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STATE ENGINEERS OFFICE
STATE ENGINEER'S OFFICE

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

IN THE MATTER OF APPLICATION NUMBER 79319
FILED BY Southern Nevada Water Authority
ON January 28, 2010
TO APPROPRIATE WATER

PROTEST

Comes now Charles 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 79319, filed on January 28, 2010, by Southern Nevada Water Authority to appropriate water, situated in Clark 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 Dr., Suite 250
Street No. or P.O. Box No.

Fort Collins, CO 80525
City, State and Zip Code

FLORA B. ROMERO NOTARY PUBLIC STATE OF COLORADO

Subscribed and sworn to before me this 8th day of April, 2010.

Flora B. Romero
Notary Public

State of Colorado
County of Larimer

Flora B. Romero, Notary Public
State of Colorado
My Commission Expires 7/31/2010

My Commission expires _____.

IN THE MATTER OF APPLICATION 79319

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. Death Valley National Monument was created by Presidential Proclamation in 1933 to preserve unusual features of scenic, scientific, and educational interest. The proclamation warned unauthorized persons to not appropriate, injure, destroy, or remove any feature of the monument. Springs and water-related resources are important features.

In 1952, a forty-acre tract of public land surrounding Devil's Hole was withdrawn, creating a detached component of Death Valley National Monument through Proclamation No. 2961, 3 CFR 147 [1949-1953 Comp.]. The proclamation recognized that the "subterranean pool [Devil's Hole] is an integral part of the hydrographic history of the Death Valley region," and that the pool is the home of "a peculiar race of desert fish...evolved only after the gradual drying up of the Death Valley Lake System...." *Id.* Because of the pool's "outstanding scientific importance...it should be given special protection...." *Id.*

In 1994, the status of Death Valley National Monument was changed to that of a National Park through enactment of the California Desert Protection Act. The Act acknowledged Death Valley's extraordinary and inestimable value and increased the total land area. The Act specifically charged the Secretary of the Interior and all other officers of the United States to take all steps necessary to protect the reserved water rights and water resources of the Park.

III. A unique and endangered species of pupfish exists at Devil's Hole, a detached unit of Death Valley National Park in Nevada. In the 1970's, groundwater withdrawals near Devil's Hole caused a decline in the water level of the pool, exposing a rock shelf vital to the spawning of the pupfish (Dudley and Larson, 1976). A unanimous decision by the U.S. Supreme Court determined that a Federal reserved water right exists at Devil's Hole for the purpose of maintaining a water level sufficient to inundate the shelf on which the pupfish spawns (Cappaert v. United States, 1976).

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IV. The NPS is entitled to Federal reserved water rights for reserved lands within Death Valley National Park. Springs in the eastern part of the Park, Grapevine, Keane Wonder, Nevares, Texas, Travertine and Saratoga Springs provide water for park facilities, domestic use, public campgrounds, concessionaires and resorts, vegetation, wildlife, public enjoyment, scenic value and other related needs. Nevares, Texas, and Travertine Springs collectively discharge about 2,000 gallons per minute (about 3,200 acre-feet per year) and are essential for domestic, administrative and commercial uses.

FINDINGS

I. This application proposes to appropriate water from Three Lakes Valley North. The Nevada Department of Conservation and Natural Resources (NDWR) Hydrographic Basin Summary (located at http://water.nv.gov/) queried on April 7, 2010, states that the perennial yield of Three Lakes Valley North is 3,700 acre-ft per year.

II. The NDWR Hydrographic Basin Summary states that the total active annual duty is 3,700 acre-ft. This includes 3,700 acre-ft of groundwater rights currently appropriated by the Southern Nevada Water Authority under Permits 54060, 54068, and 54069. Based on existing permitted water rights, the amount of water allocated is equal to the perennial yield of this basin. Prior to groundwater development, underflow occurred from Three Lakes Valley North to Indian Springs Valley.

