

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

IN THE MATTER OF APPLICATION NUMBER 54024
FILED BY LAS VEGAS VALLEY WATER DISTRICT
ON OCTOBER 17, 1989, TO APPROPRIATE THE
WATERS OF UNDERGROUND

PROTEST

Comes now Owen R. Williams, on behalf of the United States Department of the Interior, National Park Service, whose post office address is 301 S. Howes Street, Room 353, Fort Collins, Colorado, 80521, whose occupation is Chief, Water Rights Branch, Water Resources Division, National Park Service, and protests the granting of Application Number 54024, filed on October 17, 1989, by Las Vegas Valley Water District to appropriate the water of Underground Basin 195, SNAKE VALLEY, situated in WHITEPINE County, State of Nevada, for the following reasons and on the following grounds, to wit:

See Exhibits A through B attached.

THEREFORE the protestant requests that the application be denied (See Exhibit C, attached).

Signed *Owen R. Williams*
Agent or protestant

Owen R. Williams
Printed or typed name, if agent

Address 301 South Howes St., Room 353
Street No. or P.O. Box No.

Fort Collins, CO 80521
City, State and Zip Code No.

Subscribed and sworn to before me this 5 day of July, 1990.

[Signature]
Notary Public

State of Colorado

County of Larimer

My Commission expires 3/10/91.

GM
me

IN THE MATTER OF APPLICATION 54024

EXHIBIT A

Protest by Owen R. Williams, on behalf of
the United States Department of the Interior,
National Park Service

I. The mission of the National Park Service (NPS) may be paraphrased from 16 U.S.C. 1 as conserving the scenery, natural and historic objects, and wildlife, and providing for enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations. Great Basin National Park (Great Basin NP) was created by Congressional Act in 1986, "...to preserve for the benefit and inspiration of the people a representative segment of the Great Basin of the Western United States possessing outstanding resources and significant geologic and scenic values..."

Water resources at Great Basin NP include lakes, streams, springs, seeps, and ground water. Associated with these are various water-related resource attributes. Two examples are described. (1) Pine and Ridge Creeks which headwater within Great Basin NP and flow into Spring Valley, provide habitat for the Bonneville Cutthroat trout (Oncorhynchus clarki Utah). This fish species is considered by the U.S. Fish and Wildlife Service as a candidate species for threatened status under the Endangered Species Act, and is listed by the Nevada Department of Wildlife as a state sensitive species. (2) In addition to Lehman Caves, discussed in more detail in II. below, there are approximately 30 known caves within Great Basin NP. There may well be cave systems within Great Basin NP which have not yet been discovered. Ground water is important in maintaining cave features and is thought to play an important role in cave ecology.

The public interest will not be served if water and water-related resources in the nationally important Great Basin NP are diminished or impaired as a result of the appropriation proposed by this application.

II. In the legislation establishing Great Basin NP, Congress explicitly excluded the establishment of any new Federal reserved water right, but stated that the United States was entitled to reserved rights associated with the initial establishment and withdrawal of Humboldt National Forest and Lehman Caves National Monument. The priority dates for these reserved rights are the dates of initial establishment of national forest lands and Lehman Caves National Monument, and are senior to the appropriation sought by this application. These reserved rights have not been judicially quantified.

Ground water plays an important role in maintaining the features of Lehman Caves. The caves contain living limestone formations, such as stalactites, stalagmites, plate-like shields, cave coral, rimstone dams,

IN THE MATTER OF APPLICATION 54024

EXHIBIT A (Continued)

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facilities. The priority dates for the reserved rights are the dates upon which land was withdrawn for use by the USFS. These reserved rights have not been judicially quantified.

The United States also holds a portion of proof 01066, assigned on June 29, 1945. Proof 01066 is a water right decreed on October 1, 1934. The United States entitlement to this right is 0.38 cubic feet per second in summer and 0.13 cubic feet per second in winter.

If the water supply for this administrative site is diminished or impaired as a result of the appropriation proposed by this application, the public interest will not be served and the United States senior Federal reserved and decreed water rights will be impaired.

V. As mentioned in item IV. above, the NPS is preparing a General Management Plan for Great Basin NP, scheduled for release in January 1991. The plan contemplates the construction of a visitor center in Great Basin NP, to be located between Baker and Lehman Creeks, within T14N R69E, MDBM. It is anticipated that the water supply for the new visitor center will be from a well. As the Baker and Lehman Creek stream system is not presently within a designated ground-water basin and the plan has not yet been finalized, the NPS has not applied for a water right permit.

