DEMAND MANAGEMENT

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Demand Management is a method to reduce consumptive use in an effort to prevent a call for curtailment under the Colorado River Compact. The concept of temporary, voluntary, and compensated reductions in consumptive use has been initially tested by the System Conservation Pilot Program. The pilot program generated system water, which is water subject to the existing guidelines for operating Lakes Powell and Mead. Demand Management, as it is currently contemplated by the Upper Basin states, could potentially generate water not subject to the balancing of Lake Powell and Lake Mead. The water would be released only for Compact compliance purposes, and only at the direction of the Upper Colorado River Commission. With the finalization of the Drought Contingency Plan, the Upper Basin would have a bank in the Colorado River Storage Act Reservoirs. Navajo, Aspinall, Flaming Gorge and Lake Powell could all be used to store conserved consumptive use water, if a Demand Management program were set up in the Upper Basin.

Previous efforts to create conserved water, such as Alternative Transfer Methods (ATMs) or water banking were complicated by lack of storage. There is currently no place to store the conserved water. The storage issue could be resolved in part with finalization of the Drought Contingency Plans (DCPs). Finalization of the DCPs would allow the Upper Basin states to begin a discussion about the feasibility of, as well as challenges and opportunities presented by a potential Demand Management program. There are a number of issues that must be resolved before Demand Management in the Upper Basin can be deemed feasible, and a several questions that arise when considering such a program. These are addressed below.

Voluntary, Compensated, and Temporary
A potential Demand Management Program, as currently contemplated, would be voluntary, compensated, and temporary. This philosophy was established in the Colorado Water Plan. A voluntary program will by nature include those participants who determine temporary reductions in consumptive use would be feasible and beneficial for their operations. Farmers and ranchers may be able to use the program in their crop rotations to install more efficient irrigation systems if doing so would result in reduced consumptive use. Partial fallowing could allow for cover crops, which alter soil texture for more efficient irrigation. Municipal and industrial users may also participate in such a program by reducing consumptive use. Participants would be compensated at a fair rate, thus incentivizing participation. Temporary participation provides a means to return to a participant's previous mode of operation and preserve water rights.

Proportionate Impacts
Though the program would be voluntary, concerns remain about certain regions or basins participating more heavily, which could produce impacts to local economies and communities beyond those to the individuals participating. No single basin or region of Colorado should disproportionately participate in a Demand Management program. The Eastern Slope and Western Slope should participate in a proportionate manner. Likewise, the individual basins should participate on an equitable basis. In other words: spread the pain or gain across basins and regions of Colorado.

Funding
Demand Management presents a series of questions which must be answered before Colorado commits to implementation. For example, how are we going to fund a Demand Management program? The Pilot Program showed conserved consumptive use is not cheap. To develop a meaningful pool of conserved water of 500,000-acre feet could cost upwards of one hundred million dollars. There are also questions about who will fund such a program. Should public or private funds be used?

Protection of Water Rights
Both participating and existing water rights need protection. Participating water rights need to be protected from abandonment as they contribute conserved consumptive water. There is a question of whether participation in a Demand Management program is a beneficial use? Reduced return flows and lowering aquifer levels could result in injury to other water rights. These impacts must be understood and managed. We must consider whether legislation is necessary and desirable.

Quantify Consumption
The measurement of consumption is dependent on many factors, such as the crop, weather, irrigation method, and many other factors. Cropping patterns continue to evolve and historical irrigation patterns have changed. Weather can make a large difference in evapotranspiration. Obviously, irrigation methods and practices will influence consumptive use. Could remote sensing be used to determine conserved consumption?

Shepherding
The Division of Water Resources can shepherd water intrastate. Shepherding is a task commonly undertaken by the State Engineer, Division Engineers, and Water Commissioners. Will a Demand Management program place an undue burden on the Water Resources staff? Interstate shepherding of conserved consumptive use presents other challenges. Colorado must become comfortable with the methods other states could use for shepherding water.

Frustration of Purpose
Recently we have seen “hedge fund” financed investment in farms and ranches. While Colorado water law prohibits speculation in water, there is no law against land speculation. On the Western Slope, from all appearances, these investors are operating their holdings in a traditional manner. Demand Management will be a large investment, and could garner unwanted or potentially illegal speculation.

Economic and Social Impacts
Demand Management has the potential to impact main street. Fallowing land in an individual basin or region, even though temporary to an individual farm, could be similar in effect to “buy and dry.” We all have seen or heard of the economic and social impacts in the Owens Valley of California and Colorado’s own Lower Arkansas Valley. We do not want to repeat this history. Should the communities where Demand Management is used be compensated?

Administration
The Upper Colorado River Commission will be responsible for administration of any Demand Management program on the interstate level. Although the Upper Basin has one storage account, Colorado and the other Upper Basin states are going to want credit on an individual/state basis for contributions to the Demand Management account.

On an intrastate level, a potential Demand Management program will require accounting, inspection, and monitoring. Who in Colorado will be responsible for these things?

The Demand Management Storage Agreement, as part of the Upper Basin Drought Contingency Plan, will require the agreement of the other Upper Basin states on Demand Management sideboards. Likewise, Colorado must approve of the Demand Management procedures of the other states. These things must happen before any Demand Management program is set up.

The list of issues and concerns discussed most likely is not all inclusive. As we begin the process, more issues are likely to be recognized.

We have in Colorado a tried and proved method to work through water issues. The Basin Roundtables and the Interbasin Compact Committee were instrumental in developing Colorado's Water Plan. These organizations should and must be tasked with identifying issues and informing their resolution from a grassroots level. The Board and staff of Colorado Water Conservation Board look forward to working with the roundtables and committees.

There is no certainty that a Demand Management program will ever be initiated. The stakeholders and managers of Colorado's water resources have always been leaders on water issues in the Upper Basin. Colorado must again take a leadership role if Demand Management is going to be successful as we face uncertain hydrology in the Colorado Basin.

About the author: Steve Anderson is manager of the Uncompahgre Valley Water Users Association located in Montrose and Delta County Colorado. He is responsible for delivering water to over 3,500 shareholders and 83,000 acres. Steve is a native of the Uncompahgre Valley and farms in the Olathe area.