

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

IN THE MATTER OF APPLICATIONS 82152,)
82153, 82154, 82155 AND 82156 FILED TO)
APPROPRIATE THE PUBLIC WATERS OF)
AN UNDERGROUND SOURCE WITHIN THE)
PILOT CREEK VALLEY HYDROGRAPHIC)
BASIN (191), ELKO COUNTY, NEVADA.)

RULING

#6307

GENERAL

I.

Application 82152 was filed on September 28, 2012, by the City of West Wendover, Nevada and City of Wendover, Utah, to appropriate 1.5 cubic feet per second (cfs) of water from an underground source, Pilot #1 Well, for municipal and domestic purposes. The proposed point of diversion is described as being located within the NW¼ NW¼ of Section 28, T.36N., R.69E., M.D.B.&M. The proposed place of use is described as being located within Sections 7, 8, 9, 10, 15, 16, 17 and 18, T.33N., R.70E., M.D.B.&M.; Sections 5, 6 and 8, T.34N., R.69E. M.D.B.&M.; Sections 4, 5, 6, 7, 8, 9, 17, 18, 19, 20, 29, 30, 31 and 32, T.35N., R.69E., M.D.B.&M.; Sections 3, 4, 8, 9, 10, 15, 16, 17, 20, 21, 28, 29, 31 and 32, T.36N., R.69E., M.D.B.&M.; and Sections 13, 14, 15, 22, 23, 24, 26, 27, 33, 34 and 35, T.37N., R.69E., M.D.B.&M., all within Nevada; and Sections 16, 17 and 18, T.1S., R.19W., S.L.B.&M. and the N½ of Section 19, N½ of Section 20 and N½ of Section 21, T.1S., R.19W., S.L.B.&M., all within Utah. The project description states that the maximum annual consumptive use will be 400 acre-feet.¹

II.

Application 82153 was filed on September 28, 2012, by the City of West Wendover, Nevada and City of Wendover, Utah, to appropriate 1.5 cfs of water from an underground source, Pilot #2 Well, for municipal and domestic purposes. The proposed point of diversion is

¹ File No. 82152, official records in the Office of the State Engineer.

described as being located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 16, T.36N., R.69E., M.D.B.&M. The place of use and project description are the same as for Application 82152.²

III.

Application 82154 was filed on September 28, 2012, by City of West Wendover, Nevada and City of Wendover, Utah, to appropriate 1.5 cfs of water from an underground source, Pilot #3 Well, for municipal and domestic purposes. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 4, T.36N., R.69E., M.D.B.&M. The place of use and project description are the same as for Application 82152.³

IV.

Application 82155 was filed on September 28, 2012, by City of West Wendover, Nevada and City of Wendover, Utah, to appropriate 1.5 cfs of water from an underground source, Pilot #4 Well, for municipal and domestic purposes. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 34, T.37N., R.69E., M.D.B.&M. The place of use and project description are the same as for Application 82152.⁴

V.

Application 82156 was filed on September 28, 2012, by City of West Wendover, Nevada and City of Wendover, Utah, to appropriate 1.5 cfs of water from an underground source, Pilot #5 Well, for municipal and domestic purposes. The proposed point of diversion is described as being located within the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 14, T.37N., R.69E., M.D.B.&M. The place of use and project description are the same as for Application 82152.⁵

VI.

Applications 82152, 82153, 82154, 82155 and 82156 were timely protested by Susan Ann Perkins, Mark Christensen (Bar O Ranch), and Michael S. Christensen (Bar O Ranch) on grounds as summarized below:^{1,2,3,4,5}

1. Excessive draw on domestic wells in Pilot Valley.
2. Some landowners in Pilot Valley still have wells to drill for personal use.
3. Opposed to interbasin transfer of water to Wendover, UT and Wendover, NV.

² File No. 82153, official records in the Office of the State Engineer.

³ File No. 82154, official records in the Office of the State Engineer.

⁴ File No. 82155, official records in the Office of the State Engineer.

⁵ File No. 82156, official records in the Office of the State Engineer.

Michael S. Christensen also had the additional ground of:

4. Loss of livestock water.

VII.

