Stormwater Management

Stormwater management is essential to reduce localized flooding, improve groundwater recharge, and protect local waterbodies from stormwater related contamination and will be a significant element in during the site/civil design of the new water treatment plant (WTP).

To manage the stormwater that falls on new impervious surfaces (building roofs, paved driveways, etc.) retention and treatment of stormwater will be required. Stormwater runoff from these new impervious surfaces will be directed into low impact development (LID) and structural controls for treatment and recharge. Various LID techniques will be employed to manage runoff. Typical control elements are bioswales and bioretention. These techniques utilize natural design elements, such as grass, plants, and ponds to store, treat, and infiltrate stormwater which would otherwise accumulate onsite or flow onto adjacent roads, abutters properties, and waterways. To supplement the LID techniques, structural controls such as catch basins, storm drainpipes, and infiltration chambers will also be employed to ensure sufficient collection and treatment.

The stormwater management design for the WTP will be required to meet, or exceed all requirements set by the Massachusetts Department of Environmental Protection (MassDEP) and the Town of Scituate Planning Board. Stormwater controls will be utilized to ensure that post-development peak flows do not exceed pre-development peak stormwater flows. Abutting residents will not be subjected to any increased runoff as a result of development for the new WTP. The stormwater management and design will be subject to the Scituate Planning Board's review process which includes an independent third-party review.

As the site for the new water treatment plant has not yet been selected, stormwater management design has not been completed. The controls presented above are examples of potential control options, but the final design will be dependent on the final site selection, layout, and planning board input.