

We observed that Hardy Pond discharges to Chester Brook in the northeast corner of the pond which extends easterly adjacent to the Stearns Hill Road development and heads southerly along Lexington Street and ultimately flows toward the Charles River. The easterly portion of Chester Brook was observed to have standing water with little to no flow. We encountered a concrete control structure (a rectangular weir) at the outfall from the pond to the Brook (see photo 2). Compared to known outlet elevations and water surface elevation at the time of the site visit we estimated that the weir elevation is set at an approximate elevation of 194.5'. We observed that the water surface elevation was approximately 13" above the control elevation which indicates to us that there are likely other conditions downstream that are controlling the current water surface elevation.

Our site walks identified that Chester Brook shows some signs of side bank erosion and sedimentation (see photo 4) in the channel that is reducing the available cross section for conveyance in low flow conditions. We also observed two areas where large stones have been placed across the channel to create walkway paths. A worn path leads to and from each crossing, indicating these paths are frequently utilized by pedestrians. These crossings have effectively created a damming effect and are restricting flow (see photo 5).

We recommend removal of sedimentation accumulation and obstructions within Chester Brook and restoration of the full channel cross section. This maintenance task was also recommended in the Chester Brook Master Plan (Rizzo, 2002).

This action would likely require additional permits for work affecting wetlands, and within stream banks. We would recommend having a pre-application meeting with the Army Corps of Engineers, DEP and the Waltham Conservation Commission before fully pursuing this option. We would expect costs for this work would be around \$280,000 and require cooperation from adjacent property owners. Ideal locations to access the Brook would require permission to access private properties such as Windsor Village development, or Papa Gino's parking lot.

Coler & Colantonio, Inc. DRAFT Hardy Pond Drainage Area Study, Waltham MA, October--November 2010 Excerpted from Pages 5, 6 & 14