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

IN THE MATTER OF APPLICATIONS) 77546, 77547, 77548 AND 77549 FILED) TO APPROPIATE THE PUBLIC) WATERS OF AN UNDERGROUND) SOURCE WITHIN THE PUMPERNICKEL) VALLEY HYDROGRAPHIC BASIN (65)) HUMBOLDT COUNTY, NEVADA.)	**RULING** **#6064**

GENERAL

I.

Application 77546 was filed on October 30, 2008, by Nevada Geothermal Power Company to appropriate 3.34 cubic feet per second (cfs) of water from an underground source for industrial purposes. The proposed place of use is described as being located within Sections 3-5, and 8-10, T.33N., R.40E., and within Sections 27, 28 and 32-34, T.34N., R.40E., M.D.B.&M. The proposed point of diversion (Well #1) is described as being located within the SE¼ NW¼ of Section 9, T.33N., R.40E., M.D.B.&M.[1]

II.

Application 77547 was filed on October 30, 2008, by Nevada Geothermal Power Company, to appropriate 3.34 cfs of water from an underground source for industrial purposes. The proposed place of use is the same as described under Application 77546. The proposed point of diversion (Well #2) is described as being located within the NW¼ SW¼ of Section 9, T.33N., R.40E., M.D.B.&M.[2]

III.

Application 77548 was filed on October 30, 2008, by Nevada Geothermal Power Company, to appropriate 3.34 cfs of water from an underground source for industrial purposes. The proposed place of use is the same as described under Application 77546. The proposed point of diversion (Well #3) is described as being located within the SW¼ SW¼ of Section 9, T.33N., R.40E., M.D.B.&M.[3]

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[1] File No. 77546, official records in the Office of the State Engineer.
[2] File No. 77547, official records in the Office of the State Engineer.
[3] File No. 77548, official records in the Office of the State Engineer.

IV.

Application 77549 was filed on October 30, 2008, by Nevada Geothermal Power Company to appropriate 3.34 cfs of water from an underground source for industrial purposes. The proposed place of use is the same as described under Application 77546. The proposed point of diversion (Well #4) is described as being located within the SE¼ SW¼ of Section 9, T.33N., R.40E., M.D.B.&M.[4]

V.

Applications 77546, 77547, 77548 and 77549 were timely protested by Pershing County Water Conservation District of Nevada on the following grounds: [1,2,3,4]

> That the granting of said application will affect the water table and drainage and adversly [sic] affect the decreed waters of the Humboldt River. Also, Basin #065 is over appropriated.

FINDINGS OF FACT

I.

Nevada Revised Statute (NRS) § 533.365(3) provides that it is within the State Engineer's discretion to determine whether a public administrative hearing is necessary to address the merits of a protest to an application to appropriate the public waters of the state of Nevada. The State Engineer finds that in the case of protested Applications 77546, 77547, 77548 and 77549, there is sufficient information contained within the records of the Office of the State Engineer to gain a full understanding of the issues and a hearing on this matter is not required.

II.

The Applicant provided additional information on attachments to Applications 77546, 77547, 77548 and 77549, to outline the water use needs of a proposed geothermal power facility. The Applicant indicated that though the geothermal resource in the Pumpernickel Valley Hydrographic Basin has not been fully defined yet, that the Applicant projects that a power plant with a capability of producing about 25 megawatts is likely.

The Applicant requests a total combined duty not to exceed 2,500 acre-feet annually (afa) to be pumped from the four wells under the subject applications for renewable energy project per NRS § 701.080.[1,2,3,4] The State Engineer finds that the

[4] File No. 77549, official records in the Office of the State Engineer.

industrial manner of use is limited to the power plant project and its associated exploration and construction needs as a renewable energy facility and when such active energy project and associated reclamation ceases, that water will revert to the water source. During the active project life, any manner of use change inconsistent with this power plant project utilization will be subject to additional review by the State Engineer.

III.

Nevada Revised Statute § 543.110 provides that the State Engineer may grant appropriations that allow for a reasonable lowering of the static water level as long as existing appropriations can be satisfied under such expressed conditions. The State Engineer will require that the Applicants maintain a comprehensive water-level monitoring program and that the Applicants mitigate any impacts from pumping.

Available data submitted in support of similar projects in Nevada indicated that such projects often re-inject 20% or more of the groundwater produced for power plant cooling.[5] The State Engineer will require that a water-management program be maintained where all excess waters not beneficially consumed by the industrial power plant project be returned to the Pumpernickel Valley Hydrographic Basin through injection or infiltration.

Both a comprehensive monitoring plan, which will monitor water levels and a water-management program, which will return significant amounts of excess water to the source, will ensure that drawdown will not significantly impact the water table in the Pumpernickel Valley Hydrographic Basin or the Humboldt River. The State Engineer finds that with these safeguards in place, any possible detrimental effects will be monitored and mitigated by the Applicant, up to and including, cessation of pumping.

IV.

The combined perennial yield of Hydrographic Basins 64 (Clovers Area), 65 (Pumpernickel Valley), and 66 (Kelly Creek) is 72,000 afa.[6] The individual perennial yield of Hydrographic Basin 65 is 16,000 afa. The amount of groundwater appropriated in Hydrographic Basin 65 is 14,336.93 afa, which includes about 6,000 afa for mining and milling purposes.[7] The Office of the State Engineer considers the water used in mining and milling to be a temporary use of water and as such is not considered in the

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[5] File No. 77055, letter dated December 8, 2008, official records in the Office of the State Engineer.
[6] Office of the State Engineer, *Water for Nevada, State of Nevada Water Planning Report No. 3*, Oct. 1971.
[7] Special Hydrographic Basin Abstract, Water Rights Database, Pumpernickel Valley Hydrographic Basin (65), June 4, 2010, official records in the Office of the State Engineer.

long term committed resource analysis for the basin. The State Engineer finds the Applicant seeks to appropriate only 2,500 afa and there is sufficient water available within the perennial yield to accommodate this request. Additionally, the withdrawal of groundwater requested under these permits will not impair Humboldt River water users.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.[8]

II.

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:[9]

A. there is no unappropriated water at the proposed source;
B. the proposed use or change conflicts with existing rights;
C. the proposed use or change conflicts with protectible interests in existing domestic wells as set forth in NRS § 533.024; or
D. the proposed use or change threatens to prove detrimental to the public interest.

III.

The State Engineer concludes that there is unappropriated water at the source sufficient to satisfy the requirements of the requested appropriations, given the significant amounts of excess waters that will be returned to the source within the Pumpernickel Valley Hydrographic Basin through injection or infiltration and by comparing existing committed water rights, excluding temporary mining and milling, to the available perennial yield of the basin.

IV.

The State Engineer concludes that the proposed monitoring plan, water-management program and, if needed, appropriate mitigation will ensure that any water-level drawdown encountered will not conflict with, interfere with, or impair existing water rights in the Pumpernickel Valley Hydrographic Basin or the Humboldt River.

V.

The State Engineer concludes that the granting of Applications 77546, 77547, 77548 and 77549 does not threaten to prove detrimental to the public interest.

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[8] NRS Chapter 533 and 534.
[9] NRS § 533.370(5).

RULING

The protest is overruled and Applications 77546, 77547, 77548 and 77549 are hereby approved subject to:

1. Existing rights,
2. A water-level monitoring plan to be approved by the State Engineer,
3. A water-management program returning excess waters to the source; and
4. Payment of the statutory permit fees.

Respectfully submitted,

JASON KING, P.E.
State Engineer

Dated this 18th day of

October, 2010.