IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA

In the Matter of Application Number 71171

Filed By **Southern Nevada Water Authority**

on **May 5, 2004** to Appropriate the

Waters of **underground**

PROTEST

FILED
AUG 19 2004
STATE ENGINEER'S OFFICE

Comes now the Toiyabe Chapter of the Sierra Club whose post office address is P.O. Box 8096, Reno, NV 89507 whose occupation is a nonprofit organization dedicated to explore, enjoy and protect the wild places of the earth, and protests the granting of Application Number 71171, filed on May 6, 2004 by the SOUTHERN NEVADA WATER AUTHORITY to appropriate the waters of underground situated in Clark County, State of Nevada, for the following reasons and on the following grounds, to wit:

Groundwater is not available for appropriation.

The Southern Nevada Water Authority's (SNWA) applications are to drill 7 production wells in Indian Springs Basin (#161) (applications 71167 through 71173) and export the water to metropolitan Las Vegas 48 miles away. For all practical purposes, the wells, if approved, would be used in aggregate to supply a total of 16,000 acre-feet per year (afy) according to newspaper accounts. From each well SNWA plans to pump 6 cubic feet per second (cfs). The Indian Springs Basin wells would be located approximately one mile apart between the naturally occurring Indian Springs and naturally occurring Cactus Springs. In fact, the applications in aggregate request approval of pumping in excess of 30,000 afy.

The existing pumping in Indian Springs basin exceeds the State Engineer's estimated perennial yield of 500 acre-feet. Information reported in local newspapers and from direct communication with local residents indicate that existing domestic and other wells have seen declines of well water levels over several decades. Existing groundwater pumping already approved for Indian Springs basin of 1,371 acre-feet exceeds the estimated recharge by 274%.

From the information which we currently have on the SNWA application(s), there is no scientific research or independent studies supporting groundwater availability or asserting that the State Engineer's perennial yield calculation is incorrect in Indian Springs Basin. With few wells in this area to accurately characterize the shallow and deep carbonate aquifer flow system in the Indian Springs Basin south of the Las Vegas shear zone, we are concerned that the filings have only an economic basis – to justify the expense of building pipelines.

The new fillings are closely located to planned pipeline infrastructure should SNWA receive permission to export groundwater from adjacent Tikaboo and Three Lakes Valleys. SNWA's statement by spokesman, Vince Alberta in the Las Vegas Review Journal on May 12, 2004 appears to corroborate this view. Mr. Alberta was quoted as saying, "[T]he reason is cost effectiveness, if we are successful. If we are building a pipeline to Three Lakes and Tikapoo, it makes sense to extend that pipeline a little more. It's just a matter of economics."

The carbonate groundwater of this region, including Indian Springs, Tikaboo, and Three Lakes basins make up a part of the Death Valley Flow system. Because the groundwater basins are interconnected, SNWA may have already filed for this water in previous filings in Tikaboo and Three Lakes basins on which the State Engineer has not ruled.

Granting the applications will harm senior water rights:

The flow of carbonate groundwater in this region is part of the Death Valley Flow system and is likely moving to the west with some amount possibly moving to the south, as well. The Las Vegas shear zone represents a significant geologic feature of the region which influences underground water movement. Westerly flowing groundwater is a part of groundwater supplying spring discharges in Ash Meadows National Wildlife Refuge, Devil's Hole, and Death Valley National Park. Independent investigations of groundwater flows to properly characterize this region could take many years; therefore, it would be premature to approve any of applications, 71167 through 71173, until such independent studies are complete.

There is also a probability some undetermined quantity of groundwater flows south toward the Las Vegas Valley. It is possible that this groundwater partially supplies water to springs in the Desert National Wildlife Refuge, Floyd Lamb State Park, or groundwater wells located in Las Vegas valley. Again, independent investigations of groundwater flows to properly characterize this region could take many years; therefore, it would be premature to approve any of the applications, 71167 through 71173, until such independent studies are complete.

Granting the application would not be in the public interest

The granting or approval of the above-referenced application, or the granting or approval of any of the applications 71167 through 71173 would be detrimental to the public interest as follows:

