

Let's Talk Water – BARCASS area

By Dr. Mike Strobel

An issue that has generated a lot of discussion among people interested in the BARCASS is the designation of the study area. The participants in the study, which include the USGS, DRI, and the State of Utah, have spent a lot of time interpreting the mandate given to us through the Lincoln County Conservation, Recreation, and Development Act of 2004 (shorter title: Lincoln County Lands Act) and precisely what issues the Act expects for us to address.

First, a review of the Lincoln County Land Act: I feel that one needs to look at the evolution of the Act to understand how the study area was defined. In the version of the Act submitted to the House of Representatives and the Senate on June 16, 2004, it states that “The Secretary, acting through the United States Geological Survey and the Desert Research Institute, shall conduct a study to investigate ground water quantity, quality, and flow characteristics in the deep carbonate and alluvial aquifers of White Pine County, Nevada.”

The version agreed to by the House and Senate and forwarded to the President for signature states that: “The Secretary, acting through the United States Geological Survey, the Desert Research Institute, **and a designee from the State of Utah** shall conduct a study to investigate ground water quantity, quality, and flow characteristics in the deep carbonate and alluvial aquifers of White Pine County , Nevada , **and any groundwater basins that are located in White Pine County, Nevada, or Lincoln County, Nevada, and adjacent areas in Utah.**” The words in bold are additions to the earlier version.

In this final version, the State of Utah was added to cover basins that extend from White Pine County into Utah and therefore have consequences to both States. It is our interpretation of the Act that ground-water basins in Lincoln County, Nevada and adjacent areas in Utah were added to the wording so that the political boundaries of White Pine County would not limit research into basins that extend beyond this limit. Obviously, water doesn't recognized political boundaries, and therefore the addition of basins in Lincoln County and parts of Utah allows the study to complete investigations in basins that are in White Pine County and extend into these adjacent areas.

Obviously, because the exact wording states that the investigation is in basins located in White Pine County, or Lincoln County and adjacent areas of Utah, we could extend this into all of Lincoln County and every basin in Utah adjacent to White Pine County. However, we felt this was not the intention of the Act and that this would expand the study area to the point that we would not be able to adequately investigate those basins within White Pine County given the time limitations and costs involved.

Likewise, we felt that if the intention was to understand the entire carbonate-aquifer flow system, then we also would need to extend the study to the end points of discharge, which in Nevada are at Muddy Springs in Clark County and Ash Meadows in Nye County. This

would certainly make the scale of the study area unmanageable for the time and money involved under the present Act.

Therefore, the basins identified for the study area include those which mainly reside within White Pine County. Other basins that are part of the flow system may be included in parts of the study if there are reasons to collect data in these areas in order to better understand specific issues within White Pine County.

The map (figure 1) shows the basins that will be included in the study area (in green) and the basins that may be used for additional data, if necessary (in brown).

If you have questions about the BARCASS area or comments concerning the designation of basins to be included in the study, we welcome any input. Next week, we will discuss the parts of the study and how we will approach collecting and interpreting the data. As always, you can contact me through the Ely Times or at mstrob@usgs.gov.