

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

**FILED**  
NOV 14 2005  
STATE ENGINEER'S OFFICE

IN THE MATTER OF APPLICATION NUMBER 72907  
FILED BY LINCOLN COUNTY WATER DISTRICT AND VIDLER WATER COMPANY, INC  
OF PIOCHE, STATE OF NEVADA  
ON JUNE 6, 2005  
TO APPROPRIATE THE WATERS OF UNDERGROUND  
**PROTEST**

Comes now Charles W. Pettee, on behalf of the United States Department of the Interior, National Park Service, whose post office address is 1201 Oak Ridge Drive, Suite 250, Fort Collins, Colorado, 80525, whose occupation is Chief, Water Rights Branch, Water Resources Division, National Park Service, and protests the granting of Application Number 72907 filed on June 6, 2005, by Lincoln County Water District and Vidler Water Company, Inc., of Pioche, State of Nevada, to appropriate the waters of underground, situated in Lincoln County, State of Nevada, for the following reasons and on the following grounds, to wit:

See Exhibit A attached.

THEREFORE the protestant requests that the application be denied

Signed *Charles W. Pettee*  
Agent of protestant

Charles W. Pettee  
Printed or typed name, if agent

Address 1201 Oak Ridge Drive, Suite 250  
Street No. or P.O. Box No.

Fort Collins, CO 80525  
City, State and Zip Code No.



Subscribed and sworn to before me this 10<sup>th</sup> day of November, 2005.  
*Flora B. Romero*  
Notary Public

State of Colorado  
County of Larimer

My Commission expires \_\_\_\_\_  
**Flora B. Romero, Notary Public**  
**State of Colorado**  
**My Commission Expires 7/31/2006**

*RP*

**IN THE MATTER OF APPLICATION 72907  
EXHIBIT A - CONTINUED**

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National Park Service

GENERAL

- 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 (NP) was created by Congressional Act in 1986 (100 Stat. 3181), to preserve a portion of the Great Basin possessing outstanding resources and significant geologic and scenic values for the benefit and inspiration of the people.
  
- II. Water resources at Great Basin NP include lakes, streams, springs, seeps, and ground water. Ground water is thought to play an important role in maintaining the features and ecology of Lehman Caves. The caves contain living limestone formations, such as stalactites, stalagmites, plate-like shields, cave coral, rimstone dykes, curling helictites, flowstone, and draperies. However, little is known about the ecology of the caves and the role played by water. There may be additional caves and cave systems within Great Basin NP that have not yet been discovered.
  
- III. 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. These reserved rights have not been judicially quantified.
  
- IV. Located near the town of Baker, in the E $\frac{1}{2}$  NW $\frac{1}{4}$  Sec. 9, T13N, R70E, MDBM, is an administrative site, originally on public domain land. The site was withdrawn from entry (Exec. Order 1354, May 16, 1911) for use by the United States Forest Service (USFS) and later established as an administrative site for NPS. NPS currently uses the site as a ranger station, office and residence, with water supplied by a well developed when the USFS occupied the site.

The United States has Federal reserved water rights for the purposes of the withdrawal, which include use as a ranger station with supporting facilities. The priority dates for the administrative site are the dates upon which land was withdrawn. These reserved rights have not been judicially quantified.

The site will likely include administrative offices, a park maintenance facility, and residences for park staff. Adequate facilities of this kind are vital to the protection and management of the nationally important Great Basin NP for the benefit and inspiration of the people.

