254-260 Ayer Road RE: Water Resource District Special Permit
M. Toohill 3-27-2023

This redevelopment proposal would result in 61% impervious for the site. Design engineer Chris Tymula offers the following:

"The proposed stormwater management system will greatly improve groundwater quality over existing conditions by reducing potential paths for fuel contaminated runoff to enter the groundwater while promoting groundwater recharge in areas not subject to potential spills. The existing catch basins on-site provide little to no treatment of runoff and do not provide separation of floatables such as fuels and oils. In comparison, the proposed drainage system includes deep sump catch basins with outlet hoods to separate floatables from entering the drainage system. That catch basins are followed by a First Defense hydrodynamic particle separator which, in additional to removing sediment, also separates floatables and provides additional storage of potential fuels/oils/contaminants. Downstream, a large 3,500 gallon oil/water separator is provided to remove potential fuels/oils through a series of compartments and store them for removal. All of these BMPs are designed in accordance with MassDEP stormwater standards, provide multiple levels of pollutant removal, allow removal of sediment and floatables, and ultimately protect groundwater and downstream waterbodies. The site stormwater management system also includes a comprehensive Operation and Maintenance (O&M) Plan to ensure proper operation of the Best Management Practices (BMP's) during and after construction.

The proposed underground infiltration systems will promote treated stormwater runoff and groundwater recharge, from areas of the site not subject to potential spills. The total required groundwater recharge volume is 3,026 cf and the proposed design is providing 10,483 cf of volume, between Underground Infiltration Systems #1 & #2, and the Bioretention Area, which is more than triple the required amount based on MassDEP standards.

The new state of the art, double wall fiberglass fuel storage tanks, double wall fuel product piping, dispensers, nozzles, and positive limiting barriers around the fuel islands, will safely limit any potential contamination of groundwater, and together coupled with the improved stormwater management system, are a significant improvement over existing conditions."