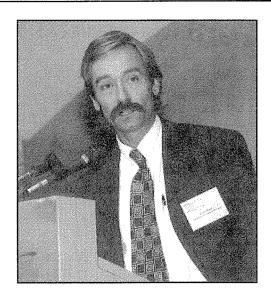
REACHING THE LIMITS: STRETCHING THE RESOURCES OF THE LOWER RIO GRANDE OCTOBER NEW MEXICO WATER RESOURCES RESEARCH INSTITUTE

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BRINGING BACK THE RIVER: A VISION FOR THE RIO GRANDE'S FUTURE

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I would like to thank Tom Bahr and the conference organizers for the honor of being able to speak today. I'm here to represent a viewpoint not usually heard when decisions about the river are being made.

My involvement with the Rio Grande stems from a deep-seated belief that the river has been mistreated and much has been lost. We have traded a living river for pecans, cottons, alfalfa, chile...and a ditch. Whether the trade off was justified is a matter for debate. Whether it would ever be allowed to happen today is doubtful. Whether we should do everything in our power to change things is, in my mind, beyond question.

My remarks will probably seem impractical and softheaded to those of you who see rivers as nature's poor excuse for water conveyance facilities. But it all depends on your view. Personally I don't think it is impractical to search for ways of living in the world

without destroying irreplaceable life support systems or wiping out other life forms. That is the essence of sustainable development, and that is what we ought to be talking about. The Incas have a saying which I think is appropriate: the frog doesn't drink up the pond it lives in.

So what exactly has been lost? I'm not sure anyone knows exactly what the river ecosystem used to be like. But I've been doing a fair amount of reading and talking to people and its seems pretty clear the river has changed dramatically since 1850. The Lower Rio Grande was a river back then. It was alive, a dynamic system, a self-regenerating superorganism that supported an abundance of life in its waters and along its banks. It was probably larger and deeper than it is today, meandering across a floodplain maybe several miles wide, often flooding and shifting course, but seldom running dry. And when it did dry up, there were pools and oxbows where aqua-

tic creatures could take refuge. A patchwork of cottonwood and willow stands of all ages and sizes bordered the river, interspersed with open wetland areas of meadows, ponds, lakes and marshes. Call it swampy, call it mosquito infested, but it was truly a miracle of life in the desert.

It is hard to imagine the bounty of wildlife the river once supported. New Mexico supports one of the highest diversity of vertebrate species in North America and a majority of those species depend on riparian habitats for at least part of their existence. The Lower Rio Grande, at one time providing the most extensive riparian habitat in the northern Chihuahuan Desert, undoubtedly reflected and supported this diversity.

The Rio Grande is still a major flyway for migratory birds and must have been a jaw-dropping spectacle when the numbers of passing birds could be counted in the millions instead of thousands. A morning spent at Bosque del Apache National Wildlife Refuge at the height of the migration season gives some idea of what it must have been like. Early explorers were certainly impressed with the large numbers of cranes, herons, ducks, geese, turkeys and other birds.

To me, the most amazing part of the river's bounty were the big fish that were once here, species found most commonly in big rivers—shovelnose sturgeon, longnose gar, gray redhorse, blue sucker, freshwater drum and freshwater eels. Who knows what commercial and sportfishing opportunities were lost when these fish disappeared. Can you imagine catching a five-foot sturgeon? The Mesilla Valley might have been famous for its caviar as well as chiles.

And there were large mammals too. James Ohio Pattie described the hazards of encountering grizzly bears in the dense vegetation along the river, and reported killing one probably in Doña Ana County in the 1820s. Wolves, jaguars, deer, and beaver also could be found down by the water.

Today, that river is gone. The Rio Grande in southern New Mexico is perhaps the most degraded stretch of the entire river, with the possible exception of urban areas along the international boundary. There is no river here anymore. Instead there is a ditch that dries up every winter because water is not released from Elephant Butte Dam. The river channel has been shortened and straightened, and is dredged

regularly. Only a tiny fraction of the original aquatic diversity remains. Of the 20 to 27 species of fish that may have been here, only five remain. The silvery minnow is but the latest in a long line of victims.

As many of you saw on the tours yesterday, riparian habitats have suffered as well. The original bosque and wetlands have been eliminated nearly everywhere, converted into a barren, neatly shaved raceway, straitjacketed between levees, dominated by weeds and trash, where few plants are allowed to grow taller than a foot or two, and the few remaining old cottonwoods stand waiting to die.