**IN THE MATTER OF APPLICATION 72907  
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- V. NPS holds a state appropriative water right to Cave Springs (In the Matter of the Determination of the Relative Rights in and to the Waters of Baker and Lehman Creeks and Tributaries in the County of White Pine, Findings of Fact and Conclusions of Law, and Decree, 7<sup>th</sup> Judicial Distr., Oct. 16, 1934, Proof 01065), with a priority date of 1890. By Application Number 20794, Certificate Record No. 7573, the point of diversion, manner and place of use were changed. The point of diversion is within the SW<sup>1</sup>/<sub>4</sub> NE<sup>1</sup>/<sub>4</sub> Sec. 9, T13N, R69E, MDBM. This right provides water for the current visitor center, picnic area, maintenance area, trailer dump station, and park housing; and for the watering of lawns and an historic orchard.
- VI. In addition, NPS holds a state appropriative right to Baker and Lehman Creeks with a priority date estimated to be 1904. (In the Matter of the Determination of the Relative Rights in and to the Waters of Baker and Lehman Creeks and Tributaries in the County of White Pine, Findings of Fact and Conclusions of Law, and Decree, 7<sup>th</sup> Judicial Distr., Oct. 16, 1934, Proof 01066). The point of diversion is within Section 9, T13N, R70E, MDBM.
- VII. In 2004, approximately 80,000 persons visited Great Basin NP, contributing to the local economy.
- VIII. Lincoln County Water District and Vidler Water Company, Inc. (Applicant) filed Application No. 72907 to withdraw ground water in Hamlin Valley hydrographic basin for municipal uses within Coyote Spring Valley. Applicant also filed associated Application No. 72908 to withdraw ground water in Hamlin Valley for municipal uses within Coyote Spring Valley. With each application (Applications No. 72907 and 72908), Applicant seeks to appropriate 6.0 cubic feet per second (cfs), or up to 4344 acre-feet per year (afy), of ground water from Hamlin Valley. In total, Applicant seeks to appropriate 12 cfs, or up to 8,688 afy, from the two applications.
- IX. NPS reserves the right to amend this exhibit as more information becomes available.

**FINDINGS**

- I. The appropriation proposed by Application 72907 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 and others, 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 and others, 1988, Sheet 1). (See Prudic and others, 1995, for an additional discussion of regional ground-water flow systems.)

**IN THE MATTER OF APPLICATION 72907  
EXHIBIT A - CONTINUED**

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- II. The proposed appropriation is located in Hamlin Valley hydrographic basin. Great Basin NP encompasses part of the Snake Range that separates Snake; including Hamlin, and Spring valleys. Lehman Caves and the NPS's Administrative Site near Baker, Nevada, are positioned along the eastern flank of the range in Snake Valley. Part of the range is composed of carbonate rocks that have been strongly deformed by folding and repetitive faulting. Connected solution cavities and fractures caused by the folding and faulting in the carbonate rock provide conduits for the transmission of ground water through the range.
- III. The basin-fill and carbonate-rock aquifers in Hamlin, Snake, and Spring valleys are part of a regional ground-water flow system which discharges in the Great Salt Lake Desert (Hood and Rush, 1965; Dettinger, 1989; and Harrill and others, 1988, Sheet 2). A regional ground-water potential map prepared by Harrill and others. (1988, Figure 5, Sheet 1), indicates general regional ground-water movement from Spring Valley to Snake Valley through Hamlin Valley (See also Prudic and others, 1995, Figure 33).
- IV. Ground water beneath Hamlin Valley moves to Snake Valley (see Hood and Rush, 1965, Plate 1; Harrill and others, 1988, Sheet 2; and Prudic and others, 1995). Ground-water withdrawals in Hamlin Valley, if large enough and occurring over a long period of time, will affect the ground-water reservoir in Snake Valley and the water rights and water resources of Great Basin NP.
- V. The estimated perennial yield for Hamlin Valley is 5,000 acre-feet per year (Nevada Department of Conservation, 1988). Committed ground-water resources total about 400 acre-feet per year (Nevada Division of Water Resources, 2005).
- VI. The Las Vegas Valley Water District (LVVWD) has filed nineteen applications to appropriate 126 cubic feet per second (cfs), or up to 91,224 acre-feet per year, of ground water in Spring Valley (Nevada Division of Water Resources, 2005). White Pine County (WPC) has about 35 applications to appropriate about 26,000 acre-feet per year of ground water from aquifers beneath Spring Valley. Committed ground-water resources and the proposed ground-water appropriations total over 170,000 acre-feet per year and exceed the recharge rate (Nevada Department of Conservation and Natural Resources, 1999). LVVWD also filed 9 applications to appropriate 70 cubic feet per second (cfs), which equals 50,680 acre-feet per year, of ground water in Snake Valley.
- VII. The appropriation proposed by Application 72907, in combination with other proposed appropriations by Lincoln County and Vidler Water Company, Inc., LVVWD, and WPC in Spring and Snake valleys, will: (1) reduce ground-water levels in the aquifers beneath Snake, Hamlin, and Spring valleys, (2) modify the direction of ground-water movement in the adjoining hydraulically connected basins, and (3) reduce or eliminate spring and stream discharge. Available scientific literature is not adequate to reasonably assure that the ground-water appropriation proposed by Application 72907, in combination with appropriations proposed by LVVWD and WPC in Snake and Spring valleys, will not

**IN THE MATTER OF APPLICATION 72907  
EXHIBIT A - CONTINUED**

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impact the water rights, water resources and water-related resources of Great Basin NP and the NPS administrative site near Baker, Nevada.

