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

FILED
AUG 2 6 2005
STATE ENGINEER'S OFFICE

IN THE MATTER OF APPLICATION NUMBER 72840
FILED BY BEDROC LIMITED
OF LAS VEGAS, STATE OF NEVADA
ON MAY 26, 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 72840 filed on May 26, 2005, by Bedroc Limited of Las Vegas, 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 _____
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.

FLORA B. ROMERO NOTARY PUBLIC STATE OF COLORADO

Subscribed and sworn to before me this 25th day of August, 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

IN THE MATTER OF APPLICATION 72840
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 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 (Lake Mead 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 Bedroc Limited (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 5126.

V. Numerous 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 will be affected by up-gradient diversions.

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.

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

VI. The United States has Nevada State Appropriative water rights for Lake Mead NRA at the following springs which could be impaired by the appropriation and diversion proposed by this application, in combination with existing appropriations:

IN THE MATTER OF APPLICATION 72840
EXHIBIT A - (CONTINUED)

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

Name	Point of Diversion	Certificate Number
Kelsey's Spring	SW ¼, NW ¼, Sec. 20, T16S, R68E, MDB&M	296
Rogers Spring	SE ¼, SE ¼, Sec. 12, T18S, R67E, MDB&M	4476

VII. Application 72840, which is the subject of this protest, proposes to withdraw 0.276 cubic feet per second (cfs) not to exceed 200 acre-feet per year (afy) of ground water in Coyote Spring Valley hydrographic area (#210) for mining and milling purposes at the same general location. Bedroc Limited has also filed Applications No. 72838, 72839, and 72841, each proposing to withdraw 0.276 cfs of ground water in Coyote Spring Valley hydrographic area for mining and milling purposes, with the total withdrawal from all four applications not to exceed 200 afy.

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

FINDINGS

I. The proposed appropriation is within the Coyote Spring Valley. The aquifers underlying the Coyote Spring Valley hydrographic basin are part of a regional ground-water flow system informally called the White River ground-water flow system (Eakin, 1966), which discharges water through springs in the Muddy River area, supplying the base flow of the Muddy River (Prudic and others, 1995; Harrill and others, 1988; and Eakin, 1966). Ground-water withdrawals in Coyote Spring Valley can reduce the ground-water discharge of the Muddy River Springs, if the ground-water withdrawals are large enough and occur over a sufficiently long period of time.

The White River ground-water flow system contains basin fill and carbonate rock aquifers that appear to be hydraulically connected (Prudic and others, 1995). Therefore, development of ground water in basin-fill aquifers would induce ground water to flow from the regional carbonate rock aquifer to the basin fill, lowering the hydraulic head in the regional carbonate-rock aquifer, and eventually causing depletion of the discharge of regional springs, such as the Muddy River Springs.

II. Estimates of the amount of local recharge in Coyote Spring Valley range from 2,100 afy by Harrill and others (1988) based on hydrologic analyses by Eakin (1964), to 14,000 afy by Harrill and Prudic (1998) based on geochemical analyses by Thomas and others (1996). In addition, it is generally agreed that additional ground-water enters Coyote Spring Valley as underflow from Pahranagat Valley to the north and perhaps from Kane Springs Valley from the northeast. The range of estimates of the amount and location of discharge from Coyote Spring Valley as ground-water underflow out of the basin is much less variable, however. Most investigators agree that ground-water discharge out of Coyote Spring Valley occurs toward the Muddy River Springs. In Harrill and others (1988), this discharge is estimated to be 37,000 afy. In Harrill and Prudic (1998), it is estimated to be 36,000 afy. Thus, the annual water budget for Coyote Spring Valley is estimated to be 36,000 to 37,000 afy, regardless of how it is apportioned among recharge from local precipitation and ground-water underflow into the basin.

III. The perennial yield of ground water in Coyote Spring Valley is listed as 18,000 afy by the Nevada Department

of Conservation and Natural Resources (1992). Eakin (1964) appraised the combined ground-water resources of Kane Springs Valley and Coyote Spring Valley, and estimated that *"the combined perennial yield of ground water in Coyote Spring and Kane Spring Valleys may be on the order of 2,600 afy..."* (pg 26).

IV. Committed ground-water resources in Coyote Spring Valley with a filing date prior to Applications 72840 total approximately 16,300 afy and pending appropriations in Coyote Spring Valley with a filing date prior to Applications 72840 total approximately 201,600 afy in addition (Nevada State Engineer records, June 27, 2003). Therefore, committed ground-water resources and pending appropriations in Coyote Spring Valley are greater than the perennial yield and recharge. Therefore, the proposed appropriations, if approved, would exceed the amount of ground water that is available. There is no ground water available for appropriation.

