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Global Trade Analysis Project

<https://www.gtap.agecon.purdue.edu/>

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From almond shaming to water trading: CGE insights into managing California's drought

Full paper downloadable from
<http://www.copsmodels.com/elecpr/g-258.htm>

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California has suffered a four year drought that has imposed severe stress on the state's water resources. Irrigators and urban users have both been affected by unprecedented water restrictions. How should California allocate water? The state has long-standing water allocation issues, as economic mechanisms historically have played little or no role in allocation. USAGE-TERM-H2O is a multi-regional CGE model that represents 12 key irrigation counties in California as separate economies. Water trading between irrigators would help California cope with drought. In particular, sales of water from annual crops grower to perennial producers may lower the costs of maintaining plantations, given the high fixed costs arising from the alternative action of drilling new wells. Diverting substantial volumes of irrigation water from plantations to urban users may not be consistent with welfare maximisation.

Keywords Drought impacts, regional CGE modelling, water trading

JEL classification: C54, Q11, Q15.