

The Texas Water Cycle: Sourcing to Treatment to Sourcing

Presentation Summary

Traditional water projects in the industrial and oil and gas markets have typically involved locating water sources, treating water for industrial use, and treating wastewater streams for discharge to receiving streams. Increasing water demand in Texas due to population growth and industrial expansion for heavy users like data centers, coupled with drought conditions and scarcity of new freshwater supplies, have led to increased interest in finding new water sources. At the same time, the traditional method of disposing of produced water (oilfield wastewater) through saltwater disposal (SWD) wells has been linked to increased seismic activity and blowouts of old or improperly abandoned wells in West Texas. Such challenges have led to the advancement of technologies to treat produced water for surface disposal or land application; however, these same technologies could be used to provide an alternative water source to meet growing demands. This presentation will cover the complete water cycle of water sourcing, wastewater and produced water treatment, and possibilities for treated water reuse based on Tetra Tech experience.

Bios

Mr. Joel Camann, PE, has over twenty-five years of environmental engineering experience both in consulting and in industry. He served as program lead at a refinery for all wastewater, stormwater, BWON, QQQ, and SPCC compliance. Mr. Camann's extensive consulting experience covers numerous permitting, compliance, and design projects serving as project/team manager and/or lead process/design engineer. He has recently managed a series of projects with developers of produced water/desalination treatment technology for the preliminary design of pilot treatment systems and for permitting beneficial reuse of treated effluent through land application. He served as water team design manager for a proposed multibillion-dollar petrochemical plant expansion project to provide the water, wastewater, and stormwater design services for three new process units. His knowledge of permitting and process design allows him to develop cost effective compliance strategies.