



## **Utah Farm Bureau Federation**

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United States Department of Interior  
Bureau of Land Management - Underground Projects Office

Statement of the  
Utah Farm Bureau Federation

Regarding

### **BLM SNAKE VALLEY GROUNDWATER EIS**

The Utah Farm Bureau Federation is the largest farm and ranch organization in the state representing more than 30,000 member families. Water is the lifeblood of agriculture and its availability will determine the success and/or failure of food producers in the Great Basin region. Farm Bureau's interest in the Snake Valley Agreement is fundamental under the principles of western water law. Proven water rights held by farmers and ranchers within Snake Valley and even broader rights across Utah's West Desert could potentially be harmed by the trans-basin groundwater transfer proposed by Southern Nevada Water Authority (SNWA).

Thank you for the opportunity to offer comments on the proposed agreement on the trans-basin transfer of Snake Valley groundwater.

First, the Utah Farm Bureau wants to complement Utah's Governor Gary Herbert and other state officials for aggressively working to protect the sovereign waters of the state of Utah, agricultural interests and the fragile desert ecosystem when considering the SNWA application to pump groundwater from aquifers occupying the Utah-Nevada border or in close proximity.

History suggests that the Snake Valley aquifer is in balance based on long-term discharge and recharge. The SNWA proposal to extract groundwater and transfer it to Las Vegas will have a direct impact on Utah interests. Nevada and Utah are the two most arid of the 50 states. During times of drought, recognized impacts on the nearby landscape include springs drying up and plant life changing. Approved levels of agricultural pumping and the impacts of regional droughts could be just a precursor to the impacts of SNWA's trans-basin transfer proposal.

Water is the lifeblood of the arid west. Availability of water is critical to the Utah's farm and ranch families and their associated rural communities. Even the slightest lowering of the underground water resource adversely impacts farmers and ranchers. The increased pumping costs could render agriculture economically infeasible in the immediate area and broader region.

Utah agriculture continues to be an important economic engine providing jobs and local tax base. However, it is of greater importance to Utah rural communities like those located in Western Millard County. In the neighboring counties that could be harmed by the proposed SNWA pipeline, there are additional cultural and economic issues requiring consideration.

The Farm Bureau, through its annual policy process, asks for “careful planning by municipalities when acquiring water rights or water stock when developing water resources and systems in order to reduce adverse impacts on agricultural and other water users.” The establishment of this trans-basin transfer of Snake Valley groundwater so closely associated with the rights of a neighboring state and its citizens is of concern.

Utah Farm Bureau policy is explicit regarding changes in points of diversion and water rights transfers. We recommend the Utah State Water Engineer “prohibit changes in points of diversion, water rights transfers and new well permits until the impact on existing water rights and surrounding areas has been determined.” This protection is fundamental as agencies in the states contemplate agreement on how to manage the Snake Valley groundwater system and move water from the basin.

Issues of concern:

#### Available Groundwater Supply

The USGS completed Basin and Range Carbonate Aquifer Study (BARCASS) study provides a baseline for groundwater sustainability at 132,000 acre feet annually. BARCASS appears to be flawed as noted by valley residents and professionals.

- When the farmers begin pumping to meet their summer irrigation needs, water levels quickly drop and artesian well dry up.
- The study period offers as its basis several “wet” years that directly impact the BARCASS sustainability model estimated at 132,000 acre feet annually.
- The BARCASS model estimates seem to miss the Snake Valley groundwater reality, its usage and availability ultimately providing a flawed baseline for honoring state resources and historic allocated water resources while analyzing the trans-basin request.

The Snake Valley aquifer lies largely in Utah, while much of the moisture for recharge is collected in the mountains located largely in Nevada. It has been suggested by SNWA that because recharge occurs from “Nevada” water, they should have greater right to it.

This perspective, certainly intriguing yet contrary to western water law, suggests the Upper Basin States should receive a greater allocation of the Colorado River.

An analysis of Snake Valley and its connection to the aquifer that straddles the Utah-Nevada border merits discussion. More than 80 percent of the groundwater dependent land associated with the Snake Valley aquifer is located in Utah providing water for:

- Irrigating crops and pastures
- Rangeland for livestock grazing
- Dairy farming
- Municipal and domestic water use
- Artisan wells
- The broad desert ecosystem
- Stabilizing soils

The “allocated wet” water, as with the Colorado River Compact, has been established through historic law. At issue is the question of “unallocated wet” and the “reserve paper water” estimated in the 132,000 acre feet BARCASS. The historic legally proven water currently identified is 67,000 acre feet allocated 55,000 afy for Utah and 12,000 afy for Nevada.

