

**IN THE UNITED STATES SENATE  
COMMITTEE ON ENERGY AND NATURAL RESOURCES**

**FIELD HEARING**

**CORBETT CENTER BALLROOM  
NEW MEXICO STATE UNIVERSITY  
LAS CRUCES, NM**

**FEBRUARY 15, 2010**

**TESTIMONY OF:  
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TREASURER-MANAGER  
ELEPHANT BUTTE IRRIGATION DISTRICT  
530 S. MELENDRES  
LAS CRUCES, NEW MEXICO 88005  
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**REGARDING:  
S. 1689**

A bill to designate certain land as components of the National Wilderness Preservation System and the National Landscape Conservation System in the State of New Mexico, and for other purposes.

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Thank you for the opportunity to present testimony today. I am Gary Esslinger, Treasurer-Manager of the Elephant Butte Irrigation District (EBID) and I'd like to talk to you about a ticking time bomb that must be defused. Imagine urban and valley-wide flooding as a result of an explosion not unlike what hit Hatch and El Paso in 2006, or Leasburg in 2006 and 2008, that will eventually target the Organ Mountains and the east and west mesas. The detonation will be a torrent of runoff water and debris running off the watersheds that will wind up surrounding Las Cruces and inundating the valley floor. The meteorologists will hold the match and will tell you that in 2006, three of the 16 maximum precipitation events on record occurred within five weeks of each other by a climate change enhanced micro storm burst and it could happen more frequently than before. Old timers, who have witnessed decades of local weather, will tell you that they have never seen anything like the 2006 storms. The high desert watersheds that S. 1689 is intended to protect will continue to be at risk, and we will be missing a golden opportunity to be proactive and exploit the use of storm water to replenish our dwindling water supply in this area.

I want to emphasize that even though EBID's primary charge is delivering water to 90,640 acres in Dona Ana and Sierra Counties, we do much more than deliver water to 8,500 constituents. The outflow from EBID flood control dams and other city, county and private dams in the area, coupled with direct storm runoff from dozens of uncontrolled arroyos, runs into our canal and drainage system, which was designed for delivering irrigation water and removing subsurface drainage, not conveying high storm flows such as the events of 2006 and 2008.

EBID continuously looks for opportunities to better manage storm water. Our main concern is to protect life, farmland and the irrigation system. Thereafter it is to harness this wild storm water to be put to beneficial use in Southern New Mexico. The historic Operating Agreement between the United States, and the Texas and New Mexico Irrigation Districts allows EBID to capture storm water within New Mexico and place it to beneficial use without any obligation to deliver that water to Texas. These are among the reasons why I wanted to take this opportunity to voice some concerns EBID has regarding the designation of thousands of acres of watershed lands as wilderness areas.

The old Soil Conservation Service (SCS) PL566 dams that EBID sponsors and operates were built about 60 years ago, with a 50 year storm event design life, seven of which sit between Dona Ana and the I-25/I-10 exchanges. They have lost capacity due to sediment accumulation and design life, making them more likely to spill or breach. These dams were not designed to protect a concentrated population with new drainage standard designs for 100 year storm events above and below them.

We appreciate the efforts of all parties involved as well as Senator Bingaman and his staff for working with EBID to exclude our existing dams from the wilderness area, so we can continue to maintain and, hopefully, upgrade them. However, flood control is not a stagnant process. It is clear that as Southern New Mexico continues to grow, we will need more flood control structures and to develop best management practices for our watersheds. These structures and plans, have not been designed or sited, and therefore, not considered in the wilderness area designation because of the uncertainty directed by climate change.

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Let me give you specific examples. Coming from the Robledo Mountains and the Broad Canyon area to the Northwest of Las Cruces, there are three uncontrolled arroyos – Foster, Faulkner, and Chandler. These wild arroyos discharge into the Rio Grande above Leasburg Dam and have historically produced very large flows, particularly in the summer monsoon season. In 2006, for example, a flood coming out of Faulkner Canyon knocked a train off the tracks on the opposite side of the Rio Grande. These three arroyos present a serious downstream flooding hazard. Perhaps more of a problem is the load of sediment and debris the arroyos bring which choke off the flow of the Rio Grande below Seldon Canyon and could bury the federal owned diversion dam intakes further downstream. In my 30 years of experience with EBID, I have witnessed sediment plugs in the Rio Grande from these and other arroyos backing the flows from El Paso all the way up into the Rincon Valley, causing flooding, damaging property and crops, and yet I call EBID a “First Responder” to the rescue when this occurs.

