

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

IN THE MATTER OF APPLICATION )  
68496 FILED TO APPROPRIATE )  
THE PUBLIC WATERS OF AN )  
UNDERGROUND SOURCE WITHIN THE )  
EAST WALKER AREA HYDROGRAPHIC )  
BASIN (109), LYON COUNTY, )  
NEVADA. )

RULING  
**#5933**

GENERAL

I.

Application 68496 was filed on February 15, 2002, by Masini Investments to appropriate 6.0 cubic feet per second (cfs) of underground water for irrigation and domestic purposes on 469.08 acres of land located within the SW $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 15, a portion of the S $\frac{1}{2}$  SE $\frac{1}{4}$  of Section 16, the E $\frac{1}{2}$  of Section 21, and portions of the W $\frac{1}{2}$  of Section 22, all in T.7N., R.25E., M.D.B.&M. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  NE $\frac{1}{4}$  of said Section 21.

In the remarks section of the application, the Applicant indicates that the water requested under this application is intended to be supplemental to existing decreed surface water rights.<sup>1</sup>

FINDINGS OF FACT

I.

A large portion of the proposed place of use is currently irrigated with surface water provided by Sweetwater Creek, which is considered to be a tributary to the East Fork of the Walker River. The relative rights to the use of this water are set forth within the Walker River

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<sup>1</sup> File No. 68496, official records in the Office of the State Engineer.

Decree, C-125.<sup>2</sup> As is the case in most decreed water rights, the distribution of water is based upon the relative priority of the right as determined by the decree. The first in order of time, according to the date of the relative priority is the first in order of right, and so on. A decreed water right holder can only be delivered irrigation water during those times when his claim is considered to be in priority.

The importance of an underground supplemental right is relative to its frequency of use, which is tied directly to the priority of the underlying surface water right. The most senior surface water right has less reliance upon ground water, since it may receive its full allocation of surface water all or most of the time. The opposite holds true for the most junior right, which may receive no surface water during the irrigation season. In this event, the burden of supplying irrigation water would fall to the underground supplemental water right.

The proposed place of use described by the Applicant was assigned three different priorities for varied acreage amounts. The specific acreages are found on page 47, under Claim No. 168 of the Walker River Decree, C-125. Here it is stated that 80.0 acres were assigned a priority date of 1861, with an 1865 priority assigned to an additional 160.0 acres. The remainder of the proposed place of use, represented by 240.0 acres, is held under an 1878 priority.

The Walker River Decree also identifies additional decreed water rights associated with Sweetwater Creek, these being Walker River Decree Claims 169, 170 and 171. A listing of the decreed Sweetwater Creek diversion rates, expressed in cubic feet per second and the priority groupings is presented below.<sup>2</sup>

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<sup>2</sup> Decree C-125, United States of America vs. Walker River Irrigation District et al., in and for the District Court of the United States of America in and for the District of Nevada, April 15, 1936.

<u>Priority Date</u>	<u>Decreed Diversion Rate (cfs)</u>	<u>Acreage</u>
1860	4.16	260.0
1861	11.68	730.0
1865	5.12	320.0
1870	2.50	156.0
1878	3.84	240.0
1880	5.12	360.0
1885	5.60	390.0

At these commitments, the State Engineer finds that the flow of Sweetwater Creek would have to exceed 4.16 cfs on a sustained basis to begin delivery to the Applicant's earliest priority, which is 1861. For the 1865 priority to receive water, the diversion rate must surpass 15.84 cfs.

## II.

To determine if Sweetwater Creek is capable of meeting this flow rate, the United States Geologic Survey (USGS) stream flow data for this stream was reviewed. While the data set is confined to 26 consecutive months of data taken from 2005 to 2007, it still represents the most complete period of record available to this office. Additional data has been compiled for January through December 2, 2008, but at this time, it has not been added to the monthly mean discharge calculations. An examination of the 2008 data indicates that the mean monthly stream flow rates are below the values stated below.

