



Utah Medical Association

September 28, 2009

To Whom it May Concern,

The Utah Medical Association considers it the obligation of physicians to be advocates for the protection of the public's health. In that regard, we would like to express concerns with the proposed agreement between Utah and the Southern Nevada Water Authority (SNWA) regarding the management of the Snake Valley groundwater system. The pressures of population growth and climate related stress already impact water use throughout the West and water diversion projects with environmental and human health impacts require close scrutiny to insure sufficient protection of the public's health. Unfortunately, this agreement, in its current form, does not accomplish this goal.

Though it is commendable that Utah and the SNWA have committed themselves to working together to monitor and manage environmental impacts of future water diversion projects in the region, there is insufficient detail in the environmental monitoring plan to suggest that, should adverse impacts occur, appropriate action will be taken. The proposed monitoring and management process is remarkably nonspecific and subject to significant manipulation. With the bulk of the expense of monitoring born by the SNWA (and subject to appropriations by the governing body of the SNWA), conflicts of interest abound.

It is our understanding that, as long as discharge and recharge of the aquifer are comparable, there will not be a significant decline in groundwater levels. Based on the proposed agreement, this is a big assumption. The States acknowledge in the agreement that "information is insufficient to determine with precision the Available Groundwater Supply," yet despite this uncertainty, the agreement goes on to allocate a very precise available groundwater supply of 132,000 afy. It is unreasonable to make specific allocations of groundwater before the available ground water supply can be determined with more precision.

Based on the limited information that is available, underground water levels in the Snake Valley already appear to be dropping. In fact, a \$6 million federally commissioned study of water resources in the region (BARCASS) demonstrated that this is indeed the case—even before the SNWA taps into the groundwater supply. The Snake Valley has the highest annual discharge in the region at 132,000 afy, however, only 110,000 afy recharged in the same period. To date, there has been no study examining the impacts of additional pumping on this underground water resource. Additionally, there is widespread skepticism on the part of many highly regarded and well qualified biologists, geologists and hydrologists about whether substantial water can be withdrawn from the aquifers of Eastern Nevada and Western Utah without significantly impacting the groundwater supply.

Physicians who care for and about the people of Utah

According to the Utah Geologic Survey (UGS Investigation 254, March 2005), a “decline in groundwater levels could produce lasting and irreversible effects on both the agriculture and native vegetation of the Snake Valley. If the basin-fill aquifer is substantially dewatered, ground subsidence, cracking, and permanent degradation of its hydraulic properties may occur.” West Desert phreatophytes serve a critical role in public health protection by anchoring desert soil and preventing dust storms. By definition, the perennial yield doctrine that governs groundwater appropriation in Nevada would displace water currently consumed by plants with groundwater withdrawals for human use. By definition, the plants would get less water and would presumably dry up, significantly impacting the dust problem and air quality in the region and anywhere downwind.

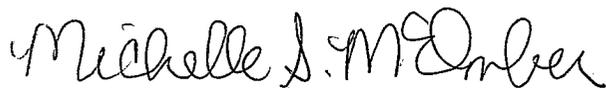
The potential air quality impacts pose significant health concerns and despite efforts outlined in the agreement to monitor air quality in the region, it is the opinion of the Utah Medical Association that the current agreement is unlikely to protect the public’s health for several reasons:

1. There is no specificity about what concentration levels, frequency or duration of particulate matter increases would trigger a management response according to the terms of the agreement. As stated in the agreement (Appendix C.5.1.3.), even if adverse impacts were to be identified, “nothing [shall] require that any specific management response action be implemented.”
2. The lag time between when phreatophytes become compromised and when air quality impacts are seen could result in damage to native vegetation that may be irreversible, perpetuating health threats of poor air quality even if water diversion activities cease.
3. Using the National Ambient Air Quality Standards (NAAQS) as the means of determining public health protection is inadequate. It is now accepted medical science that there is no air pollution threshold below which health effects are not seen. That means any increase in dust pollution from the West Desert will have public health consequences in Utah regardless of whether it exceeds the NAAQS.
4. There are unique threats in the soil in the West Desert that will have potentially profound impacts on public health beyond particulate matter. Mercury, erionite (asbestos like mineral that causes mesothelioma cancer), radioactive elements from a history of above ground nuclear testing, and fungal spores that cause Valley Fever (coccidioidomycosis) are all in high concentrations in surface soils in Nevada. These are some of the most toxic substances known and yet this agreement does nothing to assess or mitigate these health risks.

Should this agreement move forward in its current form, the residents, farmers and ranchers in West Desert farming communities and on the Goshute Reservation would see their health and livelihoods put at risk. Indeed, adverse health and quality of life impacts may be spread throughout the State. It is particularly concerning that the Confederated Tribes of the Goshute Reservation did not have any input into the agreement, despite being a Sovereign Nation. Water is an essential and precious resource. The agreement provides no mention of conservation

measures nor appropriate land use planning that can be effectively supported by the available natural resources. At this time, the Utah Medical Association does not see any way that Utah can enter into the current agreement with the SNWA without jeopardizing the health and quality of life of its own citizens.

Sincerely,

A handwritten signature in cursive script that reads "Michelle S. McOmber". The signature is written in black ink and is positioned above the printed name and title.

Michelle S. McOmber, MBA, CAE
Executive Vice President/CEO
Utah Medical Association