

**BEFORE THE STATE ENGINEER, STATE OF NEVADA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES,  
DIVISION OF WATER RESOURCES**

IN THE MATTER OF APPLICATION  
NOS., 53987 through 53992, INCLUSIVE,  
FILED BY SOUTHERN NEVADA WATER  
AUTHORITY TO APPROPRIATE THE  
UNDERGROUND WATERS OF THE  
CAVE VALLEY (180), DRY LAKE  
VALLEY (181) AND DELAMAR VALLEY  
(182) HYDROGRAPHIC BASINS  
LINCOLN COUNTY, NEVADA VALLEY

**REBUTTAL WITNESS LIST OF  
SOUTHERN NEVADA WATER  
AUTHORITY FOR HEARING  
ON FEBRUARY 4, 2008**

COMES NOW, SOUTHERN NEVADA WATER AUTHORITY (SNWA), by and through its attorneys, PAUL G. TAGGART, ESQ., of the law firm of TAGGART & TAGGART, LTD., and MICHAEL VAN ZANDT, ESQ., of the law firm MCQUAID BEDFORD & VAN ZANDT LLP., and submits its rebuttal witness list, summary of witness statements, and exhibit list for the hearing to be conducted by the State Engineer beginning February 4, 2008.

**1. Kayrene Brothers.** Ms. Brothers is the Deputy General Manager of the Engineering and Operations Departments of the SNWA. Ms. Brothers may testify in rebuttal regarding chronology of activities that culminated in the filing of the subject applications, and the SNWA and LVVWD efforts that have occurred since the filing to development these water resources. She may testify in rebuttal regarding the purpose, need and financial feasibility of the project. Ms. Brothers may testify in rebuttal regarding the past and present development of water resources in Las Vegas Valley and the development of water resources in municipalities across the United States. She may testify in rebuttal regarding to the SNWA management plan for the subject

project. She may testify in rebuttal regarding the importance of the subject water development project to the future of Nevada and how the project will not threaten to prove detrimental to the public interest in Nevada. She may testify in rebuttal regarding stipulations entered with federal agencies regarding these applications, and the use of the water resources in the subject project in conjunction with other water resources in the SNWA portfolio, including Colorado River water resources that presently exist or may be secured in the future, to meet the future needs of southern Nevada. Ms. Brothers may testify in rebuttal regarding the recommendations from the Integrated Water Planning Advisory Committee. She also may testify in rebuttal regarding the project's compliance with Nevada's interbasin transfer statute.

2. **Kenneth Albright, P.E.** Mr. Albright is the Groundwater Resource Director for the SNWA. Mr. Albright may testify in rebuttal regarding the water resource plan of the SNWA. Mr. Albright may testify in rebuttal concerning how the SNWA Groundwater Development Project will be implemented in Cave Valley, Dry Lake Valley and Delamar Valley (DDC Valleys). Mr. Albright may testify in rebuttal about stipulations, agreements, and memoranda of understanding related to DDC Valleys. Mr. Albright may testify in rebuttal with regard to the SNWA and LVVWD efforts that have occurred since the filing of the Applications related to the development of these water resources and the environmental compliance efforts undertaken to satisfy state and federal requirements and concerns. He may testify in rebuttal concerning water shortage allocations for the Colorado Basin states, current water resource conditions, and additional water resource options on the Colorado River. He also may testify in rebuttal

regarding SNWA satisfaction of the statutory criteria for the approval of these applications.

3. **Richard B. Holmes.** Mr. Holmes is the former Assistant County Manager and former Planning Director for Clark County. Mr. Holmes may testify in rebuttal regarding the land use and development requirements under Nevada law and how those rules apply in White Pine and Lincoln County. Mr. Holmes may testify in rebuttal regarding land development activities in Cave Valley. Mr. Holmes may testify in rebuttal as to the status of any subdivision map associated with Cave Valley Ranch, the current zoning and zoning map for the Cave Valley Ranch area, potential zoning changes, the size of any subdivision lot permissible under the current zoning, the associated master plan, water resources plan and development code as they relate to Cave Valley Ranch.

4. **John Entsminger.** Mr. Entsminger is Deputy General Counsel for SNWA. Mr. Entsminger may testify in rebuttal regarding the Cooperative Agreement Among Lincoln County, the Southern Nevada Water Authority and the Las Vegas Valley Water District, and how that agreement effects whether the proposed action is an appropriate long-term use which will not unduly limit the future growth and development in Cave, Delamar or Dry Lake Valleys.

5. **Andrew Burns.** Mr. Burns is the Water Resources Division Manager for the SNWA. Mr. Burns may testify in rebuttal regarding statements made in his Rebuttal Report and offer expert opinions regarding the following issues: a) the role of the capture of ET and transitional storage in flow system accounting, b) the groundwater flow and framework from Delamar Valley to Pahrangat Valley, c) the conceptual flow model presented by Mr. Tom Myers, d) and the recharge discussion by Mr. Tom Myers. Mr.

Burns may also testify in rebuttal regarding SNWA's water resource assessment for the DDC Valleys, the results of previous investigations and data compilations, and the methodologies SNWA used in the DDC Valleys water resources assessment. He may testify in rebuttal regarding precipitation, natural recharge, recharge efficiency and distribution, perennial stream flows, spring flows, water level data, evapotranspiration, groundwater occurrence and movement, interbasin flows, water resources and the groundwater budget. Mr. Burns may testify in rebuttal regarding the perennial yield, the existence of unappropriated groundwater, and committed and uncommitted groundwater resources. Mr. Burns may testify in rebuttal concerning the inventory of private lands in the DDC Valleys, and land use and water resource plans in Lincoln and White Pine Counties, and water needed for basin of origin purposes. Mr. Burns may testify in rebuttal regarding the SNWA data used in his analysis, and the geologic framework as it relates to the potential water related effects from the subject project.

