

## RESPONSE

### Living With Ourselves: What Trade Offs Will Get Made to Supply Growing Western Communities With Water, and Who Decides?

by Thomas J. Graff and Jennifer Pitt

**W**ill the water demands of the apparently unstoppable population increases of the ever-exploding cities of America's Southwest ultimately be a factor in limiting that expansion? Historically the "Field of Dreams" phenomenon has ruled the day: the suburbs have sprouted and the water to keep them green has arrived. Are times changing? What happens if the old patterns continue to prevail?

We conclude that in the long term, it is unlikely that population growth in the western United States will be constrained by physical limits in water supply. Even if reallocations to growing cities and suburbs from other sectors (agriculture and the environment) are blocked and global warming alters precipitation and runoff patterns, desalination of ocean water remains a potentially bottomless well, assuming environmental impacts on our shorelines, oceans, and climate can be mitigated and costs reduced.

In the short and intermediate terms, however, communities and developers in the West looking to grow, face considerable challenges in securing new water supplies and in managing what is already developed. In their review<sup>1</sup> of the historical legal framework that prevents linking water availability to growth in the West as well as emerging law beginning to establish these links, A. Dan Tarlock and Sarah Bates cover fertile ground. We agree with their conclusion that water scarcity does not limit growth per se, but that how we choose to supply water and grow communities can have tremendous impacts on both the environment and on other already established communities, and that the choices we make in supplying water involve real trade offs.

The question of who decides what water deals look like can matter quite a lot. While water is typically considered a public resource, the institutions managing water resources take all forms, including public agencies with boards elected by citizens, public agencies with boards appointed by elected officials, quasi-public entities with boards selected by members with water rights, and fully private companies. Traditionally, many water deals have been back-room affairs, and the public has cared little about them. However, as one western basin after another has faced crises, news media coverage of water management has increased, and public interest in water and the implications of water development and management have swelled. In the past five years, there have been more than 3,000 stories in major newspapers about water supply and

its link to drought or the environment.<sup>2</sup> But even with this increased attention, decisions do not always represent the input of all affected parties.

The West's water resources have largely been developed. In 1992, the National Academy of Sciences opined that "in the West today, the era characterized by the construction of large subsidized water storage facilities and distribution systems has ended, and an era of reallocation and improved management has begun."<sup>3</sup> This has not stopped some politicians and water managers from promoting projects once considered too costly, too remote, and far too environmentally sensitive to be authorized. Still, the plans most likely to succeed in meeting water needs involve investments in conservation and reclamation as well as reallocations among existing water rights holders. In addition, water managers are being forced to develop shortage plans as they confront the vulnerability of water supplies once thought secure, as regulatory restrictions based on environmental impacts are imposed on water deliveries and as the effects of climate change on water are better understood.

Some novel approaches have been tried in looking for consensus on water policy. Construction of the Yuma Desalting Plant was completed in 1992, but the plant has sat dormant for most of the past 15 years. Derided by environmentalists concerned for the fate of a large wetlands area in the Colorado River Delta, the Ciénega de Santa Clara, the plant's operation would divert the brackish water that sustains the Ciénega and deliver brine waste to the wetlands instead. Despite this, as well as the plant's reputation as a white elephant, water managers from across the Southwest have shown a revived interest in operating the desalter as means to protect against shortages in Arizona, and as a potential supply of new water for Las Vegas and southern California.

In 2004, the Central Arizona Water Conservancy District (CAWCD) convened a workgroup of interested individuals to explore whether there might be a way to operate the plant while maintaining the quantity and quality of habitat at the Ciénega.<sup>4</sup> Workgroup membership included the CAWCD, federal, state, and local government representatives, and environmental interests. After more than a year of discussions, the group published a report informally embracing an array of possibilities including operating the plant in a manner that does not harm the wetland, operating the plant for purposes other than that for which it was originally authorized, as well as alternatives to operating the plant that could pro-

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1. A. Dan Tarlock & Sarah Bates, *Western Growth and Sustainable Water Use: If There Are No "Natural Limits," Should We Worry About Water Supplies?*, 38 ELR (ENV'T L. & POL'Y ANN. REV.) 10582 (Aug. 2008) (a longer version of this Article was originally published at 27 PUB. LAND & RESOURCES L. REV. 33 (2006)).

2. Based on the following LexisNexis terms and connectors search of the "Major U.S. Newspapers" database: (SUBJECT ((water or drought) and environment) and date geq (05/29/2003)).

