

Leaking Power

How to Save Energy By Saving Water



Ethan Elkind
Climate Change Research Fellow

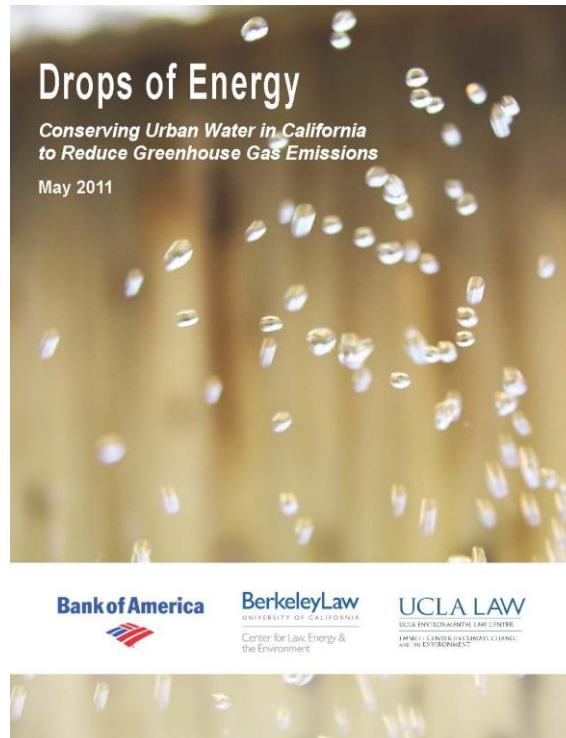
BerkeleyLaw
UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment

UCLA LAW
UCLA ENVIRONMENTAL LAW CENTER

EMMETT CENTER ON CLIMATE CHANGE
AND THE ENVIRONMENT

Berkeley / UCLA Law: “Drops of Energy”



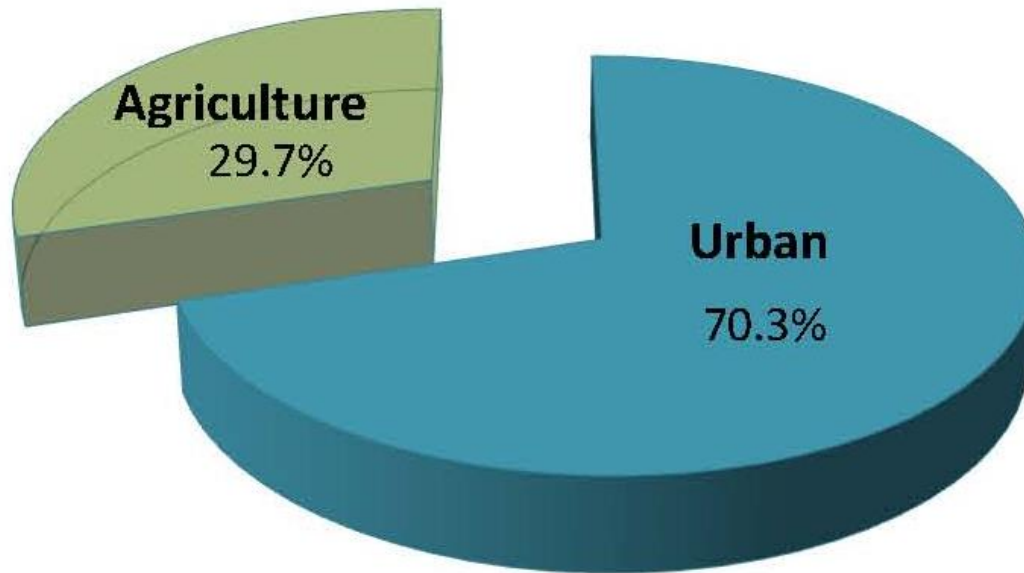
www.law.berkeley.edu/clee or www.law.ucla.edu/environment