Applications 82152, 82153, 82154, 82155 and 82156 were timely protested by Brent Mills on grounds as summarized below:^{1,2,3,4,5}

1. Water speculation; at a public meeting December 13, 2012, a spokesman for the Wendover cities stated that they do not need water for 50 years.
2. At the same meeting, it was learned that the Wendover cities cannot afford the project now. Applicant has not demonstrated good faith intent, financial ability or reasonable expectation to construct and apply the water to the intended beneficial use in a timely manner.
3. Applicant has not implemented a sufficient conservation plan.
4. Applicant has not justified a need to import water from another basin.
5. The appropriation and export of water would threaten to be detrimental to the public interest on economic grounds; it will limit future growth and development in Pilot Valley.
6. The appropriation and export of water would threaten to be detrimental to the public interest on environmental grounds; it will harm Pilot Valley wildlife and habitat.
7. The applications and proposed use would conflict with existing water rights and protectable interest in domestic wells, including ranch production and/or wells.
8. There is insufficient water available in Pilot Valley; Report 56 is 42 years old.

VIII.

Applications 82155 and 82156 were timely protested by James S. Steppenbeck on the following grounds:^{4,5}

The Cities of West Wendover Nevada and Wendover Utah currently have 6 active wells and several permits granted for the Goshute Valley Basin 187. They currently utilize 2 wells at a time, a fraction of their total output capacity. Granting applications 82152 thru 82156 and recognizing the potential of applications 50340 thru 50342 would more than double their current output capability. The Pilot Valley Basin supports a community based on rural lifestyle, agriculture and ranching. The amount of water, if granted, would significantly deplete the aquifer and lower the static levels impacting current water rights and wells. Residents and ranchers would then bear the substantial cost of drilling

deeper for water. Becoming a Point of Use for the Wendover Cities water system also would prove a significant financial burden for the high water bills associated to maintain a ranch, landscaped yard and livestock. The population for both West Wendover and Wendover Utah has decreased from the year 2000 US Census figure to the latest available year 2010 US Census.

FINDINGS OF FACT

I.

Nevada Revised Statute § 533.365(4) 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 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.

Protestants contend that there is insufficient water in Pilot Creek Valley. The perennial yield of a groundwater reservoir may be defined as the maximum amount of groundwater that can be withdrawn each year over the long term without depleting the groundwater reservoir. Perennial yield is ultimately limited to the maximum amount of natural discharge that can be utilized for beneficial use. The perennial yield cannot be more than the natural recharge to a groundwater basin and in some cases is less. If the perennial yield is exceeded, groundwater levels will decline and steady-state conditions will not be achieved, a situation commonly referred to as groundwater mining. Additionally, withdrawals of groundwater in excess of the perennial yield may contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, and land subsidence.

The Division of Water Resources estimates that the perennial yield of the Pilot Creek Valley Hydrographic Basin is approximately 4,500 acre-feet.⁶ The committed groundwater resource in the form of permits and certificates issued by the State Engineer to appropriate underground water from the Pilot Creek Valley Hydrographic Basin is currently about 1,533

⁶ J.R. Harrill, *Water-Resources Appraisal of the Pilot Creek Valley Area, Elko and White Pine Counties, Nevada*, Water Resources - Reconnaissance Series Report 56, (Department of Conservation and Natural Resources, Division of Water Resources and United States Geological Survey), 1971.

acre-feet annually (afa).⁷ Applications 82152, 82153, 82154, 82155 and 82156 each have in their project description a statement that the maximum annual consumptive amount for that right would be 400 acre-feet. In the addendum to the Applications, it is made clear that the Applicant intends for these rights to be additive, since they are described in total as being for 2,000 afa.⁸ Even if all five applications were to be approved, the total committed resource in Pilot Creek Valley would be 3,533 afa, which is almost 1,000 afa below the perennial yield of the hydrographic basin.

The State Engineer finds that there is groundwater available for appropriation in the Pilot Creek Valley Hydrographic Basin.

III.

