

# **Irrigating Citrus with Reclaimed Municipal Wastewater**

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## **Executive Summary**

The use of reclaimed water (treated municipal wastewater) for irrigation is being proposed as a way to expand limited water supplies throughout southern California. Citrus and avocado growers are concerned that elevated concentrations of boron, sodium, chloride, and surfactants in the reclaimed water could adversely affect their orchards. The scientific literature contains conflicting reports of either the safety or the hazard of reclaimed water on citrus and avocados. In addition, there has been a long-standing misinterpretation of the guidelines for boron in irrigation water, suggesting that reclaimed water may not be as safe as is often believed. The effects of water quality on soil physical properties and tree health are also dependent on irrigation management, soil mineralogy and texture, tree variety, rootstock, and climate. In this work we propose to evaluate the effects of reclaimed water on the physical properties of S. California citrus soils, and the toxicity of reclaimed water to navel orange trees (*Citrus sinensis*). This work will determine the relative safety of using reclaimed water for irrigation of citrus.