But even in its degraded condition, the river continues to draw people. I run along the river with my dogs almost every day. Many others do the same. I see evidence—usually in the form of beer bottles and shotgun shells, unfortunately—that the river is used by many others seeking recreation of one type or another. This gives me hope that people will rally in defense of the river if they have the opportunity.

I am not here today to condemn decisions made in the past. They are understandable and were made with the best intentions. What is inexcusable is to go on as if nothing needs to be done differently. The days when a major continental river could be destroyed without a second thought are gone.

So what should be done? The Southwest Environmental Center is one of a growing number of groups turning their attention to restoring the Rio Grande. It is our belief that the ecological integrity of the river can and ought to be restored as much as possible, and that this can be done without trampling on existing water rights or abrogating international treaties. We're not talking about tearing down Elephant Butte Dam, seizing private property or turning the clock back 200 years. We're talking about doing the best with the hand we've been dealt, of finding ways of doing things smarter and with, perhaps, a greater generosity of spirit, so that we can still have agriculture, we can still meet reasonable municipal water needs, we can still have necessary flood control, but we can also allow fish to thrive, cottonwoods to grow, and the river to again become something more than bad plumbing.

What exactly do we mean by restoration? At a minimum we're talking about keeping water in the river year round and modifying dam releases to mimic natural hydrographs. We're also talking about restor-

ing riparian habitat, and putting an end to discretionary management practices that are inimical to restoration, such as dredging and mowing of the floodway. We're looking at restoring some of the fish and other aquatic species that have been extirpated. Beyond this, we don't have a detailed restoration plan.

If the details are blurry, the broad outlines of a healthy, restored river are clear. We envision perennial flows in a channel that may even meander once again, in places, where flood easements have been acquired from cooperating neighboring landowners and with a little help from International Boundary and Water Commission (IBWC) bulldozers. Along the river, if not between then just outside IBWC's dikes, there are large stands of cottonwoods, willows, tornillos and other native riparian plant species, distributed over broad areas, established through the efforts of a legion of community groups standing in line to plant trees, and maintained under cooperative agreement by various agencies.

Between the stands of trees are meadows of native grasses, and ponds and marshes, created by the artful diversions of water in wet years. The river is once again a magnet for wildlife, especially birds, and wealthy birdwatchers travel from overseas to add to their life lists, taking photos and leaving money. The hunting is phenomenal, and the fishing isn't bad either.

Not all of the river is overgrown with trees and marsh. At bridge crossings there are developed parks where families come to picnic and relax. Some of the parks are maintained by local communities, others by a regional parks authority. They are connected by biking and hiking trails which wind for miles along the river. Despite the relentless urbanization of the region, the river still offers opportunities for enjoying nature and solitude, and supports a thriving farm economy that has found a way to grow even more high value crops with less water.

Identifying broad restoration goals is fairly easy. How to achieve them is the hard part. I see at least several things that need to happen. First we need a map, a biological restoration and management plan for the river. Fortunately, much of that work has already been done. I don't often agree with Senator Pete Domenici on environmental matters, but he earned my unqualified respect for sponsoring efforts to protect the Middle Rio Grande bosque. An important

outcome of that process has been the publication of a biological management plan. Most of the findings and recommendations in this report could easily be adapted to our stretch of the river. Indeed, one of the team's recommendations was to develop a similar plan for the entire river.

Then we need water in the river. Either Rio Grande Project water needs to be released during the winter, or else new water needs to be put into the system for instream flow purposes. Then we need to plant trees and create wetlands, and this will require changes in the way the International Boundary and Water Commission goes about managing the floodway. And above all, we need a vision for the river that includes ecological restoration but incorporates the full range of public aspirations for the river. This can only come about if there is a forum where all members of the public can voice their opinion about what they want from the river.

There appear to be several opportunities currently within our grasp that make restoration a distinct possibility in our lifetimes. First, there is the existence of the New Mexico/Texas Water Commission. In contemplating this entity, I'm reminded of my hitchhiking days. Standing by the side of a deserted road after dark, in the rain, desperate for a ride. Finally a car stops. The driver's got whiskey on his breath and a pistol on the seat. His motives are unclear, his behavior unpredictable. Should I get in?

Until New Mexico water law is changed to include instream flow as a beneficial use, the Commission offers the best hope for keeping water in the Lower Rio Grande year round. The task before the Commission is to deliver high quality Rio Grande water to El Paso year round. Our fear is that the best engineering solution to this problem may not be the best solution for restoring the river. The Commission is asking for, and receiving lots of public funding to find the best engineering solution. I am worried that by the time environmental questions are raised, the decision will have already been made. I can envision at least one outcome that would be worse than the status quo.