3. NATIONAL RESEARCH COUNCIL, *WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT* 16 (1992).

4. CENTRAL ARIZONA PROJECT, *BALANCING WATER NEEDS ON THE LOWER COLORADO: RECOMMENDATIONS OF THE YUMA DESALTING PLANT/CIÉNEGA DE SANTA CLARA WORKGROUP* (2005), available at <http://www.cap-az.com/docs/newfinaldocument.pdf>.

tect Arizona water users from shortages. Despite its controversial past, water managers are now able to think about using the Yuma Desalting Plant to provide a new water supply without harming the environment. They can do this because they went to the trouble to listen to those who might otherwise have stood in their way, and to make avoidance of environmental impacts central to how they shape the project. The plant is not yet operating, but in late 2007, a new group of federal, state, and local agencies revived the conversation with environmental groups, intending to develop more detail around how the plant might operate without harm to the wetlands.

Not all projects are developed in such an open and inclusive spirit. A private developer has proposed a pipeline from the Flaming Gorge Reservoir in Wyoming to supply the Front Range communities of Colorado. To date any planning has been done in private, and few details have been revealed. The developer concedes that his bid to build the pipeline outside of the traditional water agency structure is unconventional, and he has been described as an “outlaw, like a member of Butch Cassidy’s Wild Bunch.”<sup>5</sup> Water users from Colorado’s Western Slope, despite holding senior water rights, have expressed concerns that a major new development serving urban areas with little capacity to “turn off the taps” once the water starts flowing would put their water use in jeopardy in the event of a Colorado River Compact call.<sup>6</sup> Environmental representatives have expressed further concerns about the pipeline’s impact on Green River habitat for the endangered Colorado pikeminnow directly downstream from the diversion.<sup>7</sup>

In recent months, water supply reliability concerns have come into sharp focus in coastal southern California as court decisions have reduced the amount of water that may be pumped south from the San Francisco Bay Delta. California’s cutback of its Colorado River Compact entitlement to 4.4 million acre feet four years ago, combined with the urban areas’ continuing junior status within that limitation, has been ameliorated only in part by voluntary water transfers negotiated between the agricultural and urban areas served from the Colorado River. With looming shortages on the Colorado in the wake of prolonged drought threatening even the reduced 4.4 million compact right, southern California is facing a significant short-term challenge. In the long term, problems in the San Francisco Bay Delta could impact water pumping even more severely, and permanent water supply reductions throughout the West due to the impacts of climate change create a cloudy long-term picture for one of the country’s largest urban areas.

Meanwhile, the decisions about how shortages should be allocated within the State Water Project (SWP), as well as within the Metropolitan Water District (MWD) of southern California’s service area, have moved to center stage in the region. Critics of the SWP’s allocation claim that the project has based its projected deliveries on unrealistic estimates of future water availability and that the MWD and other urban contractors unreasonably bargained away their preferential rights to water in the event of shortages in the project. MWD staff, meanwhile, has itself devised an internal shortage al-

location plan that gives more water to those constituent members that depend heavily on the MWD, as well as to those that abruptly lose local supplies, are located in growing areas, or have invested in water conservation.<sup>8</sup> This contrasts starkly both with the MWD’s shortage allocation strategies of the past, which were distributed evenly throughout the service area, and with what appears to be the legally required internal allocation that is based on preferential rights determined by historic investments in the MWD’s infrastructure and development. Vocal critics of the MWD’s plan fear that it disadvantages communities that are among the less affluent in the region, including Bell Gardens, Carson, Cerritos, Downey, Long Beach, Norwalk, Paramount, and Pico Rivera, that would have to pay substantially more for water at the margin to make up for shortfalls in their allocation.<sup>9</sup> They also note that MWD board representation is based on property assessments rather than population, suggesting that affluent communities have more power in the policy approval process. The Pacific Institute has recommended that the MWD subsidize conservation improvements in less-affluent communities; in any case, voluntary water acquisitions are likely to take place to reduce the overall shortage, and the question of who pays for these acquisitions will likely be hotly debated for years to come.<sup>10</sup>

Another recent shortage agreement was negotiated at a much larger scale on the Lower Colorado River. Arizona, California, and Nevada reached an accord, following a multi-year negotiation to allocate potential shortages that basically reflects the compact entitlements originally agreed to by the three states. Interpreted simply, Nevada takes 4% of any shortage in the lower basin, which, while sounding small, was regarded as problematic by Las Vegas water managers for whom all of Nevada’s Colorado River right comprises 90% of their regional water supply, nearly all of which is municipal. To ease Nevada’s shortages, Arizona agreed to accept \$330 million from Nevada to bank water, in exchange for Arizona absorbing the first 1.25 million acre feet of Nevada’s shortage.<sup>11</sup> Arizona’s water banking arrangements give the state the capacity to manage shortages, at least in the near to mid-term. This kind of trading allowed the states negotiating terms surrounding shortage allocations based on prior appropriation rights to cut a deal acceptable to all.

