

Title: Drinking Water Quality Impacts of Watershed Fires: A Case Study

In 2007, the Zaca Fire burned 240,000 acres in the Los Padres National Forest, half of which is within the watershed of the Santa Ynez River. The City of Santa Barbara and several communities in Santa Barbara County rely on the Santa Ynez River for the majority of their drinking water supply. The winter storms following the fire washed massive amounts of ash and debris into the two main reservoirs on the River: Gibraltar Reservoir and Lake Cachuma. This caused a complete change in the quality of the water treated by the City of Santa Barbara's Cater WTP. As a result, the City implemented a comprehensive water quality monitoring program to track the quality of the water from the sources to its distribution system. More recently, last summer's Thomas Fire has already impacted water quality in the watershed. This presentation will include details about the City's monitoring effort and its outcome, and a discussion of how the City is managing deteriorating quality of its drinking water source.

Presenter: Ryan Anderson, Carollo Engineers

Ryan has 15 years of experience as a process design engineer with Carollo Engineers, Inc.. He has designed facilities ranging from small 400 gpm wells up to 600 mgd conventional surface water treatment facilities. His area of professional focus has been conventional surface water treatment with specific focus on helping utilities achieve compliance with the Disinfectant/Disinfection By-Product Rule. He has experience with design of advanced oxidation processes (ozone), enhanced coagulation strategies for TOC removal, disinfection strategies through the use of UV, chlorine, and ozone, as well as design of GAC contactors for TOC removal, chemical feed facilities, solids handling, groundwater treatment. He has been working with the City of Santa Barbara since 2004 and has also been a consultant for several municipalities in Southern California.