We also have a concern that the Commission, created not through the give and take of Congress but by a federal judge, is preparing to make major decisions regarding the river and water allocations in our region without full public representation or involve-

ment. I certainly have been made to feel welcome at the Commission's meetings, but there is a difference between sitting in the audience and sitting at the table. Right now, I don't see any voting member looking out for the river itself. That's not a criticism, just an acknowledgment that river restoration is not part of the Commission's mission. Nonetheless, the Commission currently offers our best hope for keeping water in the river all year long.

As for the International Boundary and Water Commission, there are encouraging signs that the agency may finally be waking up to its responsibilities as a land manager. Hopefully the days of scorch and burn management of the river channel and floodway from Caballo to the international boundary are over. Several years ago, prodded by a lawsuit brought by environmental groups, the Commission agreed to stop clearing brush utilized as habitat by endangered species in the Lower Rio Grande valley of Texas.

More recently, the new commissioner has assured us that he is committed to complying with all federal environmental laws, refreshing news from an agency that has sometimes seemed to hide behind international treaties to avoid its environmental responsibilities. The Commission recently took a stab at preparing a management plan for our stretch of the river. While the first draft left much to be desired, it has at least provided a talking point for other agencies and the public to explore ways the Commission can fulfill its flood control and water delivery mandates and still do good things for the river ecosystem.

From my optimistic viewpoint, there are other opportunities on the horizon, such as the silvery minnow recovery effort and the increased interest (and funding) for using constructed wetlands to treat wastewater along the border. The possibility of using constructed wetlands to restore riparian habitat suggests itself naturally, but to my knowledge no one in a position to make it happen is pursuing this idea. There also are small-scale tree planting projects happening along the river, but these also are being done in isolation.

Which brings me again to one of the most important things I think is needed for restoration: a regional water planning forum that allows all stakeholders to sit down and look at all these water supply and ecosystem issues in an integrated, comprehensive way. Right now such a forum does not exist. At least

I haven't been able to find one, and I've been looking. The New Mexico-Texas Water Commission (and by extension the New Mexico entities) do not really fit the bill for the reasons I've already mentioned and others. Besides, the Commission does not include Juárez. You cannot have true regional planning without including representation from a city of nearly a million inhabitants on the Rio Grande facing the loss of its current water supply in about 20 years.

I would like to make a special plea to Senator Domenici, or any other legislator, to step forward and do for the Lower Rio Grande what was done for the Middle Rio Grande bosque and establish such a forum so that the people can have a voice in the river's future. The river belongs to all of us, in spirit if not in law. We all should have a say in its future.

Environmentalists are often accused of caring more about nature than people. I don't believe that's true, but I feel the need to emphasize that I believe restoring the ecological health of the river will benefit people as much as silvery minnows. I've suggested some of the economic and recreational benefits, but who can doubt that there are spiritual benefits as well.

The Rio Grande is deeply rooted in the culture and history of New Mexico, and no doubt in our collective psyche. It has meaning beyond the value of its water in irrigation. Invariably when I talk to people about the river, I detect the same sense of loss I feel, which leads me to believe that organized expressions of concern for the river are crystallizations of sentiments that are widespread but diffuse among the public, ready to coalesce around whenever substrate of public involvement presents itself.

I don't think the people of southern New Mexico have ever been asked what they want from the river, but the people of the Middle Rio Grande have, and their answers would probably be echoed here: they recognize the importance of flood control, drainage and irrigation, but they want the river managed for more than just these purposes. They also want a healthy, diverse ecosystem, clean water, and recreational opportunities.

Let me also emphasize that our advocacy of restoration does not reflect a hidden agenda, as some have suggested. Our assumption is that restoration can be a win-win proposition, and until disproved, we will stick with this. We are certainly not anti-farming. To the contrary, as an environmentalist I recognize

that the loss of soil and farmland is a serious global problem, and we stand ready to help farmers in southern New Mexico protect their ability to farm.

I'd like to leave you with this thought. I hope that this conference will turn out to be a memorial service of sorts as we bury once and for all the notion that the Rio Grande is just so much plumbing. The river is dynamic, it has or used to have a life of its own, and it has importance beyond its commodity value, even if our current water management system does not yet fully reflect this fact.