- Of the 55,000 acre feet allocated to Utah, it appears that the negotiating team improperly carved out at Utah’s expense 20,000 acre feet for Fish Springs National Wildlife Refuge creating an inequitable split of the remaining unallocated wet water resources.
- Recognizing that 84 percent of the groundwater dependent lands are located in Utah and only 16 percent in Nevada suggests SNWA is seeking allocation beyond what is right and appropriate under western water law if additional water resources are deemed available.

### REGIONAL AQUIFER

The downstream impacts associated with Fish Springs are recognized, however, the effects on Snake Valley water rights associated with downstream by SNWA pumping in Spring Valley or Lake Valley are less apparent.

The United States Geological Survey in Fact Sheet 086-00 (August 2000) points out that this “Nation’s groundwater is among its most important resources. It provides drinking water to urban and rural communities, supports irrigation and industry, sustains the flow of stream and rivers and maintains riparian and wetland ecosystems.”

It continues, “Groundwater resources in the Southwest are among the most overused in the United States. Natural recharge to aquifers is low and pumping in many areas has resulted in lowering of water tables. The consequences of large-scale removal of water from underground storage are becoming increasingly evident. These consequences include – land subsidence, loss of springs, streams, wetlands and associated habitat and degradation of water quality.”

In later studies, USGS Fact Sheet 103-03 (November 2003), analysis indicates “increased ground-water pumping in south-central Arizona (Phoenix/Tucson) has resulted in water-level declines of between 300 and 500 feet. Land subsidence was noticed as early as the 1940’s and a lower water table has adversely impacted vegetation. It analyzed the fast growing Las Vegas area reporting “In places, ground-water levels have declined by 300 feet ... these declines have caused springs to dry up and artesian wells to stop flowing.”

### Snake Valley – Spring Valley Hydrology

The hydrologic connection between Snake Valley and Spring Valley has been reported as significant. Recharge to the Snake Valley aquifer is tied directly to the groundwater recharge of Spring Valley. Groundwater flow estimates show that as much as sixty-percent of the recharge in the south end of Snake Valley is tied directly to its hydrologic connection with Spring Valley. The Nevada State Engineer has authorized the pumping of 40,000 acre feet of Spring Valley groundwater for use in Las Vegas, which could ultimately be ramped up to 60,000 acre feet.

- Protections are noted for Fish Springs from the impacts of underground downstream pumping, but no similar allowance is made for the potential impacts to the Snake Valley uses.
- Pumping associated with Spring Valley and other downstream aquifers could interrupt the normal flow of groundwater across western Utah, adversely impacting regionally winter livestock grazing on Utah’s West Desert.

- Fully vetted studies including USGS are critical in assessing the impacts SNWA's authorized pumping in Spring Valley will have on Snake Valley's hydrology.
- Protection of Fish Springs National Wildlife Refuge from adverse impacts of an inter-basin transfer is certainly a worthy goal, however the historic grazing rights under the BLM's multiple use mandate from Congress as well as long established water rights are critical.

#### Identification and Mitigation of Adverse Impacts to Existing Permitted Uses

This trans-basin proposal to transfer thousands of acre feet of water resources brings with it a series of unknowns. First and foremost, groundwater recharge is directly associated with surface water. In a groundwater basin that is in balance, ultimately, the removal from the recharge zone of 10,000, 20,000 or 40,000 acre feet of water piped to Las Vegas will have short term and long term adverse impacts.

There are a number of unanswered questions that require attention and agreement between the states before moving forward:

- In this desert econ-system which for generations has included farmers and ranchers, it will take a relatively long period of time for the adverse effects to show up.
- Once the damage to the groundwater basin occurs, mitigation will be difficult if it can ultimately be fixed.
- If damage to the ecosystem occurs after the pipeline is completed, is there a mitigation plan to remediate impacts including the closure of the pipeline?

As required by Congress, a mutual agreement between Utah and Nevada is a worthy goal, but should not be at the expense of Snake Valley's and Millard County's future.

In closing, before moving forward with a project that surely will have impacts on both Utah and Nevada, SNWA has committed to the immediate interruption of pumping at any point when it deemed detrimental to existing Snake Valley water rights, the environment or the sovereign rights of the state of Utah. If the Snake Valley project moves forward and the groundwater becomes part of the SNWA growth strategy for the Las Vegas metropolitan area, will they really shut down the pumps supplying water to hundreds or thousands of homes as Pat Mulroy promises in her media interviews?

Utah food and agriculture contributes \$15 billion to the Utah economy and employs nearly 70,000 Utahns. The economic contribution is of greatest importance to our state's rural citizens, including Utah's west desert and Snake Valley. In the counties that could be harmed by the proposed SNWA pipeline, there is additional cultural and economic importance. The BLM must fully assess the potential adverse socio-economic impacts to the historic residents of the region, especially the impacts to Utah.