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**MORE WITH LESS: AGRICULTURAL WATER
CONSERVATION AND EFFICIENCY IN CALIFORNIA**
A Special Focus on the Delta

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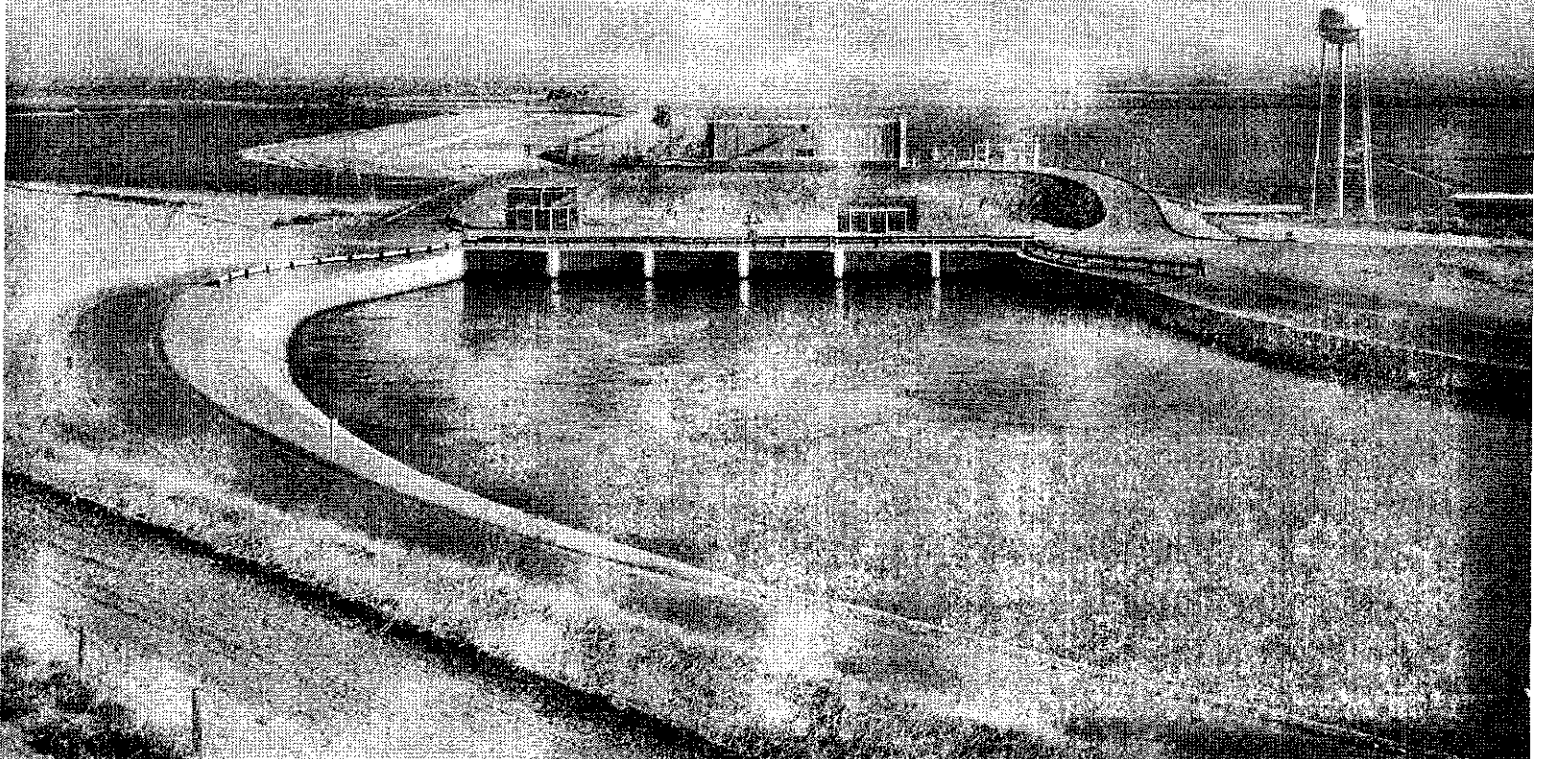
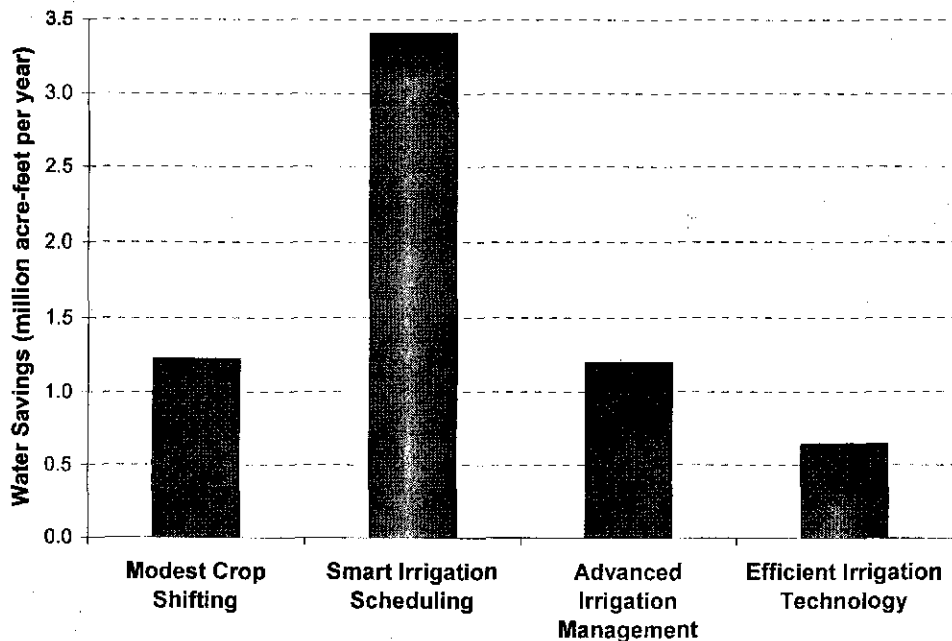


