain gardens (small planted depressions that can trap and filter runoff); using vegetated areas to slow runoff; and using narrower roads and omission of curbs to reduce impervious surfaces, to name some of the techniques that could be used here. Common LID practices are use of rain gardens and bioretention; rooftop gardens; sidewalk storage; vegetated swales, buffers, and strips; tree preservation; roof leader disconnection; rain barrels and cisterns; permeable pavers and pollution prevention and good housekeeping.