Water Use Means Energy Use



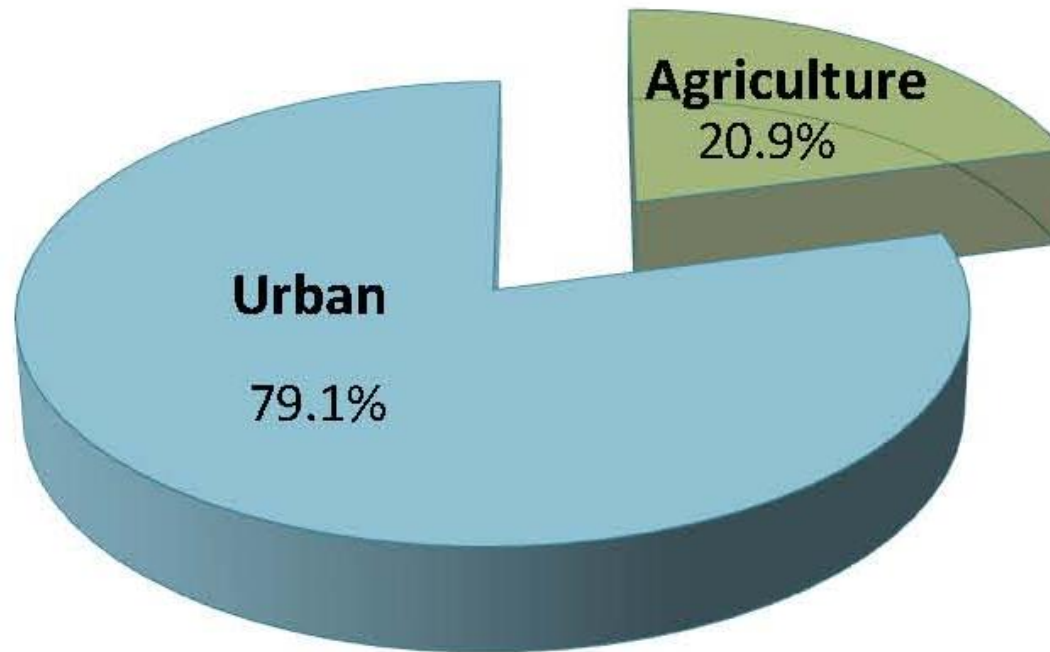
- Pumping, Treating, and Using
- Energy associated with water consumption
 - 20% of the state's electricity
 - 30% of non-power plant natural gas
 - 100 million metric tons of CO₂-eq gases
- Air pollution

Total Electricity Use Associated With Water in California



Source: California Energy Commission

Total Electricity Use Associated With End Use of Water in California



Source: California Energy Commission

Prime Target: Indoor Hot Water



Lake Arrowhead, CA

The Benefits

Figure 1: California's Greenhouse Gas Emissions (2002-2004 Average)¹⁴

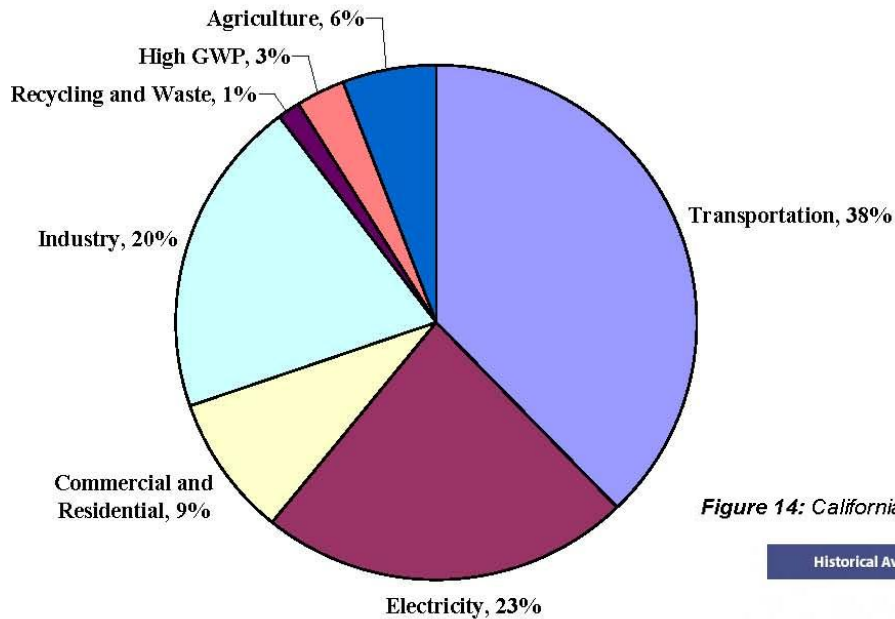
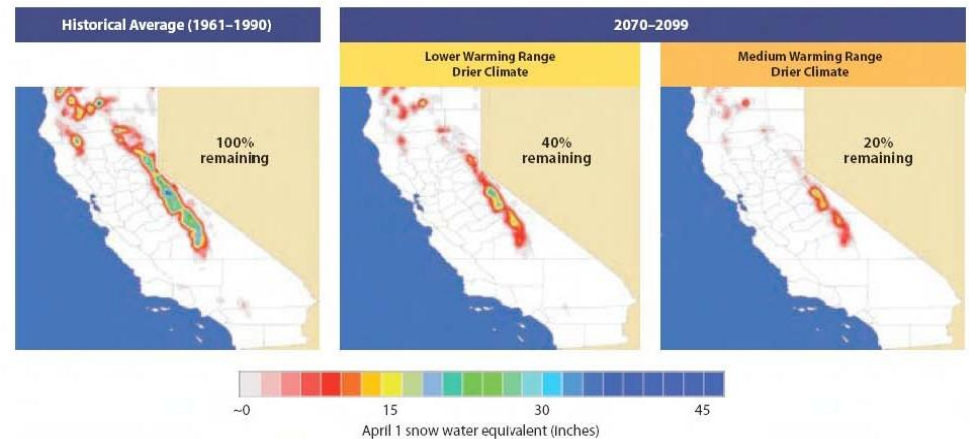