- VIII. Ground-water withdrawal rates larger than the perennial yield of Hamlin Valley (5,000 afy) would come from storage and constitute ground-water mining. This appropriation, and associated Application No. 72908 (which, combined, could total 8,688 afy), if approved and developed, will mine ground water.
- IX. The water and water-related resources of Great Basin NP are locally and nationally important.

**CONCLUSIONS**

- I. There is no ground water in Hamlin Valley available for appropriation under this application, because existing appropriations and appropriations sought by senior applications exceed the recharge rate.
- II. The approval and development of the appropriation proposed by this application will impair the senior water rights of the United States, because:
- A. The appropriation proposed by Application 72907, in combination with proposed appropriations by LVVWD and WPC in Snake and Spring valleys, will eventually reduce/eliminate (1) ground-water flow in Lehman Caves, (2) the discharge of Cave Springs, and (3) stream discharge within Great Basin NP. The reduction/elimination will occur through the lowering of ground-water levels and/or alterations in the directions of ground-water movement. The United States' state appropriative and Federally reserved water rights, water resources, and water-related resources will be impaired.
- B. Available scientific literature is not adequate to reasonably assure that the proposed appropriation, in combination with proposed appropriations by LVVWD and WPC, will not impact the NPS's water rights at Great Basin NP and the NPS administrative site near Baker, Nevada.
- III. The public interest would not be served, by granting a permit to this application, because:
- A. The water and water-related resources in the nationally important Great Basin NP would be diminished or impaired, as a result of the appropriation proposed by this application, in combination with proposed appropriations by LVVWD and WPC in Snake and Spring valleys.

**IN THE MATTER OF APPLICATION 72907  
EXHIBIT A - CONTINUED**

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- B. The water and water-related resources of the park would be diminished, reducing the aesthetic value of the park for the visitor and thus contributions to the local economy.

**REFERENCES CITED**

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- Dettinger, M.D., Harrill, J.R., Schmidt, D.L., and Hess, J.W., 1995, Distribution of carbonate rock aquifers and the potential for their development, southern Nevada and adjacent parts of California, Arizona and Utah: U.S. Geological Survey Water resources Investigations Report 91-4146, 110 p.
- Harrill, J.R., Gates, J.S., and Thomas, J.M., 1988, Major ground-water flow systems in the Great Basin region of Nevada, Utah, and adjacent states: U.S. Geological Survey Hydrologic Investigations Atlas HA-694-C, 2 sheets.
- Harrill, J.R., and Prudic, D.E., 1998, Aquifer systems in the Great Basin region of Nevada, Utah, and adjacent states -- summary report: U.S. Geological Survey Professional Paper 1409-A, pg. A1-A66.
- Hood, J.W., and Rush, F.E., 1965, Water-resources appraisal of the Snake Valley area, Utah and Nevada: Utah State Engineer Technical Publication 14, 43 p.
- Nevada Department of Conservation and Natural Resources, 1988, Hydrographic Basin Statistical Summary: Division of Water Planning, Carson City, Nevada.
- Nevada Department of Conservation and Natural Resources, 1992, Hydrographic basin statistical summary -- Ground water basins 001-232: State of Nevada, Division of Water Resources and Water Planning, Carson City, Nevada, approximately 250 p.
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- Plume, R.W., and Carlton, S.M., 1988, Hydrogeology of the Great Basin region of Nevada, Utah, and adjacent states: U.S. Geological Survey Hydrologic Investigations Atlas HA-694-A, 1 sheet.

IN THE MATTER OF APPLICATION 72907  
EXHIBIT A - CONTINUED

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- Prudic, D.E., Harrill, J.R., and Burbey, T.J., 1995, Conceptual evaluation of regional ground-water flow in the carbonate-rock province of the Great Basin, Nevada, Utah, and adjacent States: U.S. Geological Survey Professional Paper 1409-D, p. D1-D102.
- 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.
- Schaefer, D.E., and Harrill, J.R., 1995, Simulated effects of proposed ground-water pumping in 17 basins of east-central and southern Nevada: U.S. Geological Survey Water-Resources Investigations Report 95-4173, 71p.
- Thomas, J.M., Mason, J.L., and Crabtree, J.D., 1986, Ground-water levels in the Great Basin region of Nevada, Utah, and adjacent states: U.S. Geological Survey Hydrologic Investigations Atlas HA-694-B, 2 sheets.