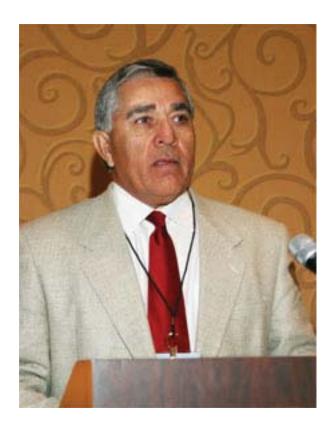
SURFACE WATER OPPORTUNITIES IN NEW MEXICO NEW MEXICO WATER RESOURCES RESEARCH INSTITUTE

Jesus A. Reyes is the General Manager for the El Paso County Water Improvement District #1 in El Paso, Texas, being tapped for the position after serving on the EPCWID#1 Board of Directors. Jesus was raised in a small farming community in Canutillo, Texas, graduated from Canutillo High School, and attended UTEP. In addition to being involved with law enforcement with the El Paso Sheriff's Department for 15 years, he has also been a business owner who understands management and the importance of leadership. During his tenure at the Sheriff's Department, Jesus started out as a patrolman, moved on to become a Detective, Sgt. of Detectives, was then promoted to Captain of Detectives, and went on to become the youngest Chief Deputy in the El Paso Sheriff's Department. He and his wife, Martha, also opened King Buildings of El Paso in 1996, a metal building business that they sold in 2004. Jesus has always been involved in the community, has served on several Boards, and has been instrumental in managing several political campaigns including those for his brother, Congressman Silvestre Reyes, Judge Gonzalo Garcia, and his wife, Martha Reyes who currently sits on the Ysleta School Board. He has served on the El Paso County Parks Board, El Paso Airport Board, Alivane Board of Directors, the newly formed Storm Water Committee, and he is also a member of the Paso del Norte Planning Group.



Lower Rio Grande Project Operating Agreement: Settlement of Litigation

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Thank you. I would like to recognize Karl Wood and his staff. I think they have put on a very good program and I am impressed with everyone staying until the last presentation. I will try to go pretty quickly; Filiberto has about an hour-long presentation I think, and Gary did an excellent job in his opening.

I will cover a little bit more about the issue of carryover. As you all know, our water comes from 120 miles away until it is diverted into the El Paso system and from there we start delivering water to our water users. Our water district is divided in two by the Franklin Mountains; we have the Upper Valley section and the Lower Valley section, and believe me, the problems that we encounter are quite different in those two sections. The people in the Upper Valley hassle me about not cutting the weeds on the bank, not cutting the salt cedars, leave them for the birds, leave them for the turtles, don't mess with the fox they tell me. And then the people in the Lower Valley are after me to get the drains and canals to look like flattop - we want everything cut, we have a problem with the mosquitoes. So it becomes a balancing act. In the Upper Valley I made a deal with a large group called "Save the Valley" and what I did was to trim one side of the canal banks and drains and I left the other side alone. When the trimmed side starts coming up, I go in and cut the other side.

We have about 400 miles of canals, we were created in 1917, and our project includes an international boundary. We are a political subdivision of the State of Texas, part of the federal Rio Grande Reclamation Project. We work very closely, I am proud to say, with Gary Esslinger of the Elephant Butte Irrigation District, and I have an excellent working relationship with Bert Cortez of the Bureau of Reclamation. We have an excellent working relationship and we get along great with the International Boundary and Water Commission also. Carlos Marin was a great friend, he did a lot for our area in addressing flooding issues, and he will be highly missed.

The purpose of the irrigation district is to supply water to the agricultural lands, provide groundwater drainage to the ag lands, provide raw water to Ed Archuleta and the El Paso Water Utility, and we also provide limited stormwater drainage, although it is not so limited now. Ed has gone into the stormwater business and he has caught a lot of flak over the fees, but people forget really rapidly what the 2006 flooding problems caused us in El Paso. We are trying to work with the water utility. I will cover a little bit about what we are trying to do. We have some drains within the city limits that the City of El Paso utilizes for stormwater. I want to build a capturing facility so we are doing some trading there.

Gary is absolutely correct when he said the Rio Grande Compact Commissioner played a great role in coming up with an operating agreement. Commissioner Pat Gordon was tremendous; he helped us address issues like Mexico's allocation based on the treaty, maximum annual allocation based on a release of 790,000 acre-ft, and also with the limited carryover. Carryover for us was a very important issue because we wanted to be assured that we could plan for the future, and we wanted to let our water users know what the water levels were looking like, and what water allocations we would have for the following year. As Gary said, the settlement resulted in the dismissal of the federal litigation and although our attorneys were sad, we were glad.

The operating agreement conserves water stored at the reservoir for future use, minimizes the impact of drought on the Rio Grande Project, addresses groundwater depletions in New Mexico, increases the reliability of the Project water supply, eliminates "use it or lose it," and encourages conservation. That was a big step for me in El Paso. Farmers wanted to know why they should conserve if they are going to lose it anyway, so carryover was a big hammer for us as far as convincing our water users to conserve. It also allows for the conjunctive use of groundwater. It does not change the

Compact accounting procedures or the Compact language in any manner, and it does not change the spill calculations or accounting of credits or debits.