Figure 14: California historical and projected decrease in April snowpack, 1961-2099 (Source: Cayan et al 2006).



Source: California Air Resources Board & Natural Resources Agency

Barriers to Urban Water Efficiency

- Lack of Financial Incentives
- Insufficient Data
- Lack of Consumer Awareness
- Lack of Funds



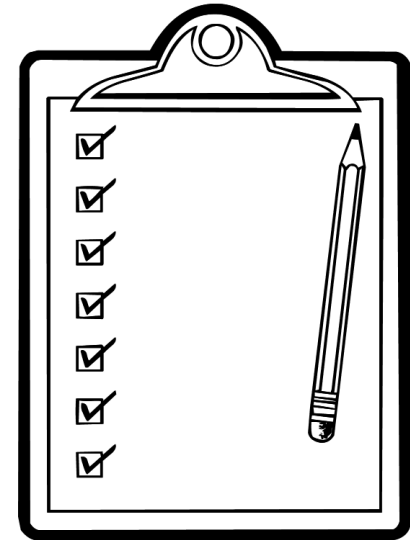
Improved Water Rates



- Budget Based (i.e. Allocation) Rates
- Inclining Block Rates
- Time of Use / Seasonal

Data on Water Consumption

- State Standards and Metrics
- Utility Data
- Searchable Database
- Real-Time Customer Info



Marketing Campaign



Energy Efficiency Financing



- On-Bill Financing
- PACE Program
- Public Goods Charge (state or local)
- Water Utility Investment Incentives
- Carbon Credits for Water Efficiency

Next Steps

- Implementation of SB 7x7 (20x2020 Plan)
- Resurrect state public goods charge
- Coordinate with Energy Efficiency efforts
- Centralize state leadership, promote locally

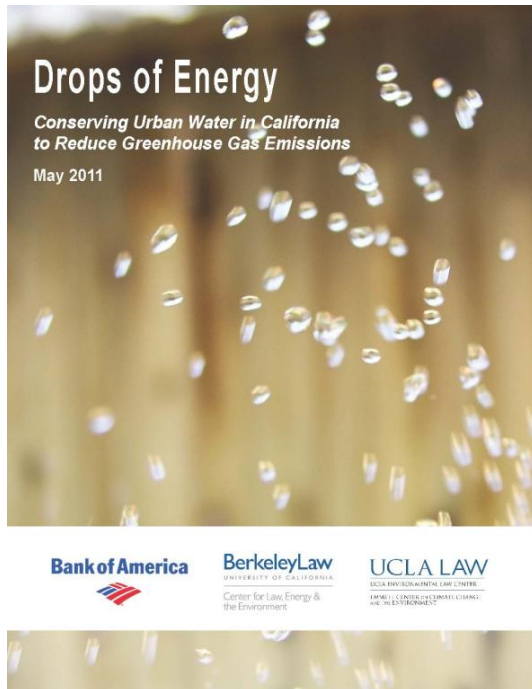


Thank You

eelkind@law.berkeley.edu

elkind@law.ucla.edu

(510) 643-3701



www.legalplanet.wordpress.com