Each of the five applications requests a maximum diversion rate of 1.5 cfs and a maximum annual duty of 400 acre-feet. Drawdown from pumping the annual duty of 400 acre-feet per well for 20 years was examined with Theis analyses. For the analyses, it was assumed that the aquifer was unconfined, which is appropriate for all shallow wells that may be impacted by the pumping, and the specific yield was estimated at 10%. Transmissivity was estimated by examining reported pumping tests for wells already drilled in the valley and by using a conversion of $T=267*SC$, where T is the transmissivity and SC is the specific capacity in units of gallons per minute per foot of drawdown.⁹ It was found that transmissivity ranged from 70 to 1,800 ft²/day. Analyses used a transmissivity of 500 and 2,000 ft²/day. After reviewing existing water rights in areas near these applications, only Permit 51144 is within one half mile of any of these applications.¹⁰ The well at this location is of unknown depth; however, the well serving this permit was once authorized under Permit 42587 to produce 3.38 cubic feet per second, an

⁷ Nevada Division of Water Resources' Water Rights Database, Hydrographic Basin Summary, Pilot Creek Valley Hydrographic Basin (191), August 21, 2014, official records in the Office of the State Engineer.

⁸ File No. 82152, official records in the Office of the State Engineer.

⁹ H.F. Thomasson, F.H. Olmstead, , and E.R. LeRoux, *Geology, Water Resources, and Usable Ground Water Storage Capacity of Part of Solano County, CA*. U.S. Geological Survey Water Supply Paper 1464, 1960.

¹⁰ File No. 51144, official records in the Office of the State Engineer.

indication that the well is deep and capable of good production.¹¹ Drawdown due to pumping of the pending applications ranges from 15 to 30 feet after 20 years. Therefore, under the most conservative scenario, where up to 30 feet of drawdown might be expected after 20 years of pumping at all of the application wells, the State Engineer finds that this amount of drawdown is reasonable and will not conflict with this senior water right. If Applications 82154 and 82155 are denied, the State Engineer finds that drawdown will be even less, and Applications 82152, 82153 and 82156 will not conflict with existing permitted senior water rights.

IV.

Several protestants claim that the pending applications will conflict with their domestic wells pursuant to NRS § 533.024(1)(b). A review of domestic wells near the applications shows that there are ten homes with domestic wells within 2,500 feet of Application 82154.¹² The well log database of the State Engineer shows that half of these wells had less than 30 feet of standing water in the well when they were drilled. Drawdown analyses indicate 15 to 40 feet of drawdown due to pumping from the application wells after 20 years, which would potentially dry up these wells. The State Engineer's well log database also shows four wells within 2,500 feet of Application 82155,^{12,13} although aerial imagery shows that there may be ten homes within 3,000 feet of the proposed well.⁴

Drawdown at these wells due to proposed pumping also ranges from 15 to 40 feet after 20 years. Applications 82152, 82153 and 82156 show no domestic wells within 2,500 feet. There is one domestic well within approximately 4,000 feet east of Application 82156, and 20-year drawdown due to proposed pumping is estimated to be 10 to 15 feet. The well had 55 feet of standing water when it was drilled.

The Applicant responded to protestants' claims that the pumping under these applications would conflict with domestic wells in their letter of March 28, 2013, in which Applicants stated

¹¹ File No. 42587, official records in the Office of the State Engineer.

¹² Nevada Division of Water Resources' Well Log Database, September 12, 2014, official records in the Office of the State Engineer.

¹³ As to the notification required by the applicant pursuant to NRS § 533.360(b), the Applicant responded that there were no domestic wells within 2,500 feet of the proposed points of diversion for the applications. Correspondence dated December 5, 2012, official records of the State Engineer.

“the several wells will be rotated, as necessary, to maintain pumping efficiency, and not adversely affect existing rights, including domestic wells.”¹ Because the Applications request 400 acre-feet per well, the State Engineer analyzed pumping of 400 afa per well for issues of conflict. The pumping of Applications 82154 and 82155 as filed will conflict with several of the domestic wells in the immediate vicinity, and may conflict with many more wells in the same area. The State Engineer finds that the proposed use under Applications 82154 and 82155 would cause unreasonable adverse effects to the domestic wells and would conflict with protectable interest in these wells pursuant to NRS §§ 533.024 and 534.110(5).

V.

Nevada Revised Statute § 533.370(1) requires that the applicant provide proof satisfactory to the State Engineer of the applicant’s intention in good faith and of the applicant’s financial ability and reasonable expectation to construct any work necessary to apply the water to the intended beneficial use with reasonable diligence.

