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

IN THE MATTER OF APPLICATION NUMBER 64673,
FILED BY Vidler Water Company, Inc.,
ON December 11, 19 98, TO APPROPRIATE THE
WATERS OF Underground

PROTEST

Comes now U.S. Bureau of Indian Affairs
(Printed or typed name of protestant)
whose post office address is P.O. Box 10, Phoenix, Arizona 85001
(Street No. or P.O. Box, City, State and Zip Code)
whose occupation is Agency of Federal Government, and protests the granting
of Application Number 64673, filed on December 11, 19 98
by Vidler Water Company, Inc. to appropriate the
waters of Underground situated in Lincoln
(Underground or name of stream, lake, spring or other source)
County, State of Nevada, for the following reasons and on the following grounds, to wit:

"See Attachment A"

THEREFORE the protestant requests that the application be
(Denied, issued subject to prior rights, etc., as the case may be)
and that an order be entered for such relief as the State Engineer deems just and proper.

Signed [signature]
(Agent or protestant)
Mr. Brian Bowker
(Printed or typed name, if agent)
Address P.O. Box 10
(Street No. or P.O. Box No.)
Phoenix, Arizona 85001
(City, State and Zip Code No.)

Subscribed and sworn to before me this 17th day of June, 19 99.

OFFICIAL SEAL
LUCINDA A. BEGAY
NOTARY PUBLIC-ARIZONA
MARICOPA COUNTY
My Comm. Expires June 19, 2001

Lucinda A. Begay
(Notary Public)
State of Arizona
County of Maricopa

$25 FILING FEE MUST ACCOMPANY PROTEST. PROTEST MUST BE FILED IN DUPLICATE.
ALL COPIES MUST CONTAIN ORIGINAL SIGNATURE.

Attachment A

Information In Support of the Protests of the U.S. Bureau of Indian Affairs
In the Matter of Nevada Water Right Application for Permit Nos. 64668 Through 64673, Nos. 64676 Through 64681, and 64686 Through 64691

On December 11, 1998, Vidler Water Company, Inc. (Vidler) filed eighteen *Applications for Permits to Appropriate the Public Waters of the State of Nevada* (Application for Permit). The Application for Permits request to withdraw a combined diversion rate of 180 cubic feet per second and a combined annual duty of 130,300 acre-feet for irrigation purposes. The Application for Permits are for the withdrawal of groundwater from regional flow systems that discharge near the Moapa Indian Reservation (Reservation). The proposed points of diversion (groundwater wells) are to be located in Lincoln County in the following Hydrographic Areas:

Application No.	Hydrographic Area No.	Name of Hydrographic Area	Diversion Rate (cubic feet/sec.)	Use
64668	181	Dry Lake Valley	10	Irrigation
64669	181	Dry Lake Valley	10	Irrigation
64670	180	Cave Valley	10	Irrigation
64671	180	Cave Valley	10	Irrigation
64672	171	Coal Valley	10	Irrigation
64673	171	Coal Valley	10	Irrigation
64676	172	Garden Valley	10	Irrigation
64677	172	Garden Valley	10	Irrigation
64678	182	Delamar Valley	10	Irrigation
64679	182	Delamar Valley	10	Irrigation
64680	183	Lake Valley	10	Irrigation
64681	183	Lake Valley	10	Irrigation
64686	202	Patterson Valley	10	Irrigation
64687	202	Patterson Valley	10	Irrigation
64688	206	Kane Springs Valley	10	Irrigation
64689	206	Kane Springs Valley	10	Irrigation
64690	208	Pahroc Valley	10	Irrigation
64691	208	Pahroc Valley	10	Irrigation

The U.S. Bureau of Indian Affairs (BIA) is the legal owner of over 71,000 acres of Indian trust land and associated water rights on the Reservation in southeastern Nevada. The Moapa Band of Paiute Indians (Tribe) is the beneficial owner of these trust land and water rights. Portions of the Reservation were established by the United States as early as 1873 by Executive Order signed by President Grant, and as late as 1980 by Congressional legislation (P.L. 96-491). The Tribe currently uses water from Muddy River for farming purposes and in the future will likely use additional surface and groundwater for economic development, municipal, and other purposes.

Although the Tribe's water rights have never been adjudicated, the Tribe's water rights were reserved and secured by the United States at the time of the creation of the reservation, with a priority date no later than the creation of the reservation, in a quantity sufficient (both surface and groundwater) to fulfill the purposes of the reservation, and to satisfy the present and future needs of the reservation. See *Winters v. United States*, 207 U.S. 564 (1908); *Arizona v. California*, 373 U.S. 546 (1963); and *Colville Confederated Tribes v. Walton*, 647 F.2d 42 (9th Cir. 1981). Tribal water rights are not limited to water sources that originate on tribal lands. *United States v. Ahtanum Irrigation District*, 236 F. 2d 321 (9th Cir. 1956). Federal reserved water rights may be protected against off-reservation groundwater diversions which are hydrologically interrelated with the reserved waters. *Cappaert v. United States*, 426 U.S. 128 (1976).

