Sustainable Water Use in the Ventura River Watershed
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INTRODUCTION

The Ventura River Watershed is one of the few watersheds in Southern California that does not import water. Local resi-
dents, businesses, and ecosystems are entirely dependent on local resources to meet their water needs. Because of a limited amount of water available each year, these groups are in competition for a finite resource. Population growth,
demand and increased human activity as well as climate change have led to water shortages. This study sought to address the long-term sustainability of local water resources in the Ventura River Watershed. A combi-
nated water budget was created to quantify water supply and demand, and a number of water management strategies were investigated to study their impact on water availability. The impacts of climate change on water resources were also examined. Finally, the strategies were combined in a set of rules to investigate the ability of the water management strategies to offset potential water shortages resulting from future climate and land use change scenarios.

Project Objectives
1. Integrate existing water budgets for the Ventura River Watershed into one comprehensive model.
2. Determine levels of use that meet human needs while allowing for healthy, functioning ecosystems within the Ventura River stream network.
3. Evaluate the effects of climate change and land use change on the water budget within the watershed.
4. Use the comprehensive model to identify actionable water resource projects in accordance with the priorities of the Ventura River Watershed Council.
5. Propose a set of recommendations to the Ventura River Watershed Council to set priorities for Proposition 8 funding, increasing water availability, and improving ecosystem function within the watershed.

RESULTS

WATER MANAGEMENT STRATEGIES

Greywater Systems: Greywater Systems use indoor residential water to irrigate lawns and gardens, reducing urban water demand. Local sewer systems can be used to transport greywater from one property to another, either through a pipe or a central basin system.

Decentralized Infiltration Basins: Decentralized infiltration basins are an inexpensive option that can be used to capture stormwater runoff from urban areas and allow it to infiltrate into groundwater. The basins can be located near parking lots, streets, or any area with a large number of impervious surfaces.

Urban Water Rate Increases: Increased water use by consumers can be discouraged by increasing urban water rates. The rate increases would be applied to all consumers, not just those with high water use.

Oceans Friendly Gardens: Ocean Friendly Gardens use native plants and reduced irrigation to create landscapes that can withstand drought conditions.

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