One alternative to the states’ shortage allocation for the Lower Colorado River Basin that was studied by the federal government would have relied on markets to reduce water use on a voluntary and compensated basis rather than on involuntary and uncompensated shortages. This proposal, a component of a package known as “Conservation Before Shortage,”<sup>12</sup> would compel the federal government to offer to pay willing water users not to use water, with prices set in

5. Jeremy P. Meyer, *Water Lifeline or Dream?*, DENVER POST, June 3, 2007, at C1.

6. Associated Press, *Questions Over Bid to Divert Flaming Gorge Water to Front Range*, ROCKY MT. NEWS, July 20, 2007.

7. Meyer, *supra* note 5.

8. Memorandum from the Metropolitan Water District Board, *Approve Water Supply Allocation Plan* (Feb. 12, 2008).

9. Deborah Schoch, *Drought Plan Opens Rifts Over Fairness*, L.A. TIMES, Jan. 20, 2008.

10. *Id.*

11. Henry Brean, *Colorado River: Transfer of Water Approved*, LAS VEGAS REV.-J., Dec. 4, 2004.

12. For a full description of “Conservation Before Shortage,” see U.S. BUREAU OF RECLAMATION, FINAL ENVIRONMENTAL IMPACT STATEMENT, COLORADO RIVER INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES AND COORDINATED OPERATIONS FOR LAKES POWELL AND MEAD app. K (2007), available at <http://www.usbr.gov/lc/region/programs/strategies/FEIS/AppK.pdf>.

a reverse auction up to a pre-determined volume, instead of declaring shortages.<sup>13</sup> Such a use of the market would leave high-value and uninterrupted water supplies untouched while providing compensation to contractors willing to forbear use. In practice, this would replace conventional rights-based shortage allocation with market-based allocations and could protect municipal water users, those least able to absorb shortages. This proposal was not adopted in the final shortage criteria but suggests how markets might play a helpful role in shortage management in the future.

If our goals are to accommodate growth while leaving us the western landscape that we desire, and without further exacerbating economic inequities between communities, then we need to pay close attention to who is at the table when decisions are made about water supplies. In our experience, it is not practical to expect the public at large to weigh in on the details of water deals that are complex and take years (even decades) to complete. But a few trends may help to improve new water deals.

*New school water managers:* “Old school” water management appears to have required an engineering degree and an old-boy network, not to mention a certain race and gender. Today’s water managers are breaking that mold, and diversity at water management agencies throughout the urban West looks to be on the rise. Water management agen-

cies should make increased efforts to employ people who reflect the gender, racial, and political diversity of the communities they serve, and who are credentialed in the full range of issues at stake when water supply decisions are made, including economics, ecology, engineering, and law. The more diverse the workforce that makes water supply decisions, the more likely they are to reflect, and to invite representation to the table, the full range of values we seek to protect and create.

*Transparent decisionmaking:* Water supply decisions made in back rooms to the exclusion of certain parties are likely not to accommodate the needs of those parties excluded. Ideally water supply decisions are made with the participation of all stakeholders throughout the decision-making process. At the very least, water supply decisions should be part of the public record, with timely access to information for all.

*An educated public:* Even if it is unreasonable to expect public attention to focus on the minutia of water supply development and management, we should be making every effort to cultivate a public that is informed about the trade offs at stake. Too many urbanites throughout the arid West have no idea about the true costs of their 18 holes and daily dips in the pool. It is hard for water managers to defend decisions that might seem unnecessarily costly if their constituents do not understand the value of what they are paying for. The news media has certainly increased reporting on water supply management, but all of us in the water business ought to be making a priority of reaching out to the millions who live in the West.

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13. In the proposal, the federal authority to pay for forbearance stemmed from the federal obligation to replace the bypass flow under the Colorado River Basin Salinity Control Act. The Bureau of Reclamation initiated a forbearance program on the Lower Colorado River in 2006.