

The project consists of biological nutrient removal wastewater treatment plant that uses a combination of spray irrigation and rapid infiltration basins to utilize remaining nutrients in the treated wastewater and to recharge the water table aquifer. Referring to the process flow diagram in Attachment F.1, wastewater will be pumped from client subdivisions through a TESI owned and operated interceptor to the Wandendale site through a grit collector and thence into an 0.5 MG aerated flow equalization basin. The raw wastewater will be pumped from the equalization basin through a screen and then into the pre-anoxic tank (first stage anoxic zone) of the 3.0 MGD biological treatment plant where about 60-75% of the nitrate-nitrogen will be removed. The partially treated wastewater then flows into the aerobic tank where the bulk of the biological oxygen demand of the wastewater is consumed and the remaining ammonia-nitrogen is oxidized to nitrate in order to accommodate further reduction in nitrogen in the post anoxic tank. Membranes will be used for biosolids separation. The treated wastewater then will be disinfected in an in-line ultraviolet system before storage in a 0.5 MG effluent dosing tank. A conceptual layout of the wastewater treatment plant is provided in Attachment F.2. Rapid infiltration basins and spray irrigation will be used to recharge the underlying aquifer. Two lagoons will provide storage for spray water during inclement weather and when agricultural operations preclude spraying.