III. This hydrographic basin is part of the Ash Meadows Groundwater Subsystem (Rush, 1970; Waddell, 1982; and Laczniak, 1996) of the Death Valley regional flow system. Groundwater discharging at Ash Meadows is primarily recharged in the Spring Mountains, Pahranagat, Timpahute, and Sheep Ranges and flows through Paleozoic carbonate rocks toward the Ash Meadows springs (Waddell, 1982). Groundwater in Tikapoo Valleys North and South and Three Lakes Valleys North and South flows through carbonate rocks into Indian Springs Valley and then into Frenchman Flat, Mercury Valley and toward Ash Meadows in the Amargosa Desert (Harrill, 1988; and Laczniak, 1996).

IV. NSE Ruling 5465 allowed for a certain amount of water to be developed in Three Lakes Valleys North and South (Hydrographic Basins 168 and 211), and Tikapoo Valleys North and South (Hydrographic Basins 169A and 169B). By allowing a certain amount of water to be developed in basins up-gradient of Indian Springs Valley, the NSE acknowledged that underflow into Indian Springs Valley would be reduced from 18,700 to 1,500 acre-ft per year. By reducing the underflow into Indian Springs Valley, discharge from Indian

Springs Valley will be reduced an equivalent amount, which is more than half the pre-development underflow to Frenchman Flat, Mercury Valley, and ultimately Ash Meadows.

V. The Nevada State Engineer has determined that the Amargosa Desert Hydrographic Basin is over-appropriated, and that an imbalance exists between the amount of water currently being pumped, and the perennial yield of the basin. Reduction of inflow into the Amargosa Desert hydrographic basin by reducing underflow in up-gradient basins will exacerbate the undesirable conditions that already exist in the basin and will contribute to water level declines at Devils Hole and reductions in spring discharge at Ash Meadows.

VI. Springs in Death Valley National Park are likely fed, at least in part, by flow through the regional carbonate rock aquifer. Laczniak and others (1996) showed a hydrogeologic section between springs in Furnace Creek northeast to Mercury Valley. The hydrogeologic section illustrates flow through the regional carbonate rock aquifer, with some discharge occurring in Ash Meadows, and some portion of underflow continuing on toward the Furnace Creek area in Death Valley. Fenelon and Moreo (2002) show the general direction of groundwater flow from sub-basins both north and northeast in the flow system (the Aklai-Flat Furnace Creek Ranch Sub-basin and the Ash Meadows Sub-basin) south and southwest toward Death Valley, with some lateral flow across the sub-basin boundary at Ash Meadows.

CONCLUSIONS

I. Nevada Revised Statute, §533.370(3), states that the Nevada State Engineer shall reject an application for a water permit "where there is no unappropriated water in the proposed source of supply, or where its proposed use or change conflicts with existing rights, or threatens to prove detrimental to the public interest…." The state engineer should reject this application for the following reasons:

A. Discharge from this basin is required to support inter-basin flow that contributes to water levels and spring discharge at Ash Meadows. Any groundwater development in this basin will lower water levels and reduce discharge from this basin. Therefore, there is no water available for appropriation.

B. The proposed use will conflict with existing rights by contributing to water level declines at Devil's Hole.

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C. In 1978, the U.S. District Court in Las Vegas determined that "... groundwater use that would lower the water level at Devil's Hole below 2.7' below the copper washer would be detrimental to the public welfare."

REFERENCES CITED

Fenelon, J.M., and Moreo, M.T. 2002. Trend Analysis of Ground-Water Levels and Spring Discharge in the Yucca Mountain Region, Nevada and California, 1960-2000. U.S. Geological Survey Water-Resources Investigations Report 02-4178.

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*. Hydrologic Investigations Atlas HA-694-C, 1988.

Laczniak, R.J., Cole, J.C., Sawyer, D.A., and Trudeau, D.A. 1996. *Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada Test Site, Nye County, Nevada.* U.S. Geological Survey Water-Resources Investigations Report 96-4109.

Nevada Division of Water Resources, *Water Rights Database, Special Hydrographic Abstract, and Hydrographic Basin Summary.* Printouts as of March - April, 2010.

Rush, F.E. *Regional Ground-Water Systems in the Nevada Test Site Area, Nye, Lincoln, and Clark Counties, Nevada.* U.S. Geological Survey Water Resources – Reconnaissance Series Report 54, 1970.

Waddell, R.K. 1982. *Two-dimensional, Steady State Model of Groundwater Flow, Nevada Test Site and Vicinity, Nevada-California.* U.S. Geological Survey Water Resources Investigations 82-4085.