

# California's Fourth Climate Change Assessment Supporting Research

**Title:** Climate information? Embedding climate futures within temporalities of California water management

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## ABSTRACT

This article uses the case of drinking water utility managers in California to understand uses of climate-change information in resource management. A dominant narrative suggests that producing management practices best adapted to climate-change impacts is a matter of reconciling the supply of scientific knowledge with the demand signals of resource managers. We question this narrative with reference to the diverse cultural and socio-technical structures in which the future climate takes on meaning in water management. Using interviews (n = 61), we analyze three ideal-typical 'social temporalities' of climate change: modeled futures, whose future?, and truncated futures. We define social temporalities as alternative constructions of the future built into socio-technical engagement with water and into collective orientations to climate change. Of the three ideal types, we found that only one (modeled futures) closely aligns with the supply-demand relationship as constructed in scholarly literature and climate adaptation-related policy. This leaves nonconforming types without guidance that resonates with their relationship to climate change information. Consideration of sociological dimensions of climate knowledge may warrant a revised or additional approach to climate service programs or related assistance efforts.

**Keywords:** climate change adaptation, sociology, temporality, water management

## HIGHLIGHTS

- There is an uneven use of climate change information among drinking water utilities in California, according to interviews conducted for this study.
- Water utility managers approach climate change, relevant information, and their water system's future in one of three ways
- Some embrace the approach of modelling futures to understand potential impacts of climate change
- Some managers described their use of climate science for political prospects
- A third group of system managers, mostly of small systems, tended to not interact with climate science at all

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