

Western Water and Power Solution Bulletin

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Finding Ways to Solve Water Conflicts in the West

Analysts researched conflicts to determine ways to work together effectively.

What Is The Problem?

Water is a critical resource in the Western United States, and often a source of conflict, owing to growing populations and new water demands, including water needed to address Native American water rights, endangered species habitat needs, and new recreational uses. All of this is complicated by drought and increasing climate variability. For water managers, understanding and dealing with conflict is a central part of the job.

What Is The Solution?

By analyzing a large array of water disputes, this Science and Technology Program research project has helped Reclamation to understand how water conflicts grow and develop. It has also provided Reclamation with institutional tools to use to help solve these conflicts.

During this research, focus group sessions were conducted in Reclamation area offices to understand local sources of water conflict. In addition, over 8,000 media reports pertaining to water conflict were scored by a panel of conflict analysts as to the amount of conflict or cooperation each embodied. We then related the level of conflict against biophysical and social variables to produce profiles of environments and conditions likely to create water conflict. The results suggest that biophysical factors appear to be less important in predicting conflict than the absence of existing institutional capacity to manage conflict, such as stakeholder networks and watershed groups.

In addition, we prepared case studies for individual water conflicts to understand their genesis and resolution in detail. Repeatedly we found that the chances for conflict grow when the rate of change outpaces the institutional capacity of an organization to manage that change.

As a result of all these efforts, we have developed a set of teaching modules for building capacity to prevent and manage water conflict. The modules help students understand the general context of Western water, the stages of water conflict, and the skills required to manage conflict. Interactive sessions help to build these skills, including listening, identifying needs and interests, joint fact-finding, systems assessment, problem framing, and network construction, amongst others.

Who Can Benefit?

Reclamation managers can access these workshops and request training for employees, stakeholders, and partners to help develop conflict-resolution skills.

Where Have We Applied This Solution?

We have conducted training and workshops for Reclamation staff and stakeholders in Salt Lake City, Albuquerque, Sacramento, Billings, Bismarck, and Phoenix. These workshops have been enthusiastically received and students have said that they have taken home skill sets that helped them solve real problems.



Dr. Aaron Wolf conducting a conflict management workshop.

Future Development Plans

A train-the-trainer program will be examined for its feasibility. This research strives to create a permanent water conflict training capability for Reclamation personnel and Reclamation stakeholders.

For More Information

Sharing Water, Building Relations: Managing and Transforming Water Conflict in the US West. The final version of this manual will be completed in late 2011. Contact Douglas Clark at the TSC.

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Collaborators

The Western Water Institutional Solutions research project is a joint effort between the Upper Colorado Region Adaptive Management Group in the Environmental Resources Division, the Department of Geosciences at Oregon State University, and Reclamation's Research Office, Technical Services Center, North Dakota Area Office, Montana Area Office, Albuquerque Area Office, Phoenix Area Office, and the Upper Colorado Region.