

## Urban Environmental Problems: Water Resources

### *Description*

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Water is important, but you knew that. We need it for life, for crops, for hygiene, and for cash. In California, water availability governs growth in obvious as well as unseen ways. Elsewhere, nearly 1 billion people lack access to clean water around the world with the result that many millions, most of them children, die each year from water-borne diseases. Major wars, and major court battles, have been and continue to be fought over the control of rivers, lakes, and underground water supplies. Somewhat less dramatically, the local newspaper reports emotional debates on regional water pricing, treatment, conservation, and distribution policies almost every day.

Everyone is aware of these tensions to a degree. But how familiar are we with the substance behind the buzz words, the details of the tradeoffs faced by policy makers, or the merits of alternative “solutions?” And what can be done anyway? How does one go about determining how good water should be, what it should cost, and where it should go?

This course will examine these and other contemporary water policy problems, with particular attention to the competing demands for water in the western U.S. and water scarcity issues in the cities of developing countries. The readings thus address the history of water policy in this country, analyze public policies at the local, state and federal levels, and review ongoing research on water and poverty in the developing world. We will follow a discussion format, organized around lectures and the readings.

### *Course requirements*

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Please read the material before class. In addition, you are responsible for four 2-page essays, critically analyzing the readings, cases, and lecture materials covered during that period. Each is worth 15% of your final grade. A 15 page research paper (40% of your course grade) on a topic of your choosing is also required.

### *Required texts*

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Robert Gottlieb and Margaret FitzSimmons, **Thirst for Growth: Water Agencies as Hidden Government in California**. Tucson: University of Arizona Press, 1994.

Sandra Postel, **Last Oasis**. New York: Norton, 1997.

Marc Reisner, **Cadillac Desert: The American West and its Disappearing Water**. New York: Penguin, 1993.

Juha Uitto and Asit Biswas, **Water for Urban Areas**. Tokyo: United Nations University Press, 2000.

E. C. Pielou, **Fresh Water**. Chicago: University of Chicago Press, 2000.

The World Bank, **World Development Report 1992: Development and the Environment**.  
New York: Oxford University Press for the World Bank, 1992.

Arthur L. Littleworth and Eric. L. Garner, **California Water**. Solano Press, 1995.

Association of California Water Agencies <[www.acwanet.com](http://www.acwanet.com)>

Association of Ground Water Agencies <[www.agwa.org](http://www.agwa.org)>

California Environmental Protection Agency <[www.calepa.ca.gov](http://www.calepa.ca.gov)>

California Office of Water Education <[www.dwr.water.ca.gov](http://www.dwr.water.ca.gov)>

California Urban Water Conservation Council <[www.cuwcc.org](http://www.cuwcc.org)>

California Water Code <[www.leginfo.ca.gov/calaw.html](http://www.leginfo.ca.gov/calaw.html)>

California Water Plan drafts and other related state documents <[rubicon.water.ca.gov](http://rubicon.water.ca.gov)>

City of Pasadena Water and Power Department <[www.ci.pasadena.ca.us/waterandpower](http://www.ci.pasadena.ca.us/waterandpower)>

Information on California Dams (circa 1993) <[elib.cs.berkeley.edu/kopec/b17/html/home.html](http://elib.cs.berkeley.edu/kopec/b17/html/home.html)>

Metropolitan Water District <[www.mwd.dst.ca.us/index.htm](http://www.mwd.dst.ca.us/index.htm)>

Middle East Water Information Network <[www.ssc.upenn.edu/~mewin](http://www.ssc.upenn.edu/~mewin)>

State Water Resources Control Board <[www.swrcb.ca.gov](http://www.swrcb.ca.gov)>

U.S. Environmental Protection Agency <[www.epa.gov](http://www.epa.gov)>

U.S. Water News Online <[www.uswaternews.com](http://www.uswaternews.com)>

U.S.G.S. Water Resources of California <[ca.water.usgs.gov](http://ca.water.usgs.gov)>

UNDP Poverty and the Environment Initiative <[www.undp.org/seed/pei](http://www.undp.org/seed/pei)>

UNDP/World Bank Water and Sanitation Program <[www.wsp.org](http://www.wsp.org)>

UNEP Managing Water for African Cities <[www.un-urbanwater.net](http://www.un-urbanwater.net)>

UNESCO World Water Forum <[www.worldwaterforum.org](http://www.worldwaterforum.org)>

Water Replenishment District of Southern California <[www.wrd.org](http://www.wrd.org)>

Water World Magazine <[www.wwinternational.com](http://www.wwinternational.com)>

1. The world and the big picture — 4 weeks

Sandra Postel, **Last Oasis.**

Juha Uitto and Asit Biswas, **Water for Urban Areas**

**Vision 21: A Shared Vision for Hygiene, Sanitation and Water Supply**  
<[www.wsscc.org/vision21/wwf/vision21.html](http://www.wsscc.org/vision21/wwf/vision21.html)>

Don Hinrichsen, Bryant Robey and Ushma D. Upadhyay, “Solutions for a Water-Short World,” **Population Reports V. 14**, Population Information Program, The Johns Hopkins School of Public Health, September 1998  
<[www.jhuccp.org/pr/m14edsum.stm](http://www.jhuccp.org/pr/m14edsum.stm)>

(Optional reading: Albert M. Wright, **Toward a Strategic Sanitation Approach: Improving the Sustainability of Urban Sanitation in Developing Countries**, UNDP-World Bank Water and Sanitation Program, November 1997  
<[www.wsp.org/English/ssa.pdf](http://www.wsp.org/English/ssa.pdf)>

**World Development Report**, ch’s 2 and 5.)

**CASES: Jakarta, Mexico City**

2. Western U.S. development and politics — 3 weeks

Marc Reisner, **Cadillac Desert.**

**PBS Cadillac Desert web site** <[www.pbs.org/kteh/cadillacdesert/home.html](http://www.pbs.org/kteh/cadillacdesert/home.html)>

**A Colorado River web site** <[www.desertusa.com/colorado/coloriv/du\\_coloriv.html](http://www.desertusa.com/colorado/coloriv/du_coloriv.html)>

(Optional reading: **California Water**, ch’s 1, 4, 8 and 9.)

**CASES: The Central Valley Project, the State Water Project**

3. Southern California policy and governance — 3 weeks

Robert Gottlieb and Margaret FitzSimmons, **Thirst for Growth.**

**MWD web site** <[www.mwd.dst.ca.us/index.htm](http://www.mwd.dst.ca.us/index.htm)>

**CASES: The MWD/IID water transfer, the MWD/San Diego/IID water transfer**

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