## 10/12/2017

Office of the State Engineer Attn: Susan Joseph-Taylor 901 S. Stewart St. Suite 2002 Carson City, NV 89701

Attn: Susan Joseph-Taylor:



I am contributing my comments to the Nevada State Engineer's office concerning the State Engineer Hearings on SNWA's water rights applications. I have worked for the USGS Nevada Water Science Center for over 20 years and throughout the State of Nevada for almost 30 years in the capacity of Hydrologist and Physical Scientist. Most of my tenure has involved scientific investigations and groundwater data collection in Central and Eastern Nevada. I spent many years measuring water levels, mapping plant communities, deploying and measuring evapotranspiration and helping to ascertain water budgets in many of the Hydrologic Basins throughout Nevada. I have also been qualified as an expert witness, by the NDWR, to give testimony at trial in the field of Hydrology.

I have been following the long history of SNWA's application process for many years and I feel compelled to contribute comments. I implore your office to apply the District Court's decision, as well as Nevada water law, to deny the SNWA's applications. I am convinced that data collection, monitoring, and modeling has not been adequate for the scope of the project. The fact that the final EIS for this project has been overruled and sent back to the BLM for a failure to provide adequate mitigation measures should be proof. The fact that SNWA has not demonstrated that there is unappropriated water available for the project on a sustainable basis or that the proposed use of water would not conflict with existing water rights or threaten to prove detrimental to the public interest, as required by NRS § 533.370. The project would have devastating impacts to both senior water rights and the environment over a large area in eastern Nevada with potential impact in western Utah.

SNWA has seriously undercounted the amount of groundwater that is committed to existing water rights and the environment in the basins within the White River Flow System that are downgradient from Cave, Dry Lake and Delamar Valleys. SNWA's own evidence shows that pumping from the points of diversion in its actual applications to the State Engineer will result in massive groundwater

mining, causing devastating long-term impacts to senior water rights holders and the environment in Spring Valley.

On reading the court transcripts, the SNWA attempted to downplay and conceal groundwater modeling evidence that confirms the catastrophic nature of their groundwater development project. SNWA refused to present any model runs extending beyond 75 years even though the DEIS model, which SNWA created, was run to 200 years. Because of the massive nature of the project, many of the devastating impacts are masked in a model run of only 75 years, because the impacts worsen in severity over time. SNWA also claimed that its model was not useful in predicting site specific impacts, even though the very same model was used to predict site specific impacts in the DEIS.

The proposed pumping would lower the water table by hundreds of feet over a vast and continually expanding area, causing devastating environmental, social, and economic consequences in eastern Nevada and western Utah. Regarding Spring Valley, the models all concur that there would be a significant magnitude of drawdown which would spread throughout the valley, eventually resulting in the drying up of springs and wetlands through most if not all of Spring Valley.

The only alternative SNWA presented was an "ET salvage" project that would pump the same amount of water, causing as much or more devastating impacts, much more quickly. This option is not acceptable under Nevada law. As the project chief of the Diamond Valley Flow System Scientific Investigation I know firsthand of the potential impacts that extensive groundwater pumping can cause, especially in Diamond Valley. The over allocation of groundwater and extensive groundwater pumping and drawdown from this basin should be an example of the poor judgement of your office in the past. Please do not make the same mistake.

Respectfully Yours,

Mary Tumbusch

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