

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

IN THE MATTER OF APPLICATIONS 79479)
AND 79480 FILED TO CHANGE THE POINT OF)
DIVERSION AND PLACE OF USE OF AN)
UNDERGROUND SOURCE PREVIOUSLY)
APPROPRIATED UNDER PERMITS 34384 AND)
50477, RESPECTIVELY, WITHIN THE LAS)
VEGAS VALLEY HYDROGRAPHIC BASIN)
(212), CLARK COUNTY, NEVADA.)

RULING

#6135

GENERAL

I.

Application 79479 was filed on February 5, 2010, by the Gilcrease Orchard Foundation to change 0.20 cubic feet per second (cfs) of water, 100.0 acre-feet, previously appropriated under Permit 34384, Certificate 9953, from an underground source for irrigation purposes. The proposed place of use is described as being located within the NW¼ NE¼ of Section 15, T.19S., R.60E., M.D.B.&M. and a portion of the NE¼ NE¼ of Section 15, T.19S., R.60E., M.D.B.&M. The proposed point of diversion is described as being located within the NW¼ NE¼ of said Section 15.¹

II.

Application 79480 was filed on February 5, 2010, by the Gilcrease Orchard Foundation to change 0.166² cfs of water, 78.0 acre-feet, previously appropriated under Permit 50477, Certificate 14115, from an underground source for irrigation purposes. The proposed place of use is described as being located within the NW¼ NE¼ of Section 15, T.19S., R.60E., M.D.B.&M. and a portion of the NE¼ NE¼ of Section 15, T.19S., R.60E., M.D.B.&M. The proposed point of diversion is described as being located within the NW¼ NE¼ of said Section 15.³

¹ File No. 79479, official records in the Office of the State Engineer.

² *Note*, the Nevada Division of Water Resources Summary of Ownership for Permit 50477, Certificate 14115 shows the Gilcrease Orchard Foundation owning 0.156 cfs, official records in the Office of the State Engineer.

³ File No. 79480, official records in the Office of the State Engineer.

FINDINGS OF FACT

I.

An examination of records within the Office of the State Engineer found that the proposed place of use, which is 55.21 acres within the NW $\frac{1}{4}$ NE $\frac{1}{4}$ and the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 15, T.19S., R.60E., M.D.B.&M, has existing water rights for irrigation purposes, i.e.: 192.0 acre-feet on 38.4 acres (5.0 acre-feet per acre) under Permit 36332, Certificate 10844, and 122.0 acre-feet on 16.81 acres (7.26 acre-feet per acre) under Permit 42764, Certificate 10850.⁴

In the event that the water under Permits 36332 and 42764 were changed and commingled over the entire place of use being 55.21 acres, the resulting 314.0 acre-feet would equate to approximately 5.69 acre-feet per acre.

The State Engineer finds that certificated water rights exist within the proposed place of use of Applications 79479 and 79480.

II.

The net irrigation water requirement (NIWR) is the quantity of water necessary for crop growth, or in other words: the amount of irrigation water—exclusive of precipitation, soil moisture, or groundwater—that is required to meet potential crop consumptive use requirements. Values for the NIWR for each hydrographic basin have been determined for the entire state and are published on the Division of Water Resources' website in the report named Evapotranspiration and Net Irrigation Water Requirements under the "Mapping & Data" tab. The mean annual NIWR for the Las Vegas Artesian Hydrographic Basin (212) is 5.6 acre-feet per acre.

In detail, the North Las Vegas (265705) meteorological station used in the report is located only approximately nine miles southeast of the proposed place of use for Applications 79479 and 79480. The details for the North Las Vegas Station are listed in the following table:
Note: ET Actual includes annual mean precipitation.

⁴ File Nos. 36332 and 42764, official records in the Office of the State Engineer.

	ET Actual* (ft)	NIWR (ft)
Alfalfa	6.2	5.9
Highly managed pasture grass	5.5	5.2
Low managed pasture grass	4.5	4.2
Grass Hay	4.1	3.9
Turf Grass	6.4	6.0
Shallow open water	6.8	6.4

The Las Vegas (223112) meteorological station used in the report is located approximately 15 miles southeast of the proposed place of use for Applications 79479 and 79480. The details for the Las Vegas Station are listed as follows:

	ET Actual* (ft)	NIWR (ft)
Alfalfa	5.8	5.5
Highly managed pasture grass	5.1	4.8
Low managed pasture grass	4.1	3.9
Grass Hay	3.7	3.6
Turf Grass	5.9	5.6
Shallow open water	6.3	6.0

A literature search for orchard irrigation requirements found a Colorado study⁵ that indicated orchard requirements were nearly equal to that required for alfalfa hay. Therefore, based on the above tables, the NIWR for the proposed place of use for Applications 79479 and 79480 would be within the range 5.5 to 5.9 acre-feet per acre. The State Engineer finds the average NIWR is 5.7 acre-feet per acre and is the expected maximum amount of water that may be placed to beneficial use.

⁵ Colorado's Net Irrigation Requirements for Agriculture, 1995, Frank and Carlson, Colorado Dept. of Agriculture, December 1999.

III.

Considering the duty proposed to be added; Application 79479 is for 100.0 acre-feet and Application 79480 is for 78.0 acre-feet. Together these Applications propose to add 178.0 acre-feet of water over the 55.21 acres, which equates to an additional 3.22 acre-feet per acre. Combining this amount with the existing duties yields; 8.22 acre-feet per acre for the 38.4 acres under Permit 36332, Certificate 10844 and 10.48 acre-feet per acre for the 16.81 acres under Permit 42764, Certificate 10850; or approximately 8.91 acre-feet per acre for the entire 55.21 acres if the existing water rights were redistributed.

The State Engineer finds the acre-feet per acre totals to be in excess of the Net Irrigation Water Requirement for the orchard and would therefore result in the “stacking” of water rights.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.⁶

II.

Before either approving or rejecting an application, the State Engineer may require such additional information as will enable him to properly guard the public interest.⁷

III.

The State Engineer is prohibited by law from granting a permit under a change application that requests to appropriate the public waters where:⁸

- 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.

IV.

The State Engineer concludes that the existing water rights within the proposed place of use for Applications 79479 and 79480 are within the acceptable range and sufficient to meet Net Irrigation Water Requirements (NIWR) for an orchard, and that to allow the applicant to place

⁶ NRS Chapters 533 and 534.

⁷ NRS § 533.375.

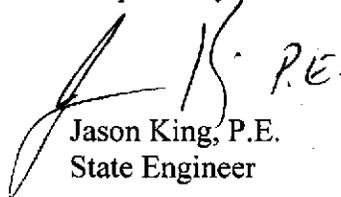
⁸ NRS § 533.370(5).

more water within the proposed place of use would constitute the "stacking" of water rights. The State Engineer concludes it would threaten to prove detrimental to the public interest to issue a permit under these circumstances.

RULING

Applications 79479 and 79480 are hereby denied on the grounds their issuance would threaten to prove detrimental to the public interest.

Respectfully submitted,



Jason King, P.E.
State Engineer

Dated this 4th day of
August, 2011