

In paragraph 8, the DEP Brief indicates that “Stormwater Standard 3 requires that “the annual recharge from the post-development condition approximates the annual recharge from the pre-development condition”. The purpose of this is to balance the hydrologic budget and to restore natural hydrologic conditions. The word “approximate” means “very similar” or “almost exact” according to the dictionary. It does not mean “exceed”.

Paragraph 9 of the DEP Brief admits that the proposed design “exceeds” the required design. It suggests that the existing recharge rate is 0.095 acre-feet and the post-development recharge rate will be 0.131 acre-feet (an increase of 38% above natural conditions).

Mr. Horsley’s testimony points out that the proposed project proposes to significantly exceed the natural recharge rate and asserts that this is a violation of Standard #3. He goes on to assert that this substantial increase in recharge rates will result in higher water table conditions, compromising the required vertical separation of two feet between the bottom of the infiltration facilities and the high water table (see his paragraphs 6, 7, 8 and conclusion).

The project area is very susceptible to flooding and any increases in groundwater levels will reduce subsurface flood storage and increase flooding. This principle is clearly articulated in the Concord-Alewife Stormwater Management Guidelines published by the City of Cambridge, Department of Public Works. On page 26 of that document, they have clarified the Groundwater Recharge standard as follows: “The project must maintain the same level of groundwater recharge from the site”.

In paragraph 11, the DEP Brief suggests that the infiltration structure IC-1 is outside the Department’s jurisdiction because it is located more than 100 feet from the nearest wetland. However, the parking lot and driveway system that generates the runoff is clearly within jurisdiction. In that this proposed infiltration structure is integrally part of the same stormwater drainage structure it is also within jurisdiction of the Wetlands Protection Regulations and the Stormwater Policy.

In paragraph 13, the DEP Brief suggests that 2.7 feet of vertical separation between the bottom of the infiltration facility is maintained and this meets the minimum requirement of 2.0 feet. However, this value does not take into account seasonal high water table adjustments (USGS) or groundwater mounding. Mr. Horsley has submitted several analyses of seasonal high water table adjustments and groundwater mounding as part of the deliberations with the Belmont Conservation Commission (that file being part of this proceeding) which indicate that the 2.0 foot vertical separation requirement will not be met. This information was ignored in the DEP Brief and was not allowed to be presented as oral testimony during the hearing.