1. Despite an estimated perennial yield of 500 acre-feet, permits totaling 1,371 acre-feet of water per year already have been granted in the Indian Springs Valley. The 7 applications from SNWA would increase the drain on the basin more than 11 fold at the 16,000 afy level. The pumping and exportation of a sufficient quantity of water will lower the static water level in the area of the application and affect the quantity and quality of remaining ground water, threatening springs, seeps and phraetophytes which provide water and habitat critical to the survival of wildlife. Further, granting of the applications would likely impair wetlands and waters in the Death Valley Flow system of the applications to support migratory birds, native fish, and other wildlife in conflict with state and federal laws that seek to protect

wetlands, migratory birds, and wildlife for the benefit of all. Protection of the water resources of Death Valley National Park and the Ash Meadows and Desert National Wildlife Refuges is critical to enjoyment and appreciation of unique fish and wildlife and plants that many thousands of visitors come to see annually. Since Las Vegas is a major embarking area for visitors to Parks and Wildlife Refuges, impacts to water resources of springs, seeps, and the wildlife and plants which depend on them, could adversely affect the Las Vegas tourist based economy as well as the public interest. **[NRS 533.370(5)(c)]**

2. By filing applications 71167 through 71173, the SNWA is seeking to increase the municipal and industrial water supply of metropolitan Las Vegas by 16,000 to 30,000 afy. The SNWA is currently delivering over 500,000 acre-feet of water for municipal and industrial use in the metropolitan region. [A portion of this water returns to the Colorado River through the Las Vegas Wash from the treatment of waste water.] SNWA could with increased conservation of 3.1%, increase its effective water supply by an amount equal to 16,000 afy.

As noted by many sources, Las Vegas is one of the largest per capita water consumers in the west in both indoor and outdoor water. Achieving such water conservation is well within the capabilities of a large municipal water supplier such as the SNWA. Conservation of water would likely be less expensive to implement and have the benefit that no harm to existing water users – including National Wildlife Refuges and Parks – would occur. The SNWA has considerable public support to implement effective water conservation in indoor as well as outdoor water use.

According to a report published in December 2003, "Smart Water, A Comparative Study of Urban Water Use Efficiency Across the Southwest", by Western Resource Advocates, Las Vegas has a water distribution loss of 4.6%. While not excessive by comparison with other cities, it demonstrates that there are opportunities to save even more water through water infrastructure improvements. Conservation and infrastructure betterment will greatly stretch existing supplies. Every avenue to increase supply through conservation and efficiency should be pursued before seeking additional water supplies that include the real threat of damaging existing water rights to national wildlife refuges and parks. In 2001 Las Vegas spent only 1.3% of its annual budget on water conservation. Water conservation clearly could be improved through offering, for example, retrofit of older homes with low flow toilets and aggressive improvement to aging infrastructure. **[NRS 533.370(5)(a)]**

Therefore, the undersigned reference the following report to substantiate our contention that these applications should not be considered for approval until increased conservation and efficiency of existing water supplies is adopted by the SNWA with definitive short and long term goals to reduce per capita water use substantially and in line with low, per-capita water use cities. (CDROM version of the report is included) **Website:** http://www.westernresourceadvocates.org; **Online Report:** http://www.westernresourceadvocates.org/water/smartwater.html; **CDROM:** (Single copy of CDROM is enclosed with protest of application 71167); **Report Title, Author, Date, Address, Telephone:** Smart Water: A Comparative Study of Urban Water Use Across the Southwest, Produced and Written by Western Resource Advocates, December 2003, 2260 Baseline Road, Suite 200, Boulder, CO 80302, (303) 444-1188

3. There is insufficient data available without an independent groundwater study to demonstrate that groundwater of sufficient quantity can be provided to the Las Vegas metropolitan area without adverse impacts on the environment or that groundwater exportation is sustainable. Las Vegas could face an extreme emergency should the residents become dependent upon water extraction which cannot be sustained. The director of the SNWA has, in fact, stated that should the pumping of groundwater from rural lands be the cause of the decline of springs, seeps, wetlands or other natural features or cause harm to existing users of water that the SNWA would turn off the pumps. This statement calls into question the ability of SNWA to supply an ever increasing population with an inappropriate and unsustainable long-term supply. **[NRS 533.370(5)(d)]**

The protestant reserves the right to amend the subject protest to include such issues as they may develop as a result of further information and study.

The undersigned additionally incorporates by reference as though fully set forth herein and adopts as his [her/its] own, each and every other protest to the aforementioned application filed pursuant to NRS 533.365.

THEREFORE the protestant requests that the application be denied and that an order be entered for such relief as the State Engineer deems just and proper.

Signed Ellen Pillard

Ellen Pillard, Sierra Club
Toiyabe Chapter

Address PO Box 8096
Reno, NV 89507

Subscribed and sworn to before me this 19 day of August 2004.

JAMIE MAHAN
NOTARY PUBLIC
STATE OF NEVADA
APPT. No. 01-69834-2
MY APPT. EXPIRES MAY 22, 2005

Jamie Mahan
Notary Public
State of Nevada
County of Washoe

STATE ENGINEERS OFFICE
04 AUG 19 PM 1:00

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ALL COPIES MUST CONTAIN ORIGINAL SIGNATURE.