

5 GROUNDWATER USAGE

The proposed Twin Pines Saunders Mine is designed to have minimal impact on the surficial aquifer system. The dragline mining method does not require the dewatering of the mining cut during mining operations. Twin Pines will use a closed-loop processing system that will recycle/reuse process to minimize the need for make-up water. Losses of water will consist primarily of evaporation and infiltration into the surficial aquifer system from the tailings stockpile. Make-up water will be sourced from the Upper Floridan Aquifer (UFA).

Twin Pines conducted a groundwater modeling study for the effects on the Upper Floridan Aquifer system during the anticipated 8-year life span of the Saunders Mine (Attachment B). The minimum drawdown simulated by the model in the UFA showed a drawdown of 14.8 feet and a maximum drawdown of 80.8 feet. The model shows that the effect on the aquifer diminishes as the radius from the well increases and significant aquifer recovery is evident after pump shutdown, therefore it is not anticipated that the any adverse effects on the aquifer will occur as a result of this mining project during its lifespan.