V. Rights to water in the Muddy River were decreed by the Tenth Judicial Court of the State of Nevada in the case entitled Muddy Valley Irrigation Company vs. Moapa and Salt Lake Produce Company. According to the January 21, 1920, Order of Determination and the March 11, 1920, Further and Supplemental Order of Determination of the Nevada State Engineer, there is no water available for appropriation in the Muddy River, its headwaters, sources of supply, and tributaries (Muddy Valley Irrigation Company, 1938).

VI. The ground-water withdrawal proposed by this application and associated applications, if approved and developed, in combination with existing permits and other pending applications in Coyote Spring Valley, including those of the Southern Nevada Water Authority (SNWA), Las Vegas Valley Water District (LVVWD), Coyote Springs Investment, LLC, Nevada Power Company, and Dry Lake Water LLC, 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 also discharge points from the regional ground-water flow system and will eventually be affected by the proposed appropriation, in combination with existing permits and pending applications. Given that pumping occurs over a long period of time, the National Park Service is concerned that the ground-water withdrawals proposed by Bedroc Limited, in combination with those of SNWA, LVVWD, Coyote Springs Investment, LLC, Dry Lake Water LLC, Nevada Power Company, and other 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 annual water budget of Coyote Spring Valley (36,000 to 37,000 afy) would come from storage and constitute ground-water mining. Application 72840, in combination with existing appropriations and other pending applications, if approved and developed, will mine ground water.

IX. The water and water-related resources of Lake Mead NRA are locally and nationally important.

IN THE MATTER OF APPLICATION 72840
EXHIBIT A - (CONTINUED)

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

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 appropriation, in combination with existing appropriations and other pending applications in Coyote Spring Valley will further 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 other pending applications in the White River ground-water flow system, if approved and developed, would reduce the discharge of Lake Mead NRA springs, because of the large potential withdrawal rate. The drawdown caused by such large withdrawals would extend to capture ground water that naturally discharges through the springs.

C. The effects of the appropriation proposed by this application, when combined with other existing and proposed appropriations, could impair the senior water rights of Lake Mead NRA more quickly and/or to a degree greater than the withdrawal proposed under this application alone.

III. The public interest would not be served, by granting a permit to this application, because:

A. The public interest would not be served by granting this application, because 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.

LITERATURE CITED

Burbey, T.J., 1997, Hydrogeology and potential for ground-water development, carbonate-rock aquifers, southern Nevada and southeastern California: U.S. Geological Survey Water-Resources Investigations 95-4168, 65 p.

Eakin, T.E., 1964 Ground-water appraisal of Coyote Spring and Kane Springs valleys and Muddy River Springs Area, Lincoln and Clark Counties, Nevada: Nevada Department of Conservation and Natural Resources Ground-Water Resources-Reconnaissance Series Report 25, 40 p.

Eakin, T.E., 1966, A regional interbasin ground-water system in the White River area, southeastern Nevada: Nevada Department of Conservation and Natural Resources Water Resources Bulletin No. 33.

IN THE MATTER OF APPLICATION 72840
EXHIBIT A - (CONTINUED)

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

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.

Muddy Valley Irrigation Company, 1938, Protest of the Muddy Valley Irrigation Company in the Matter of Application No. 10188 by the United States Department of Agriculture, Bureau of Biological Survey, for Permission to Appropriate Water From Muddy Creek, Filed March 9, 1938: Nevada State Engineer's Office, Carson City, Nevada, 2 p.

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.

Pohlmann, K.F., Campagna, D.J., Chapman, J.B., and Earman, S., 1997, Investigation of the origins of springs in the Lake Mead National Recreation Area: draft report prepared for the National Park Service, Desert Research Institute, Water Resources Center, Las Vegas, Nevada, 48 p. with appendices.

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

Schaefer, D.H., and Harrill, J.R., 1995, Simulated effects of proposed pumping in 17 basins of east-central and southern Nevada: U.S. Geological Survey Water-Resources Investigations Report 95-4173, 71 p.

Thomas, J.M., Welch, A.H., and Dettinger, M.D., 1996, Geochemistry and isotope hydrology of representative aquifers in the Great Basin region of Nevada, Utah, and adjacent states: U.S. Geological Survey Professional Paper 1409-C, pg. C1-C100 and 2 plates.