FILED
FEB 7 2001
STATE ENGINEER'S OFFICE

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

IN THE MATTER OF APPLICATION NUMBER 66905
FILED BY EDWARD B. VINCENT ON OCTOBER 26, 2000
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 66905, filed on October 26, 2000, by Edward Vincent 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 _____
Agent or 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 5th day of Feb., 2001.

_____
Notary Public

State of Colorado

County of Larimer

My Commission Expires 06/20/2004

My Commission expires _____.

IN THE MATTER OF APPLICATION 66905
EXHIBIT A

Protest by Charles W. Pettee
on behalf of the United States, Department of the Interior
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.

II. Since 1936, the National Park Service has managed the recreational activities within the Boulder Canyon Project area now known as Lake Mead National Recreation Area (NRA). Lake Mead NRA was established on October 8, 1964 (78 Stat. 1039) to be administered for "...general purposes of public recreation, benefit, and use, and in a manner that will preserve, develop, and enhance, so far as practicable, the recreation potential, and in a manner that will preserve the scenic, historic, scientific, and other important features of the area.... The Secretary shall permit hunting, fishing, and trapping on the lands and waters under his jurisdiction within the recreation area."

III. The NPS is entitled to Federal reserved water rights for reserved lands within Lake Mead NRA. The priority dates for these reserved rights are the dates when the lands were reserved and are senior to the appropriation sought by the applicant. These rights have not been judicially quantified.

IV. The Muddy River, which originates from large discharge springs located northwest of Moapa, Nevada, flows into Lake Mead NRA at the north end of the lake's Overton Arm. The State of Nevada Department of Wildlife is leasing part of Lake Mead NRA adjoining the Muddy River for the purposes of the Overton Wildlife Management Area. This area supports a variety of waterfowl and vegetation. The United States has a State appropriative water right to water in the Muddy River, Certificate No. 5126.

V. Springs and water-related resource attributes are important features of Lake Mead NRA. The springs provide water for vegetation and wildlife habitat and create an environment that many visitors use and enjoy. Most springs are not fed by water from Lake Mead and could be affected by upgradient diversions.

In 1998, approximately 9,107,000 persons visited Lake Mead NRA, contributing to the local economy.

Springs include Blue Point, Rogers, Corral, and Kelsey's Springs, and other smaller, unnamed springs. Visitation to Blue Point and Rogers Springs has been estimated at 5,000 visitors per year. Desert bighorn sheep are also dependent upon the springs in Lake Mead NRA. A herd of approximately 150 use springs in the northern part of the National Recreation Area. The relict Las Vegas Valley leopard frog, *Rana onca*, has been found at Rogers, Corral, and Blue Point Springs. Current taxonomic studies indicate a high potential for listing of this relict population, previously believed extinct, as protected under the Endangered Species Act.

The United States has Nevada State Appropriative water rights for Lake Mead National Recreation Area as follows:

Name	Point of Diversion	Certificate Number
Kelsey's Spring	SW¼, NW¼, Sec. 20, T16S, R68E, MDB&M	296
Rogers Spring	SE¼, SE¼, Sec. 12, T18S, R67E, MDB&M	4476
Muddy Creek (River)	NW¼, SE¼, Sec. 19, T16S, R68E, MDB&M	5126

IN THE MATTER OF APPLICATION 66905
EXHIBIT A - CONTINUED

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VI. The applicant filed Application No. 66905 to withdraw 0.913 cubic feet per second (cfs) of ground water in Patterson Valley for domestic and irrigation purposes.

VII. The NPS reserves the right to amend this exhibit as more information becomes available.

FINDINGS

I. The appropriation proposed by Application 66905 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). Ground water flows along complex pathways through basin-fill aquifers, carbonate-rock aquifers, or both, from one basin to another.

II. The proposed withdrawal is located in Patterson Valley. Patterson Valley is part of the White River subregion of the carbonate-rock province of the Great Basin (Prudic and others, 1995). Ground water generally flows from Patterson Valley to Panaca Valley and then flows southward through Meadow Valley Wash towards Muddy River Springs. Ground-water withdrawals in the subregion may reduce the discharge of the Muddy Springs, or reduce discharge to the Muddy River through lower Meadow Valley Wash if the ground-water withdrawals are large enough and occur over a sufficiently long period of time.