What it gives EPCWID #1 is five major conservation and drought mitigation efforts that we have been working on: 1) we have been changing policy to help us conserve water; 2) we have reworked our information management system; 3) we have upgraded our automation system of gates and canals; 4) we have worked on on-farm conservation; and 5) we have made improvements to our conveyance system.

Improvement to our convenance system include more accurate flow measurement sites. We have 60 supplemental well fields that helped us tremendously during the drought. We have converted open channels to pipeline; they are expensive but there is a huge problem with debris and sedimentation issues and it usually requires a safety issue to justify the cost. We have been lining some canals with concrete and using the EPDM material, which is an inner tube like material that has been very successful. The only problem we have had with that material is when kids run down the quads, get into the canal, and rip the liner, which has caused some problems. Our big dream is to build a reservoir, which I will touch on later. We have a federally authorized project, the Riverside Canal Improvement Project, where we are going to concrete line and narrow our riverside canal. That is one of our biggest feeders into the Lower Valley area and it also feeds water into the Jonathan Rodgers Water Treatment Plant.

We have built a new cableway station in Anthony at the state line (Fig. 1). It was a \$400,000 project. Gary Esslinger is working on a similar system.

As I mentioned, we have drilled 60 shallow alluvium



Figure 1. Anthony Cableway Station

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aquifer wells (Fig. 2). Our wells are in the shallow aquifer about 100 feet deep but they work tremendously well during the drought. We were able to mix three sources of water: Project water, our well water, and sewer treated water. In the Lower Valley we mixed all three and were able to provide an allocation of 2 acrefeet during the driest year in El Paso. In drilling those wells we had some complaints as to what the impacts were going to be. The majority of our wells are in the Lower Valley. By the way, the farmers did a lot of work to refurbish their wells during the worst years of the drought four or five years ago. We power our wells with an 80 horsepower diesel engine with a cost of about \$32 per acre-ft.

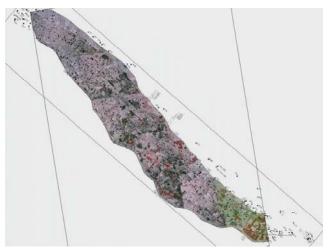


Figure 2. 60 Shallow Alluvium Aquifer Wells

We have also been working on other projects like placing canals underground in pipelines. I mentioned that this usually calls for a safety plan. We have a canal in the Upper Valley that is a joint project that I was able to sell to the Canutillo school district. They decided to build a new elementary school right next to one of our biggest canals and we had issues and concerns with kids walking up and down our canal banks. The school district provided some money and we did all the work with our equipment. The project turned out great. We sold the school district the easement on top, which they plan to use for a school bus drop off point for students. The project turned out great and this is the third project that I have done with school districts in last few years.

We have also worked on concrete lining. Figure 4 shows the American Canal extension. We are going to work on a seven mile stretch of narrowing our Riverside Canal and line it with concrete. We had some issues that came up with the Rio Bosque Park as they were concerned, of course, because they got used to the seepage from the canal feeding into the park. We

solved that concern by having our driller donate and drill a well for them. When Ed Archuleta found out what I had done, he had El Paso Water Utilities buy the motor and pump for them. Right now we are in the process of running electrical power to that well. So it worked out well.



Figure 3. Underground pipelines



Figure 4. American Canal Extension

Figure 5 shows the capturing facility reservoir that is located just outside El Paso County. El Paso Water Utilities has about 400 acres where the Socorro treatment plant is located, which hasn't been utilized in years. We want to utilize about 300 of those acres for a capturing facility to capture some of the stormwater that comes down the Rio Grande that nobody makes use of. The Jonathan Rodgers Plant is only about a mile away from this area. We want to capture the water, use some of it for irrigation, and then pipe water back to the Jonathan Rodgers Treatment Plant for the City of El Paso. So it is a win-win situation for both sides.

In summary, the Rio Grande Project Operating Agreement promotes conservation, increases the reliability of water supply, allows for better conjunctive use of groundwater, avoided years of litigation and millions of dollars for both sides, and keeps water in Elephant Butte for recreation. Last year we carried over 106,000

acre-ft of water, this year we are probably going to carry about 200,000 acre-feet. Our cap is 230,195 acre-feet; if I go over that cap, that excess water automatically goes to EBID. If they are capped out, then that water remains in the Project. If Gary Esslinger and Elephant Butte Irrigation District is capped out and I am low, then automatically that water comes to me. So it is a win-win for both sides. And most of all this operating agreement promotes cooperation between New Mexico and Texas and it allows us to give allocations to our water users, so it has been a huge win for both sides as well as for the Bureau of Reclamation. I think we have a great working relationship. We meet twice monthly, once for allocation issues and once for management issues so there is plenty of communication.



Figure 6. Regulating Reservoirs