




# PA33C-1114 - Assessment of Texas Water Resources in the Context of Changing Climate: Toward Alignment of Research Agendas and Capabilities with Stakeholder Needs

 Wednesday, 11 December 2019

 13:40 - 18:00

 *Moscone South - Poster Hall*

## Swirl Topics

Science & Society - SWIRL

## Abstract

Long-range water planning is complicated by changes in climate, population, and water use. In Texas, the current approach is to maintain water supplies sufficient to provide adequate water through a repeat of the driest episode in instrumented history. However, the top-level state water plan does not take into consideration potential declines in surface water supply as a function of a drying climate and associated extreme weather events. In that context we review some of the climate factors that may have a large impact on water management. To illustrate how modeled predictions might serve to increase Texas water resiliency, we align these parameters the needs of a prototypical large surface water supplier. We examine the stakeholder perspective on different kinds of climate data, including actionable, incompatible, and unavailable information. Finally, we provide an example of a recent study that attempts to translate climate projections into actionable management information. While it is clear that stakeholders value the predictive capability contained in climate model outputs, we find that currently available data are generally insufficient for supporting true resilience across numerous economic sectors. Indeed, this requires a new suite of tools that provide both short and long-term, stakeholder-specific adaptive planning capacity.

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