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Mutually Supportive Uses of Gila Settlement Water and Money

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Good morning. What I'd like to communicate today are some thoughts on concepts and dynamics related to the Gila Settlement in the 2004 Arizona Water Settlements Act.

I'll talk about water uses, available sources, diversions, and so forth, but I need to emphasize that what you'll see is NOT a plan or proposal by the Interstate Stream Commission. What I'm going to try to do, and all that I'm trying to show, is that projects can be arranged so that meeting the needs of one party or interest can actually help another interest, one that is often seen as an opposing use.

In 1964 during the *Arizona v. California* case, the U.S. Supreme Court Decree limited depletions in the Gila Basin to approximately 30,000 acre-feet. In December 2004, the President signed the Arizona Water Settlements Act. That Act, among 62 other settlements, gave

New Mexico 14,000 acre-feet of additional depletions in the Gila Basin above those in the 1964 decree. The 2004 Act also gave New Mexico up to \$128 million in non-reimbursable funding. The 14,000 acre-feet represents a 47 percent increase in available surface water use in southwest New Mexico. Even in these days of \$700 billion bailouts, \$128 million and 14,000 acre-feet of water has generated a little interest.

With just a few figures, I'm going to try and to give you a conceptual idea of one mutually supportive combination of uses of the Gila Settlement water and money. Again, what I'm going to present doesn't represent a proposal by the Interstate Stream Commission. That decision should reside with the citizens of Southwest New Mexico. All I've done with this presentation is tried to arrange a bunch of ideas that different interests have come up with in a way that creates a synergy between projects that helps everyone.

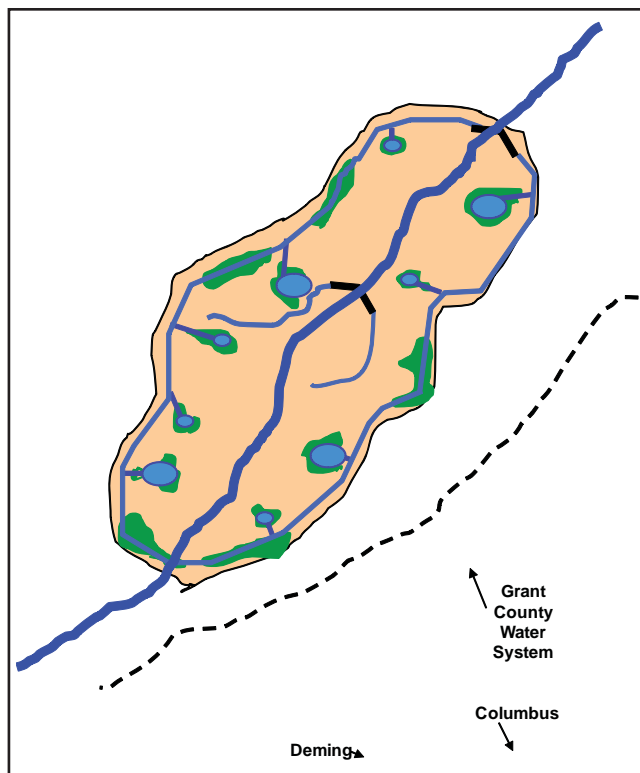


Figure 3. The Cliff-Gila Valley provides habitat for endangered species.

Another benefit we should recognize, but one that's often overlooked, is that an economically robust agricultural community is one of the best defenses against unrestrained development. Conversely, if a farmer is losing money, it makes sense for him to sell out to the first developer that flashes a wad of cash. I get calls from developers almost every month. Rio Rancho on the Gila is not a far-fetched scenario.

One of the more controversial proposals that stakeholders have made is off-stream storage for municipal supply.

In the late 1980s, Reclamation presented just such a plan. It required pumping capacity capable of diverting more than 600 cfs. Quite simply, that would require a huge investment in power infrastructure and energy costs.

What I've drawn in Figure 4 is a storage facility sufficiently down gradient from a diversion that it would fill by gravity. Again, no energy costs.

