

discharge area. This projected mound height quickly dissipates too less than five inches outside the discharge area. The predicted groundwater mound in the vicinity of SeaQuarters and Gleneagle Drive is between two and five inches. Conservatively, the separation between the base of the septic systems and the high water table in these areas is 30 feet or greater. Using the worst-case mound height, the separation would remain no less than 30 feet.

Beyond Promontory Point, Fairway Lane, SeaQuarters and Gleneagle Drive, the projected mound height would be less than three inches. Again, the separation between existing septic systems and the high water table is estimated to be greater than 20 feet.

Near West Shore Drive and Triton Way, the projected mound height is less than one inch. The groundwater discharge will have no effect on shoreline erosion or septic systems.

Under normal operating conditions (lower flows with irrigation wells operating) projected mounding would be significantly less.

MMRO-5 – Concerned/curious about town's proposal to dispose of 500,000 gpd of wastewater at New Seabury. How would this happen on private property?

RESPONSE – The town of Mashpee has no firm proposal to dispose of wastewater effluent at New Seabury. Some time ago, the town identified the area in the vicinity of the New Seabury Wastewater Treatment Facilities (WWTF) as an ideal location for effluent disposal, and has articulated a long-range concept plan for conveyance of wastewater effluent from other parts of town to this location for disposal by means of deep-well injection. It should be noted that, at this time, no actual plans exist for this, nor is funding in place for the several-mile-long sewer force main that would be required to make this a workable option. Moreover, deep well injection of wastewater effluent is not yet a fully accepted technology in Massachusetts.

Were this scheme to be advanced by the town of Mashpee, the town would have to negotiate for the purchase of the land required for the deep-wells and their associated facilities, or it would have to take the land by eminent domain in which case the owner(s) would be paid for the land based on an appraisal of its value. Should the owner(s) believe that the price paid in eminent domain, the pro tanto, is not representative of the land's true value, the owner may appeal to superior court and may secure additional compensation as determined by the jury.

MMRO-6 – Is background nitrogen adequately considered? CCC uses 5 mg/l but DEIR uses 10 mg/l as its criterion. What is the required standard and will the WWTF meet it?

facility has been relocated. At that time, groundwater monitoring will continue once annually for a period of 3 years at which time monitoring will cease.

The final screen lengths, well depths and screen will be based on site specific soil conditions encountered at each site. Well locations and parameters analyzed for may change based on discussions with the MWD.

SEA-44 - 3.3 Wastewater – Report recommends additional modeling scenarios: Effluent discharge at 300,000 gpd, MWD Wells #2 and #3 pumping at 1 mgd each, and irrigation wells off; same scenario, but with irrigation wells on. Run until steady state condition is reached.

RESPONSE – The Zone II modeling scenarios described are not necessary. The Zone II designation itself contemplates planning purposes and is therefore inherently conservative. Zone II conditions assume that the water supply wells would be pumping under Zone II conditions (maximum pumping capacity at each well with no rainfall recharge) for 6 months. Even if modeling these scenarios were to indicate that the Zone II boundary would change, the treated wastewater-impacted groundwater could not travel from the discharge area to the Rock Landing Wells #2 and #3 within that 6-month period. The time it would take for treated wastewater-impacted groundwater to travel from the discharge location to the Rock Landing Wells would be on the order of several years to tens of years. In other words, Zone II conditions would need to be maintained for this prolonged period of time. Under the scenarios described, saltwater intrusion would be of much greater concern than wastewater migration to the wells.

As previously described herein, the DEP-approved Zone II boundary for the Rock Landing Wells represents a simulated groundwater divide resulting from the Zone II modeling simulation. Numerical modeling indicates that discharge from the WWTF would not flow within 1,000 feet of the Zone II boundary, even under the conservative assumptions of discharging 300,000 gpd continuously with the irrigation wells off.

It should also be noted that at its highest point, directly under the effluent discharge area, the groundwater mound at sustained flows of 300,000 gpd with all irrigation wells off is projected to be approximately 0.8 feet. Groundwater elevations between the discharge area and the Rock Landing Wells are in excess of the 0.8 foot projected mound. Considering that flows from the WWTF will, in all likelihood, be less than the Title 5 flows and that Zone II pumping conditions over a prolonged period of time are unlikely, it is difficult to foresee a scenario where groundwater conditions could change significantly enough to allow wastewater to be captured by the Rock Landing Wells.