5.3 Water Resources

The following mitigation measures are recommended for Alternatives A, B, C, D, and E:

Comprehensive Drainage and Flood Management Planning and Implementation:

Measure 5.3-1. Prior to implementation of the selected alternative, the project proponent shall complete a comprehensive design-level Drainage Plan. This plan shall address drainage and flooding in the action area. The Drainage Plan will implement additional measures, including but not limited to additional pervious surfaces, stormwater retention ponds, additional underground stormwater retention capacity, and other measures to retain or infiltrate stormwater flows, such that no net increase in 100-year peak stormwater discharge occurs as a result of implementing the selected alternative.

Location of Facilities above the 100-Year Flood Height:

Measure 5.3-2. The project proponent will ensure that the proposed groundwater well is installed above the FEMA-defined 100-year flood height, plus an additional 1-foot allowance to account for potential increases in flood height that would result from installation of levees surrounding the wastewater treatment plant, water treatment plant, and wastewater storage pond, as relevant. Specifically, the pump house including all electric and mechanical components, shall be installed at a level equivalent to at least 3 feet above the FEMA-delineated 100-year flood height, plus an additional 1 foot to offset flood height increases from installing flood control levees, as relevant.

Water Quality Mitigation for Proposed Sprayfields:

Measure 5.3-3. The applicant shall take the following measures to ensure no significant reduction in the quality of surface water or groundwater used for potable water supply under the selected alternative:

1. Sprayfield operation shall be managed such that no runoff or other surface discharge of treated effluent occurs from the sprayfield site. Sprayfields shall be monitored on a daily basis for signs of treated effluent pooling or potential runoff. In the event that substantial pooling, runoff, or potential signs of runoff are found, sprayfield discharge rate or management shall be modified to ensure that no runoff occurs. All drainages shall be protected from receiving sprayfield runoff by berms, ditches, or other measures. In no instance shall sprayfields be operated during natural precipitation events, or when standing water is located on-site. This measure will thereby prevent the migration of treated effluent into surface waters, ensuring that comingling of treated effluent with surface waters does not occur.
2. If the private water supply option is selected, groundwater quality shall be monitored for nutrients and pathogens. The applicant shall install at least three groundwater quality monitoring wells in the vicinity of the proposed water supply well, and shall sample each well at least monthly. Monitoring wells shall be screened at or above the level of the water supply well. In the event that pollutants associated with the sprayfield are detected in the groundwater in the vicinity of the water supply well, measures shall be taken to alter the pattern or intensity of wastewater/sprayfield disposal, to ensure that the water supply well does not become contaminated. In the event that the water supply well becomes contaminated with nutrients or pathogens associated with the proposed sprayfield, additional water treatment shall be installed, or a new well shall be installed, in order to ensure that drinking water quality meets federal requirements.