We own and/or lease nearly 11 miles of private land along Badwater Creek (between Lysite and Bonneville) which is downstream from the proposed permit areas. For the past 38 years, we have ran livestock on Badwater Creek and have serious concerns about both the QUANTITY and QUALITY of water that is to be dumped into receiving waters of Alkali Creek which flows into Badwater Creek. Our livestock is our livelihood and approximately 11 miles of the stretch between Lysite and Bonneville is owned or leased by us and we feel our concerns need to be heard.

## **QUANTITY:**

It takes decades for a creek to stabilize and find its natural way from its starting point to its final destination. Meandering is a natural way for creeks to wander through the watershed. It slows down the water flow, helps reduce erosion, and dissipates the impact of flood waters. Around 1913-14, the railroad "straightened" the creek bed to make way for construction of the railroad. This eliminated the natural meandering and ultimately started the early deterioration of Badwater Creek. The creek drops approximately 460 feet in elevation between Lysite and Bonneville and the creek bed is made up of a lot of sand and very little rocks to slow down the water flow. These factors compound the natural erosion. Since we have been operating our ranch we have noticed major changes in the Badwater Creek channel. The creek has gotten deeper and the banks have gotten steeper making it much more dangerous for cattle and wildlife to cross. Case in point, the flood of 1923 was disastrous to the railroad and the creek! The significant drop in elevation compounded with the lack of natural meandering that would've normally dissipated the flood waters allowed the water to rush at much more catastrophic speeds washing out many of the railroad bridges and the original railroad right of way. This prompted them to rebuild the railroad in the location it is today. That flood would not have been nearly as devastating, in that area, had the natural flow of the creek not been tampered with years prior. Evidence of the erosion can be seen downstream as a massive amount of silt piled up at the mouth of Badwater Creek just before it flows into Boysen Reservoir, West of Highway 20.

We've already noticed an increase in water volume since installation of the wells in Frenchie Draw area, several years ago and are seriously concerned that adding an even larger volume of water to an already volatile creek is going to compound this man-made erosion disaster.

## **QUALITY:**

In addition, we're very concerned about the quality of water that is going to be dumped into the creek. Our livestock drink it as do wildlife. We've been told that the water is safe, but you can imagine our concerns when we've already been noticing an odor and a thin film appearing on the creek banks that is sometimes red colored water. We notice it in the late summer, when the creek is at its lowest. This has only become apparent in the years since wells were added to Frenchie Draw and water has been dumped into the creeks upstream. We certainly do not want our livestock drinking contaminated water of any sort.

As I mentioned, our livestock is our livelihood. This will affect the entire stretch of Badwater Creek that we run our cattle on during the winter months. We believe that the significant increase in water volume as proposed by WY0002062, Frenchie Draw Permit #1 will compound the erosion problem that already exists. We believe the wildlife will be affected as well.

We had had previously been told there were discussions of a possible installation of a pipeline from the wells to the Boysen Reservoir. What happened to that idea? Has it just gone by the wayside? If the water is as safe as you say it is, we would like to hear more about this possible solution as an alternative to the further destruction of Badwater Creek.

Greg & Barbara Gardner Landowner at Badwater Creek Gardner Livestock, LLC