

### MASSACHUSETTS WATER RESOURCES AUTHORITY

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February 15, 2008

Mr. John Fitzgerald Boston Redevelopment Authority Boston City Hall – 9<sup>th</sup> Floor Boston, MA 02201

Subject:

Boston College Institutional Master Plan

Dear Mr. Fitzgerald:

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Boston College Institutional Master Plan filed with the Boston Redevelopment Authority that presents plans for the physical development of the Chestnut Hill, Brighton and Newton campuses. The main components of the ten-year plan are four new academic buildings, a Recreation Center, University Center, a fine arts district, parking facilities, new and replacement on-campus student housing, and renovations of existing buildings. It is the intent of MWRA to continue to work cooperatively together with Boston College as it embarks upon this major initiative.

As an abutter to Boston College, the MWRA offers the following information and comments to assist Boston College so that the implementation of its Master Plan and MWRA's future water projects can proceed in a coordinated way. Our comments are focused in two areas that include:

- identification of three upcoming MWRA water projects adjacent to Boston College
- Boston College development plans proposed for Shea Field and St. Thomas More Drive

#### Three Upcoming MWRA Water Projects adjacent to Boston College

## 1. Chestnut Hill Reservoir Connecting Mains Project (Planning Phase)

Shaft 7 at Chestnut Hill is at the intersection of three major water supply tunnels, the City Tunnel, the City Tunnel Extension, and the Dorchester Tunnel. Through this junction over 210 million gallons of water pass each day – almost 80% of the water MWRA delivers to 2.1 million people served in the metropolitan Boston area.

The Chestnut Hill Connecting Mains project will provide redundancy to MWRA's Dorchester Tunnel. The project will strengthen the connection between Shaft 7 of the City Tunnel and the surface pipe lines which supply water to MWRA's Southern High and Southern Extra High service areas. The strengthened connection will provide emergency backup for a Dorchester Tunnel shutdown without use of the open Chestnut Hill Reservoir.

The project mainly consists of a new 42-inch water main from Shaft 7, along the current access road on the southerly side of the Shaft 7 parcel (AKA Pinetree Preserve) to St. Thomas More Drive connecting to Beacon Street. Construction access would be from the existing access road off St. Thomas More Drive. Other related project work consists of: replacement of a Shaft 7 A line valve near Beacon Street; installing Shaft 7A line and Shaft 7B line meter chambers and isolation valves (north and south of Shaft 7 Structure); work in the PRV Chamber near the new dormitory near the intersection of Commonwealth Avenue and St. Thomas More Drive; and some drain related work in the Cochituate Aqueduct near the PRV Chamber.

Schedule: Design Start: July 2009 Construction Start: July 2011

Construction End: July 2013

Temporary or permanent easements/takings: None identified at this time assuming existing access roadway width is deemed adequate in detailed design.

### 2. Top of Shaft 7 Project (Planning Phase)

Construction of a new top of shaft superstructure at Shaft 7 is planned along with modifications within the underground shaft chamber. This work involves construction access from the access road to the north with temporary construction staging in the parking lot to the west of the shaft. Other related work includes some rehabilitation of the Cochituate Aqueduct Intermediate Gatehouse on St. Thomas More Drive.

Schedule: Design Start: July 2009 Construction Start: July 2011

Construction End: July 2013

# 3. Shaft 7/Water Transmission Redundancy Plan (Study Phase)

MWRA will soon be procuring a consultant to perform a study and concept design of alternatives to provide redundancy for the metropolitan tunnel system. Almost 80 percent of all water delivered to the metropolitan Boston area is delivered through Shaft 7, the City Tunnel, City Tunnel Extension, and the Dorchester Tunnel. A failure in any of these components will result in the loss of adequate supply and pressure of potable water to large portions of the metropolitan area.

Alternatives to be evaluated in the upcoming study include either of a combination of the following two alternatives:

- · pressurization of the Sudbury Aqueduct
- construction of full or partial tunnel loops and/or construction of new surface piping and aqueducts

### Pressurization of Sudbury Aqueduct Alternative

The pressurization of the Sudbury Aqueduct alternative would include a new 7-foot diameter pipe connection from the vicinity of the Sudbury Aqueduct Terminal Chamber on Beacon Street to Shaft 7. The study will evaluate all possible alignments for this connection.

## Full/Partial Tunnel Loops/Surface Piping and Aqueducts Alternative

The construction of a new tunnel from the MetroWest Tunnel in Weston to the end of the City Tunnel Extension in Malden or the Fells Covered Reservoir in Stoneham has been discussed dating back as early as 1937 to provide redundancy for the metropolitan tunnel system. This alternative as well as other potential tunnel and surface pipe alignments will be evaluated in order to develop a cost effective plan for providing redundancy.

The Shaft 7/Water Transmission Redundancy Plan study will begin in summer 2008 with preliminary recommendations being proposed in fall 2009. The study findings will form the basis for proceeding with a subsequent consultant contract to prepare an Environmental Impact Report (EIR), if necessary, which would commence in 2011. Final design and construction would follow the EIR beginning in 2013 and 2015, respectively.

### Boston College Development Plans at Shea Field and St. Thomas More Drive

MWRA staff has met with Boston College representatives over the past several years to identify MWRA's network of surface and subsurface water lines/tunnels and other appurtenances that need to be protected during and after construction within and adjacent to the Boston College Chestnut Hill campus. MWRA expects to continue our coordination with Boston College as the design process for both MWRA and Boston College's projects move forward.

Figure 3-1 Proposed Institutional Projects Ten-Year Plan within the Master Plan document depicts the new dormitories and garage expansion proposed at Shea Field. It appears that the dormitories have been sited to avoid impacts to MWRA's surface water lines ("48 inch - Shaft 7 A lines") and also to avoid impacts to the roadway leading from St. Thomas More Drive to MWRA's Shaft 7 as this stretch of roadway will be used for the construction of future waterlines as described above to provide emergency backup for a Dorchester Tunnel shutdown.

In addition, while MWRA's Cochituate Aqueduct Intermediate Gate House located on the edge of the College's ball field on St. Thomas More Drive in not shown on Figure 3-1, it appears that the proposed dormitories will not impact that facility as well.

With respect to the relocation of St. Thomas More Road to relieve existing congestion at Late Street/Commonwealth Avenue, MWRA's Cochituate Aqueduct is located beneath this roadway and any future building proposed over the Aqueduct or adjacent to the Aqueduct such as a parking garage near the Shaft 7 parcel must be reviewed and approved by MWRA through the 8 (M) Permitting process pursuant to Article 8(M) of MWRA's Enabling Legislation, with the goal of protecting Authority-owned infrastructure in the area.

In closing, we remain optimistic and expect to continue to work closely together with Boston College as it moves forward on more detailed designs for its campus expansion and as MWRA studies and designs are completed. Any questions on the MWRA 8 (m) permitting process should be directed to Mr. Ralph Francesconi at (617) 305-5827 or me at (617) 788-1165 if agency coordination is required. Thank you for the opportunity to comment.

Sincerely,

Marianne Connolly

Marianne Connolly

Program Manager, Regulatory Compliance

cc: Michael Ralph, Public Affairs
Ralph Francesconi, MWRA Water Permitting
Fr. William P. Leahy, S.J., President, Boston College
Tom Keady, VP Governmental Affairs, Boston College