As reported from USGS Site 10293048, the mean of monthly discharge (cfs) calculated from the data collected for 2005 through 2007 is as follows:<sup>3</sup>

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<sup>3</sup> United States Geological Survey, Nevada Water Resources Center, USGS Surface Water Monthly Statistic for the Nation, Sweetwater Creek at Highway 338 near Bridgeport, California, USGS Site 10293048, obtained from agency website, December 1, 2008.

<u>Period of Record (2005 - 2007)</u>	<u>Mean Monthly Discharge (cfs)</u>
Jan	8.9
Feb	8.2
Mar	6.8
Apr	5.5
May	8.8
June	17.0
July	13.0
Aug	4.5
Sept	3.5
Oct	7.0
Nov	6.6
Dec	7.4

Returning to the priorities, it can be seen that the 15.84 cfs needed to begin serving the 1865 priorities is exceeded only during the month of June. Considering that half of the acreage contained within the proposed place of use is post 1865, it would be unlikely that this acreage could be supported throughout the entire irrigation season exclusively by Sweetwater Creek water.

Without a dependable source of surface water, the State Engineer finds that the 240.0 acres irrigated by the Applicant under its later priority would be heavily dependent upon the underground water requested under Application 68496.

### III.

Application 68496 was filed to appropriate underground water for irrigation purposes within the East Walker Area Hydrographic Basin. Under current conditions, no additional appropriations of underground water can be considered for the East Walker Area Hydrographic Basin. The only exceptions being environmental applications and those requesting small amounts of water for non-agricultural use. This limitation is in effect due to the imbalance that

exists between the ground-water basin's perennial yield and its committed resource. The perennial yield of a ground-water reservoir may be defined as the maximum amount of ground water that can be salvaged each year over the long term without depleting the ground-water reservoir. Perennial yield is ultimately limited to the amount of natural discharge that can be captured for beneficial use. The USGS has developed a reconnaissance level estimate for the perennial yield of the East Walker Area Hydrographic Basin that credits the basin with 5,500 afa of underground water.<sup>4</sup> Against this number must be subtracted the committed resource, which is represented by the combined annual duties of all the underground permits and certificates issued for all manner of use within the basin. This number was determined to be approximately 27,000 afa, based upon the records of the Office of the State Engineer.<sup>5</sup> At this level, the committed resource greatly exceeds the estimates for the perennial yield of the East Walker Area Hydrographic Basin.

Even though the manner of use requested under Application 68496 is supplemental, the State Engineer finds that the degree of imbalance that exists between the perennial yield of the ground-water basin and its committed resource prevents the approval of additional irrigation permits from the East Walker Area Hydrographic Basin, whether they be supplemental or primary in nature.

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<sup>4</sup> Nowlin, J.O., Ground-Water Quality in Nevada - A Proposed Monitoring Program, U.S. Geological Survey. Open File Report 78-768, 1986.

<sup>5</sup> Public Records in the Office of the State Engineer, Hydrographic Abstract East Walker Area Hydrographic Basin, Active Underground, Nevada Division of Water Resources Data Base, December 16, 2008.

CONCLUSIONS

I.

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

II.

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:<sup>7</sup>

- 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 Applicant's existing acreage is currently being irrigated from Sweetwater Creek under 1861, 1865 and 1878 priorities. Through an examination of the available stream flow data, it has been determined there will be years when the Applicant's later priorities may not be served. During these shortfalls, irrigation under the primary surface water right is replaced by its supplemental underground component.

The State Engineer concludes that a heavier reliance upon ground water equates to an additional stress on the East Walker Area Hydrographic Basin which in turn, has the potential of adversely impacting existing underground rights.

IV.

The State Engineer concludes that at its current level of commitment, there is no unappropriated underground water remaining in the East Walker Area Hydrographic Basin to support the manner of use proposed under Application 68496;

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<sup>6</sup> NRS chapters 533 and 534.

<sup>7</sup> NRS § 533.370(5).

therefore, any approval of Application 68496 would threaten to prove detrimental to the public interest.

RULING

Application 68496 is hereby denied on the grounds that its approval would conflict with existing rights and would threaten to prove detrimental to the public interest.

Respectfully submitted,

  
FOR TRACY TAYLOR, P.E.  
State Engineer

TT/MB/jm

Dated this 9th day of  
February, 2009.