The East Mesa above Las Cruces is crisscrossed with arroyos that originate in the Organ Mountains and drain onto the valley floor. Yet today, we assume under false pretense that existing flood control structures are adequate and will be protecting residential and commercial developments below. A comprehensive storm water plan must, out of necessity, start as high up in the watershed as possible or it will be impossible to plan for new improvements in the future.

In both of these examples, sediment and debris loads in the storm water runoff, which I refer to as the first flush, are major problems in these watershed regions. Historically, these watersheds are not in their natural condition which would have been desert grasslands. Instead they have been overtaken by brush species and changed to desert shrub land, with much higher runoff and erosion potential over time. The change will not reverse itself either naturally, or by over protecting it, and the high erosion capability of the shrub land will cause ongoing degradation to our watersheds. Mechanical or chemical brush removal, soil amendments, and reseeding are necessary to reverse the dominance of desert shrubs, slow and reduce the runoff, and stymie the erosion rate. This is a first step to responsible and sustainable storm water management, and necessarily must start at the top of the watershed. This process would be hindered if not prohibited by the proposed wilderness designation.

As a manager charged with the management of water resources, climate change and the affect on our water supply is at the top of my list. The forecasting of regional climate models and data has led me to one conclusion. Southern New Mexico can no longer rely on receiving its renewable water supply exclusively from snowpack in Colorado. We are experiencing a shift towards a drier climate, punctuated by more extreme drought and more frequent flood episodes below Elephant Butte Reservoir. Are we prepared for this shift? I say we are not. The current economic crisis, our inadequate flood control system, and community apathy will present an even bigger threat to life and property than it has in the past, and our lack of flood control infrastructure and proper watershed protection will prevent us from capturing and using a new source of water supply in southern New Mexico. I call this the ‘Hydro-illogical’ cycle.

As previously mentioned, the new Operating Agreement in the Rio Grande Project allows EBID to capture and place to beneficial use all the storm water we can utilize. EBID has already initiated operations which divert storm water into our system which directly and indirectly recharges our

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groundwater system and this benefits all groundwater pumpers in the valley. Slowing the runoff and utilizing mountain front recharge zones is absolutely critical in this groundwater recharge approach. As climate change continues to affect the snowmelt runoff coming into Elephant Butte Reservoir, our reliance on the use of storm water needs to increase to take up the slack. In order to capture and use this water, we need flood control capacity and watershed management, starting from the top of the watershed down to the valley floor. I believe this is the 'new water' for the arid southwest.

I think there is a lot of common ground between the groups in favor of wilderness designation and EBID, and once again thank you, Senator Bingaman and your staff. We all want to see the watershed and wilderness area protected from further impairment. We both want to ensure the safety of our communities and the long-term sustainability of our water supply so we can enjoy the historic, cultural and social-economic value of this region. We recognize the threats posed by a changing climate, and we know that we must adapt to it together. As the major water provider in Southern New Mexico, EBID recognizes that in order to accomplish these goals, we will need access to these critical watersheds for restoration and storm water management. S. 1689 needs to make sure that Southern New Mexico has the ability to safely manage and wisely use the water resources that originate in these areas.

Hatch, El Paso, and Juarez are still digging out from the 2006 floods while our spectacular mountains still tower majestically along the skyline, as if waiting in anticipation for the next epic storm to hit. Let's not idly wait for it, and let's keep our options open in these critical mountain and high desert watersheds, particularly with respect to S. 1689. Thank you for this opportunity to speak and I stand for questions.

  
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Gary L. Esslinger  
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Elephant Butte Irrigation District

February 15, 2010