In the addendum filed as part of the applications, the Applicants describe how the Cities have recently completed capital improvements that exceeded \$8 million funded through grants and cash reserves. The Cities supply water to water customers, and these applications are intended to maintain a reliable long-term supply of water for current and future customers.¹

The State Engineer finds that the applications are not speculative and that the Applicants have the financial ability and the intention in good faith to construct the works necessary to place the water to beneficial use with reasonable diligence.

VI.

Nevada Revised Statute § 533.370(3) provides that the State Engineer shall consider whether the applicant has demonstrated that a plan for conservation of water has been adopted and is being effectively carried out, if the State Engineer determines that such a plan is advisable for the basin into which the water is to be imported.¹⁴ The City of Wendover Water Conservation Plan dated January 25, 2010, was accepted as meeting the requirements of NRS §§ 540.141 and 540.151 as indicated by a letter dated January 27, 2010, from the Water Planning

¹⁴ NRS § 533.370(3).

Section of the Division of Water Resources.¹⁵ The City of Wendover, Utah, is required to have a water conservation plan by the laws of their state. The two cities are interdependent, and there are interties between the water systems.¹ The State Engineer finds that there are sufficient conservation measures in place for the basins of import.

VII.

Nevada Revised Statute § 533.370(3) provides that the State Engineer shall consider whether the applicant has justified the need to import water from another basin.

In the letter received March 29, 2013, in response to the State Engineer's request for additional information, the Applicant addressed the issue of the need to import water from another basin. Their explanation included the historic difficulty, first by the United States (for the Wendover Army Air Base) and then by the Applicant, in locating suitable nearby groundwater. The Applicant referenced Permits 44405 and 44406 as examples of this difficulty. An examination of Permits 44405 and 44406 shows that they were each approved for 943.6 million gallons annually (mga) for quasi-municipal and domestic purposes, but not to exceed a total combined duty of 1,092 mga. Their points of diversion were located within the Great Salt Lake Desert Hydrographic Basin (192).^{16,17}

The proof of completion of work for Permit 44405 was filed December 1, 1988. Beginning in 1990, extensions of time for filing proof of beneficial use had been requested and approved citing first to difficulties with water chemistry and then to use of the well for re-injection under re-injection permit R-002. Reference to locating a new site for the well is made in 1997, but then it is considered as a source for non-potable uses beginning in 1998. After a pump failure in 2006 that would result in considerable expense and the denial of the extension of time requested in 2009, the Wendover Administrative Authority decided to withdraw the permit rather than attempt to file proof of beneficial use on the small quantity of water they were able to develop.¹⁵

With a proof of completion having never been filed and after several extensions of time, Permit 44406 was ultimately cancelled for failure to comply with the terms of the permit. One

¹⁵ "West Wendover Water System" in water conservation plan files, official records in the Office of the State Engineer.

¹⁶ File No. 44405, official records in the Office of the State Engineer.

¹⁷ File No. 44406, official records in the Office of the State Engineer.

extension of time request included a statement that a new well location within the basin was being sought.¹⁶

Also in the letter received March 29, 2013, the Applicant contends that only fractions of water rights have been perfected in the past. This was to address concerns that they already have sufficient water rights to cover future growth. Upon examination of the records for the referenced water rights, the Applicant's contention is borne out, as can be seen on the following table (all values in permits and certificates converted to acre-feet annually (afa) for ease of comparison):¹⁸

Permit No.	Permit Duty /afa	Certificate Duty /afa	Fraction of Permit Beneficially Used
29433	1,447.94	323.80	22%
39110	1,447.59	148.54	10%
49060	1,445.00	733.50	51%
49422	1,445.00	497.21	34%
49595	1,445.00	276.74	19%

The estimated demand based on growth projections is about 5,168 afa; if the remaining permits in the same total combined duty group (Permits 49423 and 78451) are perfected at about the same rate, then the total combined duty under the certificates will fall short of the projected demand value by over 1,000 afa.

The State Engineer finds that the Applicant has justified the need to import the water from another basin.

VIII.

Nevada Revised Statute § 533.370(3) provides that the State Engineer shall consider whether the proposed action is an appropriate long-term use that will not unduly limit the future growth and development in the basin from which the water is exported.