Pumped over the Divide, the water could flow down to Silver City, Deming, Columbus, and other municipalities. I haven't included Las Cruces on this schematic, but if the water isn't used in the four-county area, there's about 400 feet of net head that could be used to convey Gila River water even as far as Las Cruces. And again, please don't think of this schematic as anything

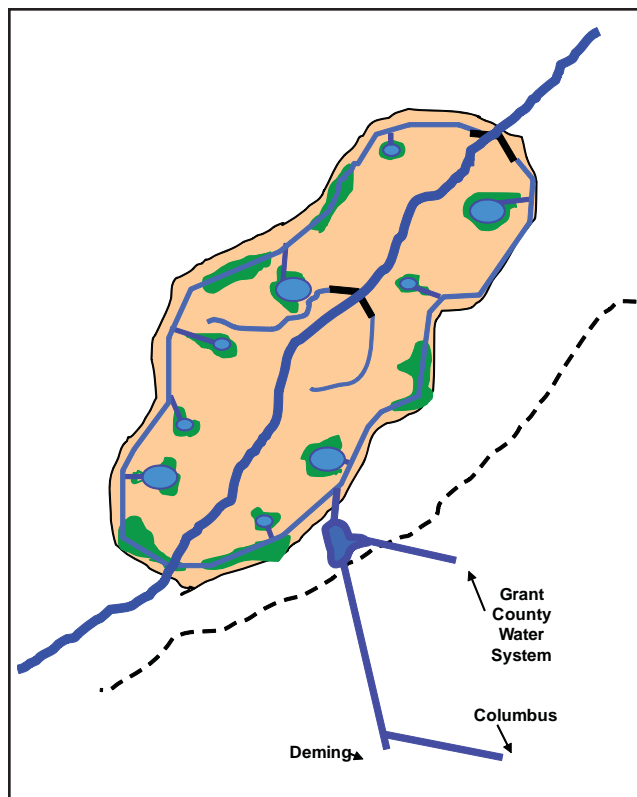


Figure 4. Hypothetical storage facility down gradient in the Cliff-Gila Valley

to scale, simply a picture of general relationships. But what about periods when water is short? In many, if not most summers, there isn't enough flow to meet current demand. The result is that the Gila often dries up below diversions. Obviously, this isn't good for riparian habitats or at risk species.

Storage is usually built just to meet municipal supply. And in truth, that's where the resources lie to build storage. But that's just one of the possible uses for storage. Some interests have suggested that water could be pumped back up to the diversion and used to rewet the river (Fig. 5). Storage could then also be used to maintain the agricultural and environmental benefits attained by the canal/storage pond system.

In addition, maintaining a wet river would ensure that a healthy riparian environment could also be protected.

So what does this conceptual arrangement of different projects provide?

What I've tried to show in Figure 6 is that by helping a different interest, perhaps even an interest that you usually find in opposition, you can actually help yourself. These same concepts and synergies can be applied throughout the region.

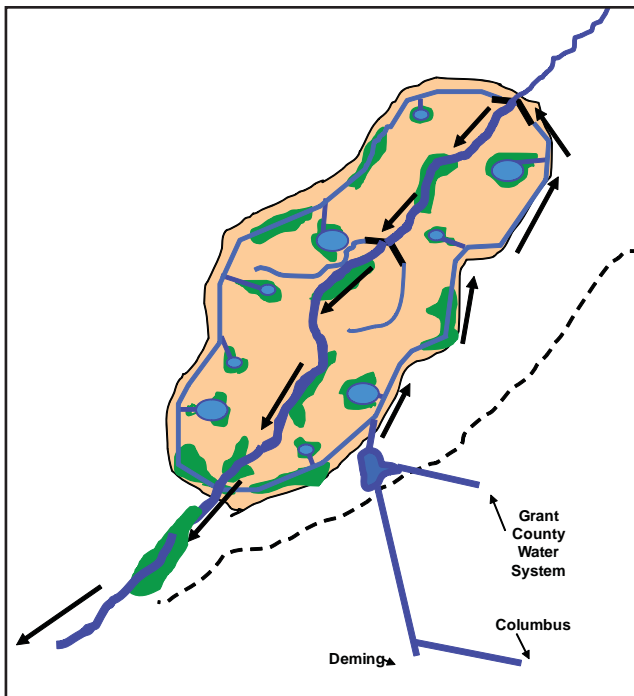


Figure 5. Water could be pumped back up to the diversion and used to rewet the river

- **Improved agricultural economy**
 - More reliable water supply
 - Higher return crop types possible
 - Safer, more reliable food supply
 - Buttress against unconstrained growth
- **Renewable water supply**
 - Gravity diversion - low energy draw
 - Supports present and future demand
 - Supports economy
 - Reduces demand on aquifers (drought supply)
- **Improved environment**
 - Supplement low stream flows
 - Greater riparian habitats
 - Reliable aquatic habitats
 - ESA protection/recovery

Figure 6. Mutually Supporting Projects

It was easy for me to assemble these concepts in a way that everyone benefited. And it should have been. With 14,000 acre-feet of water and \$128 million, if we can't help meet current and future supply, improve agriculture, and protect and enhance the environment, I don't think we're trying very hard. Thanks for listening. Questions?