Figure ES-1. Water Savings by Scenario



While we do not consider land fallowing to be a water-efficiency measure, planned short-term fallowing could produce significant water savings during a drought or supply disruption. Planned short-term fallowing of 10% of the field crop acreage would save 1.7 million acre-feet of water and provide revenue for capital and other needed improvements. Furthermore, permanently retiring 1.3 million acres of drainage-impaired lands in the San Joaquin Valley would save 3.9 million acre-feet of water per year, while also reducing clean-up costs and minimizing the social and environmental impacts associated with polluted surface and groundwater.^{10,11} However, impacts on agricultural workers and the local community, referred to as third party impacts, should be mitigated in any land fallowing or retirement agreement.

Our report provides a new vision of the Delta's future—one in which a profitable and sustainable agricultural sector thrives, while water withdrawals from the Delta are significantly reduced. Each scenario has risks and tradeoffs, and implementation details will be critical to the success of these measures. We do not address the question of how water is withdrawn from the Delta, i.e., whether a peripheral canal, "dual conveyance system," continued pumping, or no pumping from the south Delta is best. Independent of a decision to change how water is taken from the Delta, we show that it is possible, indeed preferable, to take *less* water and improve the Delta's environmental and economic conditions. Certainly, no decision about new or modified infrastructure should be made without evaluating the ability to reduce its size and cost through water-use efficiency improvements.

¹⁰ Department of Water Resources (DWR). (2007). San Joaquin Valley Drainage Monitoring Program: 2002. Sacramento, California.

¹¹ Drainage-impaired lands are those areas where the water table is within 20 feet of the ground surface. To estimate the water savings, we multiplied estimates of the drainage-impaired land by the weighted average of applied water in the San Joaquin and Tulare Lake hydrologic regions from 1998 to 2003, which was 3.11 acre-feet per acre (DWR 2008b).