If this application and Las Vegas Valley Water District's (LVVWD) other applications within Snake Valley and Spring Valley Basins are approved, there will be no water available for future appropriations. The new facilities planned for Great Basin NP are for the benefit and inspiration of the people. In addition, the park attracts tourists to the area and is important to the local economy. Thus, it would not be in the public interest to approve this and other applications within Snake Valley and Spring Valley Basins.

VI. The diversion proposed by this application is located in the carbonate-rock province of Nevada. The carbonate-rock province is typified by complex interbasin regional flow systems that include both basin-fill and carbonate-rock aquifers (Harrill, et al., 1988, Sheet 1). Ground water flows along complex pathways through basin-fill aquifers, carbonate-rock aquifers, or both, from one basin to another. Ground-water flow system boundaries, and thus interbasin ground-water flows, are poorly defined for most of the carbonate-rock province (Harrill, et al., 1988, Sheet 1).

IN THE MATTER OF APPLICATION 54024

EXHIBIT A (Continued)

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- B. As of December 1988, committed diversions of 5247 acre-feet per year and an estimated perennial yield of 25000 acre-feet per year were reported for Basin 195, SNAKE VALLEY (Nevada Department of Conservation and Natural Resources, 1988).
- C. The sum of the committed diversions and the diversions proposed by the LVVWD applications in this basin exceeds the estimated recharge of 44000 acre-feet per year (Eakin et al., 1976) by 11959 acre-feet per year and the estimated perennial yield by 30959 acre-feet per year.

An overdraft of ground-water resources is expected to occur. The overdraft will cause ground-water levels to decline, alter the direction of ground-water flow, dry up playas, reduce or eliminate spring and stream flows, and cause land subsidence and fissuring. The cumulative effects of these diversions in this basin are expected to cause impacts at Great Basin NP and at the administrative site near Baker, Nevada, to occur more quickly and/or to a greater degree than diversions under this application alone. The diversions proposed by LVVWD in this basin exceed the water available for appropriation. The impacts described above are not in the public interest.

VIII. It should be noted also, that the LVVWD has submitted 28 applications which propose the appropriation of 196 cubic feet per second (141994 acre-feet per year) of ground water from the aquifers beneath Snake Valley and Spring Valley Basins (Exhibit B). The diversions proposed by LVVWD in these basins exceed the water available for appropriation. The cumulative effects of these diversions is expected to cause the impacts described in VII. above, to appear more quickly and/or to a greater degree than diversions within the subject ground-water basin, or under this application alone. This conclusion is supported by the following.

- A. Harrill, et al. (1988, sheet 2) show an estimated ground-water recharge of 177000 acre-feet per year for the Spring Valley, Hamlin Valley, and Snake Valley Basins. This estimate includes ground-water recharge for Basin 194, Pleasant Valley. Eakin, et al. (1976, Table 8) show an estimated ground-water recharge of 129000 acre-feet per year for these basins.
- B. As of December 1988, the latest available estimate of committed diversions for the basins was 41535 acre-feet per year (Nevada Department of Conservation and Natural Resources, 1988).

IN THE MATTER OF APPLICATION 54024

EXHIBIT A (Continued)

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- A. The public interest will not be served if water and water-related resources in the nationally important Great Basin NP are diminished or impaired as a result of the appropriation proposed by this application.
- B. If the diversion proposed by this application causes ground-water levels in the vicinity of Lehman Caves to drop and/or alters the direction of ground-water movement, ground-water flow in Lehman Caves will be reduced or eliminated. The senior NPS reserved water rights will thus be impaired.
- C. If the diversion proposed by this application causes ground-water levels in the vicinity of Cave springs to drop and/or alters the direction of ground-water movement, ground-water flow to Cave Springs will be reduced or eliminated. The senior NPS water rights for Cave Springs will thus be impaired.
- D. If the water supply for the administrative site near Baker, Nevada, is diminished or impaired as a result of the appropriation proposed by this application, the public interest will not be served and the United States senior Federal reserved and decreed water rights will be impaired.
- E. If this application and LVVWD's other applications within Snake Valley and Spring Valley Basins are approved, there may be no water available for future appropriations. Facilities at Great Basin NP for the benefit and inspiration of the people will not be possible without a dependable water supply. It is not in the public interest to approve this and other applications within Snake Valley and Spring Valley Basins.
- F. Available scientific literature is not adequate to reasonably assure that the ground-water diversion proposed by this application will not impact the senior water rights of the United States at Great Basin NP and the administrative site near Baker, Nevada. The State Engineer will, therefore, be unable to make a determination that injury will not be manifest upon other water users, including the NPS.
- G. The cumulative effects of the diversion proposed by this application and other applications within this basin (Exhibit B) will impair the senior water rights of the United States more quickly and/or to a greater degree than diversions under this

IN THE MATTER OF APPLICATION 54024

EXHIBIT B

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The following applications were submitted by the Las Vegas Valley Water District for appropriations in Basins 184 and 195 (Nevada Division of Water Resources, 1990).

