

Submission to the Conservation Commission from the Willow Brook Condominium Association for the August 23, 2018 meeting to review the Loker field project

The Willow Brook Condominium Association Board asked its environmental attorney to review Weston & Samson's filings for the Loker field project. During that review the attorney noted a number of issues with the applications. As abutters the Willow Brook Condominium Association respectfully requests that this document be included in the meeting packet and the public record for the Conservation Commission meeting to be held on August 23, 2018.

The issues with the applications are as follows:

1. The Wayland Commission's Rules and Regulations for the Wetlands and Water Resources Bylaw, Chapter 194 ("Local Wetlands Rules"), page 4, specifies that runoff calculation must meet standards set in a section entitled "Runoff Calculations." The standards include requiring calculations for a 0.5", 1", a 2-year storm event, and 2 year, 10-year, 25-year and 100-year storm events. Rainfall data for the storm events must use the Cornell Study for rainfall amounts. Use of the Cornell Study criteria is a significant difference from the state rules, which use lower rainfall amounts for each of the predicted storm events. No increase in rate or volume is permitted for frequent events (0.5", 1" and 2-year storms); and no increase in volume is permitted for the 1, 25 and usually the 100 years storm events. The Commission's rules appear to make the distinction between rate and volume criteria for the larger storm events, while emphasizing that the larger events may not have increases in volume. The state rules prohibit any increase in rates of flow, but could allow increases in volume. The local rule appears on its face to allow increases in rate, but not volume – but the minimum standard is the state standards and the Town has no authority to allow increases in rate. In effect, to meet both standards the design must have no increase in rate or volume of runoff. The Commission's peer review engineer will have to confirm this, but from the applications materials does not appear to meet these standards.
 - a. The NOI filed under the Chapter 194-Local Wetlands Rules, and the Chapter 193 Stormwater application present the same information about the design of the stormwater system. Though the application includes a series of hydrographs, it does not present the information in a manner normally seen in such applications, consistent with the Rules, to directly compare the existing conditions with the proposed conditions during each of the designated storm events, and to specify the rainfall amounts according to the Cornell method for each storm as required.
 - b. The application provides, in Attachment E, calculation of recharge volumes, giving a single number 1,057 CF (cubic feet), and claiming 1,827 CF of capacity provided by the Chamber Field A. Again, the Rule requires no increase in rate or volume through at least the 25 year, and in most circumstances to the 100-year storm. Attachment E does not provide a table, with supporting calculations, to demonstrate compliance with this standard in the Rules. The hydrographs, for example, show that for Point 1 in a 100-year event, it will discharge 2,941 CF, and P2 would receive 42,794 CF, for a total of 45,735 CF of stormwater discharge during a 100-year event. There is no table or narrative to explain how that large proposed volume differs from the existing conditions, and nothing to demonstrate that 1,827 CF of chamber volume capacity is sufficient to manage the increase in runoff resulting from the change in surface coverage of the land from wooded to artificial playing surface and parking lot.
 - i. The application does provide a table for peak rate attenuation, apparently intended to meet the DEP standard for Stormwater Management. But as noted above, it lacks a table for volumes to document compliance with the local rules,

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and lacks another table required by the Local Rules, for BMPs. Chapter 194 Section 3 mandates:

1. A stormwater analysis shall be done both in a narrative format and a table that names each BMP being used and what performance (% solids removed or other treatment credit being sought) is being attributed to each BMP. The Commission seeks not less than 80% total suspended solids removal as one performance criterion of a BMP. The effectiveness of each BMP for the removal of soluble pollutants shall also be assessed.
 - ii. Indeed, regarding BMPs – there is no section of the application that explains what Best Management Practices (“BMP”) are used or their effectiveness.
2. The plans note a drainage easement, and give a reference to “Note 4”, but there is no Note 4 with information about the drainage easement. The Wayland Conservation Commission should insist that the applicant provide a copy of the easement for the record.

Runoff Calculations: Calculations for runoff shall use a 1-inch rainfall, a 10-year storm event, and a 100-year storm event (no fewer than 7 inches of rainfall in a 24 hour period or greater), and shall include changes in both the rate and volume of runoff pre and post construction. *Four copies of these calculations must be submitted with the application.* The Conservation Commission does not permit an increase in the rate or volume of runoff for frequent storm events (0.5” rainfall, 1” rainfall, 2-year storm event), and requires no increase in volume for the 10-year, 25-year storm events, and generally no increase for the 100-year storm events. An application must clearly define how rates and volumes are being mitigated. This is best achieved with a narrative submitted that describes the calculations done to create the evaluation, the assumptions made, the watershed areas pre and post development, and where, if an increase in volume has been proposed, that increase will occur. *Rainfall data must consider the Cornell Study, TR-40, and other sources of rainfall to justify the amount used for each storm event.* [Cornell University, Northeast Regional Climate Center. September 1993. Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada Publication RR 93-5]