III. Rush (1964) estimates ground water recharge from precipitation to be 6,000 afy for Patterson Valley. About 3,000 afy flows into Patterson Valley as groundwater from Lake Valley. From Patterson Valley, ground water flows towards Panaca Valley. Panaca Warm Spring discharges aproximately 8,000 afy of surface water. Of this amount, it is estimated that about one-half (4,000 afy) filters back into the ground to recharge underlying aquifers. The remainder is lost to evapotranspiration (Rush, 1964). The Nevada Division of Water Resources (1992) estimated that the perennial yield of Patterson Valley is 4,500 afy.

IV. Committed groundwater appropriations total approximately 6,047 afy of groundwater as certificates and permits. Additional pending applications, including Las Vegas Valley Water District (LVVWD) and Lincoln County Vidler Water Company, total approximately 30,000 afy in Patterson Valley (Schaefer and Harrill, 1995; Nevada Division of Water Resources, 2000). Therefore, the Patterson Valley hydrographic basin is over-appropriated.

V. Ground water flows from Panaca Valley south towards Lower Meadow Valley Wash (Prudic and others, 1995). Approximately 7,000 afy of ground-water may be discharged in the Muddy River area from Lower Meadow Valley Wash (Rush, 1964). Burbey (1997) states that underflow from Lower Meadow Valley Wash may support spring discharge in the Muddy River Springs area. The rate of ground-water underflow to the Muddy River area from Coyote Spring Valley (37,000 afy (Harill and others, 1988) and Lower Meadow Valley Wash combined may be as large as 56,400 afy.

VI. The ground-water withdrawal proposed by this application, if approved and developed, in combination with existing permits and pending applications (including those of LVVWD, Coyote Springs Investments, Inc., Dry Lake L.L.C., Lincoln County and Vidler Water Company, Inc., and others), will capture ground water that naturally discharges into the Muddy River and thus will reduce the discharge of the river, impairing existing water rights.

VII. Lake Mead NRA springs, located within the Black Mountains Areas, are discharge points for regional ground-water flow systems and may be affected by the proposed appropriation. The water issuing from the springs probably originates in the easternmost part of Lower Meadow Valley Wash and the Virgin River Valley (Pohlmann and others, 1998). Given that pumping occurs over a long period of time, the National

Park Service is concerned that the ground-water withdrawals proposed by numerous applicants as well as existing ground-water uses in the White River ground-water flow system, if developed, will reduce or eliminate the discharge of the springs within Lake Mead NRA by capturing water destined for the springs.

VIII. Ground-water withdrawal rates larger than the recharge rate of Patterson Valley would come from storage and constitute ground water mining. LVVWD has applied to withdraw 4,000 afy (Schaefer and Harrill, 1995) in Patterson Valley, which are senior to this application. LVVWD, and applications by Lincoln County and Vidler Water Company, Inc. and other senior committed and pending appropriations could withdraw over 30,000 afy from Patterson Valley. The recharge rate for the valley is estimated at about 9,000 afy (Rush, 1964). This application along and in combination with other applications within Patterson Valley, if approved and developed, would mine ground water.

CONCLUSIONS

I. There is no water available for appropriation because committed water resources exceed ground-water recharge.

II. The approval and development of the appropriation proposed by this application will impair the water rights of the United States, because:

A. The appropriations and withdrawals proposed by the Applicant, in combination with existing appropriations and pending applications in the White River subregion, if approved and developed, will reduce the discharge of the Muddy River. The United States' senior water right and other existing rights to the Muddy River would be impaired, if the appropriation is approved and developed.

B. The proposed appropriation, in combination with existing appropriations and pending applications in the White River subregion, if approved and developed, could reduce the discharge of Lake Mead NRA springs.

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 Lake Mead NRA would be diminished or impaired, as a result of the appropriation proposed by this application.

REFERENCES CITED

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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.

Nevada Department of Conservation and Natural Resources, 1992, Hydrographic Basin Statistical Summary, Ground Water Basins 001-232: unpublished report, Division of Water Resources and Planning, Carson City, Nevada.

IN THE MATTER OF APPLICATION 66905
EXHIBIT A - CONTINUED

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Pal Consultants, Inc., 1995a. Evaluation of scientific literature pertaining to the conceptualization of the Death Valley ground-water flow system, Nevada and California: unpublished report prepared for the National Park

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.

Pohlmann, K.F., Campagna, D.J., Chapman, J.B., Earman, S., 1998, Investigation of the Origin of Springs in the Lake Mead National Recreation Area: Desert Research Institute, Water Resources Center Publication No. 41161, 51 p.

Rush, F.E., 1964. Ground-Water Resources - Reconnaissance Series. Report 27. Ground-Water Appraisal of the Meadow Valley Area, Lincoln and Clark Counties, Nevada. State of Nevada, Department of Conservation and Natural Resources, Carson City, Nevada. 43 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