The Application for Permits are located in or adjacent to the White River Groundwater Flow System (White River System) which is located within the Carbonate-Rock Province. Fourteen of the groundwater applications are for withdrawal of groundwater out of what is generally considered the White River System. These applications are Nos. 64668 through 64673 (inclusive), 64676 through 64679 (inclusive), and 64688 through 64691 (inclusive). The White River System is a regional groundwater flow system in southern and eastern Nevada which extends from southern Jakes Valley in the north to the Muddy River Springs area in the south (Prudic and others, 1993). The flow system is comprised primarily of a thick carbonate bedrock sequence which underlies shallow basin-fill material and extends across topographic divides. The Reservation is located near the southern terminus of the White River System as the groundwater flow direction in this regional carbonate aquifer is towards the south and southeast where it discharges at the Muddy River Springs area located approximately 5-10 miles west of the Reservation in the Upper Moapa Valley. The discharge of the White River System at Muddy River Springs is about 36,000 acre-feet per year. The Muddy River Springs feeds the Muddy River which flows southeast through the Reservation and is used by the Tribe and others for irrigation and other purposes.

Four Application for Permits (Nos. 64680, 64681, 64686, and 64687) are located outside the generally recognized boundary of the White River System. These permits are to withdraw groundwater in Lake Valley (Nos. 64680 and 64681) and Patterson Valley (Nos. 64686 and 64687). This interbasin flow parallels and is adjacent to the White River System and continues southward through Panaca Valley, Lower Meadow Valley Wash, the Muddy River Springs and California Wash (Harrill and others, 1988). This parallel flow system ultimately contributes groundwater flow to the Muddy River and California Wash areas and subsequently the Reservation. The estimated groundwater flow from Lower Meadow Valley Wash to the California Wash is about 7,000 acre-feet/year (Harrill and others, 1988).

Since many of the basins in eastern and southern Nevada are hydraulically connected, the development of groundwater in one valley can ultimately impact the environment of another valley. There is concern that the proposed Vidler diversions, if approved, will cause declines in spring flow, stream flow, groundwater levels and alter the groundwater flow direction and/or gradient on local and regional scales. Large scale changes in groundwater quality and potential plugging of flow channel and springs from mineral deposition may result. These effects are considered likely due to the regional hydraulic interconnection, the high conductivity of the local and regional aquifers, and the large quantity of water being applied for by Vidler and other applicants.

The proposed points of diversion are located upgradient of the Reservation in the White River System and if the applications are approved, would likely impact the flow of the Muddy River on the Reservation and the availability of groundwater beneath the Reservation. Any diversions occurring upgradient from the Muddy River Springs area is ultimately affecting the discharge of the Muddy Springs.

Recently, the regional carbonate aquifer system, especially the White River System, has been the target of numerous groundwater withdrawal applications filed with the State Engineer. The recent Aerojet and Coyote Springs Investment, L.L.C. Application for Permits focused on the Coyote Springs Valley area. While the Vidler applications are further north they are still in the same aquifer system which flows predominantly south and which provides the majority of water to the Moapa Band of Paiute Indians. A regional groundwater model of the area developed by the U.S. Geological Survey suggests increased groundwater withdrawals in the White River system will adversely impact the spring discharge at the Muddy River Springs area (Prudic and others, 1993; Schaefer and Harrill, 1995). The impacts are proportional to the pumping rates, therefore increases in groundwater pumping will result in greater impacts to the spring discharge at Muddy River Springs and other area springs. Since 1997 there has been groundwater withdrawal applications for the White River System filed with the State Engineer for approximately 300,000 acre-feet/year.

Therefore, the BIA requests that Application for Permit Nos. 64668 through 64673, Nos. 64676 through 64681, and Nos. 64686 through 64691 be denied for the following reasons:

(1) The United States holds in trust for the Tribe senior federal reserved water rights in the Muddy River which flows through the Reservation. The withdrawals of groundwater proposed in the applications would likely result in significant reductions in flows in the carbonate aquifer located beneath the Reservation, and related discharges at Muddy River Springs and the Muddy River. If permitted, the proposed withdrawals would interfere with the senior federal reserved rights held by the United States in trust for the Tribe, as well as other senior water rights.

(2) Recently, several groundwater withdrawal applications have targeted the White River System. While the areal extent and characteristics of the White River System and adjacent systems is not fully understood and additional analyses are needed and recommended, it is generally agreed that this system extends beneath the area of the subject applications and the primary discharge point is the Muddy River Springs. The degree of this interconnection is unknown, but considering the quantity of the subject applications and others, caution needs to be applied with the granting of further water permits in this groundwater flow system and adjacent flow systems. Granting of additional groundwater permits very likely would interfere with the senior federal reserved water rights held by the United States in trust for the Tribe, as well as other senior water rights.

The BIA reserves the right to amend and supplement its exhibit and protests of the subject Application for Permits to the extent that more information relevant to the protest becomes available.

Literature Cited

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 Atlas 694-C.

Prudic, D.E., Harrill, J.R., and Burby, T.J., 1993. Conceptual evaluation of regional groundwater flow in the carbonate-rock province of the Great Basin, Nevada, Utah, and adjacent states. U.S. Geological Survey Open-File Report 93-170.

Schaefer, D.H. 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.