



# Memorandum

**To:** Julie Meyer  
 Wetland Administrator  
 Wellesley Wetlands Protection Committee  
 525 Worcester Street  
 Wellesley, Massachusetts 02481

**From:** William R. Bergeron, P.E.

**Subject:** Project Information  
 #136 & #140 Worcester Street

**JOB #:** WEL-0014

**Date:** November 20, 2019

Julie the proposed Notice of Intent has been submitted as a 40B Project that is subject to the Massachusetts Wetlands Protection Act but not subject to local by-laws. The original Mitigative Drainage Study was done based upon the State Requirements. The Town of Wellesley Wetland Protection Regulations require the use of rainfall data from NOAA Atlas 14, NOAA Hydro meteorological Design Studies Center September 2015. The specific design storms are as follows:

- 2-year design storm 3.31 inches
- 10-year design storm 5.19 inches
- 50-year design storm 7.26 inches
- 100-year design storm 8.17 inches

The calculations noted below outline the results of using the higher design storm criteria. The analysis also indicates that the reduction in peak flow runoff from the existing conditions is 68% for the 2 year design storm to a reduction of 63.9% in the 100 year design storm. Likewise there is an increase in groundwater recharge of 74% for the 2 year design storm and a 73.3% increase in groundwater recharge for the 100 year design storm. This provided mitigation significantly exceed the requirements of section 1.6(8) (b) 4.g.1 of the Town of Wellesley Wetlands Protection Regulations.

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)	Existing Volume (C.F.)	Proposed Volume (C.F.)	Change Volume (C.F.)
2 Year	0.25	0.08	-0.17	1704	440	-1264
10 Year	1.11	0.40	-0.71	5328	1398	-3930
50 Year	2.35	0.85	-1.50	10515	2799	-7716
100 Year	2.95	1.08	-1.87	13049	3490	-9559

Please feel free to call if you have any questions or concerns regarding this matter.

Thanks

William R. Bergeron, P.E.  
 Project Engineer  
 Hayes Engineering, Inc.