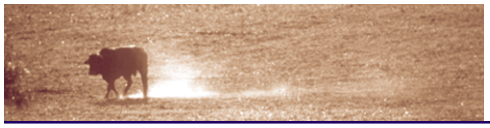

ongoing community planning and comprehensive water management plans aimed at ensuring safe, adequate drinking water (urban and rural) as well as water needed to fight fires. They can help drought planners decide whether they would benefit from simulated drought-response exercises like those conducted by the Army Corps of Engineers.

We often heard that local governments know their situations related to impending drought better than anyone else. We were told that cooperation and assistance from states and the federal government through incentives, funding, and technical assistance in drought planning would go far to help small communities and rural water systems prepare better for drought. We learned that technical assistance and training would be helpful as people gather drought-related information, devise drought impact-reduction strategies, and prepare public education and involvement campaigns to develop locally appropriate solutions. State climatologists and researchers in university drought-related programs, as well as federal experts, are potential sources for training assistance. In addition, federal and state agencies often have had experience with the types of emergencies that can occur and what measures were taken to respond to the emergencies. Examples of such measures are standard operating procedures for laying emergency pipelines, trucking water, or identifying ponds in the areas where fire fighters can obtain water to fight wildfires.

Experts and members of the public also advised us that we should make greater use of innovative water supply techniques. We saw practical applications such as the Scottsdale system for treating wastewater and injecting it into the ground for later use. But we were unable to find an authoritative guide that documents the arguments for and against the full range of "water-creating" methods such as desalination and cloud seeding. Without such information, it is less likely that water managers will fully consider these options. Even if the managers want to learn more, they are on their own to study the literature, which currently includes a great deal about water-making methods but little about the costs and impacts of these methods.

## Need to Address International Drought-related Issues

Because drought is a worldwide phenomenon, the United States has the opportunity to share drought experience and expertise with other countries and to learn from them. We heard from federal agency personnel that several information-sharing projects are underway through the United Nations and other entities.

In the arena of water supplies, the border between the U.S. and Canada cuts across natural drainage basins. Thus, the actions of one country can affect the other, and the impacts of drought can cross the border. Although drought is a serious issue in the Columbia River and Great Lakes basins, the two countries have strong working relationships on these issues. For example, droughts can lower the levels of the Great Lakes and thereby reduce hydropower generation, increase shipping costs, and make the lakes less accessible to recreational boaters. The primary response is to dredge more and to extend boat ramps.

The International Boundary and Water Commission monitors allocation of water from the Colorado and Rio Grande rivers between the United States and Mexico. We heard that Mexico currently owes the United States water from the Rio Grande, but has not provided it. We also heard from witnesses during our hearings in El Paso and Austin that this has had negative impacts on the drought-stricken lower Rio Grande section of Texas. The witnesses told us that there is a need for watershed planning of the entire river basin, which is located in both the United States and Mexico.