Appli- cation no.	Basin no.	Basin Name	Proposed diversion rate, ft ³ /s
54003	184	SPRING VALLEY	6
54004	184	SPRING VALLEY	6
54005	184	SPRING VALLEY	6
54006	184	SPRING VALLEY	6
54007	184	SPRING VALLEY	6
54008	184	SPRING VALLEY	6
54009	184	SPRING VALLEY	6
54010	184	SPRING VALLEY	6
54011	184	SPRING VALLEY	6
54012	184	SPRING VALLEY	6
54013	184	SPRING VALLEY	6
54014	184	SPRING VALLEY	6
54015	184	SPRING VALLEY	6
54016	184	SPRING VALLEY	6
54017	184	SPRING VALLEY	6
54018	184	SPRING VALLEY	6
54019	184	SPRING VALLEY	10
54020	184	SPRING VALLEY	10
54021	184	SPRING VALLEY	10
54022	195	SNAKE VALLEY	6
54023	195	SNAKE VALLEY	6
54024	195	SNAKE VALLEY	6
54025	195	SNAKE VALLEY	6
54026	195	SNAKE VALLEY	10
54027	195	SNAKE VALLEY	10
54028	195	SNAKE VALLEY	10
54029	195	SNAKE VALLEY	10
54030	195	SNAKE VALLEY	6
Total			196

IN THE MATTER OF APPLICATION 54024

EXHIBIT C

Protest by Owen R. Williams, on behalf of
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The National Park Service (NPS) requests that the application be denied. Further, none of the information which follows should be construed to indicate that the NPS asks for anything less than denial of the application.

If the application is approved, the NPS requests the following:

- I. The NPS does not wish to impede any legitimate ground-water development in the State of Nevada, which will not impair the senior water rights, water resources and water-related resource attributes of Great Basin National Park (Great Basin NP) and the administrative site near Baker, Nevada. However, reports by Hood and Rush (1965), Rush and Kazmi (1965), Harrill, et al. (1988, Sheet 1), and Dettinger (1989) indicate that Basins 184, 185, 195, and 196 are hydraulically connected. Therefore, the NPS requests that the State Engineer establish the above-listed ground-water basins as one designated ground-water basin.

The designation would assist in protecting the interests of the NPS, the Las Vegas Valley Water District (LVVWD), the people of the United States, and the people of the State of Nevada. If this request is denied, the NPS requests that the State Engineer establish the above-mentioned basins as separate designated ground-water basins.

- II. The NPS further requests that, if the application is approved, the permit be conditioned by the following.
 - A. The LVVWD shall conduct a scientific ground-water investigation of basin-fill, volcanic, and carbonate-rock aquifers to determine the hydrologic relationship between Basin 195, SNAKE VALLEY, and the water resources of Great Basin NP and the administrative site near Baker, Nevada.
 - B. The LVVWD shall establish and operate a long-term monitoring program designed to detect any potential impacts to water resources of Great Basin NP and the administrative site near Baker, Nevada, directly or indirectly incident to the appropriation described by the application.
 - C. The LVVWD plans for monitoring and investigating ground-water resources shall be subject to the approval of the NPS and the State Engineer and shall include quality assurance protocol acceptable to the above-mentioned parties.

IN THE MATTER OF APPLICATION 54024

REFERENCES CITED

Protest by Owen R. Williams, on behalf of
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Dettinger, M.D., 1989. Distribution of carbonate-rock aquifers in southern Nevada and the potential for their development, Summary of Findings, 1985-88: Program for the Study and Testing of Carbonate-Rock Aquifers in Eastern and Southern Nevada Summary Report No. 1, 37 p.

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Rush, F.E., and Kazmi, S.A.T., 1965. Water resources appraisal of Spring Valley, White Pine, and Lincoln Counties, Nevada: Nevada Department of Conservation and Natural Resources Water Resources Reconnaissance Series Report 33, 36 p.

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