**6. James M. Watrus.** Mr. Watrus is a Hydrologist and Geologist for the SNWA who may testify in rebuttal about the geological framework as it relates to SNWA's effects analysis in DDC Valleys. Mr. Watrus may also testify in rebuttal about existing water rights and water uses, spring and well information, aquifer properties and the potential water related effects (Theis analysis) as applied to water rights and sensitive environmental resources. Mr. Watrus may testify in rebuttal concerning the analysis of land use maps, inventory of private lands in DDC Valleys, and the analysis of land use and water resources plans in Lincoln and White Pine Counties. He may testify in rebuttal regarding geologic formations in the Shingle Pass area of Cave Valley and other geologic features that lie between the project basins and White River, Pahroc and Pahrangat

Valleys. He may testify in rebuttal regarding the general geologic description of the project area by Mr. Tom Myers, including the depth of basin fill reported by Scheirer and/or Mankinen.

7. **Zane Marshall.** Mr. Marshall is the Environmental Resources Division Manager for SNWA who may testify in rebuttal regarding environmental resources located in the DDC Valleys, and regarding statements made in his Rebuttal Report. He may testify in rebuttal concerning groundwater project federal environmental compliance, biological studies and surveys, environmental setting, and potential effects to species and habitats. Mr. Marshall may testify in rebuttal regarding the biologic and environmental portions of the stipulation with federal agencies that is related to this project, and management, monitoring and restoration efforts SNWA has performed recently.

8. **R. Michael Turnipseed, P.E.** Mr. Turnipseed is a former Nevada State Engineer and may testify regarding statements made in his rebuttal report and on the following issues: a) the historic development of groundwater rights in Nevada; b) the role of springs in the allocation of water resources; c) the factors that should be applied to determine the perennial yield in a basin, including the ability to capture outflow to a down-gradient basin; d) the relevant planning horizon for water management and modeling; e) the amount of perennial yield in Cave Valley based on the economics of groundwater pumping; f) the flow system accounting presented by Mr. Tom Myers; g) the role of monitoring in water development and the history of the policy regarding flow system development by the State Engineer; h) the role of transitional storage in water development; i) the reasonable water demand for projects proposed by Cave Valley Ranch; and j) the role of the USGS Reconnaissance Reports in current water management

decisions given the new information that is available for new studies (i.e. PRISM, etc.). Mr. Turnipseed may also testify in rebuttal regarding the application of the previous decisions of the State Engineer to the SNWA applications in the DDC Valleys, interbasin transfers in Nevada and the municipal development of water resources in Nevada. He may testify in rebuttal about perennial yield and unappropriated water rights in the DDC Valley, and the reasonable lowering of the static water level. He may testify in rebuttal concerning basin of origin considerations, domestic wells, spring sources, interbasin flows, basin boundaries, and potential effects from groundwater pumping. He may testify in rebuttal regarding geologic map and aerial photo analysis and interpretation. He may testify in rebuttal regarding the application of the public interest factors to determine whether the applications are in the public interest.

9. **Gary Dixon.** Mr. Dixon is a Geologist and who may testify in rebuttal about the Geologic and Hydrogeologic Framework of DDC Valleys. He may testify in rebuttal regarding geologic formations in the Shingle Pass area of Cave Valley and other geologic features that lie between the project basins and White River, Pahroc and Pahrnagat Valleys. He may testify in rebuttal regarding the general geologic description of the project area by Mr. Tom Myers, including the depth of basin fill reported by Scheirer and/or Mankinen. Mr. Dixon may also testify in rebuttal regarding geology as it relates to stream flows, spring flows, water level data, groundwater occurrence and movement, interbasin flows, water related effects, water resources and the groundwater budget. He may also testify in rebuttal about geophysics, including gravity studies, audiomagnetotellurics, seismic studies and seismic reflection.

**10. Frank D'Agnese, Ph.D.** Dr. D'Agnese is a Geologic Engineer and may testify in rebuttal regarding the development, validity and utility of numerical groundwater models including use of the RASA model, discretization, water budget components, steady state assumptions and limitations on transient simulations.

**11. James Thomas, Ph.D.** Dr. Thomas is a Hydrologist and Hydrogeologist who may testify in rebuttal concerning evaluation of water budgets for the White River and Meadow Valley Wash Regional Groundwater Flow Systems using stable isotope analysis methods and computer modeling. Mr. Thomas may also testify in rebuttal regarding outflow from Delamar, Dry Lake and Cave Valleys to adjoining Valleys and the effects of pumping by SNWA on those and adjacent Valleys. He may testify in rebuttal concerning his data compilation, sampling, methods, and analysis. He may testify in rebuttal concerning recharge area isotopic variability, mass balance models, flow system water chemistry, isotopic mass balance model sensitivity, and comparison to other studies.

**12. Michael M. Weintz.** Mr. Weintz is an Assistant Management Analyst for SNWA. Mr. Weintz may testify in rebuttal as to the status of any subdivision map associated with Cave Valley Ranch, the current zoning and zoning map for the Cave Valley Ranch area, potential zoning changes, the size of any subdivision lot permissible under the current zoning, the associated master plan, water resources plan and development code as they relate to Cave Valley Ranch.

Submitted this 19 th day of December, 2007,

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