If Applications 82152, 82153 and 82156 are approved for a total of 1,200 afa then the total committed resource in the Pilot Creek Valley Hydrographic Basin would be 2,733 afa, leaving about 1,767 afa remaining for appropriation and future development; therefore, the State Engineer finds that municipal supply to the City of West Wendover, Nevada and the City of

¹⁸ File Nos. 29433, 39110, 49060, 49422 and 49595, official records in the Office of the State Engineer.

Wendover, Utah is a long-term use that will not unduly limit the future growth of Pilot Creek Valley.

IX.

Nevada Revised Statute § 533.370(3) provides that the State Engineer shall consider whether the proposed action is environmentally sound as it relates to the basin from which the water is exported. The State Engineer previously found that the meaning of “environmentally sound” for the basin of origin must be realized within the parameters of Nevada water law and this means that whether the use of the water is sustainable over the long-term without unreasonable impacts to the water resources and the hydrologic-related natural resources that are dependent on those water resources. In consideration of whether a proposed project is environmentally sound the State Engineer found that there can be a reasonable impact on the hydrologic related natural resources in the basin of origin.¹⁹

The State Engineer finds that no environmental issues or impacts due to the proposed project have been identified and the proposed interbasin transfer of groundwater from the Pilot Creek Valley Hydrographic Basin is environmentally sound.

CONCLUSIONS OF LAW

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.²⁰

II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:²¹

- 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 protectable 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.

¹⁹ Ruling No. 6127, official records in the Office of the State Engineer.

²⁰ NRS Chapters 533 and 534.

²¹ NRS § 533.370(2).

III.

The Nevada Revised Statutes require the State Engineer to consider the following points when an interbasin transfer of water is proposed by a water right application:²²

- a. Whether the applicant has justified the need to import water from another basin;
- b. If the State Engineer determines that a plan for conservation of water is advisable for the basin into which the water is to be imported, whether the applicant has demonstrated that such a plan has been adopted and is being effectively carried out;
- c. Whether the proposed action is environmentally sound as it relates to the basin from which the water is exported;
- d. Whether the proposed action is an appropriate long-term use which will not unduly limit the future growth and development in the basin from which the water is exported; and
- e. Any other factor the State Engineer determines to be relevant.

IV.

The perennial yield of the Pilot Creek Valley Hydrographic Basin is 4,500 acre-feet, the existing commitments are 1,533 afa, the proposed maximum diversion from each application is 400 afa and approval of three of the applications would leave about 1,767 afa available for appropriation in the basin. The State Engineer concludes that there is water available for appropriation and that approval of Applications 82152, 82153 and 82156 is environmentally sound and will not unduly limit the future growth and development.

V.

The State Engineer concludes that approval of Applications 82152, 82153, and 82156 will not conflict with existing water rights.

VI.

The proximity of the point of diversion of Applications 82154 and 82155 to domestic wells would likely cause some of the domestic wells to go dry within a short time after pumping begins. Impacts to domestic wells by pumping under Applications 82152 and 82153 would be negligible. Pumping under Application 82156 could impact one domestic well by causing a moderate, but reasonable amount of drawdown. The State Engineer concludes that approval of Applications 82154 and 82155 would conflict with protectable interests in existing domestic

²² NRS § 533.370(3).

wells. The State Engineer concludes that approval of Applications 82152, 82153, and 82156 will require an approvable monitoring plan to ensure that no conflict with protectable interests in existing domestic wells occurs.

VII.

The State Engineer concludes that the Applicants have justified the need to import the water from the Pilot Creek Valley Hydrographic Basin and that the Applicants have sufficient water conservation plans and practices.

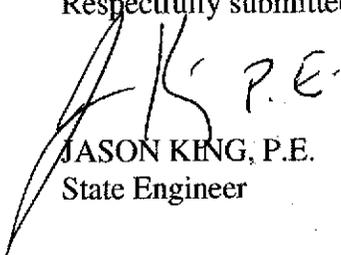
RULING

The protests to Applications 82154 and 82155 are upheld in part, and Applications 82154 and 82155 are denied on the ground that the proposed use would conflict with protectable interests in existing domestic wells.

The protests to Applications 82152, 82153 and 82156 are overruled and 82152, 82153 and 82156 are approved subject to:

1. A monitoring plan approved by the State Engineer prior to diverting water;
2. Existing rights; and
3. Payment of statutory fees.

Respectfully submitted,


JASON KING, P.E.
State Engineer

Dated this 10th day of
April, 2015.