

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

FILED
DEC 12 2003 *OK*
STATE ENGINEER'S OFFICE

IN THE MATTER OF APPLICATION NUMBER 70285
FILED BY ROSS AND ORMA MATHEWS
FAMILY TRUST ON AUGUST 1, 2003,
TO APPROPRIATE THE WATERS OF THE STATE OF NEVADA

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 70285 filed on August 1, 2003, by Ross and Orma Mathews 1990 Family Trust of St. George, Utah, to appropriate the waters of the State of Nevada, situated in Lincoln County, 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. The NPS is willing to reconsider this protest if the applicant provides information to show that the proposed appropriation will not affect the water rights and water-related resources of Lake Mead National Recreation Area.

Signed *Charles W. Pettee*
Agent or protestant
Charles W. Pettee
Printed or typed name, if agent
Address 1201 Oakridge 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 12th day of December 2003.

STATE ENGINEER'S OFFICE
DEC 12 AM 9:51
STATE ENGINEER'S OFFICE



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 70285
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 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 Ross and Orma Mathews 1990 Family Trust. These rights have not been judicially quantified.
- IV. The Virgin River flows into Lake Mead NRA at the north end of the Overton Arm. The State of Nevada, Department of Wildlife, is leasing part of Lake Mead NRA adjoining the Virgin River for the purposes of the Overton Wildlife Management Area. This area supports a variety of waterfowl and vegetation.
- 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.

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

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EXHIBIT A - CONTINUED**

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potential for listing of this relict population, previously believed extinct, as protected under the Endangered Species Act.

The United States has State appropriative water rights to Rogers Spring, located in SE¼ SE ¼, Sec. 12, T.18 S., R.67 E., M.D.B.M., Certificate No. 4476.

- VI. Ross and Orma Mathews 1990 Family Trust filed Application No. 70285 to withdraw a total of 5.56 cubic feet per second (cfs) of ground water from Hydrographic Basin #222, the Virgin Valley, for irrigation and domestic purposes.
- VII. The NPS reserves the right to amend this exhibit as more information becomes available.

FINDINGS

- I. The proposed appropriation is within the Virgin Valley. LVVWD and The MARK Group (1992) concluded that ground water and surface water of the Virgin Valley in Nevada should be considered as one hydrologic system.
- II. The total inflow rate of the ground- and surface-water system of the Virgin Valley ranges from about 178,800 to 182,800 acre-feet per year (afy) (LVVWD and The MARK Group, 1992; and Brothers and others, 1993.) The system yield of the Virgin Valley is 100,000 afy (Nevada Department of Conservation and Natural Resources, 1992), where the system represents both ground and surface water.
- III. Existing committed surface-water resources in the Virgin Valley hydrographic basin, including vested, certificated, and permitted rights, total 199,347 afy. Pending applications for surface-water rights in the Virgin Valley filed prior to Application 70285 total an additional 9499 afy. Additionally, existing committed ground-water resources in the Virgin Valley hydrographic basin total 12,379 afy, and pending ground-water applications filed prior to Application 70285 total another 250,147 afy (Nevada Department of Conservation and Natural Resources, 2003).
- IV. Therefore, for the Virgin Valley system, existing committed water resources and pending water-right applications filed prior to Application 70285 far exceed both the system inflow rate and the system yield. Thus, there is no water, underground or surface, available for appropriation in the Virgin Valley system.

**IN THE MATTER OF APPLICATION 70285
EXHIBIT A - CONTINUED**

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- V. The appropriation proposed by the subject application, in combination with existing appropriations and pending applications filed prior to it, if approved and developed, could reduce the discharge of the Virgin River. The reduction could disrupt the loading of nutrients important for sustaining a recreational fishery in Lake Mead NRA and diminish the wildlife habitat and popular wildfowl hunting area within Lake Mead NRA.

- VI. The aquifers underlying the Virgin Valley are part of a ground-water flow system which discharges water through springs in Lake Mead NRA, including Rogers, Bluepoint, Corral, and Kelsey's Springs (see Prudic and others, 1993; and Pohlmann and others, 1998). These springs, located in the Overton Arm area of Lake Mead NRA, discharge at or near the contact of carbonate rocks and basin fill.

- VII. The surface water appropriation proposed by the subject application, in combination with existing appropriations and pending applications filed prior to it, if approved and developed, could affect the discharge of the springs in Lake Mead NRA, if withdrawals occur over a long period of time.

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

CONCLUSIONS

- I. There is no water available for appropriation because:
 - A. Committed water resources exceed the total inflow rate of the ground-water and surface-water system for the basin;
 - B. Committed water resources (underground and surface) exceed the basin's system yield; and
 - C. Pending water right applications (underground and surface) exceed the basin's system yield.

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

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EXHIBIT A - CONTINUED**

Protest by Charles W. Pettee on behalf of
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- A. The proposed appropriation in combination with existing appropriations and those proposed by the Las Vegas Valley Water District, Lincoln County and the Vidler Water Company, Inc., and the Virgin Valley Water District, will eventually reduce the flow of the Virgin River.
 - B. The proposed appropriation in combination with existing appropriations and those proposed by Las Vegas Valley Water District, Lincoln County and the Vidler Water Company, Inc., and the Virgin Valley Water District, could reduce the discharge of Lake Mead NRA springs.
- III. 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

- Brothers, K., Katzer, T., Mojib, R.M., Grinnell, G., Bernholz, A., and Johnson, M., 1993, Addendum to hydrology and interactive computer modeling of ground and surface water in the lower Virgin River valley, primarily in Clark County, Nevada: Las Vegas Valley Water District, Cooperative Water Project, Water for Nevada's Future, Report No. 1a, Hydrographic Basin 222, 90 p.
- Glancy, P.A., and Van Denburgh, A.S., 1969, Water-resources appraisal of the lower Virgin River valley area, Nevada, Arizona, and Utah: Nevada Department of Conservation and Natural Resources, Division of Water Resources, Water Resources - Reconnaissance Series Report 51, 87 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.
- Las Vegas Valley Water District and The MARK Group, Engineers & Geologists, Inc., 1992, Hydrology and interactive computer modeling of ground and surface-water in the lower Virgin River valley, primarily in Clark County, Nevada: Las Vegas Valley Water District, Cooperative Water Project, Water for Nevada's Future, Report No. 1, Hydrographic Basin 222, 90 p.

**IN THE MATTER OF APPLICATION 70285
EXHIBIT A - CONTINUED**

Protest by Charles W. Pettee on behalf of
the United States Department of the Interior,
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Nevada Department of Conservation and Natural Resources, 1992, Hydrographic Area Summary, Hydrographic Area 222, Division of Water Planning, Carson City Nevada.

Pohlmann, K.F., Campagna, D.J., Chapman, J.B., and Earman, S., 1998, Investigation of the origins of springs in the Lake Mead National Recreation Area: Report prepared for the National Park Service, Publication 41161, Desert Research Institute, Water Resources Center, Las Vegas, Nevada, 51 p. with appendices.

Prudic, D.E., Harrill, J.R., and Burbey, T.J., 1993, 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 Open-File Report 93-170, 103 p.