Attachment C
Needham Wetlands Regulations
Stormwater Management Policy

Improperly managed stormwater runoff can have a negative impact on wetlands and other resource areas through erosion, pollutant and sediment contamination and limitation of groundwater recharge. Accordingly, it is the policy of the Needham Wetlands Commission that all New Construction comply with the Needham Stormwater Bylaw (Article 7 of the General Bylaws including any regulations promulgated thereto, as amended), and with the latest edition of the Massachusetts Stormwater Standards (including the Massachusetts Stormwater Handbook), as applicable. In addition, the Commission requires that any new impervious areas, such as patios, decks, porches, driveways, etc. constructed within a buffer zone or Riverfront area be designed to prevent pollutant and sediment contamination and to maintain the lost infiltration.

The following summarizes requirements for **single family home** projects, the most common application to the Commission. Refer to the Needham Stormwater Bylaw and Regulations and the Massachusetts Stormwater Standards for all other projects, such as multi-housing or redevelopment projects.

Note: The Needham Stormwater Bylaw is currently under review. It is anticipated that the Bylaw will be updated, and stand-alone regulations will be issued in the future. This Stormwater Management Policy will be updated at that time.

Notice of Intent Application

Applicants are required to provide a Stormwater Management and Erosion Control Plan or a Stormwater Management and Erosion Control section of the project narrative with the following information:

1. Construction period measures to prevent the discharge of silt, sediment and runoff to the resource areas or abutting properties. The location of silt fences, silt socks, wattles, berms, etc. should be shown on the plot plan. Wattles should be a minimum of 12 inches in diameter.

2. Calculations showing the pre- and post-construction impervious areas. Impervious areas should be shown and dimensioned on the plot plans.

3. Where subsurface infiltration systems are proposed, provide test pit data and a soils evaluation completed by a competent soils evaluator. This evaluation should indicate the estimated seasonal high groundwater elevation and the estimated infiltration rate. Test pit location should be shown on the plot plan. The Commission prefers that the soils evaluation be conducted prior to issuance of an Order of Conditions but may waive this requirement if the applicant can show why that is not practical. In any case this a soils evaluation must be provided prior to installation of the infiltration system.

4. Where subsurface infiltration systems are proposed, provide appropriate sizing calculations and show the location, cross section and overflow of the infiltration systems on a

dimensioned plan.

5. An Operations and Maintenance Plan, signed by the property owner, providing, at a minimum annual inspections and removal of sediment, debris and leaves, as needed. If the project involves the continued use of an existing onsite stormwater system, the applicant should provide evidence that they are operating and maintaining the systems, such as the previous year annual inspection reports.

Design Requirements

1. General - Infiltration and other stormwater management systems should be designed in accordance with the Needham Stormwater Bylaw and Regulations, as amended and using Best Management Practices as included in the Massachusetts Stormwater Handbook. For Subsurface Infiltration Chambers, the most used system for single family house projects in Needham, typical BMPs include:

    a. Sizing and installation must conform to specific manufacturer requirements.

    b. Infiltration systems, including open storage systems must exfiltrate in a maximum of 72 hours.

    c. Infiltration chambers must be located at minimum of 2 feet above the seasonal high groundwater elevation.

    d. Infiltration chambers are required to include observation and cleanout ports.

2. Infiltration systems for projects with a total of 4,000 square feet or less of impervious surfaces are required to be sized to collect a minimum of 1 inch of rainfall over the appropriate roof area (see Stormwater Bylaw and Regulations for requirements for house additions). Rainfall falling on other impervious areas, including driveways, decks and patios, can either be collected in the same infiltration system or managed in another manner such as rain gardens, drainage trenches or swales, detention basin or other BMP.

3. Infiltration systems for projects with a total greater than 4,000 square feet of impervious area are required to be sized to collect a minimum of 1 inch of rainfall over the total impervious area (roof, driveways, patios, decks, etc.). In addition, the Applicant must demonstrate compliance with the Massachusetts Storm Water Standards, in particular Standard 2 – Peak Rate Attenuation and Standard 3 – Recharge. Calculations and design for systems with greater than 4,000 square feet must be stamped by a Massachusetts registered professional engineer.